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# **REGISTRATION DOCUMENT 2016**

including the 2015 annual financial report and the corporate social responsibility report



# AME

The French version of this Registration Document was filed with the French Financial Markets Authority (Autorité des marchés financiers, AMF) on March 15, 2017, pursuant to Article 212-13 of the General Regulations of the AMF. It may be used in support of a financial operation if accompanied by a prospectus duly approved by the AMF. This French document was drawn up by the issuer, and is binding on its signatories.

This English-language version of the Registration Document is a free translation of the original French text. It is not a binding document. In the event of a conflict of interpretation, reference should be made to the French version which is the authentic text. The auditors' report applies to the French version of the Management Report and the financial statements.



# A message from **Pierre-André de Chalendar**

Chairman and Chief Executive Officer of Saint-Gobain

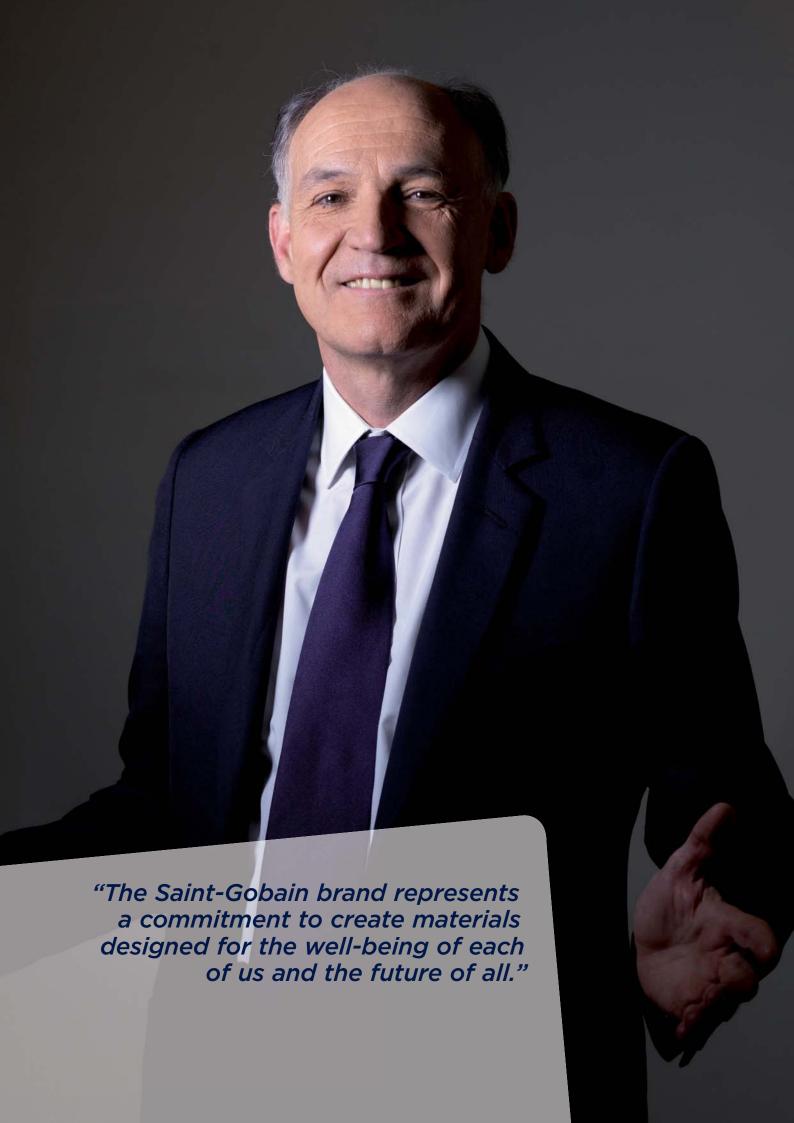
In 2016, Saint-Gobain continued with its strategic roadmap and recorded healthy gains in its profits. Our efforts in terms of innovation, development in emerging countries and operational improvements have been fruitful, supported by generally favorable circumstances. Despite the sluggishness of the French market, our activities have gained ground in all our businesses and major geographical areas of location: Europe, the United States, but also emerging countries which, over the course of a few years, have become key contributors to the growth of our sales and our profitability.

With a view to maintaining this growth pace, all our teams are involved in an extensive move to overhaul the company, impacting all its facets: R&D (proud to once again rank among the most innovative companies in the world), industrial investments, human resources, marketing, etc. The digital transformation is doubtless the most profound change, with technology also supporting our highest ambitions. Thanks to digital technology, Saint-Gobain has undertaken immense efforts to modernize and robotize its factories. Thanks to digital technology, the Group has the opportunity to get closer to its industrial and construction sector customers, and construction professionals primarily, but also, from now on, those who provide solutions, such as architects, and individuals who are sensitive to the comfort and energy efficiency of their homes.

To establish a relationship with these consumers, Saint-Gobain has rolled out a brand awareness campaign aimed at the general public. The Saint-Gobain brand represents a promise to create materials designed for the well-being of each of us and the future of all. This promise is illustrated in the "Multi-Comfort" program, which ensures the acoustic, thermal and aesthetic qualities of homes. This commitment is also demonstrated in our Corporate Social Responsibility (again proud to have ranked second worldwide in the sector on the Dow Jones Sustainability Index, from our first participation) and in our solutions, which promote environmentally-friendly development.

It is both a commitment of the Group and my personal commitment to meet the challenges of climate change. It is our responsibility as a manufacturer to assign an internal carbon price to our investments and our research projects, to promote sustainable construction. This is also a growth factor, since our customers increasingly value the economic benefits of sustainable solutions. As a result, Saint-Gobain is transforming constraints associated with urbanization, demographic growth and resource scarcity into development opportunities, and is acting as an exemplary leader.

My hope is that readers will find, in this 2016 Registration Document, all the facts to convince them of the quality of the performance of Saint-Gobain, of the ongoing commitment of all its employees, who I especially wish to thank, and of their loyalty to the mission of the Group: to create great living places and to improve daily life.

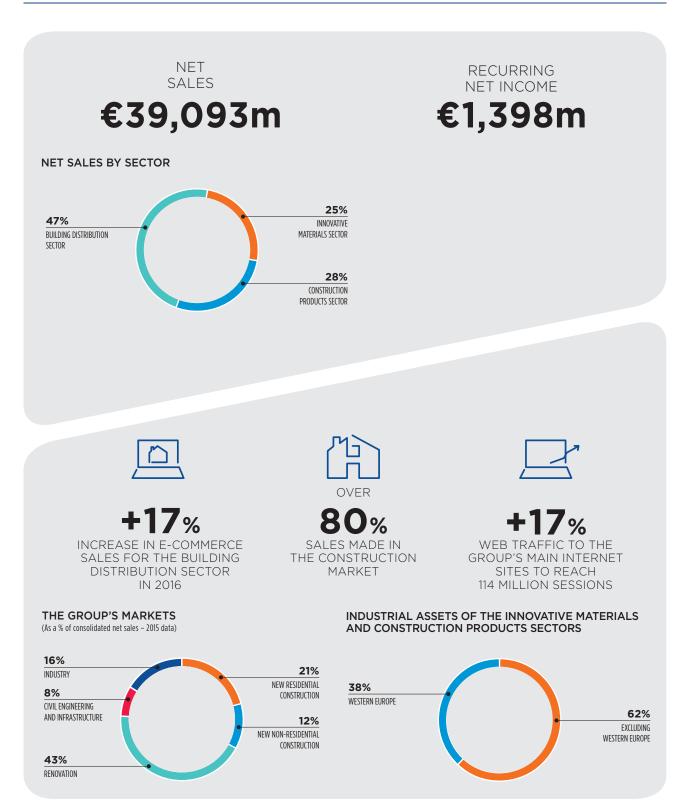




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# 1. Group Profile

# 1.1 A GLOBAL GROUP





PATENTS FILED IN 2016



3,700 **R&D EMPLOYEES** 

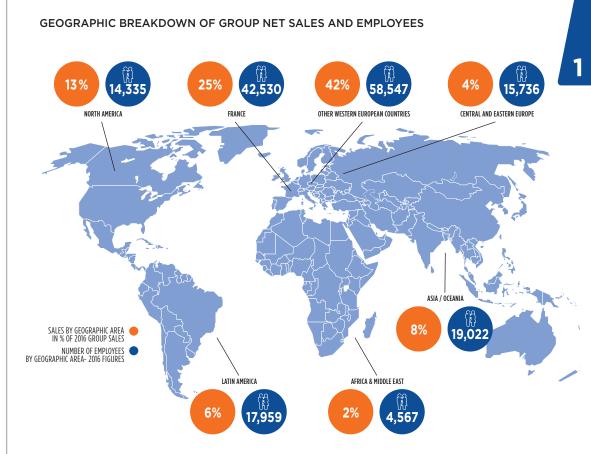


**CROSS-BUSINESS** RESEARCH CENTERS



THE ENERGY SAVINGS FROM THE GROUP'S INSULATION SOLUTIONS ARE EQUIVALENT TO

TIMES ITS GREENHOUSE GAS EMISSIONS(2)





172,696 TOTAL EMPLOYEES

NATIONALITIES REPRESENTED

# Presence in 67 countries<sup>(1)</sup>

# **North America**

- ◆ CANADA
- ◆ UNITED STATES **Latin America**
- ◆ ARGENTINA
- ♦ BRAZIL
- ◆ CHILE
- ◆ COLOMBIA
- ◆ MEXICO
- ♦ PERU
- ◆ VENEZUELA

## France

## Other Western

# **European countries**

- ◆ AUSTRIA
- ◆ BELGIUM
- ◆ DENMARK ♦ FINLAND
- ◆ GERMANY
- ◆ GREECE
- ♦ ITALY
- ◆ LUXEMBOURG
- ◆ NETHERLANDS
- ♦ NORWAY
- ◆ PORTUGAL
- ◆ REPUBLIC OF IRELAND
- ◆ SPAIN
- ◆ SWEDEN
- ◆ SWITZERLAND
- ♦ UNITED KINGDOM

### **Central and Eastern Europe**

- ♦ ALBANIA
- ◆ BULGARIA
- ◆ CZECH REPUBLIC
- ◆ FSTONIA
- ◆ HUNGARY ◆ LATVIA
- ♦ LITHUANIA
- ◆ POLAND
- ◆ ROMANIA
- ◆ RUSSIA
- ◆ SERBIA ◆ SLOVAKIA ◆ SLOVENIA

# ◆ GHANA

- ◆ ALGERIA ◆ EGYPT
- ◆ JORDANIA
- ◆ KUWAIT ◆ LEBANON
- ◆ MOROCCO

- ◆ OMAN QATAR
- ◆ SAUDI ARABIA
- ◆ SOUTH AFRICA ♦ SYRIA
- ◆ TANZANIA
- ◆ TURKEY◆ UNITED ARAB EMIRATES

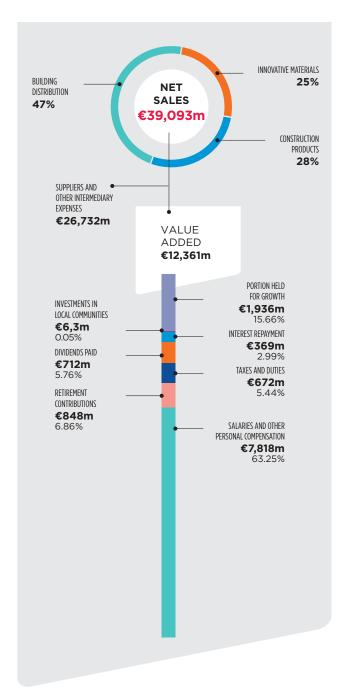
**Africa and Middle East** 

◆ ZIMBABWE

# Asia & Oceania

- ◆ AUSTRALIA
- ♦ BHUTAN
- ◆ CHINA
- ♦ INDIA
- ◆ INDONESIA
- ♦ JAPAN
- ◆ MALAYSIA
- ♦ NEW ZEALAND
- ◆ SINGAPORE
- ◆ SOUTH KORFA
- ◆ THAILAND ◆ VIETNAM

## BREAKDOWN OF NET SALES AND VALUE ADDED BY STAKEHOLDER







PROPORTION OF GROUP CAPITAL HELD BY EMPLOYEES<sup>(2)</sup>



25.4

AVERAGE ANNUAL NUMBER OF TRAINING HOURS PER EMPLOYEE



3.5

TOTAL RECORDABLE ACCIDENT RATE (TRAR) (WITH AND WITHOUT MORE THAN 24 HOURS' LOST TIME)

549,200

INDIRECT JOBS



27
MULTI-COMFORT PROJECTS

<sup>(1)</sup> Proportion of Managers meeting one of the Group's three diversity criteria: a national of a country other than France; a diversity of experience; they are female.

<sup>(2)</sup> Through Employee mutual investment funds (Fonds Communs de Placement d'Entreprise [FCPE]).

### A SOLID FINANCIAL BASE 1.2

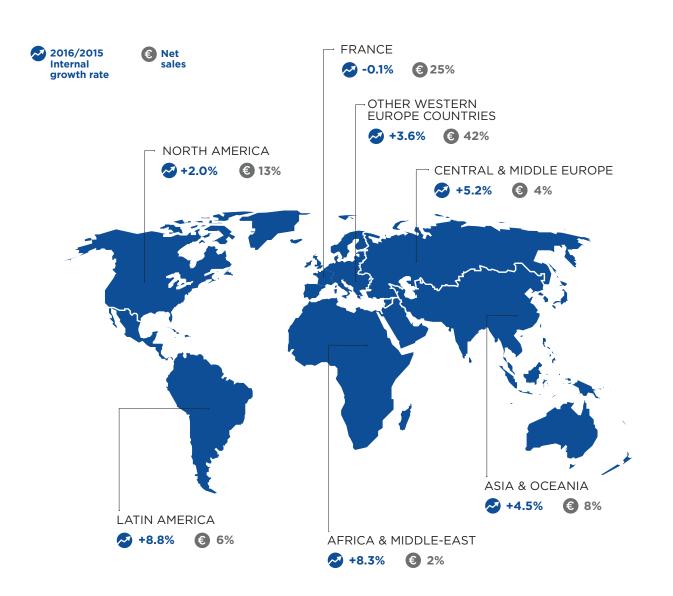
### 1.2.1 Stable shareholder base

### 0.2% TREASURY SHARES **7.1**% INDIVIDUALS 6.4% WENDEL 7.7% GROUP 21.1% SAVINGS PLAN FRENCH INSTITUTIONAL (EMPLOYEES) INVESTORS **57.5**% FOREIGN INSTITUTIONAL INVESTORS

### 1.2.2 **Encouraging financial results**

Net sales	€39,093 M	Total investment	€1,732 M
Operating income	€2,818 M	Shareholders' equity	€18,765 M
Total consolidated net income	€1,352 M	Net debt	€5,644 M
Group share of total consolidated net income	€1,311 M	Non-current assets	€27,259 M
Recurring net income	€1,398 M	Working capital	€4,060 M
Earnings per share (EPS)	€2.36		
Recurring earnings per share	€2.53		

# Increasing net sales



SAINT-GOBAIN TODAY

1. Group Profile

# 1.2.3 Performance aknowledged by the financial and extra-financial rating agencies

Saint-Gobain's long-term debt has been rated BBB with a stable outlook by Standard & Poor's since December 9, 2014.

Saint-Gobain's long-term debt has been rated Baa2 with a stable outlook by Moody's since December 9, 2014.

Saint-Gobain is included on the CAC 40 index, the DJ Euro Stoxx 50 index and the Global Dow, a 150-stock index representing both the traditional and innovative sectors.

In the area of sustainable development and corporate social responsibility, Saint-Gobain is included on the MSCI Global Sustainability Indexes,  $STOXX^*$  Global ESG Leaders,

Euronext-Vigeo Europe 120, Euronext Vigeo Eurozone 120, Ethibel ESI Excellence Europe and FTSE4Good indices. Saint-Gobain is the first company in its sector (Construction & Materials) to be included in the FTSE4Good index.

Since September 2016, Saint-Gobain has been included in the Dow Jones Sustainability Index 2016 (DJSI), as one of the world's three best businesses and the leading European company in construction products. This index is one of the first global indices to identify the companies with the best corporate social responsibility performance.

Inclusion in ethical stock market indices reveals recognition of the Group's long-term commitment and of the results achieved in the area of corporate social responsibility.

### **Corporate culture** 2.

### 2.1 MAJOR MILESTONES IN THE CONSTRUCTION OF THE GROUP

## 17th century: origins

In 1665, encouraged by his minister Colbert, King Louis XIV of France creates the Manufacture des Glaces (glass manufacturing plant) to challenge Venetian supremacy in mirror manufacturing. In 1684, it produces the mirrors for the Hall of Mirrors at the Palace of Versailles and sets up operations in the village of Saint-Gobain, in Picardy (Northern France) in 1692.

# 18th and 19th centuries: the birth and growth of a major company

Mirrors become fashionable and more affordable. With orders from both royalty and private individuals, the Manufacture des Glaces is now modernized, employing over a thousand workers, and sees increasing prosperity over the course of the century. In the 19th century it benefits from the growth of new architectural styles relying on iron and glass, primarily for major public facilities, such as covered markets, railway stations and covered arcades.

Facing sharp international competition, Saint-Gobain diversifies into the chemicals sector. At the end of the century, its chemical sector and glass-making activities are of equal weight. The Group begins its international expansion in 1858, moving into Germany. More European countries follow, with Italy in 1889, Belgium in 1898, the Netherlands in 1904, and Spain in 1905. Ongoing international expansion remains one of the hallmarks of Saint-Gobain's history to this day.

# 20th century: a high-growth global group

Saint-Gobain is now developing interests in all types of glass products (window glass, bottles, optical glass, etc.). The revolution in automobile design and modern architecture, which requires large glazed surfaces, provide it with new opportunities. In 1970, Saint-Gobain divests its chemicals business and merges with cast iron pipe company Pont-à-Mousson.

In the closing decades of the 20th century, key new acquisitions reshape an increasingly international and increasingly diversified group. The acquisition of Norton in 1990 doubles Saint-Gobain's presence in the United States, opening up new markets for the company and providing the opportunity to develop expertise in abrasives, plastics and ceramics. The acquisition of Poliet in 1996 provides the basis for developing the distribution businesses. The Group then goes on to make acquisitions in building materials distribution. In parallel, Saint-Gobain intensifies its research efforts and accelerates its geographic expansion, increasing the number of countries in which it has a presence from 18 to 64 between 1986 and 2010.

# 21st century: reinventing construction and

Saint-Gobain focuses its strategy on sustainable construction, as well as continuing to serve a number of industrial markets. With its extensive network of assets, the Group is growing steadily in emerging countries. The acquisition in 2005 of British Plaster Board, the global leader in plasterboard, is Saint-Gobain's largest ever. In combination with Isover glass wool, it makes Saint-Gobain the world number one in interior solutions. The Group is also continuing to make acquisitions to expand its building materials distribution network in Europe. The sale of Verallia, the Group's glass jar and bottle-making subsidiary, in 2015 was part of a strategy of business portfolio optimization. In 2016, Saint-Gobain unveiled a new brand identity and reiterated its mission to create great living places and improve daily life.

# SAINT-GOBAIN ARCHIVES, AN ASSET FOR THE GROUP

Saint-Gobain is committed to preserving its history. Its archive facility, located in the French town of Blois and opened in 1980, has the task of collecting, storing and circulating historical documents and current archives. It has 80 linear kilometers of storage capacity and is available for use by all the French subsidiaries. Saint-Gobain Archives is also open to researchers and is available to assist with the promotion of Saint-Gobain's historical heritage. The Group's archiving policy aims to safeguard the life cycle of archive documents and data, their creation and their availability. For this purpose, in 2016 the Group embarked on a major digital archiving operation, using the Darwin ("Digital archives readable with infinity") solution which is capable of adapting to future developments in digital formats. The value of Darwin is not limited to our heritage. It is intended to store, for legal purposes, all kinds of documents or data of long-term importance which are currently stored in business application databases, on individual computers and in email inboxes. The first phase of this lengthy collaborative project will complete in summer 2017.

### 2.2.1 **Principles of Conduct and Action**

With a history stretching back over 350 years, Saint-Gobain's development is founded on nine Principles of Conduct and Action. These Principles were formalized in 2003 and have been translated into 33 languages and rolled out to all employees. Application of the Principles is a condition for being a part of the Group.



# **PRINCIPLES** OF CONDUCT

PROFESSIONAL COMMITMENT, RESPECT FOR OTHERS, INTEGRITY, LOYALTY, **SOLIDARITY** 

are the fundamental values uniting management and employees



# **PRINCIPLES OF ACTION**

RESPECT FOR THE LAW, CARING FOR THE ENVIRONMENT, **WORKER HEALTH** AND SAFETY. **EMPLOYEE RIGHTS** 

guide the actions of all management and employees in the performance of their duties

The Principles of Conduct and Action refer explicitly to the applicable conventions of the International Labour Organization, the International Charter on Human Rights and the OECD Guidelines for Multinational Enterprises with regard to the fight against corruption.

Saint-Gobain has been signed up to the United Nations Global Compact since 2003. This commitment demonstrates the Group's drive for Corporate Social Responsibility (CSR), which includes regular communication of its progress in the areas covered by the Global Compact.

Implementation of the Group's strategy entails policies and commitments that are applied by the Sectors, Activities or General Delegations.

The most important of these are the "reference policies", which derive directly from the Principles of Conduct and Action and define the management principles applicable to all Saint-Gobain units and employees, as well as to subcontractors, in their work for the Group, and to suppliers, under the Responsible Purchasing policy.

This desire to establish the Principles of Conduct and Action as a sign of belonging is illustrated by the objective set by the Group's Board of Directors, of training all managers in the Principles in their first year with the Group.

### REFERENCE POINTS -

The Responsible Development Department is tasked with ensuring that the Principles of Conduct and Action are rolled out to all Group employees, that they are properly understood by all and best practices are implemented by the operational departments.

- ♦ All managers are made aware of the Principles of Conduct and Action by means of an on-line training program (Adhere), which any new manager joining the Group is obliged to complete;
- The Group's Management School programs automatically include a specific session on the Principles;
- A network of 800 accredited trainers cascade training on the Principles to local teams;
- These measures are reflected and intensified by communications and training dealing specifically with "reference policies" (compliance network, Responsible Purchasing policy, Environment, Health and Safety Charter, management practices, etc.) on which the Principles are founded.

### 2.2.2 **Commitments linked to the Principles** of Conduct and Action

### a) Participation in UN initiatives

Saint-Gobain has been a signatory to the UN Global Compact since 2003 and reports regularly on its progress at Advanced level in the areas covered by the Global Compact, based on 21 criteria. Pierre-André de Chalendar is a member of the France Global Compact Executive Committee.



In 2009, Saint-Gobain endorsed two initiatives related to the Global Compact: Caring for Climate, to combat climate change, and CEO Water Mandate, for the protection of water resources

The Group involves its supply chain in its approach to reducing environmental impact and commits its suppliers to specifically reducing their air emissions and water footprint.

In 2016, the 17 Sustainable Development Goals (SDGs) (see chapter 5, section 2.2) were folded into Saint-Gobain's progress strategy.

### b) Other partnerships

Saint-Gobain is a member company of the Transparency International France Forum of committed companies. Thus, Saint-Gobain supports the association's activities and has committed to rejecting and combating corruption, in all its forms. Saint-Gobain also undertakes to make its best efforts to implement a solid prevention mechanism, inspired by current best practice in the business world.



The Group participates in public debates on the strategic challenges of its business activity and environment. Accordingly, Compagnie de Saint-Gobain and most of the Group's subsidiaries are members of associations representing their industry nationally or supra-nationally.

Further, Compagnie de Saint-Gobain is directly involved in professional associations representing French companies, such as the AFEP and MEDEF.

The Activities also cooperate with various local associations and organizations involved in environmental, regulatory, social, societal or economic issues. The various Activities and subsidiaries have internal procedures to ensure that their participation in associations is recognized and referenced and that employees who represent them in the associations are trained in the rules of antitrust law.

### 2.2.3 Commitments linked to the challenges of sustainable development

### a) Climate commitment

The Paris Agreement ratified in 2016 creates a multi-dimensional framework for economies to implement carbon reduction policies. Recent COPs on climate change have marked a turning point, with improved participation in climate negotiations from non-government actors, including businesses. An example is the introduction of "business dialog", in which Saint-Gobain plays an active part, with the aim of creating a space for dialog on climate change between governments and businesses. This momentum was further enhanced at COP22 in Marrakesh in November 2016, where Saint-Gobain was involved in several side events.

Businesses have a key role to play in the search for solutions to climate change. Saint-Gobain is among the 1,200 non-state actors that signed the Paris Pledge for Action on Climate Change. Saint-Gobain is pursuing and strengthening its commitment to environmentally-friendly growth and a reduced-carbon world. This commitment encompasses five main areas of focus:

- ◆ achieve global net emission reductions at the least economic cost with clear, effective and predictable carbon pricing mechanisms and complementary economic signals;
- ensure that international trade and investment rules will positively encourage actions to help combat climate change:
- ◆ deploy efficient mechanisms to reduce energy consumption and greenhouse gas emissions in buildings and transportation:
- support this transition by ensuring the long-term viability of measures taken locally;
- ♦ introduce certifications to demonstrate the environmental benefits of products.

The action taken by Saint-Gobain is geared to reducing  $CO_2$  emissions from its processes and its real estate portfolio and, for its clients and its Activities, to enhancing its products and services so as to improve energy efficiency.

Since January 2016, an internal carbon price now applies to all Group Activities to assist in guiding action to reduce  $CO_2$  emissions involving investments. Analysis of R&D projects now uses a significantly higher carbon price than the rate selected for investments. This measure aims to accelerate the transition to low-carbon technologies for Group operations.

Under the Lima-Paris Action Agenda (LPAA, now known as the Global Climate Action Agenda), Saint-Gobain is a member of the alliance of companies for water and climate change. This initiative supports the actions of cities and watersheds involved in the sustainable management of water resources and adaptation to the consequences of climate change.

Saint-Gobain is also a member of the Global Alliance for Buildings and Construction (GABC). This alliance, launched by France and the United Nations Environment Programme (UNEP) during the COP21 aims to bring states, local authorities, construction businesses and relevant associations together by means of a roadmap to smooth the transition to energy efficient buildings with low greenhouse gas emissions. An update on the GABC was provided at the COP22 during the "building day" in which Saint-Gobain was involved.

These commitments, in line with Group objectives, confirm Saint-Gobain's desire to contribute to combating climate change.

## b) Developing the circular economy

Saint-Gobain has two priorities for managing raw materials and waste: minimizing production waste and optimizing the recycled content in its products without affecting their performance. As a responsible stakeholder in sustainable building, the sustainable management of resources in conjunction with stakeholders in the regions and in compliance with local regulations is a major challenge for the Group.

Saint-Gobain is a contributor to the debate on the circular economy and has repeated its support for strong goals for the building sector. In France, the Group has been heavily involved in the AFEP circular economy work group, which prepared a report and recommendations presented at the COP22

The construction sector generates several million metric tons of waste per year. Saint-Gobain is introducing projects to recover building or demolition waste, such as waste reduction at source with eco-innovation, on-site sorting of waste, and recycling of the waste collected. The Group has contributed to a number of local initiatives to promote sustainable building.

In France, in April 2016 Placoplatre signed a green growth commitment for plaster waste recycling with the Ministry for the Environment, Energy and the Sea. This innovative approach is part of a collaborative effort involving public bodies, the French national union of plaster industries (Syndicat National des Industries du Plâtre) and key players in the plaster industry.

Internally, pilot projects are emerging locally, and cross-functional task forces have been started to identify resources and potential recycling lines. In January 2014, the Group Research & Development Department implemented a cross-functional program on end-of-life waste recycling, with the specific goal of analyzing prospects for innovation to provide for optimal use of resources.

As part of this program, a seminar on construction waste recycling brought together some 40 participants from the Marketing, Purchasing, EHS and R&D Departments of all the Activities in the Construction Products, Innovative Materials and Building Distribution Sectors. These meetings were an opportunity to emphasize existing internal best practice, to better understand recycling through the intervention of outside companies that are experts in this field, and finally, to present R&D studies, both current and future, being pursued through the cross-functional program.

### c) Contribution to the public debate on sustainable development

As a way of ensuring that it is closely involved in the ongoing national and international debate on the environment and sustainable development, and that it can share its experience in these areas as a manufacturer, Saint-Gobain has been a member of Entreprises pour l'Environnement (Businesses for the Environment, EpE) since the organization was founded. EpE is a grouping of around 40 major French and international companies representing all sectors of the economy, who are keen to address the environment more effectively in their strategic decisions and in the way they do business. Pierre-André de Chalendar was the Chairman of EpE from 2012 to 2015.

In 2016, Saint-Gobain also joined the WBCSD, the World Business Council for Sustainable Development. WBCSD is a worldwide grouping of 200 companies that deliberate on and develop solutions for a more sustainable world. Saint-Gobain is particularly involved in WBCSD initiatives relating to

climate change, building energy efficiency (BEE), sustainable cities, and the circular economy.

Saint-Gobain takes part in all kinds of events on the theme of sustainable development. As such, it was involved in a high-level dialog on sustainable resource management between scientists, governments and industry, organized by UNEP in November 2016, and also attended the second Business and Climate Summit (BCS), which was held in London in June 2016 to look at issues relating to carbon pricing.

Saint-Gobain is also a member of the International Energy Agency's (IEA) Energy Efficiency Industrial Advisory Board and spoke at the first conference on energy efficiency organized by the agency.

Lastly, in 2016 Saint-Gobain joined the advisory board of the Institute for Sustainable Development and International Relations (IDDRI).

# 3. **General Management and governance**

# **BOARD** OF DIRECTORS

At January 1, 2017

### PIERRE-ANDRÉ DE CHALENDAR

Chairman and Chief Executive Officer of Compagnie de Saint-Gobain

### **ALAIN DESTRAIN**

**Employee Director** 

## JEAN-MARTIN FOLZ

Director of companies

## **BERNARD GAUTIER**

Member of the Management Board of Wendel

### IÊDA GOMES YELL

Founding Chairman of Energix Strategic Ltd

### ANNE-MARIE IDRAC

Chairman of the Toulouse-Blagnac Airport Supervisory Board

### PAMELA KNAPP

Director of companies

### PASCAL LAÏ

Employee Director

# **AGNÈS LEMARCHAND**

Director of companies

### FRÉDÉRIC LEMOINE

Chairman of the Management Board of Wendel

# JACQUES PESTRE

Senior Vice President of Saint-Gobain Distribution Bâtiment France, in charge of POINT.P Matériaux de Construction and Director representing employee shareholders

Chief Innovation Officer of Philips Lighting, Executive Vice President of Philips

### **DENIS RANQUE**

Chairman of the Board of Directors of Airbus Group

### **GILLES SCHNEPP**

Chairman and Chief Executive Officer of Legrand

# JEAN-DOMINIQUE SENARD

Chief Executive Officer of Michelin

### PHILIPPE VARIN

Chairman of the Board of Directors of Areva

### Board Secretary:

### ANTOINE VIGNIAL

Corporate Secretary of Compagnie de Saint-Gobain

# **GROUP MANAGEMENT at January 1, 2017**

## **Senior Management Committee**



PIERRE-ANDRÉ DE CHALENDAR Chairman and Chief **Executive Officer** 



CLAUDE IMAUVEN Chief Operating Officer



BAZIN Senior Vice President, in charge of the Construction Products Sector



FABRICE DIDIER Vice President, Marketing



PATRICK DUPIN Senior Vice President, in charge of the Flat Glass Sector (Innovative Materials\*)



DELPHINE GENY-STEPHANN Vice President, Corporate Planning and Strategy



LAURENT GUILLOT Senior Vice President, in charge of the High-Performance Materials Sector (Innovative Materials\*)



CHARLES HUFNAGEL Vice President, Communications



BENOIT **D'IRIBARNE** General Delegate for Germany, Austria and Benelux



THOMAS KINISKY Senior Vice President, General Delegate for North America



KÅRE MALO Senior Vice President, in charge of the Building Distribution



CLAIRE PEDINI Senior Vice President, in charge of Human Resources



JEAN-FRANÇOIS PHELIZON in charge of Internal Audit and Internal Control



DIDIER ROUX Vice President, Research & Development and Innovation



**GUILLAUME TEXIER** Chief Financial Officer



VIGNIAL Corporate Secretary in charge of Corporate Social Responsibility

### The Senior Management Committee meets once a month.

\* Pierre-André de Chalendar supervises the Innovative Materials Sector.

# **Executive Committee**

### Pierre-André de CHALENDAR

Chairman and Chief Executive Officer

### Claude IMAUVEN

Chief Operating Officer

### Claire PEDINI

Senior Vice President, in charge of Human Resources

The Executive Committee meets weekly.

# **Sector Management**

### **Benoit BAZIN**

President, Construction Products Sector

### Patrick DUPIN

President, Flat Glass Sector (Innovative Materials\*)

### Laurent GUILLOT

President, High-Performance Materials Sector (Innovative Materials\*)

### Kåre MALO

President, Building Distribution Sector

# **Liaison Committee**

### Pierre-André de Chalendar

Chairman and Chief Executive Officer

### MEMBERS OF THE GENERAL MANAGEMENT COMMITTEE

### **GENERAL DELEGATES:**

David Anderson, Dominique Azam, Mike Chaldecott, Erwan Dupuy, Thierry Fournier, Javier Gimeno, Benoit d'Iribarne, Thomas Kinisky, Thierry Lambert, Anand Mahajan, François-Xavier Moser, Hady Nassif, Tomáš Rosak, Gianni Scotti.

Guillaume TEXIER

Antoine VIGNIAL

Responsibility

Chief Financial Officer

Corporate Secretary in charge of Corporate Social

### HEADS OF THE FOLLOWING ACTIVITIES:

Sekurit (Houchan Shoelbi), Building Glass Europe (Jean-Marie Vaissaire), Abrasives (Patrick Millot), Ceramic Materials (Daniel Wiechec), Performance Plastics (Laurent Guillot), Adfors (Raimund Heinl), Pipe Systems (Gustavo Vianna), Gypsum (Claude-Alain Tardy), Insulation (Claude-Alain Tardy), Mortars (Jean-Luc Gardaz), Saint-Gobain Distribution Bâtiment France (Patrice Richard), Lapeyre (Gonzague de Pirey), Saint-Gobain Building Distribution UK & Ireland (Mark Rayfield), Saint-Gobain Building Distribution Deutschland (Udo Brandt), Saint-Gobain Building Distribution Nordics (David Molho).

# VICE PRESIDENT, SUSTAINABLE DEVELOPMENT (Emmanuel Normant)

VICE PRESIDENT, PURCHASING AND GROUP INFORMATION SYSTEMS (Frédéric Verger)

The Liaison Committee meets three times a year.

## **General Delegates**

### David ANDERSON

General Delegate for Sub-Saharan Africa

### Dominique AZAM

General Delegate for Mexico, Central America, Venezuela, Colombia, Ecuador and Peru

### Mike CHALDECOTT

General Delegate for the United Kingdom and Ireland

### **Erwan DUPUY**

General Delegate for Russia, Ukraine and the Commonwealth of Independent States

### **Javier GIMENO**

General Delegate for the Asia-Pacific Region

# Thierry FOURNIER

General Delegate for Brazil, Argentina and Chile

## Benoit d'IRIBARNE

General Delegate for Germany, Austria and Benelux

### Thomas KINISKY

General Delegate for North America

# Thierry LAMBERT

General Delegate for the Nordic Countries and Baltic States

### Anand MAHAJAN

General Delegate for India, Sri Lanka and Bangladesh

# François-Xavier MOSER

General Delegate for Poland, Bulgaria, Romania and Turkey

# Hady NASSIF

General Delegate for the Middle East

### Tomáš ROSAK

General Delegate for the Czech Republic, Slovakia, Hungary and the Eastern Adriatic countries

# Gianni SCOTTI

General Delegate for the Mediterranean (Spain, Italy, Portugal, Greece, Morocco, Algeria, Tunisia and Libya)

### **Functional Heads**

# Fabrice DIDIER

Vice President, Marketing

# Delphine GÉNY-STÉPHANN

Vice President, Planning and Strategy

### Charles HUFNAGEL

Vice President, Communications

# Didier ROUX

Vice President, Research & Development and Innovation

## Frédéric VERGER

Vice President, Purchasing and Group Information Systems

<sup>\*</sup> Pierre-André de Chalendar supervises the Innovative Materials Sector.

# The Group's business

SAINT-GOBAIN IS ORGANIZED INTO



# COMPLEMENTARY STRATEGY POSITIONS

IN BUILDING MATERIAL TECHNOLOGIES



# INNOVATIVE MATERIALS

Comprising Flat Glass and High-Performance Materials, the Innovative Materials Sector holds a unique portfolio of materials and processes relating to the construction, transport, healthcare and industry markets.

# **FLAT GLASS**

N°. 1 IN EUROPE<sup>(1)</sup>
N°. 2 WORLDWIDE<sup>(1)</sup>



COUNTRIES



33,000

# **HIGH-PERFORMANCE MATERIALS**

N°. 1 WORLDWIDE(1)



**36**<sup>(2)</sup>

COUNTRIES



27,000 EMPLOYEES

Source: Saint-Gobain.
 Industrial presence.



# CONSTRUCTION **PRODUCTS**

The Construction Products Sector offers interior and exterior solutions to increase the comfort of buildings: plaster, acoustic and thermal insulation, façade render, roofing, and pipe systems.

# N°. 1 WORLDWIDE(1)

- Plaster and plasterboard
- Insulation (all types of insulation products)
- ◆ Tile adhesives
- ♦ Industrial mortars
- ◆ Ductile cast iron pipe

# N°. 1 IN EUROPE(1)

♦ Façade render

# N°. 2 IN THE UNITED STATES(1)

Sidings



COUNTRIES



46,000

(1) Source: Saint-Gobain. (2) Industrial presence.



BUILDING **DISTRIBUTION** 

The Building Distribution Sector contributes to the Group a thorough understanding of customers' needs: building professionals, private project owners and large companies. It serves the new building, renovation and home improvement markets.

# N°. 1 IN EUROPE®

Distribution of building materials



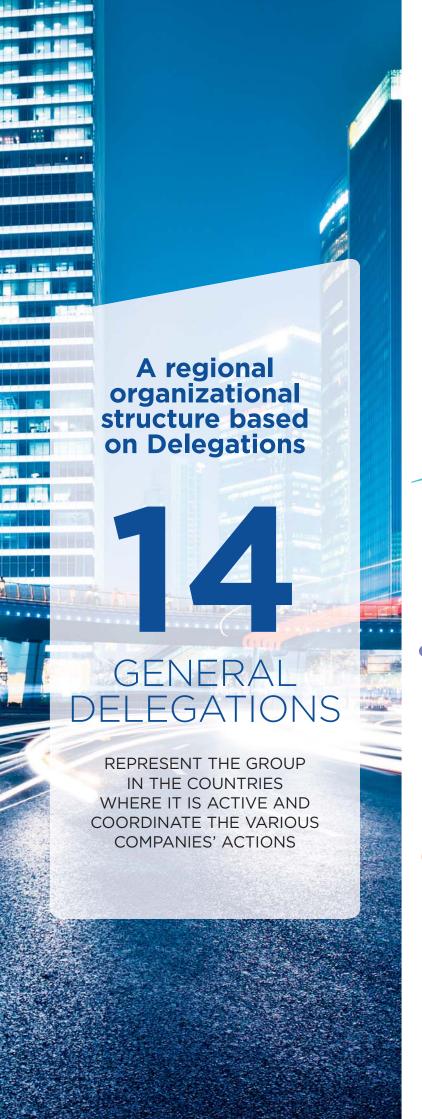
COUNTRIES



61,000



(1) Source: Saint-Gobain.



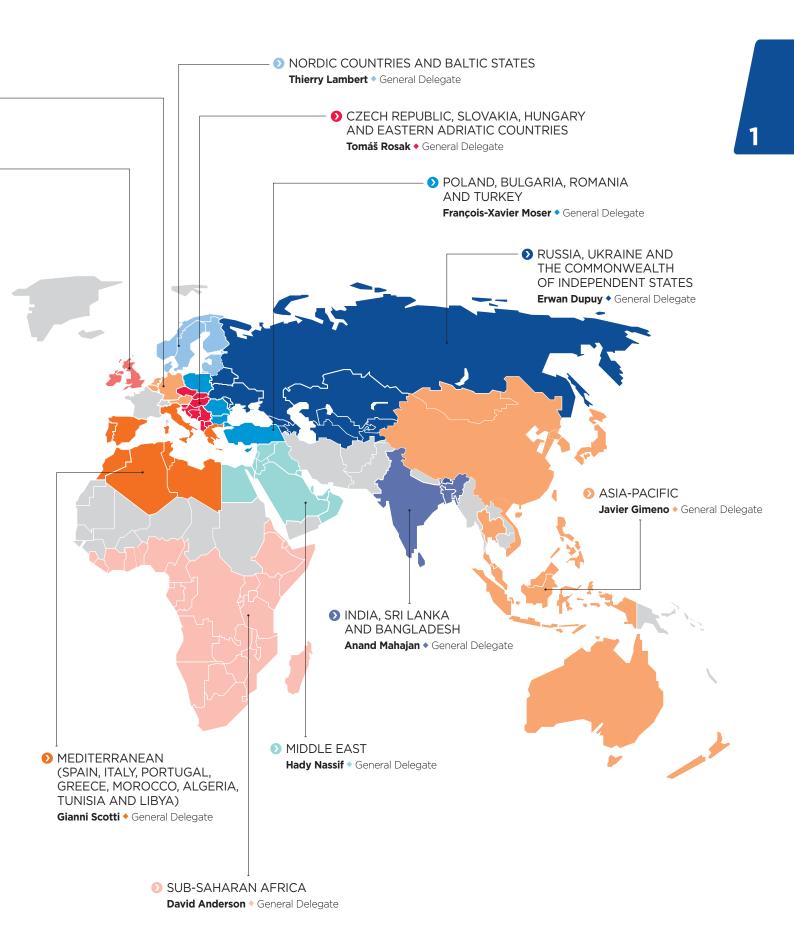
O GERMANY, AUSTRIA AND BENELUX

Benoit d'Iribarne • General Delegate

**O** UNITED KINGDOM AND IRELAND

Mike Chaldecott ◆ General Delegate -





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# The Group and its environment

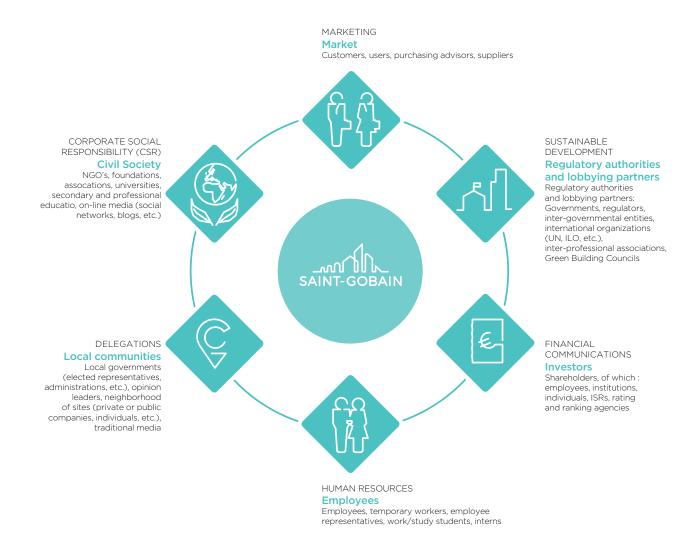
## 1.1 A GROUP ATTENTIVE TO ITS ECOSYSTEM

Within each of their respective perimeters, the Group's teams listen to their stakeholders and, above all, to their customers. The Group's organization, size, international dimension and diverse business portfolio imply decentralized management of the dialogue with stakeholders, allowing the operating entities broad autonomy in conducting their businesses. Dialogue must be constructive, transparent and based on mutual trust.

To better organize this dialogue, priority stakeholders have been grouped according to challenge (see illustration below). This provides a formal structure for feedback on internal and external stakeholders' expectations, with a Group function being mandated, for each stakeholder, to compile the expectations expressed at the local, national and international levels

This ensures that stakeholders' key expectations are factored into the Group's long-term strategy.

### **STAKEHOLDERS**



# 1.2 THE CHALLENGE OF CLIMATE CHANGE

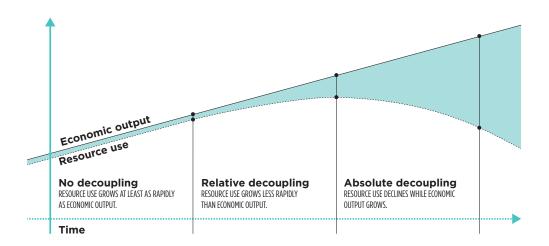
Twenty-five years after the first report from the Intergovernmental Panel on Climate Change (IPCC), the extent of the problem of global warming has now been fully assessed; the Stern (1) report, which provides a benchmark, showed that the cost of doing nothing outweighs the cost of a coordinated plan to reduce climate change.

After more than 20 years of negotiations and as a matter of urgency, governments have therefore decided to commit to quantified targets for greenhouse gas reduction. The Paris Agreement, which came into force on November 4, 2015, was ratified by China and the United States, the world's biggest greenhouse gas emitters. It sets the stringent goal of keeping the increase in temperature to below 2°C above pre-industrial levels. To achieve this target, there is an immediate need to reduce emissions growth by one-third between 2010 and 2030, compared with the previous two decades <sup>(2)</sup>.

In the private sector, there are a number of levers for action to reduce our environmental footprint: in Europe, the building sector alone accounts for 40% of final energy consumption and 35% of greenhouse gas emissions <sup>(3)</sup>. Globally, building

energy consumption could double or even triple by 2050  $^{(4)}$  if nothing is done. However, the full use of current best practices in the design, construction and operation of buildings could reduce this increase to just 10%  $^{(4)}$  of current energy consumption. Building energy efficiency therefore presents many opportunities to address global warming, although public opinion must continue to be made aware of this. Today, though, the primary trigger for renovation work is to increase the comfort of the home. Under these conditions, combining residential comfort and energy efficiency is a major lever for action to combat climate change.

Furthermore, with increasing frequency, public policies are adopting a life cycle approach, which considers the environmental impact of the building as a whole, from the extraction of raw materials to demolition and recycling. The reuse of materials generates additional economic growth and limits resource usage and emissions. By expanding this kind of approach, greater economic affluence can be decoupled from the use of resources.



Source: European Environment Agency (5)

<sup>(1)</sup> Stern Review on the Economics of Climate Change, 2006.

<sup>(2)</sup> Synthesis report on the aggregate effect of the intended nationally determined contributions, UNFCC, October 2015.

<sup>(3)</sup> Energy Union Package: A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, European Commission Communication, 2015.

<sup>(4)</sup> Climate Change 2014: Mitigation of Climate Change, contribution from Working Group III of the Fifth IPCC Assessment Report (AR5), 2014.

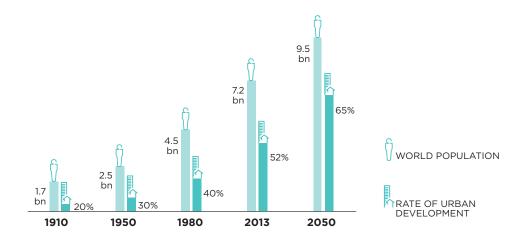
<sup>(5)</sup> The European Environment: State and outlook 2015 - Synthesis report, European Environment Agency.

# 1.3 THE CHALLENGE OF POPULATION GROWTH AND URBAN DEVELOPMENT

Since 2011, the global population has exceeded the 7 billion mark and is expected to reach 9.7 billion by 2050 <sup>(1)</sup>. This demographic growth is accompanied by rapid urbanization. In 2014, there were 17 countries where more than 90% of the population was living in towns and cities, a figure that will

have almost doubled by 2050 <sup>(1)</sup>. The rural exodus today is concentrated in Asia and Africa, resulting in growing demand for housing and infrastructure, particularly in currently mid-sized cities that are destined to become megacities <sup>(1)</sup>.

### DEMOGRAPHIC GROWTH AND URBANIZATION (1)



In developing countries faced with the persistence of slums, access to housing is a major social and economic challenge that calls for appropriate solutions. At the same time, the emergence of a vast middle class, including in Africa, is

stimulating new demand in conjunction with increased purchasing power of the people and with increasingly high comfort requirements.

# 1.4 THE CHALLENGE OF THE DIGITAL TRANSFORMATION

Digital technology is redefining trade, with a very high annual growth rate for e-commerce throughout the world since the early 2000s. China, which became the world's largest market for B2C online sales in 2015, is catching up quickly in the B2B segment <sup>(2)</sup>. The low cost of investment to launch an online commerce platform has reduced barriers to entry, while asymmetry of information between sellers and customers is falling. Companies must now be closer to their end customers to avoid new intermediations. For differentiation, it is no longer just the company's product that counts, but the services that go along with it. Digital technology is reshaping the competitive balance and the way that businesses interact with their stakeholders (customers, staff and suppliers).

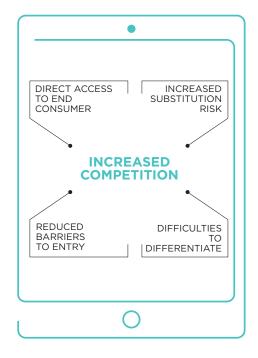
Digital technology is also revolutionizing the way that factories are organized and is producing a major, gradual change in production methods, by providing real-time access to a wealth of information on industrial facilities that are now interconnected and enabling extensive analysis of these data. Progress can thus be seen on two fronts: on the one hand, in the increase in productivity that results from reductions in stock, breakdowns, lost time and scrap material and on the other, in improved flexibility of production processes. Industry 4.0 opens the doors to mass customization, which relies in particular on locating assets as close as possible to end customers.

<sup>(1)</sup> World Urbanization Prospects: The 2014 Revision, Highlights - United Nations.

<sup>(2)</sup> Unlocking the Potential of e-commerce for Developing Countries, 2015 Information Economy Report, United Nations Conference on Trade and Development (UNCTAD), 2015.

With digital technology, a profound rethinking of buildings and habitat is also under way. The digital integration of buildings is leading to technical changes in construction, particularly the increasing use of Building Information Modeling (BIM, see chapter 3, section 2.1.2), which provides an integrated view of a building throughout all the stages of its life cycle. Domotic, which contributes in particular to reducing housing energy consumption and improving security, also permits an ever greater integration of intelligent equipment in everyday use.

# THE CONSEQUENCES OF THE DIGITAL TRANSFORMATION



Source: Porter, Harvard. Business Review.

# 1.5 THE GROUP'S KEY CHALLENGES

In 2015, Saint-Gobain conducted a three-stage materiality analysis:

- identification of the key challenges based on a review of the available documentation on the Group, its activities and its environment;
- sharing these challenges with key stakeholders;
- ranking the challenges by comparing stakeholder expectations against the vision of Group management.

The resulting materiality matrix was developed on the basis of looking for consensus between external and internal stakeholders. A methodology note is available on the corporate website at www.saint-gobain.com.

To provide greater transparency around the challenges, in 2016 they were grouped and summarized according to four long-term priority areas for CSR:

- climate change;
- responsible business practices;
- diversity;
- health and safety.

The Group then added two further CSR challenges associated with its development:

- circular economy;
- creation of local value.

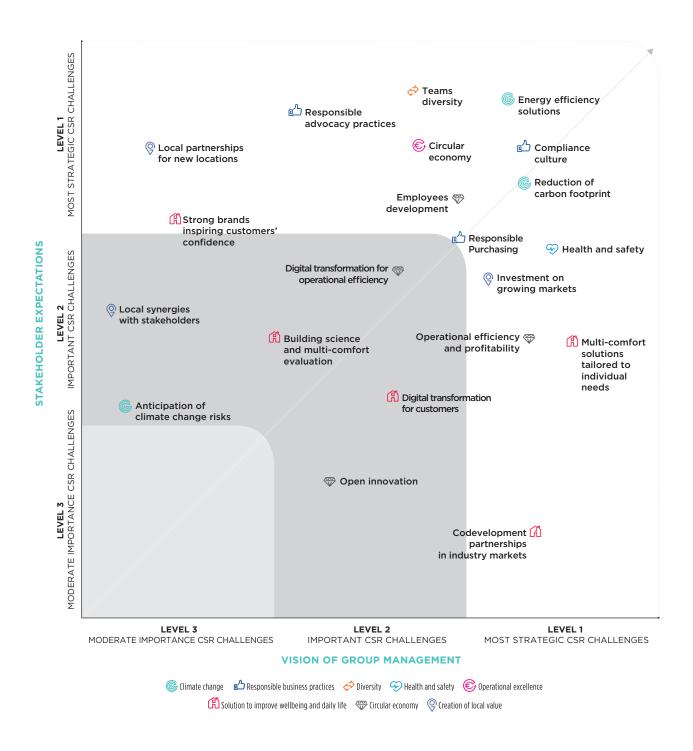
Lastly, Saint-Gobain used stakeholder dialogue to confirm two strategic challenges linked to its performance and to the fulfilment of its brand promise:

- operational excellence;
- solution to improve well-being and daily life.

The matrix reflects both the Group's strong identity and the more specific challenges associated with its Activities and its local development. It is consistent with the Saint-Gobain rebranding that took place in 2016.

A summary table of the measures adopted and the Group's policies and commitments to address the challenges of CSR is included in chapter 5, section 2.1: non-financial results.

### MATERIALITY MATRIX



# 2. Creating great living places

## 2.1 GLOBAL PROSPECTS FOR THE CONSTRUCTION MARKET

Saint-Gobain's largest market, construction, offers considerable growth prospects worldwide on the 2030 horizon <sup>(1)</sup>. Construction volume is thus expected to increase by 85% by 2030, to achieving a total of \$15,500 billion worldwide. China, the United States and India alone will represent over half the market value. With an annual growth rate of +3.9% projected over 2015-2030, the construction market will exceed annual global GDP growth by more than one percentage point.

Chinese construction, affected by the slowing economy and aging population, is expected to see its growth slow over the 2030 horizon, while keeping its place as global market leader, which it has held since 2010. The Indian market is projected to grow twice as fast as China's and is expected to overtake Japan in 2021 to become the world's third-largest construction market. The need for infrastructure in emerging countries is also expected to continue growing, particularly in the African market.

Among developed countries, the construction sector is expected to rebound after several years of crisis. The

expected growth rates of construction in the United States over the next 15 years is approaching 5%, a figure higher than growth estimates in the Chinese market.

In Western Europe, the new construction market is not expected to regain its levels from before the crisis until 2025. This trend, however, will be compensated by the renovation market, which represented nearly 40%. Currently, 75% of European buildings have been constructed before the implementation of energy efficiency standards (2). Renovation will therefore be stimulated by increasing energy efficiency requirements, on the one hand, which are increasingly reflected in regulatory changes, and on the other hand, by increasing demand for comfort in buildings. 90 billion dollars were thus invested worldwide in energy renovation work in 2014, a figure that is expected to exceed \$125 billion by 2020 (3), through the development of energy policies. In France, the energy transition law passed in July 2015 defines a framework favorable to the acceleration of energy renovation work in accordance with European provisions.

# 2.2 SUSTAINABLE CONSTRUCTION FOR THE FUTURE OF ALL

The building sector is engaged in an in-depth process of transformation, fostered particularly by increasingly demanding thermal regulations that enable the Group to promote and deploy its line of energy efficiency solutions (insulation glazing and thermal insulation solutions), in a context where buildings must reduce  $\rm CO_2$  emissions by 84 gigatons by 2050 to limit global warming to under +2°C.

In recent years, a more global approach has emerged, incorporating not only energy aspects but also the other major challenges of sustainable development: sustainable construction. At each stage of its life cycle, a building designed, built or renovated and managed sustainably improves comfort and quality of life, limits the consumption of natural resources, reduces negative effects on the environment and increases value added for all stakeholders. This trend towards more sustainable construction is already clearly visible and is in particular reflected by rapid growth in the number of certified buildings throughout the world. As such, between April 2014 and August 2016, the number of square meters certified under LEED (Leadership in Energy and Environmental Design) rose from 280 million to

1,500 million. This development is also beginning to be reflected in state regulations and policies.

This underlying trend offers the Group a major opportunity for differentiation based on its unique portfolio of innovative, sustainable solutions for construction and renovation markets that promote the development of energy-efficient, comfortable, healthy and attractive buildings, and conserve natural resources.

There are two pillars to the Group's sustainable construction strategy:

- promoting sustainable construction so that it becomes standard practice for the sector. To achieve this, the Group strives to lead by example, engaging with other leaders in the sector to speed up its transformation;
- developing and distributing sustainable solutions so that the Group can realize the full potential of the growth in the sustainable construction market. This calls for innovation and for management of the product portfolio, the circular economy, information and training for players in the market (see chapter 2, section 2.4).

<sup>(1)</sup> Global Construction 2030. Global Construction Perspectives & Oxford Economics, 2015.

<sup>(2)</sup> RESIDE: Boosting innovation in the European building Refurbishment sector through roadmaps for demand SIDE policy measures, 2015.

<sup>(3)</sup> Energy Efficiency Market Report 2016, IEA, 2016.

### 2.2.1 Promoting sustainable construction

# a) Collaboration with Green Building Councils (GBC)

Saint-Gobain is convinced that the transition to sustainable built environment involves the application of new partnership and co-development relationships. Contributions to this transition should come from all sustainable construction businesses and centers of expertise.

This desire to move the construction market towards more sustainable building is widely shared with the GBCs, a global network of national associations of construction market professionals and players. The GBC network offers a fast path for deployment of sustainable construction technologies and dissemination of good practices, particularly *via* education for market players. For Saint-Gobain, market transformation means changing the whole of the construction market value chain, and the GBCs are instrumental in this. They can create a collective momentum involving the various stakeholders (investors, builders, manufacturers, architects, etc.).

The geographical approach of the GBCs means that every one of Saint-Gobain's national, regional and international units can make an active contribution to their work. The Group is a member of 37 local GBCs worldwide and of the European network of GBCs (ERN), and sits on the Corporate Advisory Board of the World Green Building Council (WGBC). In 2016, Saint-Gobain provided active support for a number of WGBC campaigns, including:

- Better Places for People, which promotes quantification and understanding of the positive impacts of sustainable buildings on health and well-being;
- BuildUpon, a project to support strategies for renovating Europe's existing building stock.

The Group won recognition in 2016 for its commitment to topics to do with sustainable construction, with Pierre André de Chalendar being awarded the World GBC's David Gottfried prize. This award, created in 2011, rewards personalities who have made a unique, innovative and entrepreneurial contribution to the global cause of sustainable building development.

# b) Promotion of building energy efficiency

In Europe and other developed countries, the challenge of energy efficiency lies in speeding up the roll-out of existing solutions in new buildings, and especially in existing buildings. Given their weight in energy consumption (40%) and greenhouse gas emissions (35%), European building stock has to occupy a central position in European energy and climate policies. An ambitious political framework can remove technical as well as financial obstacles to the move to an efficient, comfortable and low-energy built environment.

Saint-Gobain is committed to promoting energy efficiency solutions in buildings, specifically by improving their performance and simplifying their installation. The Group is also committed to training professionals to ensure that energy renovation is better integrated into the multiple and varied interventions a building experiences during its lifetime.

With this in mind, Saint-Gobain promotes in-depth energy renovation, in stages, and implementation of a renovation process based on a "renovation passport", identifying the tasks to be completed and scheduling them over time, and optimizing them by incorporating energy efficiency into the renovation work (for example, during alterations or renovations of roofs or façades). Backing for renovation works must be a priority, to optimize the complementary use of the available, accessible technical solutions, both passive (insulation and insulation glazing) and active.

Away from Europe, the Group also lends support to energy efficiency and its place in national policies. In emerging countries, the potential for energy efficiency is concentrated in new buildings. Saint-Gobain directs its efforts to highlighting for stakeholders the benefits of energy efficiency, and the effective implementation of ambitious regulations.

# 2.2.2 The Group's positive contribution to climate challenges

The Group seeks to minimize its negative impacts and to continue to increase its positive contribution, aware that its activities inevitably have environmental, social and economic impacts. Controlling greenhouse gas emissions and global energy consumption are indispensable conditions for keeping global warming to below 2°C. Increasing the energy efficiency of buildings through new building and thermal renovation of the existing building stock is critical to controlling the long-term effects of climate change.

The innovative solutions developed by the Group to improve building energy efficiency help to reduce both the negative impacts of construction on the climate, and users' energy bills. They have an important role to play in combating climate change, therefore: by reducing energy needs, they decrease greenhouse gas emissions. At the same time, Saint-Gobain has implemented an energy policy and ambitious goals for reducing the environmental impact of its production and logistics operations. The benefits provided by the Group's thermal insulation and insulation glazing, in terms of energy consumption and greenhouse gas emissions, significantly exceed their production-related emissions<sup>(1)</sup>.

To shine a spotlight on this contribution, in 2015, in partnership with the accounting firm EY, Saint-Gobain developed a methodology to estimate greenhouse gas emissions saved by using its insulation solutions<sup>(2)</sup> in Europe<sup>(3)</sup>.

<sup>(1)</sup> The term "production-related emissions" refers to emissions related to the entire life cycle (from the extraction of raw materials to the end of life, including manufacturing, transport and use).

<sup>(2)</sup> Thermal insulation (glass wool, stone wool, PSE) and insulated glazing (double and triple layered glazing).

<sup>(3)</sup> European Union of 28, Norway, Switzerland.

This work made it possible to highlight three key findings:

- from three months' use, on average, the Group's solutions offset production-related emissions<sup>(1)</sup>. Beyond those three months, the savings continue to accumulate;
- solutions produced and sold in Europe in 2014 will, over their entire lifespan<sup>(1)</sup>, yield potential net cumulative savings of over 550 million tons-equivalent of CO<sub>2</sub>;
- the estimated potential savings from these solutions are equivalent to about 90 times the Group's greenhouse gas emissions in 2014 for the same geographic scope. Extrapolating from this, the calculated ratio is similar over a global perimeter.

Through its insulation solutions installed in buildings, Saint-Gobain is making a major contribution to reducing global greenhouse gas emissions.

As a result, the Group is continuing its joint efforts to improve the effectiveness of its products through innovation (see chapter 3, section 3) and to reduce their environmental impact (see chapter 4, section 2.3), through a shared culture and good practices.

# 2.2.3 The Group's exemplary program for its buildings

In line with its sustainable construction strategy, Saint-Gobain is committed to improving its own buildings by applying the CARE:4 (Company Actions for the Reduction of Energy by 4) program.

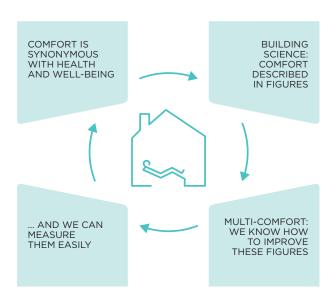
### CHALLENGES OF THE CARE: 4 PROGRAM



CARE:4 has been applicable to new buildings and complete renovation operations since 2008. At the start of each project, objectives are defined in collaboration with the project owners, in alignment with the best local standard and based on a locally devised *benchmark*. As symbols of Saint-Gobain's skills and capacity for innovation, hosting the public, research, training and innovation centers, *showrooms*, major sales outlets and headquarters of General Delegations and Activities take priority. These sites, owned or leased by the Group, constitute "Buildings of Interest for the Group" (BIG). They are intended to become demonstrations of solutions and Saint-Gobain's expertise.

An illustrative example of this desire to prove the concept is the headquarters of the General Delegation for North America in Malvern, in the US state of Pennsylvania. At the end of 2015, staff moved into a building that had been fully renovated to the most stringent standards in terms of the environment and comfort. Since then, comfort measurements (encompassing acoustic, visual and thermal comfort) for the building have been monitored by the local team of building science researchers, with additional satisfaction studies carried out in partnership with the University of Oregon. Benefits were observed in terms of employee productivity, particularly in a building call center, and these were published as a case study in the latest report from the World Green Building Council's Better Places for People campaign (Building the business case: Health, Wellbeing and Productivity in Green Offices, October 2016).

# 2.3 COMFORT AND WELL-BEING FOR INDIVIDUAL NEEDS



In any room, the well-being of the occupant depends on a certain number of factors: temperature, humidity, sound level, air quality, etc. When developing solutions and the products that comprise the room (ceilings, floors, walls, windows, etc.), the first step is to understand the required comfort levels, in terms of temperature ranges, noise levels in decibels, percentage humidity, etc.

This novel approach to the design process, underpinned by intensive needs analysis, makes the user the central focus of the entire innovation process. Saint-Gobain has summarized this approach under the name "Multi-Comfort": several parameters, rather than just one, determine wellbeing, and therefore the health, efficiency and productivity of end customers.

# 2.3.1 Building science quantifies comfort

The primary tool for advancing along the road of Multi-Comfort and sustainable construction is R&D. Innovation provides Saint-Gobain with the means to make progress, propose new standards, keep on improving the

performance of solutions and avoid banalization. The R&D teams involved in Building science are driven by the common challenge of understanding the parameters that delineate comfort and adopting a balanced approach to them, at the same time as developing products that reduce the user's energy bill and offset the  ${\rm CO_2}$  emissions generated by their manufacture in just a few months.

While comfort is an immediate concept for each individual, it is often still difficult to quantify or grasp. Comfort appeals to all our senses. Comfort is the visual appeal of the buildings that we see. It lies in the ability to hear in a full restaurant on a Saturday evening. It also means breathing filtered air in an office block in New York or Paris-La Défense. Comfort is the combination of all these sensations that provide the sense of wellbeing that improves quality of life. Saint-Gobain has introduced an extensive program for better assessment and measurement of comfort.

For example building on digital techniques, Saint-Gobain has developed a tool named comfort-meter to create a direct link between the concrete elements such as materials and individual perceptions of comfort. The Comfort-meter is a matchbox-sized box with sensors that send information to a Smartphone, which then reports it *via* an interface. It can thus be used by thousands of Saint-Gobain employees to collect temperature, humidity, noise, light or air quality data. The Comfort-meter also draws on the power of Big Data to establish standards that reflect cultural specifics and individual preferences.

So, if we take 68 decibels as a reasonable average sound level for a restaurant, it can be slightly higher in a Latin country and a little lower in a Nordic country. The lessons learned from this intelligent tool can also be used for a meeting room where temperature is still the first data item requiring control.

More than the tool, Saint-Gobain's teams have integrated experts in physiology, psychology and sociology to better understand the individual, cultural, and subjective dimension of comfort perception. The objective is still to define comfort for the future and make possible the diagnostic of comfort level of an existing building or the check the quality of the technical improvement during a renovation.

# 2.3.2 The Multi-Comfort program, demonstrating solution effectiveness

For Saint-Gobain, innovation is also about new ways of thinking. The Group is leveraging the breadth of its portfolio of Activities to develop new systems and solutions for developing new systems that reinforce building performance. Through its innovation centers, Saint-Gobain designs and develops – in close partnership with customers and other influencers – long-term innovations that will shape our surroundings and improve our quality of life.

In addition to its innovation centers, "demo houses" are built to illustrate the Multi-Comfort program and prove that the recommended solutions are not just theoretical, but rather that they function as real buildings. This constitutes indispensable support for the program.

The data from the 27 new operational projects refine the understanding of Multi-Comfort and thus the credibility of the approach. These projects cover 18 countries in Europe, North and South America, and Asia, making them representative of the diversity of users' expectations in response to their culture and subjective perception of comfort.

The Multi-Comfort program is being applied to several market segments, newbuilding and renovation, individual and collective housing, and non-residential building.

# 2.4 SUSTAINABLE AND COMFORTABLE SOLUTIONS

# 2.4.1 Developing sustainable and comfortable solutions

Saint-Gobain develops innovative solutions for construction and renovation which foster the development of energy-efficient, comfortable, healthy and attractive buildings, as well as preserving natural resources. Saint-Gobain has launched discussions on an integrated approach to analyzing products and the portfolio of construction solutions according to sustainability criteria.

These discussions draw on tools such as:

- the EHS Check-list, introduced in 2008 and part of the Saint-Gobain gate process in R&D;
- the Eco-Innovation approach, and the associated tool box which began development in 2013;
- the Environmental Product Declarations, setting out the environmental impacts. The first of these declarations was made in 1990.

These tools address the challenges of sustainable construction in terms of environmental footprint in the design, production and use of the Group's solutions. They reduce product environmental impacts and provide clear, accurate environmental information on the contribution of these sustainable solutions for use in obtaining a building label. The EHS checklist also permits to qualitatively assess substances integrated into product formulations and to identify and reduce EHS impacts associated with product life cycle. With regard to hazardous substances, the aim is to prevent the use of new substances and reduce their use in raw materials while reducing and controlling exposure levels.

Targeted communication for users and specifiers on the labels in place strengthens the approach. Numerous local initiatives are emerging, such as possible multi-brand brochures. Begun in Spain, the idea has been adopted in Poland, the Czech Republic and Italy, to promote Saint-Gobain's comprehensive line of sustainable solutions. Other activities or countries have developed good digital practices. In the United States, CertainTeed provides a calculator, the ecoScorecard, for researching, evaluating and recording the environmental

characteristics of the products selected. This tool streamlines the LEED building certification procedure.

In November 2016, the first-ever joint Multi-Comfort & Sustainable Construction days brought together some 120 managers from Saint-Gobain's marketing and R&D centers. Presentations were given throughout these days on the challenges of the Group's sustainable construction strategy and its Multi-Comfort program, with in-house operational workshops alternating with guest speakers from the following organizations who set out their vision for the sustainable construction market: World Green Building Council, World Business Council for Sustainable Development, GRESB, etc.

In addition to these actions, in 2016 Saint-Gobain initiated a product stewardship policy, which will come true in 2017 by the implementation of two pilots evaluating the CSR benefits of a portfolio of products, a necessary stage before a deployment on the overall Group.

# 2.4.2 Formulating and demonstrating the Group's value proposition

Significant effort has been required in terms of training, explanation and demonstration to redefine the value proposition, which is focused on comfort and sustainable development, and this will continue to be the case.

For this purpose, in 2015 and 2016, the Habitat Committees in the Group's main countries were tasked with speeding up the development of physical premises where products can be displayed and especially, where their features and impacts can be easily demonstrated to a broad, non-expert audience.

Following the Domolab, which opened in Aubervilliers in 2011, and its equivalents in Russia, Italy and Spain, 2016 saw the opening or renovation of a large number of these educational showrooms:

- in the Capivari R&D center in Brazil;
- ♦ in the Chennai R&D center in India;
- at the premises of the General Delegation in Copenhagen;

- ♦ at the headquarters of the General Delegation for North America;
- in the Saint-Gobain Innovation Center in central London.

Large numbers of customers are invited to visit these premises on an appointment-only basis. The venues hold numerous blue printing sessions (see chapter 2, section 3.3.1)

where solutions for the whishes expressed can be suggested directly. In 2016, several tens of thousands of visitors, customers, architects and investors had a practical introduction to the Group's products and services for improving the different types of comfort.

# A portfolio of respected brands and distribution names

Saint-Gobain has a portfolio of industrial brands and a network of well-known distribution names for developing and marketing sustainable solutions that provide comfort and wellbeing for customers.



# 3. Solutions specifically for industrial markets

For customers in industrial markets, Saint-Gobain aims to be the partner of choice by developing and supplying high-performance products, which ensure the reliability and safety of the solutions to which they contribute, optimize the productivity of manufacturing processes and enhance user comfort and safety. This involves co-development partnerships with industrial customers, with a view to creating solutions for them and with them so they can roll out their activities

Saint-Gobain has specialist brands in High-Performance Materials, mainly for its industrial markets. These brands are well known for their expertise, particularly in the automotive glazing, abrasives, polymers and ceramics markets.

# **INDUSTRY** (16% OF SALES) STRATEGIC MARKETS Manufacturing industry, transport, healthcare, energy Automotive glazing SEKURIT WINTER **SPECIALIST BRANDS** Flexible tubing TYG N NORGLIDE' Polymer seals Adhesive foams **NORBOND**® OmniSeal® Refractories Ceramics for energy SEFPRO 47 NORPRO

# 3.1 PRODUCTS FOR THE AUTOMOTIVE MARKET

The automotive market is being driven by demographic growth and the emergence of a new middle class, particularly in Asia: according to a study from KPMG <sup>(1)</sup>, the estimated average growth rate for this market worldwide is +4.1% per year between 2011 and 2020, with global annual automobile production will approach 110 million vehicles, compared to 95 million in 2016 <sup>(2)</sup>. The growth of this market will be driven by demand from fast-growing countries, such as China, which is now the world's leading automobile market, representing 27% of the market in 2015 <sup>(2)</sup>.

At a time when automotive manufacturers are especially emphasizing lower energy consumption and  $\text{CO}_2$  emissions (reduced vehicle weight, better thermal insulation, aerodynamics), comfort (acoustic, visual, UV protection), safety and connectivity, the Group offers products that meet these new requirements, both in the primary market and in the spare parts market.

Saint-Gobain glass is constantly being adapted to the needs of automobile manufacturers, particularly with regard to lightweight glass, heads-up display glass and anti-heat glass, not to mention glass in complex shapes, for which Saint-Gobain's expertise is well known. All these solutions promote an optimal driving experience, with increased comfort and safety for both driver and passengers. Similarly, high-performance, polymer-based bearings, seals and foams are custom-designed to meet the needs of automobile manufacturers, in terms of extending useful life and reducing noise and weight. Saint-Gobain's solutions also involve production using, for example, a wide range of abrasive products (adhesives, agglomerates and super abrasives) for finishing and polishing automotive parts. In order to benefit from the opening of new markets in fast-growing countries, the Group is also developing solutions appropriate for these regions, without compromising quality.

<sup>(1)</sup> KPMG'S Global Automotive Executive Survey, KPMG, 2015.

<sup>(2)</sup> L'Observatoire Cetelem 2017, BNP Paribas, 2016.

# 3.2 SOLUTIONS FOR THE AEROSPACE MARKET

With the global growth in passenger traffic, the aerospace market offers strong growth potential. According to Airbus <sup>(1)</sup>, global passenger traffic is expected to increase by 4.5% per year to 2035. Benefiting from an increase in their standard of living, the populations of fast-growing countries will thus represent 60% of air passengers. Further, heightened competition between airlines has led to pressure on operating costs. This context is reviving the demand for weight reduction, particularly by replacing metal parts with composite materials, which are lighter, to reduce jet fuel consumption. The aerospace sector's very high equipment safety and reliability standards are a significant challenge for

Saint-Gobain, which is recognized for its experience and production quality.

The Group's aerospace solutions specifically include cockpit glass, high-performance plastics and ceramics used in aircraft engines. Saint-Gobain's cockpit windows and windshields, both glass and acrylic, are fitted in civil and military aircraft. The Performance Plastics Activity supplies the industry with radomes, composite mold-release films, seals and low-pressure conduits. Ceramic powders and ingots, used for the coatings of aircraft engine components, act as a thermal barrier and offer abrasion and corrosion resistance.

## 3.3 INNOVATIONS FOR THE HEALTHCARE MARKET

Biopharmacy is one of the most promising markets in the healthcare industry. An aging population and enhanced medical procedures are creating new needs, while biotechnology is having an increasing impact. At a time when liquid management techniques are evolving, the biopharmaceutical sector is seeing a new need for single-use solutions, requiring a more tailored approach.

Healthcare is also a sector where solution reliability and the strict demands of standards are of the utmost importance.

The Group also markets a number of tailor-made, single-use plastic solutions (tubes, connectors, pockets, filters, etc.), used in handling fluids. Saint-Gobain has developed and designed high-purity plastic components intended to control fluid circulation during intravenous and ophthalmic treatment and non-invasive surgical intervention. Finally, for the medical imaging market the Group manufactures crystals and scintillators, which are used in particular in medical scanners.

# 3.4 SOLUTIONS FOR THE ENERGY MARKETS

The energy sector is currently experiencing a profound realignment of its model, specifically related to our current economies' heavy dependence on oil. Aware of the risks these changes may represent for their long-term investments, large financial institutions are pushing energy players to reorient themselves toward greener energy sources.

The Group is developing technical solutions specifically tailored to the manufacturing processes of the energy sector, mindful of current needs as well as emerging trends. Specifically, the Group is active in the market for ceramic

pellets to increase the conductivity - and therefore yield - of gas and oil wells. Saint-Gobain also designs numerous high-performance products aimed at the wind energy sector: seals for marine-based wind farms, and glass fiber textiles to improve the surface condition of turbine blades. The Group develops high-tech products, from oil exploration (scintillators used to identify geological layers), to waste recycling (refractory furnace linings), and including operations and storage (seals, flexible caps and insulators for drill pump wires and cables, etc.).

<sup>(1)</sup> Mapping Demand 2016/2035, Airbus, 2016, ISBN: 978-2-9554382-1-6.

# 4. Proximity to customers

# 4.1 AN AMBITIOUS DIFFERENTIATION STRATEGY

# 4.1.1 An approach tailored to each customer

In the construction markets, Saint-Gobain aims to be the partner of choice for every player, from initial design to worksite implementation and project completion.

The Group has set up Habitat Committees aimed at developing marketing and commercial synergies between various Saint-Gobain companies, through cross-business initiatives tailored to each customer group, such as:

- a coordinated approach to the principal key accounts in construction and renovation projects, organized by market segment (residential, healthcare, education, hotels, etc.), and often based on innovation centers and showrooms in France, the United Kingdom, Italy, the United States and Spain; new innovation centers opened in 2016 in Brazil and, India:
- combined training provision specifically for installers in several countries, delivered at dedicated Saint-Gobain centers (for example, in France, Italy, Ireland, Russia, Sweden, Austria, the Netherlands, etc.);
- a coordinated presence at major trade shows, such as Greenbuild in the United States, Ecobuild in the United Kingdom, Batimat in France, and the Big 5 in the United Arab Emirates, which provide opportunities to showcase the Group's products and solutions and enable Saint-Gobain experts to give talks on topics such as eco-innovation and sustainable construction, or on new building techniques.

#### Saint-Gobain's vision: to be the preferred partner of all construction and renovation players, from design to completion.

#### MAJOR TRENDS AFFECTING THE HABITAT MARKETS

- Urban development and demographic change
- Sustainable design, construction and operation
- ♦ Holistic building design (multi-dimensional criteria)

#### INVESTORS, DEVELOPERS, ARCHITECTS, SPECIFIERS, TRADESMEN, PRIVATE INDIVIDUALS, CONTRACTORS, DO-IT-YOURSELFERS MAIN CONTRACTORS PRIVATE INDIVIDUALS ◆ Put the user at the center of the ◆ Develop systems and services to ◆ Capitalize on strong brands ◆ Develop reliable, easy and rapid on and renovation with a Multi-Comfort construction renovation simplify implementation and to solutions Develop a service offering to allow optimize csts and delivery times at process approach distributors to grow their sales and optimize their processes Make the lives of installers easier worksites -specifically combining the expertise of the by assisting them to grow their Minimize the environmental impact (adapted logistics, training of field business through Group's various activities extended services offering: training, sales assistance, technical extended of buildings: eco-innovation policy, teams, optimized merchandising, analysis and ◆ Co-develop new solutions with cycle business support, etc.) Environmental Product Declarations assistance, technical studies, etc. Develop e-commerce for all product families ◆ Support major projects, with a e-services offerings to simplify Roll out multi-channel approaches Support customers in their major targeted service offering: BIM objects for digital modeling, optimize processes to support them throughout their and coordinated fashion facilitate sales development professional lives adapted logistics, etc. Saint-Gobain between activities (including key accounts), based on Retain the loyalty of professional clients through a close relationship the Group's skills in Building developed through strong local Sciences distribution brands

# 4.1.2 Customer satisfaction

Several practices have been adopted by all the Group's Activities to measure customer satisfaction:

- firstly, the use of a short questionnaire, sent at least once a year to actual and potential customers, both direct and indirect, to identify the main areas of satisfaction and dissatisfaction and determine the "net promoter score", a single, common metric across all customers;
- secondly, a more stringent, responsive measurement of compliance and timeliness, since these two parameters recur in all questionnaires as the most frequent causes of dissatisfaction: customers demand above all else that suppliers keep their promises.

4. Proximity to customers

The Group's Activities have all strengthened their marketing teams to organize these kinds of surveys and especially, to respond to them. They have also created customer

experience manager posts whose role is to adapt the organizational structure to make it more responsive to address shortcomings.

# 4.2 LOCAL SERVICES

# 4.2.1 Using digital technology to increase customer loyalty

Saint-Gobain's interactions with its customers in the broadest sense (direct or indirect, actual or potential) through the Group's different Activities number in the millions each year. This number is increasing by 10% a year as a result of the development of the whole area of communication *via* the Internet and social media.

This provides a challenge for the Group: in many cases, "contact" no longer takes the form of a scheduled, physical meeting, but is made *via* the Group's websites or *via* social networking, at the customer's instigation. In 2016 alone, the number of contact requests *via* the web was more than 150 million!

Clearly, in-person meetings with direct customers remain a crucial form of contact, but there is a need to develop a digital strategy that allows the Group to capitalize on all the individual contact requests. Two background tasks were commenced in 2016 and are ongoing:

- updating the Group's websites is crucial, to provide visitors using fixed or mobile devices with a high-quality experience that they find useful and which encourages them to extend their visit to the site. In this vein, the UK site for Celotex and the majority of Weber's sites have developed content to drive sharp increases in the number of visits and in the conversion rate from visit to sales contact the very purpose of the majority of sites that are not online stores. This is the approach adopted throughout the Group:
- the Building Distribution Sector has created better-designed, simpler websites to extend e-commerce to all of its brands, in the majority of its countries of operation.

In both cases, data analysis is fundamental in developing the sites in the direction that visitors wish to see. A central R&D team focuses specifically on helping the Activities to make the necessary cultural adjustments.

This background work improves customer proximity and helps the Sector to develop services, particularly digital services, which support the customer in their journey. For the Group's most important market in terms of net consolidated sales, residential renovation, a number of digital services have been developed to streamline the experience for professionals, but also for private individuals managing their own construction projects:

- sites with photos to inspire private individuals who are planning renovations;
- rapid diagnostics and layout tools for trade customers, such as Glassolutions' LitePoint application and ISOVER's F4 configurator;

 Smartphone applications for professionals, for rapid ordering from distribution brands, such as the Point.P application.

The ultimate aim of this work is to increase customer loyalty: firstly, because a loyal customer spends more on average than an average customer, but above all, because effective customer loyalty and retention measures (regular interaction, effective services, etc.) are acknowledged to be considerably less costly than measures for winning new customers.

# 4.2.2 New concepts

This marketing strategy of customer interaction using new digital and data analysis tools allows the Activities to develop new concepts, either in market segments identified by means of this strategy, or by improving customer satisfaction at various points in the value chain.

For example, in July 2016, Saint-Gobain Distribution Bâtiment France launched the omni-channel platform Homly You, an intermediation service to put private individuals with a renovation project in touch with professionals, with the aim of improving the level of satisfaction on completion of renovation works amongst customers who are "project owners".

In the automotive market, the Abrasives Activity offers a package of services for garages and body shops in the US under the name of Saint-Gobain Refinishing Solutions Group, distributing a range of products and consumables in addition to the products that it manufactures itself. The product line is supported by automated stock management (*via* a barcode system) and automatic ordering. The streamlining provided by this approach (with a single point of contact and stock management) means a considerable time saving for these business' owners.

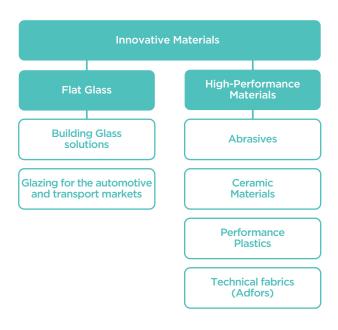
Lastly, a "comfort package" was developed in partnership with Norgehus, Norway's leading builder of single-family homes, under the name of MyComfort, by Saint-Gobain. Norgeshus' customers buying a house from the catalog have the option of ordering a MyComfort, by Saint-Gobain package, as priced in the catalog.

This pull approach, where the end customer is presented directly with the value proposition from a group that is focused on user comfort and wellbeing and sustainable development, leveraging the Saint-Gobain brand, is set to develop strongly in 2017.

The complementary nature of the Group's Activities, brands and trade names, makes these new concepts more effective.

# 5. A Group organization to serve customer and market needs

# 5.1 INVENT THE MATERIALS OF THE FUTURE AND PROVIDE INNOVATIVE SOLUTIONS FOR BUILDINGS AND INDUSTRY: THE INNOVATIVE MATERIALS SECTOR



With its unique portfolio of materials and processes for the construction, transport, healthcare, and industrial markets, the Innovative Materials Sector provides the Saint-Gobain Group with its innovation-oriented culture.

It consists of two businesses:

- ◆ Flat Glass;
- High-Performance Materials (HPM).

In line with the strategy for the Sector, its R&D is devoted to serving customers by providing them with differentiated solutions.

It is supported in this aim by the Group's eight cross-business research centers devoted to focused technologies, and local teams close to production sites. Of the 3,700 researchers employed by the Group, 2,100 work in Innovative Materials. They work on over 600 research projects involving the design of new products and procedures, providing technical support to the sales and production teams.

Some development projects are aimed at maintaining technological leadership in current markets: innovative processes for thin coatings, next generation ceramic grains and abrasive products, more effective double and triple glazing, plastic films for automobiles and building, etc. Other major programs target new markets: electrochromic glazing, ceramic cores for fuel cells, materials for energy storage, or single-use systems for the biopharmaceutical and life sciences industry.

## KEY FIGURES

- More than 500 industrial sites in 45 countries
- Over 60,000 employees
   Flat Glass: over 33,000 employees in 42 countries
   HPM: over 27,000 employees in 46 countries
- 8 cross-business R&D centers in the United States, Europe, China and India, dedicated mainly to Innovative Materials
- 2,100 researchers
- Some 300 patents filed annually by the Innovative Materials Sector
- ◆ Approximately 2/3 of the Group's R&D expenditure
- Competitive positions:

No. 1 worldwide (1) High-Performance Materials

- Ceramics: no. 1 <sup>(1)</sup> in the world for silicon carbide, zirconium-based abrasive grains, ceramic balls and refractories for the glass industry
- ◆ Abrasives: World **co-leader** (1) for all abrasives lines
- Performance Plastics: no. 1 (1) in the world for bearings for automotive applications, single-use tubes and connectors for the pharmaceutical industry, aircraft radomes for communications satellites
- Saint-Gobain Adfors: no. 1 (1) in the world for construction fabrics and paintable wall coverings

High-Performance Materials: more than **200** industrial sites across **36** countries

- ◆ No. 2 (1) for Flat Glass in the world
- ◆ No. 1 (1) for Flat Glass in Europe

Flat Glass: around **300** industrial sites across **33** countries

# 5.1.1 Provide our customers with effective glass applications, contributing to environmental protection: the Flat Glass Sector

#### A word from the President

"In addition to a passion for glass, we are driven by providing our customers with modern solutions for comfort and safety to cater for their needs and the needs of the end consumer, with an eye to quality and environmental protection." Patrick Dupin, President, Flat Glass Sector

Flat Glass combines the production and marketing of flat glass, and the processing and distribution of glass solutions for the building market, the automotive industry and transport. These solutions address the challenges of energy savings, aesthetics, comfort, ergonomics and safety and plan ahead for changes in regulatory obligations. Flat Glass develops products and services to suit local characteristics and uses the new opportunities afforded by digital to enhance its services to customers.

Saint-Gobain offers its customers **innovative**, **effective glass solutions for residential and non-residential sector construction**. These solutions are intended for the façade, window and interior decoration markets and to protect assets

and people. With a strong manufacturing base incorporating recent carbon footprint-limiting technologies, and a distribution network with unrivaled coverage, Saint-Gobain aspires to be the partner of choice for its customers: installers, processors, manufacturers, distributors and architects.

The Group responds to the needs of its European key accounts with a dedicated structure and sales force for each market segment. Additionally, it caters for the expectations of its installer clients as closely as possible through its own Glassolutions network of 200 processing and distribution sites in Europe.

Saint-Gobain's glass solutions help to improve building energy efficiency and user comfort: thermal insulation, solar control, light transmission (with the new ECLAZ glazing in particular), interior solutions and decoration (kitchen worktops and colored splashbacks, shower screens with anti-corrosion treatment, etc.), and bulletproof and fireproof glass (through its VETROTECH brand). Saint-Gobain also offers a wide range of active glazing such as PRIVA-LITE, which turns opaque on demand when switched on, and the variable-tint SageGlass\* solutions, provided mainly for façade projects. Lastly, it provides specialist products for household appliances (EuroKera, a joint venture with Corning, is a world co-leader in glass-ceramic cooking surfaces) and for commercial refrigeration.

Main brands	Positioning			
SAINT-GOBAIN	Provider of effective, esthetic glass solutions for more comfortable, safer living places			
GLASSOLUTIONS	Processor and distributor of effective glass solutions for residential and non-residential sector construction			
vetrotech	Expert in fireproof glazing and high-security solutions for building and marine applications			
SageGlass	Electronically controlled, dynamic variable-tint glazing to maximize light, save energy and improve interior build comfort			
SWISSPACER	Thermal spacers for insulating glazing			

Saint-Gobain Sekurit manufactures and produces windshields, side windows, rear windows, glass sun roofs and pre-assembled modules for major global automotive manufacturers. This glazing ensures everyday comfort for motorists and responds to the changes in mobility in terms of practices and regulations, particularly in the area of the environment. Saint-Gobain is also active in the transportation market, producing glass for the aerospace and railroad sectors, shipping, industrial vehicles and armored vehicles.

Finally, Saint-Gobain Autover distributes replacement automotive glass in the independent market and, under its Glassdrive brand, has a network of repair and replacement facilities

Saint-Gobain Sekurit offers global coverage for its activities, to meet the needs of users and automobile manufacturers. In addition, a regional organizational structure also provides more local coordination and services in response to local specifics.

Main brands	Positioning
SEKURIT	SAINT-GOBAIN SEKURIT
screet vision	Innovative security glazing to make the automobile into a comfortable living space
	SAINT-GOBAIN SEKURIT TRANSPORT
SAINT-GOBAIN	Specialist glazing for the railroad industry, trucks, buses and coaches, and tractor and machine operator's cabs
	SAINT-GOBAIN SULLY
SAINT-GOBAIN	High-performance transparencies for the aerospace and naval industries, and armored vehicles
An a	SAINT-GOBAIN AUTOVER
SAINT-GOBAIN	Distribution of replacement glazing and related products for businesses in the automotive after-sales market
GLASSDRIVE	European network of fixed and mobile assembly stations for automotive glazing repair, fitting and replacement
france	French network of specialist automotive glazing repair, fitting and replacement franchise operators

# Main competitors

- NSG (Japan)
- Asahi (Japan)
- Guardian (United States)
- Sisecam (Turkey)
- Various Chinese glass manufacturers

#### 5.1.2 Together we make a material difference: High-Performance **Materials**

## A word from the President

"Together, we make a material difference: working with our customers and partners, we design and produce differentiated solutions that improve the performance of our customers in the automotive, aerospace, healthcare and manufacturing sectors." Laurent Guillot, President, High-Performance Materials Sector

High-Performance Materials (HPM) provides value-added solutions for a wide range of high-tech applications in transport, health, construction and industry. It is developing considerable expertise in a range of technologies, giving it the ability to design solutions tailored to its customers' specific needs.

The HPM Sector is underpinned by strong materials science, formulation and design capabilities in ceramics, performance polymers and glass fiber. It has expertise in multiple state-of-the-art applications that make use of the specific properties of its materials (high temperature resistance, abrasion, chemical stability, surface properties, etc.).

Many of the Sector's products are developed jointly with customers to cater for specific customer needs, particularly in plastic products, highly sophisticated refractory products for the metalworking and glass manufacturing industries, and crystals for radiation detection systems.

In order to be closer to its markets, the Sector maintains a large sales force that is supported, in the largest countries, by logistics centers that allow it to provide quick and efficient service to customers.

The Ceramic Materials Activity consists of businesses involved in the synthesis and transformation of ceramics raw materials used in a wide variety of markets: abrasives, petroleum extraction, aerospace, defense, paper, etc., as well as refractory products for metallurgy and all glass-related technologies.

Main brands	Positioning
	SAINT-GOBAIN NORPRO
SAINT-GOBAIN	Ceramics solutions for the energy markets
SEFPRO 47	World leader in refractory materials for the glass manufacturing industry
The leader in ceramic grinding beads, shot-blasting and sandblasting agents, and zirconium oxide properties for industrial applications	

#### 5. A Group organization to serve customer and market needs

The Abrasives Activity offers complete solutions for each stage of the abrasion, cutting and polishing process. It serves a wide range of markets: construction and habitat (from rough cutting of concrete walls and floors to sanding of wooden floors and decorative finishes), heavy industry (steelworks, paper mills, and mineral extraction), and manufacturing and high-tech industries (automotive, aerospace, and electronics). Saint-Gobain leverages its expertise in ceramic grains and its in-depth knowledge of materials to design abrasives systems that are optimized for its customers' applications, as well as being safe and comfortable to use.

Main brands	Positioning				
NORTON SAINT-GOBAIN	A complete range of abrasives solutions for all industrial application in all markets				
CARBORUNDUM	A full range of abrasives for all applications in the automotive after-market and industrial applications				
flex vit	A comprehensive portfolio of high-performance abrasives for DIY and industrial applications in the metals processing and maintenance markets				
WINTER	Precision milling tools for high-tech sectors such as the automotive, glazing and aerospace industries				
NORTON SMITGOSME Clipper 8	Cutting tools, high-performance machinery and abrasives to meet the most demanding requirements of construction and building professionals				

The Performance Plastics Activity has a wide technological expertise in high-performance polymer products that afford considerable scope for application in industry (automotive, aerospace, and health) and construction. It produces composite materials (specialty films, foams, tapes, specialty adhesives and coated fabrics for construction and industry), bearings and seals (particularly for the automotive and aerospace industries), and fluid systems (for healthcare, food and beverage, aerospace, electronics, etc.).

Main brands	Positioning			
OmniSeal*	Essential parts for leak detection under extreme conditions for applications in the aerospace, energy, biology and manufacturing industries			
NORGLIDE®	Bearings for the automotive market in particular, designed to reduce weight, noise and vibrations and improve vehicle performance			
NORBOND®	Double-sided adhesive tapes with outstanding viscoelastic properties, for industrial use			
RENCOL° Tolerance Rings	Tolerance rings for the automotive market in particular, designed to reduce weight, noise and vibrations and improve vehicle performance			
CFLEX	Patented thermoplastic elastomers for use in the medical and pharmaceutical industry, research, and biotechnology			
TYGON' Excellence By Design	Precision tubes providing maximum performance and ensuring compliance with regulations, for a whole array of applications in specialty fluid transport			
FURON°	Pumps, valves, connectors and manifolds for safe, accurate distribution of ultrapure fluids			
Solar Gard MITCOMN	High-tech glazing films and protective coatings for the automotive and architecture industries			
SHEERFILL.	A pioneer in architectural membranes for sports facilities, transport terminals and other buildings with an eye-catching design			
SHEERGARD	High-performance technology solution for airplanes and land-based radomes, offering maximum protection and unrivaled radiofrequency performance, and ensuring the highest operational reliability in ongoing communication			

Saint-Gobain Adfors manufactures technical glass fiber fabrics for the construction and industry markets. With a range of innovative solutions combined with strong customer commitment, it can cater for every kind of market need: grid systems for wall, floor and roadway reinforcement; glass fiber mat solutions to improve product technical performance; and ranges of wall coverings, joint tapes and insect screens.

Main brands	Positioning			
Reinforcement and covering solutions comprising a broad range of technical fabrics for construction (insec reinforcement grids and mesh, joint tapes, wall coverings) and manufacturing (glass fiber mat and mesh fabrics)				
Vetrotex	Glass fiber reinforcement solutions for use in various industrial and construction applications			

## Main competitors

#### **Ceramic Materials**

- Imerys (France)
- Carbo Ceramics (United States)

#### **Abrasives**

- 3M (United States)
- Noritake (Japan)
- Tyrolit (Austria)

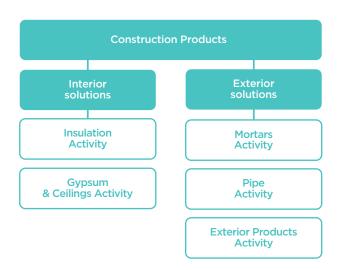
#### **Performance Plastics**

- 3M (United States)
- Trelleborg (Sweden)

#### **Saint-Gobain Adfors**

- Johns Manville (United States)
- Phifer (United States)
- Valmiera (Latvia)

# 5.2 PROVIDE CUSTOMERS WITH THE BEST SYSTEMS, PRODUCTS AND SOLUTIONS FOR SUSTAINABLE CONSTRUCTION AND THE SUPPLY OF WATER: THE CONSTRUCTION PRODUCTS SECTOR



### A word from the President

"The Construction Products Sector is rolling out its growth strategy thanks to the extraordinary commitment of its teams and their in-depth knowledge of local markets in every part of the world. The Sector leverages the solid reputation of its brands, the synergies between its different Activities and its leading industry positions in order to ensure the highest level of customer satisfaction. Product and system innovations, marketing initiatives and digital services, as well as continued research and development efforts, are key advantages in differentiating the Sector and ensuring its attractiveness and competitiveness." Benoit Bazin, President Construction Products Sector

The Construction Products Sector designs and develops innovative solutions to improve the quality of living places and reduce the environmental impact of buildings, with unique product and service offerings for all construction fields, tailored to local conditions. These solutions are intended to improve building energy efficiency and user comfort – particularly acoustic, thermal, sanitary and visual aspects – as well as being environmentally friendly, specifically in accordance with a life cycle analysis of its products.

As the world leader in the interior and exterior home improvement markets with very well-known brands, the Sector meets expectations for both user comfort and ease of installation for contractors.

The Construction Products Sector's aim is to become the reference in sustainable construction and drinking water supply solutions. It relies on its five constituent Activities, which provide systems and bespoke solutions for the interior and exterior home improvement markets.

### KEY FIGURES

- Industrial sites in 62 countries
- Commercial presence in 71 countries
- Over 46,000 employees
- Around 400 production sites worldwide
- Around 80 patents filed in 2016
- Underpinned by the Group's eight cross-business R&D centers, as well as 12 centers specific to its activities, and around 20 development and R&D units in 23 different countries
- More than 7,000 people throughout the world in sales and marketing roles in all the Activities
- Competitive positions:

# No. 1 worldwide (1)

- Plaster and plasterboard
- ◆ Insulation (all types of insulation products)
- ◆ Tile adhesives
- Mortars
- Ductile cast iron pipe

## No. 1 in Europe (1)

◆ Façade render

# No. 2 in the United States (1)

Sidings

#### 5.2.1 **Interior solutions**

The interior solutions product line encompasses three main product groups: plaster and plasterboard, acoustic and thermal insulation products, and ceiling solutions. These products and solutions are used in new building and renovation, contributing to everyday wellbeing in healthy, high-performance, comfortable buildings.

The Gypsum and Ceilings Activity extracts and processes gypsum into a wide array of plaster products for construction and decoration. These solutions are intended for use in partitions and facings for walls, ceilings and floors. They meet high technical specifications in terms of fire and damp resistance and thermal and acoustic insulation. Easy to install, the products also meet growing customer demand for a comfortable and visually pleasing home environment. The Gypsum and Ceilings Activity offers solutions that comply with the highest technological standards and promote their

widespread adoption, and remain a step ahead of new regulations concerning, for example, the elimination of formaldehyde to improve interior air quality.

The **Insulation** Activity designs, develops and markets products and solutions for thermal and acoustic building insulation. Its line of products made from mineral wool (glass wool and stone wool), polystyrene foam, polyurethane and, most recently, wood fiber, are mainly aimed at the residential and commercial building markets. Here, they are used to insulate the building envelope (roofs, walls and floors) in order to reduce energy consumption and improve comfort with insulation from noise pollution. Other needs are also addressed, such as heating and air conditioning system insulation. Finally, some products also afford technical solutions for industrial facilities, the transport sector and niche sectors.

Main brands	Positioning			
G British Gypsum Formula	Plaster-based solutions for insulation and interior solutions			
Ecophon surricoun eurocoustic	Acoustic panel systems, walls and ceilings			
ISOVET SAINT-GOBAN	World leader in sustainable insulation solutions for building and technical markets			
CertainTeed	Construction Products specifically for the North American market			
Celotex Insulation Specialists	Leader in the UK in PIR insulation solutions for building and the technical markets			

#### 5.2.2 **Exterior solutions**

The Construction Products Sector provides a wide range of solutions for exterior improvement, combining performance and architectural improvement. These solutions help to guarantee the sustainable supply of drinking water, and the visual appeal and energy efficiency of buildings, roofs and exterior walls in both newbuilding and renovation.

The **Mortars** Activity is the world leader in its field. It provides a wide range of solutions to protect, insulate and decorate the exterior walls of single-family dwellings and multi-unit housing, commercial and industrial buildings. Its special tiling solutions ensure safety and ease of use. In flooring, its solutions cover various fields of application: new and renovated subfloors, leveling and finishing prior to laying a floor, decoration with the use of self-colored mortars, technical solutions for areas of high footfall, and underfloor heating. A range of technical mortars is available, covering all areas of construction, to help in structural work or rework. The Activity also offers delivery of expanded clay. Lastly, in the Middle East, a line of admixtures is available, catering for

the growing demand for improved technical properties in concrete for use in construction.

The Exterior Products Activity supplies a complete range of products specifically for the North American construction market. For roofs, it offers premium asphalt and composite shingles in a wide range of styles and colors. For exterior walls, it provides solutions covering vinyl, polymer shake and insulated siding products in a multitude of materials (PVC, polypropylene, etc.). Easy to maintain, these products are known for combining visual appeal and durability. It also offers complete exterior solutions for single-family dwellings, with fencing, decking and railing products in PVC and composite materials

The **Pipe** Activity offers complete solutions leveraging more than 160 years of experience in the water supply market to meet the highest expectations. It produces and markets ductile cast iron pipe systems for drinking water and sewage systems, steel products for highways and roadways, and wastewater and rainwater drainage systems for buildings. It is also active in the mining and manufacturing markets.

Main brands	Positioning				
<b>Tweber</b>	Fixing ceramic tiles, façade solutions, and technical, masonry and flooring mortars				
PA SANT-GOBAIN	Full pipe system solutions				
CertainTeed	Construction products specific to the North America housing market				

### **Main competitors**

### **Interior solutions**

- Armstrong (United States)
- USG (United States)
- Knauf (Germany)
- Siniat (France)
- Kingspan (Europe)
- Owens Corning (United States)
- Rockwool (Europe)
- Technonicol (Russia)

#### **Exterior solutions**

- Parex (Worldwide)
- STO (Worldwide)
- GAF (United States)
- Ply Gem (United States)
- XinXing (China)
- Owens Corning (United States)

# 5.3 BE THE REFERENCE FOR CUSTOMERS, SUPPLIERS AND EMPLOYEES: THE BUILDING DISTRIBUTION SECTOR

The Building Distribution Sector brings the Group a thorough understanding of customers' needs, be they building professionals, private project owners or large companies. It serves over seven million customers each year on the new building, renovation and home improvement markets.

# A word from the President

"In a highly competitive context, the major challenge for the Building Distribution Sector is the continued simplification of our customers' journey to ensure their satisfaction, as the best guarantee of loyalty. This will enable us to make further progress towards profitable, sustainable growth for our brands." Kåre Malo, President, Building Distribution Sector

The Building Distribution Sector aims to be the Reference for its customers and suppliers alike. To accomplish this, it has developed a network of strong and complementary brands, generalist, specialist and cross-channel, aimed at trade professionals, the private project owner, and small, medium and large businesses. Each brand is rooted in its local market, positioned so as to cater for the specific needs of that market. It relies on the dynamism, caliber and expertise of its teams.

The Sector is building on the development of its cross-channel offer to drive profitable, sustainable growth for its brands, with the aim of providing the same level of service and satisfaction for every type of customer. The Sector's

strong logistics also mean that it can broaden its range of products and services and continue to improve product availability. It continues to invest in developing its information systems to enhance its internal efficiency and day-to-day productivity. These investments also contribute to improving the customer experience.

### KEY FIGURES

- Sites in 24 countries
- Over 61,000 employees
- Around 4,100 sales outlets
- 90 million<sup>(1)</sup> visitors/year to its brands' websites
- Launch in France of an intermediation website that puts qualified trade professionals in touch with private project owners
- Serves over 7 million customers each year
- Competitive position:
  - ◆ No. 1 in Europe<sup>(1)</sup> in Building Distribution
  - A major player<sup>(1)</sup> in the plumbing-heating-sanitaryware market

# Providing customers with the information necessary for their purchase decision

The Building Distribution Sector is constantly innovating to give its customers all the information they need. The brands are enhancing the product information available on their websites. New sites have been launched and new digital services have been made available, covering the entire customer journey, from initial inspiration to after-sales.

In traditional sales channels, communication is based on relationships and sales staff providing advice to customers. The Sector's brands are enhancing this information *via* digital channels, with online catalogs, video demonstrations, customer testimonials, tutorials on fitting, etc. Showrooms, a source of inspiration for customers and traditionally located in sales outlets, are also becoming mobile, with the introduction of roaming display trucks.

The Sector is continuing with the development of services to simplify its customers' journeys, improve their day-to-day efficiency and create productivity gains for them: online appointment bookings with a sales specialist, project simulators, advice from professionals on websites or social media, augmented reality tools, etc.

The brands are also developing the option for their customers to purchase products and services *via* their mobile applications, request construction waste management services, or select a delivery method. In France, they can now access an intermediation platform for homeowners and tradespeople. Homeowners can use it to select the best qualified tradespeople for their project, while tradespeople can increase their visibility and develop their business.

The Sector offers its customers increasingly innovative services, such as the use of iBeacons <sup>(1)</sup> technology in certain sales outlets.

These multiple interactions provide the brands with an ever more detailed understanding of their customers, whose use of digital technology is increasing. As a result, the Sector records 90 million visits per year across all its websites. The data gathered are used to analyze customers' purchasing and browsing behavior, and are used by the brands as a basis for new product and customized service offerings, *via* targeted emails, for example.

### Customer satisfaction at the heart of the Sector's strategy

The Sector's brands invest in training for their employees (for example, in the use of digital tools or how products are used) in order to improve their performance, thereby cultivating better support for their customers. They also contribute to increasing the level of professionalism in the building trade through training, with free morning information sessions on new standards and regulations, refresher training leading to qualifications, e-learning to supplement knowledge on energy retrofitting, and self-paced training using practical guides and books.

Many brands have introduced on- and offline tools for measuring customer satisfaction, *via* the Internet, by phone or directly in sales outlets. The results gathered day-to-day enable the brands to develop their product and service lines in real time.

#### Segmentation: a response for every customer

The Sector has introduced customized responses for every type of customer. Whether these responses relate to service needs or specific products, the brands develop new concepts and products or invest in new markets. The brands identify needs and take hold of growth levers to diversify their businesses. Thus, the civil engineering specialists amongst them, who work with key accounts, are developing in the oil market. They are also investing in the fish-farming industry, supplying products from a sales outlet located close to the ponds. Other specialist brands are investing in the prefabricated market, with products such as showers, roofing and structural components.

In anticipation of the major social issue posed by population aging, the Sector has launched a new brand devoted more broadly to accessibility for all in living places, with its first store in Paris, France.

As with its initiative in France, where it created the first mall in Europe housing eight brands under one roof, the Sector is continuing with the development in the United Kingdom of shared spaces for several brands, offering a comprehensive, centralized product line to save customers time.

The Sector has enhanced its product offering by developing international private labels for the sanitaryware-heating, structural work and tooling markets. They are positioned as reference brands in each of these product categories, and fulfill strict specifications which guarantee product quality and compliance. The Building Distribution Sector also caters for the needs of customers with specific requirements in terms of efficiency and value for money.

# High value-added logistics services

The Sector offers diverse logistics services, organizing the routing of materials to increasingly time-pressed, demanding customers in a more fluid, efficient and environmentally friendly way. For example, the Click & Collect system allows customers to collect materials from the nearest sales outlet at short notice.

By pooling their logistics centers, the brands can optimize their stock management and carefully control supply to the different sales outlets, for continuous improvement in terms of product availability. Automation of the centers also means that thousands of order lines can be processed every day, reducing delivery times to 24 hours, and even just 1 hour in certain major conurbations. The brands are also developing integrated logistics solutions, offering customers end-to-end logistics for a construction or renovation site, from delivery of materials to waste collection.

<sup>(1)</sup> Small Bluetooth terminals which can communicate with mobile telephones.

Overall, the ongoing objective of the Building Distribution Sector is to anticipate and respond to its customers' changing needs, with the aim of simplifying their journey and

ensuring their satisfaction. As such, it provides them with increasingly innovative, high value-added products, services and concepts.

## **MAIN BRANDS**

Country	Leading Brands	Positioning				
FRANCE	POINT.P	Distributor of building materials and building products				
	CEDEO Indiana - El sellada - Reconstra	Specialist distributor of plumbing-heating-sanitaryware				
	Outiz	Cross-channel distributor of building equipment and tools				
	LA PLATEFORME DU BATIMENT GAGREE DU TEMPS ET DE L'ARGERY	Distribution of building materials to trade professionals only				
	LAPEYRE	Distributor of interior and exterior joinery and woodwork products for home improvement, kitchens, bathrooms and floors				
	HOMLY YOU	New brand. Intermediation website that puts qualified trade professionals in touch with private project owners				
	mon maître carré	Online platform putting private individuals, architects and interior decorators in touch with each other				
UNITED KINGDOM	<b>JEM20N</b>	Distributor of sustainable wood and building materials				
	Graham The Plumbers' Metchant	Distributor of plumbing-heating-sanitaryware				
	PRIORITY	Cross-channel distributor of plumbing materials				
GERMANY NETHERLANDS  raab karcher		Generalist distributor of building materials				
	KERAMUNDO	Tiling specialist				
GERMANY	<u>_iP</u> LUS MARKETING	Website customization service for trade professionals				
NORDIC COUNTRIES (Denmark, Finland, Norway, Sweden)		Specialist in plumbing-heating-sanitaryware, civil engineering, industry, ventilation/cooling and facility maintenance				
	OPTIMERA/	Distributor of building materials to trade professionals and the general public				
	BEVEGO	Specialist in steel, technical insulation and ventilation on the professional market.				
SWITZERLAND	SANITAS TROESCH	Distributor of bathrooms and kitchens to professionals and the general public				
SPAIN	Distriplac	Specialist in interior solutions and insulation				
	materiales	Distributor of building materials for new construction and renovation markets				
	LA PLATAFORMA DE LA CONSTRUCCION	Distribution of building materials to trade professionals only				
BRAZIL	↑Telhanorte	Sale to the general public and trade professionals of home improvement products and services, specializing in sanitation and tiling				

# INTERNATIONAL PRIVATE LABELS OF THE BUILDING DISTRIBUTION SECTOR

Country	Private Labels	Market		
EUROPE	Altech	Plumbing & Heating		
EUROPE AND BRAZIL	Alterna	Sanitary		
EUROPE	NOVIPro	Hand tools, power tools, fixings, PPE, equipment, building chemicals		
EUROPE (excluding France)	<b>LJLTI</b> PRO	Heavy building materials, roofing, interior Solutions		

# **BUILDING DISTRIBUTION SECTOR BRAND PRESENCE**



## **Main competitors**

- Wolseley (United Kingdom, Nordic countries, Switzerland, Netherlands)
- CRH (Netherlands, France, Switzerland, Germany, Belgium,
- BayWa (Germany)
- Travis Perkins (United Kingdom)

- SIG (United Kingdom, France, Germany, Netherlands, Poland)
- Grafton (United Kingdom, Ireland, Belgium, Netherlands)
- Ahlsell (Scandinavia)
- Chausson, Herige, Samse (France)
- Cordes & Graefe (Germany, Poland, Netherlands, Norway)



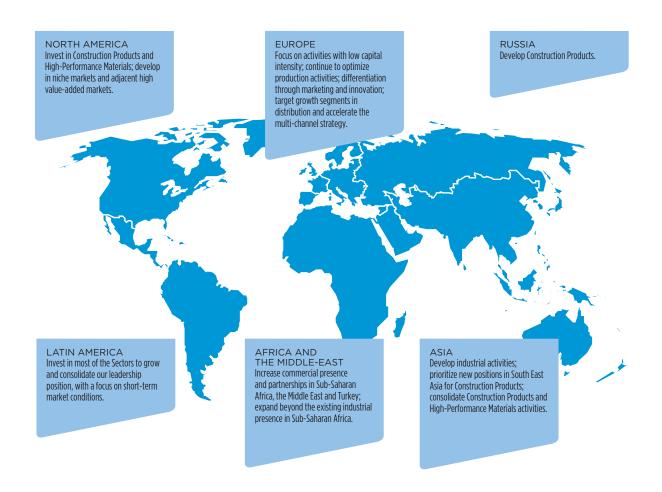
STRATEGIC DRIVERS FOR SUSTAINABLE GROWTH

1.	BALANCING THE ACTIVITIES TO ENSURE THE GROUP IS		3.	SUSTAINABLE DIFFERENTIATION THROUGH	
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# Balancing the Activities to ensure the Group is resilient

# 1.1 INVESTMENT DIFFERENTIATED BY GEOGRAPHIC REGION

## **KEY POINTS BY GEOGRAPHIC REGION**



Although Europe remains one of the largest global markets in terms of GDP, Saint-Gobain's development strategy is aimed at affording the Group a global geographic presence, by increasing its share of the industrial assets of its Innovative Materials and Construction Products Sectors outside Western Europe to capture potential longer-term growth.

# 1.1.1 Strengthening investments in Asia, the United States and emerging countries

Given the dynamism of new building market in the Unites-States, in 2016 the Group pursued to invest in. For

example, CertainTeed has launch in June 2016 a new asphalt shingle factory in Jonesburg, Missouri (USA), following a 100 million dollars investment, and has invested in new presses for its siding products. Saint-Gobain is also developing niche markets and adjacent high value-added markets, which offer particular potential in the US. Thereby, Solar Gard (HPM) has begun construction of a new metallic film deposit line on plastic film at its headquarters site in San Diego.

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In 2016, Saint-Gobain also strengthened its positioning in emerging countries. Notably through the following investments:

- the Construction Products Sector has set out a new insulation plant in Saudi Arabia, and a plasterboard factory in India. Saint-Gobain Weber inaugurated its new production site in Wuhan, China. This is the Group's 35th plant in the country. Saint-Gobain PAM strengthened its presence in Qatar through a new distribution center;
- glazing has significantly invested in a new float and a new coater in India, as well as in a new line dedicated to automotive glass in the Czech Republic. An investment in a new coater in Mexico has also been announced;
- within High Performance Materials, more specifically Saint-Gobain SEFPRO, a new refractory site in Perundurai (India) was inaugurated.

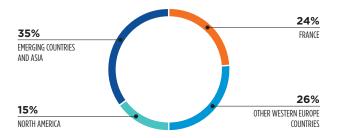
The Group's development strategy thus allows it to offer differentiated solutions tailored to the peculiarities and constraints of local markets: from designing pipe solutions for hot regions in China and the Middle East (PAMboo), to low-cost habitats in Latin America (Brasilit roofing). In the coming years, the Group intends to pursue its strategy of significant investing in high-growth countries.

# 1.1.2 Controlling capital investments in developed countries by focusing resources on productivity investments

Saint-Gobain is seeking to reduce the Group's capital intensity (the ratio of industrial assets to annual sales) between 27% and 29% by 2018, specifically by reducing the capital intensity of Flat Glass by 15 points between 2012 and 2018. The objective to increase the flexibility of Saint-Gobain's business in response to market fluctuations is being implemented by gradually refocusing the businesses on downstream activities with low capital intensity. An example is the expansion of Sekurit's Autover glass replacement subsidiary.

Thus, in 2016, the Group gave priority to investments in automation, IT, productivity, and logistics. For example, PUM Plastiques has inaugurated a new logistics base in France. Glass Bâtiment France has also opened five logistics platforms. The Salaise-sur-Sanne float line in France, which manufactures flat glass for residential and commercial buildings, has been renovated and modernized to improve its technical and environmental performance.

### **DISTRIBUTION OF INDUSTRIAL ASSETS BY REGION**



# Industrial investments (excluding finance lease, excluding Packaging Sector)

(in EUR million)	2016	2015
Innovative Materials	573	529
Flat glass	375	311
High-Performance Materials	198	218
Construction Products	515	528
Interior Solutions	337	312
Exterior Solutions	178	216
Building Distribution	245	231
Other	37	58
TOTAL OF THE GROUP	1,370	1,346

#### 1.2 DEVELOP THE SCOPE OF ACTIVITIES TO SUPPORT THE GROUP'S **STRATEGY**

In 2016, Saint-Gobain pursued active management of the scope of its business activities, adhering closely to the Group's strategy. Various transactions were carried out with a view to strengthening the Group's profile in high value-added businesses and promising markets.

# **Targeted disposals to optimize the Group's**

In 2016, Saint-Gobain made disposals representing full-year net consolidated sales of €300 million in Building Distribution alone. In January 2016, it disposed of Gallhöfer (a German specialist roofing distributor) and its distribution activities in Hungary and the Czech Republic. There were smaller-scale disposals in France and Ireland.

# Local acquisitions to strengthen the Building **Distribution Sector's profile in its primary**

In parallel, the Building Distribution Sector pursued its policy of local acquisitions in Scandinavia, notably in Norway and Sweden, where the companies acquired represented a cumulative full-year net consolidated sales figure for 2016 of nearly €85 million. Other acquisitions took place in France and the United Kingdom to strengthen the position of the Building Distribution Sector.

# Acquisitions to capture growth in fast-growing countries

During the year, the Group also made equity investments or increased its holding in companies operating in fast-growth economies. For example, Saint-Gobain Weber stepped up the development of its activity in South-East Asia with the signature of an agreement to acquire E-Mix, a leading mortars and dry mix products company. The Group acquired Pietta, a Romanian company active in glass processing and insulating flat glass systems for the façade markets and certain industrial applications. Similar transactions were carried out in other fast-growing countries, such as Chile, in mortars, and Brazil in adhesives

## Acquisitions to develop adjacent markets

Lastly, the Group continued its acquisition of companies with solutions that are complementary to those developed by Saint-Gobain and which have high growth potential. Following this guiding principle, the Group acquired two French start-ups to enable its long-term differentiation based on digital services in materials distribution. Saint-Gobain also signed an agreement to acquire France Pare-Brise, whose franchise network is number two in the automotive flat glass replacement and repair market in France. By purchasing this

franchise, which offers significant potential for growth, Saint-Gobain can consolidate its positions in the fitting trade in Europe, where the Group is already operating in nine countries. The acquisitions of wood wool-based insulation materials manufacturer Buitex, and adhesives specialist H-Old also reflect the Group's determination to expand into adjacent solutions, to provide its customers with a broad range of solutions and take positions in future markets today.

Further, Saint-Gobain is continuing its plan to acquire a controlling interest in Sika, a leading construction chemicals company. The plan consists of the acquisition by Saint-Gobain, for 2.83 billion Swiss francs (an amount fully hedged in euros), of Schenker Winkler Holding AG (SWH) which, at December 31, 2016, held 16.97% of Sika's share capital and 52.92% of its voting rights. After the acquisition, the Saint-Gobain Group will be able to incorporate Sika into its financial statements by global consolidation, with a positive impact on net income from year one.

This plan is fully in line with Saint-Gobain's strategic objectives: improving growth potential, lower capital intensity, presence in fast-growing countries and product differentiation. Given the deal's strong industrial rationale, as a result of complementary technology and products, customer portfolios and markets, this deal will generate synergies from year four following its completion, to be shared between the two groups.

Saint-Gobain intends to pursue Sika's development in a way that is respectful of Sika's business culture, image and roots. Thus, Sika will maintain its integrity while retaining its current headquarters, its brand, and its listing on the Swiss Stock Exchange. Saint-Gobain renews its support to Sika's 2018 strategy and its intent not to undertake any restructuring linked to the transaction within the two years following the completion of the transaction.

Completion of this deal is subject to clearance from the competent anti-trust authorities, which were all obtained on December 2, 2015. Further, on August 27, 2015, the Swiss Federal Administrative Court confirmed in last resort the validity of the opt-out clause provided in Sika's bylaws exempting Saint-Gobain from launching a mandatory takeover bid following the acquisition of the SWH shares.

Saint-Gobain and its Board of Directors took note of the ruling handed down by the Cantonal Court of Zug on October 28, 2016, which rejected SWH's demand for cancellation of the resolutions passed by the Annual General Meeting of Sika on April 14, 2015 for which SWH's voting rights had been restricted, and SWH's appeal to the Zug Supreme Court against this decision. Saint-Gobain had anticipated these decisions by extending with the Burkard family the term of the purchase agreement relating to the disposal of SWH shares, from March 2016 to June 30, 2017. As of this date, Saint-Gobain will have the option to extend the term of the agreement until December 31, 2018.

With the support of its Board of Directors, Saint-Gobain is determined to successfully complete its plan to acquire a controlling stake in Sika, an industrial project that will create value for all stakeholders. Pending the decision of the Zug Supreme Court, which is expected in 2017, Saint-Gobain is confident that the Swiss justice system will restore SWH's ownership rights.

In total, acquisitions made by the Group in 2016 represent a full-year net consolidated sales figure of nearly €300 million.

# **Continuing the Group's digital** 2. transformation

The digital revolution is bringing about a dramatic change in Saint-Gobain's relations with its stakeholders, as well as in the ways that things are done within the Group. As well as affecting the Sectors, digital technology is transforming the whole Group: not only its interactions with customers, which are being shaped by the explosion in e-commerce, and with suppliers, but also its internal organizational structure, with the advent of Industry 4.0 and the digitization of Human Resources (HR) processes. The increased use of social media

as a tool for internal and external communication is also central to the issues associated with digital technology. However, the entire construction market is also undergoing profound change. Accordingly, Saint-Gobain is refreshing its product and service range to better adapt them to its customers' needs.

2016 provided the opportunity for the Group to continue with and step up its digital transformation, and to take the new opportunities offered.

# A CHALLENGE FOR START-UPS AND STUDENTS. IN PARTNERSHIP WITH PINTEREST, TO BETTER UNDERSTAND THE CHALLENGE OF DIGITAL TECHNOLOGY

In October 2016, in partnership with social networking site Pinterest, the Group launched a challenge for students and start-ups in France, on the theme of: "How can digital technology transform the experience of home renovation?". Of the 146 teams of students and 38 start-ups registered at the start of the competition, 5 teams of students and 5 start-ups were chosen to compete before the final judging panel. First prize in the start-up category was awarded to

DatchMe, the first interior decoration e-showroom featuring users' contributions. DatchMe's proposal involved a business partnership with Saint-Gobain to enhance the visibility of its products in the e-showroom. In the "student" category, the "Petits Biscuits" team took first prize with an interface for 360-degree viewing, offering real-time interaction, for customers and project owners to track the progress of work remotely.

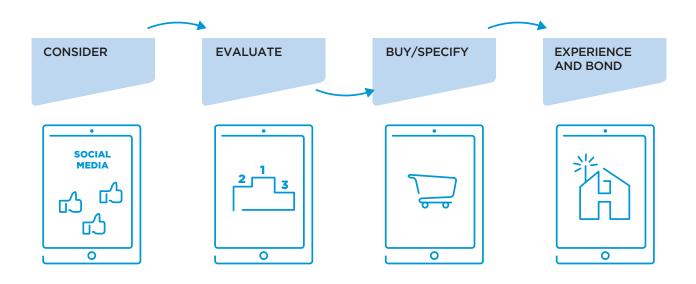
#### 2.1 USING DIGITAL TECHNOLOGY TO SERVE CUSTOMERS

The Group's brands have developed digital strategies to optimize the customer experience and best address and anticipate their customers' expectations.

# Being present throughout the customer experience

Digital is transforming customer relationships, affording better interactions with them and improving their experience. Consequently, all Saint-Gobain's Activities are defining and implementing digital roadmaps tailored to their markets. The Activities are developing an in-depth understanding of the customer, by mapping the different stages of their experience.

## **CUSTOMER EXPERIENCES**



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The Building Distribution brands and trade names are seeking to increase customer engagement by providing appropriate services at every stage of their experience. In France, for instance, Point.P Matériaux de Construction offers the Pack Avantages Pro, for computer, tablet and Smartphone. For its trade customers, the brand has a number of innovative services that are unique in the marketplace: Solu +, a worksite configurator to examine and compare solutions including prices evaluations: Cap Renov +, a simulator that provides the option of immediate energy efficiency evaluation and calculation of the tax incentives for which the end customer may be eligible. In 2016, Point.P also launched Homly You, an intermediation site for establishing good relationships with the best professionals in the construction. This digital service is used by a large number of independent experts and building specialists to find projects posted by private individuals

The move to digital has also benefited industrial companies which offer their own services to attract, inform, and experiment, and then to sell to and foster loyalty amongst tradesmen, installers, roofers, facade engineers, specifiers, architects, etc.

- ◆ ATTRACT: Sekurit launched the "Expérience Sekurit" Smartphone application in December 2016, where an interactive vehicle introduces the features and benefits of the Group's automotive flat glass solutions: comfort and perceived quality, personal safety and security for belongings, environmental protection and CO₂ reduction, style, and connected glass.
- INFORM & EXPERIMENT: CertainTeed has developed an online visualization tool, ColorView, which the company's customers who are contractors can use to create customized exteriors, based on an extensive library of products and colors for use in residential construction.
- ◆ SELL AND FOSTER LOYALTY: with the MyGlassolutions e-commerce platform, glaziers, joiners, plumbers, kitchen designers and sanitary fitters can configure and order made-to-measure products with instant costing and delivery scheduling, and track their orders. MyGlassolutions was rolled out throughout the United Kingdom in 2016, as well as in Denmark, Belgium and France.

The Group has therefore stepped up the development of its digital technology-based products and services. The Group's different Activities are introducing specialist websites, e-commerce or augmented reality applications, marketplaces, training for customers and distributors, cost estimation applications, solutions and services using BIM, etc.: a range of omnichannel solutions to fulfill customers' expectations and improve the quality of their experience, to help them choose the most appropriate products.

# 2.1.2 Structuring the omnichannel approach

The more channels that are involved in interacting with the customer - websites, social networking pages, emails, forums, online chat, etc. - the more complex the customer's experience. Techniques for targeting and fostering loyalty amongst a client base are becoming more diverse. Saint-Gobain's omnichannel approach therefore aims to ensure a seamless and consistent customer experience across physical and digital touch points, along the entire customer experience. In a certain number of Activities, the use of a

unique and continuous Customer Relationship Management (CRM) tool allows to monitor customers' various interactions with the Group and provide them with flawless service.

## THE OMNICHANNEL APPROACH



All Activities have rolled out digital strategies to differentiate their products and ensure brand visibility. In Distribution, Saint-Gobain is adopting an omnichannel approach to develop e-commerce services, supported by state-of-the-art logistics. The wealth of information available online, real-time inventory checks by customers, the organization of logistics networks, and speed of product delivery are key factors in the success of retail sites

The aim of all the digital tools developed by the Group's brands is to foster better knowledge of the customer, as well as making the process easier for them and meet for their needs more easily and directly. In the United Kingdom, the Glassolutions website allows customers to place orders and obtain a quote immediately *via* their Smartphone, replacing the usual methods (fax, email or telephone), including for custom requests.

The step-by-step tutorials from Saint-Gobain Weber in Brazil show the different stages of a renovation project and the easy-to-use of a number of products in the Quartzolit brand portfolio. Made with special effects, the tutorials were uploaded to the brand's YouTube channel and have already had 4.5 million views.

Augmented reality applications also allow customers to gain a better insight into the different applications of Saint-Gobain products. Similarly, Saint-Gobain Adfors in the United States created Scene Weaver, its first augmented reality application for visualizing and selecting mosquito screens. Scene Weaver is intended for any private individual or professional who is seeking a mosquito screen and would like a real-world preview of how the product will look. As well as demonstration videos for learning how to install the mosquito screen, and links to online sales sites for distributors, the user

can create a virtual view of a screen using their telephone camera to show how their setting would look with the product fitted to a door or a window, or choose a

background from the image gallery and apply different types of mosquito screen.

## **BIM**

The digital revolution is driving profound change in the construction and building market. Building Information Modeling (BIM) has become an integral part of this change, offering building data modeling throughout all the stages of a building's life cycle. At a time when initiatives involving BIM are on the increase, Saint-Gobain is seizing its opportunity and is now using this tool to promote its products. Most Group Activities have designed libraries of virtual objects where architects and designers may download Saint-Gobain products from the design phase. This encourages interaction with designers from the initial sketch phase onwards, and contributes to broadening the product and service range.

In Italy, in 2016, Saint-Gobain developed the country's first digital model of Saint-Gobain integrated solutions on its website, thereby staying a step ahead of the new national

regulations on public tenders which promote the use of BIM in public construction and infrastructure projects. The tool helps construction professionals to reduce the risk of error and improve project efficiency and profitability. Products can be selected by application (exterior or interior walls, roofing, etc.), by keyword (glass wool, flat glass, etc.), by brand and according to the level of comfort. The BIM interface also offers detailed product overviews, with 2D and 3D graphic representations, data sheets, certifications and information on the comfort they provide.

Saint-Gobain Rigips in Poland is the first plasterboard manufacturer to offer modeling for its systems using BIM technology, for architects and designers. The brand has developed a database of all its solutions which is available online.

# 2.1.3 Analyzing customer data and anticipating customer needs: from Big Data to Smart Data

Customer activity online or in-store generates significant amounts of data. The statistical analysis of these data forms the basis for predictive models that enable a better response to end customer expectations. Once analyzed, the mountain of data – or Big Data – becomes Smart Data, a useful, intelligent data set concerning both the brand and the customer. Tailored services and communication are key to this

For example, Jewson (Building Distribution in the UK) has adopted this approach by undertaking a detailed analysis of the behavior of visitors to the Jewson Tools Direct site, using the heat map method which highlights the most-viewed areas of a page. Changes were made to the site's functionality as a result of this analysis, enhancing the customer experience and site users' satisfaction.

Data analysis provides a means of strengthening customer relations for brands and trade names by optimizing investment choices, specifically targeting key contacts, or optimizing sales performance.

# 2.1.4 Measuring the presence of online activities

By measuring the effectiveness of the digital strategy, a certain number of trends can be highlighted. For the Building Distribution Sector, the effectiveness of the digital approach is measured by volume of online sales (e-commerce) as well as by sales generated indirectly, through processes that start online and finish in-branch (Web to Store). On this basis, online traffic grew continuously since 2014 and online sales increased by 17% in 2016.

For the Group's manufacturing Activities, the digital strategy is not so much to increase sales as to provide sales support for the Activities, by increasing website traffic and over and above this, the engagement of visitors on the Group's sites. When a visitor downloads a document from a site, and asks a question or tries out the brand, they become a potential identified customer, with whom it is possible to interact.

For all the Activities, industry and distribution, the traffic of Saint-Gobain's main websites increased by 17% to achieve a number of connections around 114 million annually.

Social networks allow new ways of communication with customers and brand promotion. Social media presence has become critical both for Saint-Gobain's Activities and for the Group. Only for the institutional presence, Saint-Gobain gathered 130,000 Linkedin members, 11,000 for Twitter and 22,000 for Facebook at the end of 2016.

#### USING DIGITAL TECHNOLOGY TO TRANSFORM HR PROCESSES 2.2

Digital technology is also changing interactions within the Group. The shift to digital provides an opportunity to redesign and optimize Human Resources (HR) processes relating to new employee recruitment and induction, tools for training and internal mobility.

#### 2.2.1 Using new networks to improve recruitment and promote internal mobility

Saint-Gobain is making increasing use of social media and digital technology in its recruitment processes: more use is being made of professional social networking, and Big Data is enabling specific skills to be identified and new talent to be

In 2016. Saint-Gobain launched a worldwide, four-month competition for all the Group's recruitment professionals, in partnership with LinkedIn, with the aim of strengthening digital head-hunting and sharing good in-house practice. Every participant was competing for the highest LinkedIn Recruiter Index. This indicator measures Saint-Gobain's effectiveness in building its employer brand, finding top talent, engaging with candidates and managing the talent pool.

Saint-Gobain also promotes internal mobility and has introduced the OpenJob platform, where all employees are invited to check and apply for job vacancies within the Group. This platform was developed and rolled out in the General Delegations.

#### 2.2.2 Using digital technology for employee induction, training and awareness

The Group is also developing new tools to train its employees, both new and existing, in a number of skills. New employees are provided with online training as soon as they arrive at Saint-Gobain, while e-learning and MOOCs on the Boost! Platform are open to all employees. Since 2015, there has been a particular emphasis on training in the use of digital technology, with e-learning and classroom-based sessions available to all employees.

Digital technology is also playing a role in staff safety. Saint-Gobain Weber's mobile application, WeberKehs, has been rolled out in Brazil, France, Italy, Portugal and Spain and improves employee safety via video-assisted system. The tool can be used to identify and evaluate risks in real time and take appropriate corrective decisions. The result of a collaborative effort, the application is aimed at all Saint-Gobain Weber employees.

#### 2.2.3 Fostering interaction and data-sharing within the Group

The transition to digital is making it easier for Group employees to interact. Saint-Gobain promotes information and data-sharing in this way by encouraging access to online

A collaborative company social network, MySaintGobain, was set up in 2011 and has since been developed. The platform makes it easier for employees to exchange information and good practices. They come from all over the world and all Group businesses to look for information, contribute to discussion groups, solve a problem together or share documents and ideas. Employees also use it to share their respective experience within the Group. Each and every day, numerous employees from purchasing, production engineering, research, finance, marketing and even gender diversity discussion groups interact within their online

The Group Information Systems Department's "Open data for Saint-Gobain" initiative makes ready-to-use data sets, macro-economic indicators from the OECD, and safety indicators available for use by all employees, who can also add to them. An easy-to-use interface open to all users allows data to be retrieved or automatically read into another application.

#### 2.3 USING DIGITAL TECHNOLOGY IN OUR FACTORIES TO INCREASE **OPERATIONAL EFFICIENCY**

#### 2.3.1 Using digital technology in factories to optimize operations

The way that factories are organized is also being transformed by digital technology. Real-time data analysis allows for better control of production processes, more rapid resolution of any technical issues and, more generally, an increase in operational efficiency. Digital technology makes it possible to customize customer solutions further along the value chain and opens up further opportunities for co-development.

The future of industry will be built on automation and the use of advanced robots for industrial tasks. For example, the Industry 4.0 revolution is underway in Sekurit's Herzogenrath factory in Germany, where Sekurit is developing pilot projects for standardized, automated lines, to bolster its position as the technology leader in automotive flat glass. The goal is produce a certain number of data which can be analyzed to generate operational efficiency gains. In parallel, various intelligent devices are already being examined to assist production line employees.

In spring 2016, the Saint-Gobain Sekurit factory in Hořovice, in the Czech Republic, unveiled a fully automated production line for automotive flat glass with end-to-end integration, featuring a large number of robots. This is the factory's fourth production line and supplies the European market.

#### 2.3.2 Using digital technology for better supplier interaction

Digital technology is also changing the way we interact with suppliers. Digitizing supplier processes means centralizing and automating the Purchasing Department. Standard tasks have been automated by means of electronic auctions, with the use of online tools. Campaigns to monitor suppliers' e-reputation have also been undertaken, with significant outcomes, to identify potential problems and promote a policy of Responsible Purchasing.

# 3. Sustainable differentiation through innovation and R&D

# 3.1 INNOVATION AS A PILLAR OF THE GROUP'S STRATEGY

Research and Innovation are integral to Saint-Gobain's strategy, with a desire to increase its share of sales of high value-added products and solutions in the most buoyant sectors.

Differentiation is one of the critical drivers of this strategy. This priority applies to all stages of the value chain, from innovation and design of Saint-Gobain's solutions in relation to its customers to the creation of tools and services. It specifically includes an ambitious marketing strategy aimed at better understanding, anticipating and formulating customer needs, as well as an R&D strategy that puts researchers in direct contact with customers, to provide tailored solutions

At the same time, R&D contributes to improving industrial manufacturing processes, both by strengthening the Group's competitiveness and by optimizing the environmental performance of the factories. R&D also plays an active and leading role in the move to a circular economy.

The Group's measures to further develop its culture of innovation are continuing to bear fruit. For the sixth consecutive year, the Top 100 Global Innovators of Clarivate Analytics (formerly Thomson Reuters) has ranked Saint-Gobain among the 100 most innovative organizations in the world. In 2016, the Group was also one of the 100 top applicants at the European Patents Office. It will continue its efforts in the next few years, in particular with regard to investments, in order to maintain and expand its leadership positions in its Activities and to maintain a high level of performance and operational excellence. In 2016, the Group invested €438 million in research and development, and 3,700 employees worked on nearly 900 research projects, resulting in applications for 390 new patents.

# Research and development costs booked

(in EUR million)				
2014	395			
2015	434			
2016	438			

# 3.1.1 Strategic and cross-functional R&D programs, driving growth for the Group

Inventing innovative and high-performance products and solutions to improve construction and everyday life is integral to the Group's strategy. It is a major responsibility and source

of motivation for the Saint-Gobain teams who, through their innovations, are contributing to reducing the Group's environmental impact right along the value chain.

Saint-Gobain's research and development teams operate on the basis of individually managed projects. This method of operation allows it to conduct research and development activities with the greatest possible efficiency, assigning the appropriate resources and looking a long way upstream at considerations relating to markets, industrial property, production, respect for health and the environment. This organizational structure means that Saint-Gobain can ensure a continuous flow of innovations, for market launch at the appropriate time.

The main task of R&D is active and proactive support for the Group's numerous Activities through targeted research projects, yielding developments and innovations involving both processes and products or systems, thus strengthening the competitiveness of its Activities and serving Saint-Gobain's current markets.

Its second task is to prepare the Group's future through strategic, cross-functional R&D programs, by anticipating major changes in techniques and markets. These strategic cross-functional programs, linked directly to the focus areas for the marketing teams, allow Saint-Gobain to organize skills common to the Group's various Activities and to improve its ability to develop key technologies. For each of these programs, research projects are at various stages of maturity; some of them are still maturing, while others are already at the industrialization stage.

As an example, joint efforts by research teams from the Insulation Activity and Saint-Gobain Research, supported by the cross-functional Green Chemistry program, resulted in the development of a new biosourced binder for glass wool-based products. This development came to fruition in 2014 with the launch of the Isover 4+ product in Italy. This will continue in 2017 with a large-scale industrial and commercial roll-out by Isover France.

To support the Activities in their digital transformation, the virtual and augmented reality research teams have this year helped to develop several sales support applications for Building Glass Europe and Weber. The data science teams have been strengthened to support the Activities with digital marketing and production data analysis; and the HRDC Research Center based in Herzogenrath, Germany, is developing skills to support the manufacturing Activities as they move to Industry 4.0.

### STRATEGIC AND CROSS DISCIPLINARY R&D PROGRAMS



# **MATERIALS AND PROCESSES**

- Physics and Chemistry of inorganic binder-based materials
- ◆ Green chemistry
- Recycling of construction materials
- Organic and inorganic foams
- Innovative glass and furnaces
- Additive manufacturing and 3D printing
- ◆ Improving our CO₂ footprint



# **BUILDING SCIENCE**

- Acoustics
- ♦ Indoor air quality
- Energy performance, thermal and visual comfort



# **DIGITAL TRANSFORMATION**

 Connected objects and smart data for our products and services

#### 3.1.2 An innovation culture rolled out to the Activities

This innovation culture has been rolled out to all the Group's Sectors. As part of its downstream growth in Flat Glass Activities, the Group gives preference to targeted partnerships by implementing joint development projects and reduces its market exposure to commodity glass. Sekurit's differentiation strategy is aimed at making it a preferred partner of automobile manufacturers, with the development of a number of highly innovative solutions.

In its glass businesses, Saint-Gobain is developing innovative technologies, applying the latest techniques, such as the use of electrochromic glass in automobile flat glass and skylights and curtain walls in construction, reducing the need for air conditioning and lighting. Providing products that are visually appealing, environmentally friendly and tailored on the basis of market segmentation efforts, including in terms of services, is a priority for the Group.

The Group is also accelerating its growth through differentiation in High-Performance Materials. Codevelopments in diversified industrial niche markets are yielding superior and long-term profitability. These highly specialized niches include, for example, catalyst substrates for the petrochemicals industry, refractory products for glass furnaces, bearings and customized tolerance rings for the

automotive industry, as well as single-use plastics solutions for the biopharmaceuticals industry. In these markets, where Saint-Gobain is a world leader, the High-Performance Materials business model is central to this success: an integrated development strategy, from materials composition and component design to precision manufacturing, affording tailored solutions to cater for specific customer needs. In this, the Sector is supported by its integrated network of 3,700 people, including numerous specialist engineers, who work directly with customers.

Opportunities are also being taken to combine expertise from several activities through increased cooperation, as in the case of the unique line of functional coating films for construction and industry, which leverage the technical synergies between Flat Glass and High-Performance Materials

In 2016, the Construction Products Sector continued its development of projects for wellbeing in buildings by covering a number of areas (acoustic insulation, air quality, visual appeal, environmental sustainability, and recycling). The organization is driving innovation with an approach based on local market needs, underpinned by a global organization.

# 3.2 ECO-INNOVATION TO DELIVER ON OUR STRATEGY: PRODUCTS THAT ANTICIPATE MARKET TRENDS

As part of its sustainable construction strategy, Saint-Gobain is developing and distributing innovative, profitable solutions with improved environmental and social impact.

To achieve this, the Group's Activities may draw on the Eco-Innovation approach and associated toolbox.

There are two parts to this pragmatic yet structured methodology for innovation:

- Tools for understanding market needs and customer expectations in terms of social and environmental impacts;
- Tools for seeking solutions based on existing good practice or an in-depth analysis of the impacts of the existing solution.

Priority lines of action have been defined for eco-innovation in line with Group policies and market expectations, for new sustainable solutions or improvements to existing solutions:

- ◆ Health and wellbeing: ergonomics, comfort and safety;
- Energy & climate: carbon footprint and energy efficiency;
- Water: water consumption and water discharge;
- Circular economy: consumption of raw materials and waste management.

These challenges are considered as a matter of course at every stage of the product life cycle, from extraction of the raw materials to end of life.

Training courses are provided to cascade the eco-Innovation process and the related principles throughout the Group. Eco-innovation now forms part of the training delivered to new research managers and R&D project managers. It was also covered by a specific one-day training session aimed mainly at the marketing and R&D teams and attended by more than 600 people since it was launched.

# 3.3 A MORE CROSS-FUNCTIONAL APPROACH TO INNOVATION

Saint-Gobain's development strategy and the gradual transformation taking place in the construction markets place the Group in an outward-looking position of attentiveness to its customers' needs. To respond to current needs and anticipate future needs, Saint-Gobain is very open a culture of partnership and co-development.

# 3.3.1 Innovating through interaction for and with the Group's customers and partners

## a) Attentiveness to customer needs

First and foremost, innovation at Saint-Gobain involves customer analysis. Such attentiveness is crucial for:

- understanding their needs and the challenges they face, so as to develop appropriate solutions with them and for them:
- evaluating their level of satisfaction, and the areas where improvements are needed to provide better service, remain competitive, etc.

These two approaches are complementary, of course, but are separate.

To successfully tap into what customers want, over the last few years the Plastics Activity has developed a methodology known as blue printing, which involves interviews, followed swiftly by the production of prototypes. In 2016, this approach was adopted throughout all activities where co-development is central to the process of innovation.

The measure was supplemented by increasingly systematic use of design thinking, an approach that consists of gaining an appreciation of customers' needs by observing them in their day-to-day environment (which is often more informative than

ad hoc interviews, where they are away from their usual environment). It was adopted by British Gypsum in the United Kingdom in 2014, then increasingly throughout the Group.

# b) Partnerships between R&D and marketing

Saint-Gobain equips buildings with differentiated, high-value-added solutions, particularly in the area of comfort. To provide proof of the effectiveness of its solutions and to further develop research and innovation, several of the Group's Activities in a number of countries have joined the "Multi-Comfort" program.

In this context, the Group's Activities have launched housing construction and renovation operations in collaboration with players in the construction industry. These test work sites, using Saint-Gobain solutions, allow for real-time, long-term monitoring *in situ* of energy efficiency and comfort levels.

The Multi-Comfort work sites in various countries assist the R&D and marketing teams in better understanding building performance as a reflection of occupant behavior and the Saint-Gobain products installed, and to develop new, increasingly effective solutions, appropriate for local construction methods and occupant comfort.

As a result, new technical solutions have been placed on the market, such as the Gypsum Activity's Habito plasterboard, which has a tremendous capacity to support heavy loads. Habito combines strength and durability while offering improved acoustic performance. It is the result of an innovative approach to industrial design, focused on identifying end-user needs.

This attention to comfort and users' needs in their living spaces - offices, homes, apartments, concert halls or classrooms - is also evident in the solutions developed by Saint-Gobain in some of its industrial markets.

In 2016, Saint-Gobain Sekurit introduced its customers to its new intelligent windscreen concept, designed to be fitted in autonomous vehicles. The windscreen has integrated sensors for delivering improved comfort, compartment ergonomics and safety, as well as for adjusting to the needs of autonomous vehicles. This innovation was made possible as a result of new competencies developed by the Group's R&D teams in the fields of sensors, electronics and digital technology

## c) Open innovation

Since many years, Saint-Gobain has implemented an External Venturing unit, named NOVA with the objective of create partnership with start-ups. Since its creation, NOVA has already studied 3,200 start-up and signed more than 70 partnerships.

To accelerate again the process of identification of potential partnerships with the more innovative start-up, NOVA team has defined a new approach in focusing the evaluations on 4 strategic and transversal topics:

- Multi-Comfort and energy efficiency;
- Virtual and augmented reality;
- Digital: customer journey;
- Internet of things and sensors.

To complete the transversal topics, the NOVA team has identified 2 Business Units developing niche markets for which a dedicated approach is proposed.

In addition to that approach, the Group has created a partnership arrangement with the world of start-ups. In 3 major countries (France, the US and Brazil) an official partnership agreement was signed with start-up incubators providing the Group's Activities with direct access to start-ups offering innovative services, either to direct clients, or more generally to relevant ecosystems (construction, automotive, civil engineering, health care, etc.).

This open innovation program also provides the opportunity to share the Group's missions and issues with an audience of entrepreneurs and future professionals. Three "business challenges" were organized to further refine this approach (in Russia, Brazil and France), taking the form competitions involving start-ups and/or teams of students looking at a well-defined market issue.

Partnerships with start-up incubators, and business challenges, are set to become more prevalent in the Group's main countries over the next few years. The long-term aim is to conclude a dozen or so partnerships.

# Leveraging internal and external 3.3.2

An internal structure organized around building science and comfort, introduced in 2014, accelerates the innovation processes that bring together the R&D, production, marketing and sales teams throughout the project life cycle, to ensure that all the requisite skills are available for successful implementation.

The Group seeks to provide end users with ever-increasing levels of comfort by developing Innovative Materials, systems and services, making sure they are appropriate for the specific needs of each country or world region.

The network-based structure of its R&D activity means that it can identify local needs for innovation and provide comprehensive responses, sourcing solutions and skills from its centers throughout the world.

Its internal structure for R&D accelerates the innovation processes that bring together the R&D, production, marketing and sales teams throughout the project life cycle, to ensure that all the requisite skills are available for successful implementation.

These skills are the key to success for the construction strategy. They are necessary to the implementation of the Multi-Comfort program. Developing Saint-Gobain's capabilities in this area will strengthen the user comfort and experience-centered approach to designing efficient buildings, with consideration of the use value of the solutions implemented

To achieve this, the Group's research centers are recruiting talent in digital technology, data science, design, or sociology and human sciences, to improve analysis of the impact of its solutions on user behavior.

Saint-Gobain is also continuing its policy of remaining open to innovation through its network of universities. In 2015, Saint-Gobain renewed the "Engineer and Diversity" Chair with the Institut National des Sciences Appliquées (National Institute of Applied Sciences or INSA) in Lyon, as well as the "Innovative Solutions for a Sustainable and Responsible Habitat" Chair with the École des Ponts ParisTech. A new chair was created with the École des Mines in Nancy. The aim of this "Big Data: tools and methods for sustainable construction" Chair, is to examine the potential of new big data analysis solutions, particularly open source. The main areas of application will be building science and sustainable construction, with the goal of enhancing data to understand and improve comfort (visual, acoustic, thermal and air quality) and make energy savings.

Lastly, in 2016 the Group unveiled an initiative known as Saint-Gobain Intrapreneurs, which aims to encourage intrapreneurship amongst employees. Employees with a project that is viable for the Group can focus on developing it for a period of 18 months, to enhance agility and performance.

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# 4. Building closer customer relations: rebranding Saint-Gobain

# 4.1 THE CHALLENGES OF A STRONG BRAND

Given the wide range of areas in which its products and solutions are used, Saint-Gobain serves a very large number of markets and customers. The customers who deal directly with the Group (most often assemblers, manufacturers and trade professionals) are not always those who recommend its solutions (architects and consultancy firms) or who have experience of using them (housing owners or tenants, automobile drivers, and consumers in the broadest sense).

Today, the voice of the end customer is being heard more strongly: better informed, more involved in purchasing decisions, they may have a decisive influence, for example, on the choice of materials. The boundary between professionals and private individuals is being blurred, with private individuals now becoming key stakeholders in the construction and renovation market. The Group has to deal with a broader range of customer contacts than previously.

Today, Saint-Gobain is seeking to build closer relations with the users of its products, such as building occupants, automobile drivers, and public transport users. By embedding end customer expectations in its value proposition, and factoring in the change in the ways that information is provided and decisions are made, Saint-Gobain is positioning itself firmly as a B to C to B (Business to Client to Business) brand

Saint-Gobain has long relied on its decentralized organizational structure, its brand recognition and the strength of its activities throughout the world to drive its development. These attributes provide it with a detailed insight into its customers' needs in all markets. For the Group to be directly relevant to the general public, though, it needs to have a strong brand to rely on. In the digital age, where

potential end customers can find information on and compare ranges and products, branding is a key factor for sustainable differentiation. Strong new branding for Saint-Gobain - reflecting its corporate and commercial identities - makes it easier for the Group to introduce its full range of products and services to its audiences.

The Group regularly measures the impact of the Saint-Gobain brand with its target audiences. In 2014, awareness of the brand among all construction players had already significantly improved compared with the first survey in 2011 (an improvement in awareness of five percentage points, from 46% to 51%). The next brand awareness survey, of 10,000 construction professionals in 13 countries, will take place in 2017.

The assurance of a strong brand reflects positively on all the Group's subsidiaries and trade names. It also benefits Saint-Gobain's image as a recruiter, making the Group more visible and more attractive to potential applicants.

The Group's different audiences expect a brand like Saint-Gobain to position itself to meet the major challenges of the next few decades, such as climate change, increasing scarcity of resources, urbanization, and a growing world population. As an employer, Saint-Gobain also has a duty to lead by example, and corporate social responsibility is embedded in its strategy. Its employees are gearing up for greater transparency of operation, and more collaborative ways of working that encourage openness and entrepreneurial spirit. Strengthening the brand and renewing its content helps to give meaning and value to the work done by every employee.

# 4.2 NEW BRAND CONTENT

With its brand platform, Saint-Gobain has adopted a mission to create great living places and improve daily life. The Group's promise to its customers is to design, produce and distribute materials engineered for the wellbeing of each of us and the future of all. Today, the Group is making user wellbeing and comfort (thermal, acoustic and visual comfort, and air quality) central to its strategy, as well as addressing tomorrow's collective challenges. In an increasingly urbanized

world, where close to 90% of our time is spent in buildings or cars, there is a need to design and build living places that are both more comfortable and more sustainable. A growing number of studies and data show the extent to which an appropriate environment affects productivity in the workplace, cognitive capacities in places of learning, and more generally, health.

# WE HELP TO CREATE GREAT LIVING PLACES AND IMPROVE DAILY LIFE by combining

## **Comfort**

Which answers today's Individual needs

# Sustainability

which addresses tomorrow's collective challenges









(sustainable building, better mobility, resource efficiency, demographic growth, climate change)

# TO ENHANCE THE WELLBEING OF PEOPLE EVERYWHERE

#### 4.3 A NEW LOGO

To support this aim, Saint-Gobain unveiled a new logo and brought its visual identity up to date.

# THE BRIDGE

The old renowned logo and symbol of the Group's industrial strength

# **LIVING PLACES**

Saint-Gobain's solutions for a better tomorrow

# **350 YEARS**

A kev moment in our history

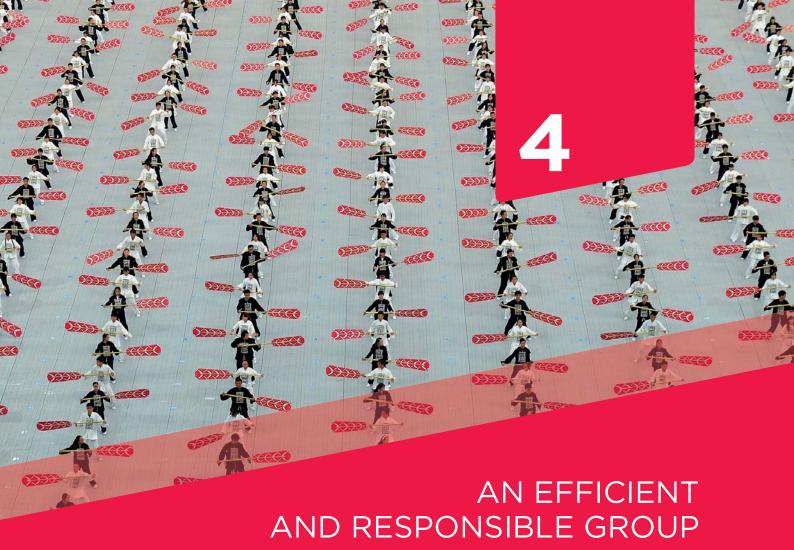
# **VITALITY**

The pulse that drives us forward



Providing a link between the Group's historical logo and its construction strategy, the logo offers a more modern take on the arches of the bridge in Pont-à-Mousson that have represented the Group for more than 40 years. It is complemented with a flowing skyline, depicting buildings and construction as a whole. The supporting graphics reflect the dynamic nature of Saint-Gobain as one of the world's most innovative corporations. Warm, bright colors were used to foster proximity to end consumers. Covering all internal targets, it affords Saint-Gobain increased transparency and clarity among its customers and the general public, by aligning the brand's visual identity with its messages about innovation and modernity.





1.	REFERENCE POLICIES	66	3.	A GROUP THAT IS COMMITTED		
1.1	The compliance culture	66		TO THE PROFESSIONAL		
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# 1. Reference policies

# 1.1 THE COMPLIANCE CULTURE

The compliance culture that drives the Group is developed through its values, formalized in 2003 in the Principles of Conduct and Action (see chapter 1, section 2.2.1).

This compliance culture has been supported by a full program since 2009 which strengthens the effective application of the Principles of Conduct and Action and the resulting obligations, in all the Group's Activities and worldwide.

Compliance is an ongoing obligation that applies to all employees. As regularly noted by the Group's General Management, the principle of zero tolerance is required. At all hierarchical levels, it becomes obvious for committed managers.

Regularly enriched since its launch, the compliance program is today focused on into the following main subjects:

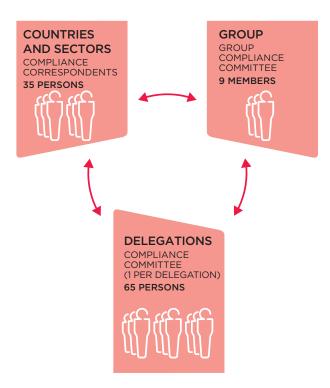
- compliance with the rules on anti-trust law: the Competition Law Plan is composed of various training measures (online and in-person), the performance of audits, availability of practical guides and newsletters but also dedicated teams for all operational questions on the subject;
- prevention of corruption: the anti-corruption program is based on the management of measures and good practices already implemented in various subsidiaries to prevent the risk specifically connected with international commercial transactions; it targets passive and active corruption in relations with public officials and the private sector; it is composed of training tools (online and in-person), internal policies (gifts, conflicts of interest, agents, etc.) and is monitored by a network of correspondents by General Delegation and by Sector that answer operating questions on this subject;
- compliance with economic sanctions and with embargos for which screening tools, training (online and in-person) and specific policies are also applied, as well as active monitoring of changes in close association with specialist external lawyers.

This results in a well-established and well-structured compliance culture. Disseminated by the Group's General Management and passed on to all Group levels by the managers and the compliance network, it is constantly developing based on topical subjects.

# Teams in charge at all Group levels

The compliance program is monitored by the Board of Directors of Compagnie de Saint-Gobain. Its implementation is based on a compliance network, coordinated by the General Secretary and composed of more than 100 functional operating managers who are members of Compliance Committees within the Group and the General Delegations.

## THE COMPLIANCE NETWORK



At operational level, the application of our values and our compliance culture is supported by:

- the General Management, which refers to them regularly, both internally and externally;
- the Responsible Development Department, which promotes the Principles of Conduct and Action among all employees;
- the Legal Department, which draws up and implements the programs associated with specific themes;
- the managers, who endorse them and implement them;
- the Internal Audit and Control Department (see chapter 7, section 2), which verifies the effective application thereof.

The tools used to implement the program are as follows:

- ♦ a dedicated Intranet, known as Conform'Action, where key messages are passed on and tools are made available to all Group employees;
- training, including various e-learning modules;
- dissemination and implementation of internal policies;
- internal and external audits;
- the compliance alerts system, allowing employees to report any non-compliance with the applicable laws, the Group's internal rules and procedures and the Principles of Conduct and Action. All reports are examined and, if necessary, investigated. When they are found to be justified, appropriate measures are taken.

Supporting the compliance culture within the Group involves calling upon many participants both centrally and locally. To build teams around the subject and identify the main action plans, a seminar brought together all the Compliance Correspondents of the General Delegations and Activities in October 2016 and targeted awareness measures were conducted such as:

- the publication of a guide dedicated to purchasers on the 20 good practices in competition law in April 2016;
- ♦ the publication of a guide intended for all employees containing measures concerning competition law (the Fil Concurrence ["Competition Line"]) in July 2016;

♦ the notice from the General Management on anti-corruption measures during the International Anti-Corruption Day held on December 9, 2016.

The Group also added the anti-bribery training to its objectives on compliance program. As well as for the Principles of Conduct and Action, and the anti-trust rules, all manager joining Saint-Gobain will have to also achieve the online training program ACT on preventing bribery during the first year of presence.

So, Saint-Gobain esthablished that 100% of the new managers will have passed the e-learning courses Adhere (Principles of Action and Conduct), Comply (competition laws) and Act (anti-corruption prevention) during their first year of presence, as an objective for 2018 (see chapter 5, section 2.1).

### Reference points

The General Secretary, the Legal Department and the network of Compliance Correspondents work to disseminate the compliance culture within the Group, ensuring the communication of messages, a good understanding of the rules by all employees and checking the correct application of the rules:

- Group managers are required to follow the online training program "Comply" on competition law and the online training program "Act" on preventing corruption;
- ♦ in-person training is organized by the General Delegations and the Sectors on the subject of compliance:
- ◆ Compliance Committees aiming to review the subjects are organized several times a year for the Group's General Management and the General Delegations;
- policies on every sensitive subject (professional associations, gifts, conflicts of interest, commercial agents, etc.) are disseminated in the countries and Activities are adapted and implemented;
- audits are organized every year, including compliance topics.

#### 1.2 RESPECT FOR HUMAN RIGHTS

The first two principles of the Global Compact, which Saint-Gobain joined in 2003 (see chapter 1, section 2.2), invite businesses to "promote and respect the protection of internationally proclaimed human rights within their sphere of influence" (principle 1) and to "make sure that their own companies are not complicit in human rights abuses" (principle 2).

In 2008, Pierre-André de Chalendar, Chairman and CEO of Saint-Gobain, signed the statement of support for human rights by company leaders on the occasion of the 60<sup>th</sup> anniversary of the Universal Declaration of Human Rights. Saint-Gobain's values, formalized by the Principles of Conduct and Action, are an essential means of mobilization for human rights owing to their reference to international conventions, particularly the International Charter for Human Rights and the applicable conventions of the International Labour Organization.

More specifically, the Principles of Conduct and Action (Respect for employees' rights) state that "the Group Companies [...] must refrain from any form of recourse to

forced labor, to compulsory labour or to child labour, either directly or indirectly or through subcontractors when the latter are working on a Group site", such concepts having to be taken within the meaning of the applicable Conventions of the International Labour Organization. They shall not apply any discrimination whatsoever vis-à-vis their employees, on recruitment, during execution or on termination of their contract of employment.

The Group companies shall verify the age of their employees by performing additional verifications, as needed, in cooperation with the local authority.

Similarly, for child labor, the Group companies shall ensure that they are not involved in forced or compulsory labor in any way, particularly through dialog with the personnel representation entities, in an effort to detect any violations.

Since 2014, the Group has increased the collection of information on discrimination. The systems for collecting complaints have been improved to favor employee concerns. The clarification of internal definitions has made it possible to facilitate the handling and monitoring of information. Companies now declare any incidents of discrimination leading to a complaint or otherwise, in the course of judgment or finally judged and characterized as such. Every incident declared is examined and dealt with in the companies concerned.

Specific reporting has been introduced to measure the results of the actions taken for respect for fundamental human rights and to demonstrate to the operational managers the Group's determination to ensure that its fundamental values are applied and respected. This measure is extended to Saint-Gobain suppliers by the observance of its Responsible Purchasing policy. This policy specifically incorporates respect for human rights such as the fight against forced labor and child labor. The specific measures taken by the Group to ensure this are set out in chapter 4, section 2.2.2.

Within the scope of its due diligence on human rights, the Group strives identify and manage the potential risks connected with its activities by incorporating its supply chain. Consequently, the Group is introducing a procedure for detecting specific risks based on the countries with which it interacts; either directly by its activities or by the presence of its suppliers.

An evaluation questionnaire, inspired by the Human Rights Compliance Assessment (HRCA) of the Danish Institute for Human Rights, has been developed and is supplemented by a direct questioning of the General Delegations or the Activities concerned for specific risks identified. These particular monitoring points may relate to employment practices, the impact on local communities or management of the logistics chain

# 1.3 ENVIRONMENTAL, HEALTH AND SAFETY

The Environmental, Health and Safety (EHS) policy has been defined by the Chairman and CEO of Saint-Gobain in a commitment letter of undertaking updated and circulated to the entire Group since 2012. It is an extension of the Group's Principles of Conduct and Action. It places the environment, health and safety on the same level of requirement and establishes the following as long-term objectives: zero work-related accidents, zero occupational illnesses, zero environmental accidents and minimum impact of the Group's activities on the environment. These objectives are recalled in the Group's EHS Charter, available in 35 languages and displayed on all sites. The EHS policy is based on establishing three-year and medium-term objectives up to 2025, implementing action plans developed locally and regularly measuring the results obtained.

The EHS guidelines explain the measures to be taken to achieve the Group's objectives. In order to implement these Guidelines, management systems have to be defined and applied in participation with all employees, based on existing situations and decisions specific to each Sector, Activity or entity. The guidelines are based on the principle of continuous improvement. They take into account the objectives set, existing EHS practices, the systems already applied and the international management standards in these three fields, particularly: OHSAS 18001 and ISO 14001. The Saint-Gobain General Management draws up and circulates framework policies that have to be implemented by the Sectors and General Delegations, worldwide. These policies are supplemented by Saint-Gobain "standards", which are technical documents that describe the minimum requirements that the sites will have to observe in the future, whatever the country and the local legislation.

Implementation of the EHS policy is based on a network of correspondents distributed throughout the Group within the

Sectors, General Delegations and sites, reproducing the Saint-Gobain matrix organization coordinated by a central management.

Audits on compliance with the guidelines are conducted by the EHS Department. External certification measures may also be followed at the same time.

Finally, health and safety and the environment constitute two pillars of the operational excellence program known as World Class Manufacturing (see chapter 5, section 2.1).

# Integrating EHS into products and processes innovation

The Research and Development network incorporates health and environmental concerns into their operating plans. A list of EHS controls includes all the points to be checked with regard to raw materials, manufacturing processes and the use of products, during their use and at the end of their lifecycle.

# **EHS training for everyone**

The EHS training matrix, which defines the training to be provided based on the job held, is a particularly relevant tool relied on to define employees' EHS training paths. A skills matrix is also available.

The availability of adapted training, in the local language, falls under the responsibility of the General Delegations.

The aim is to provide training for new arrivals, managers and the EHS network as a priority. The EHS training followed by employees is in the process of being incorporated into the *PeopleGroup* database, which facilitates monitoring of this objective.

# 2. Operational excellence policies

# 2.1 INDUSTRIAL EXCELLENCE WITH THE WCM PROGRAM

The operational excellence of an industrial site is characterized for the Group by the optimization of four factors:

- the systematic eradication of losses;
- the maintenance of gains over time by operator involvement:
- prevention-oriented working conditions;
- the involvement of all employees on site.

In 2007, Saint-Gobain applied the World Class Manufacturing (WCM) program, an integrated management system designed to improve business performance by seeking industrial excellence in accordance with world standards.

Its ambition is for each Group industrial sites to be exemplary, both through safety, the quality of the products it supplies, and its economic and environmental performance. Performance is measured by quantitative indicators but also by assessments of satisfaction of the stake holders involved, customers and employees in priority.

Because operational excellence can only be obtained with the involvement of all employees and by developing a culture of change, Saint-Gobain has chosen to place people at the heart of this process.

WCM Saint-Gobain is therefore a program specifically adapted to the Group culture, associating the standardization of methods, tools and good practices with an essential modularity to adapt to a wide variety of industrial processes. It is based on pillars that cover performance improvement methods such as *Lean*, *Six Sigma* and TPM (Total Productive Maintenance) or 5S.

# 2.1.1 The pillars of the WCM

Each pillar of the WCM represents a center of expertise on which the organization will focus and organize itself to reduce losses as far as possible. The WCM methods are applied in the same way for each of the pillars under the responsibility and leadership of the expert on the subject, working in a cross-functional way and involving the entire organization.

Consequently, the WCM program incorporates and supports the policies implemented by the Group such as the Health and Safety policy or the environmental policy by becoming an operating lever for achieving the Group's objectives in the short-, medium- and long-term.



The WCM program is compatible with the internal and external standards of each of the pillars and incorporates certification measures such as standard ISO 9001 for quality, ISO 14001 and 5001 for the environment and OHS 18001 for safety or internal standards such as the OPEN program for the development of persons or the GAP guidelines for the prevention of risks.

The WCM program therefore delivers a substantial reduction in production costs at the same time as a significant reduction in health/safety, environmental and industrial risks. The Quality, Industrial Performance and Environment pillars contribute significantly towards reducing the Group's environmental footprint by reducing waste generated in production and water consumption and by optimizing energy efficiency; but it has also been possible to avoid many production investment costs or environmental taxes.

Thanks to the Customer Orientation & Service pillar, significant reductions in stocks of raw materials, semi-finished and end products lead to a significant reduction in the requirement for working capital both in terms of value and in number of stock days, while maintaining customer satisfaction as the priority objective.

# 2.1.2 The WCM path of an industrial site

Achieving industrial excellence is a long-term measure that requires graduated implementation, pillar by pillar, with methodology and constancy. The benefits in terms of competitiveness, improvement of customer service and employee commitment can be measured at each stage of the site path.

Tools and methods are therefore made available to the sites to construct their own roadmap and to define their stages of application. Training programs are applied, in advance for managers and as projects are implemented for each site employee.

More than 5,300 managers are trained today in the WCM program and 50% of employees of the industrial sites are involved in the application of this program.

The site preparation stage is essential. It may take 1 to 3 months depending on the sites and allows a team to be formed and brought together around the program; priorities to be identified based on the identification of losses and an initial pilot project to be defined.

The implementation of the pilot project constitutes the second stage of the program. This period of 6 to 9 months is a stage of application of training and of training programs deployment and the application of the methods on site from management to the operators. The WCM is then applied pillar by pillar.

Regular audits make it possible to assess the maturity of the program by site according to four levels:

- first audit: the site has finalized the pilot stage and started application;
- the Bronze level confirms the end of the learning process;
- the Silver level is reached when 80% of the site is incorporated into the WCM program;
- on achieving the Gold level, the site has incorporated the WCM methods and is independent to continue its progress.

# 2.1.3 From continuous improvement to industrial excellence

Today, more than 740 industrial sites, in more than 47 countries, have initiated this program. They represent more

than 80% of the industrial sites of the Group and around 90% of the sales of the industrial Activities. Almost half of them have been audited and already more than 15% have reached the Bronze level.

The appropriation of this culture of operational excellence common to the Group allows greater efficiency in the exchange of good practices, and more opportunities for career mobility among the Group's various Activities, particularly for some technical experts.

Initiated in 2014, the World Class Supply Chain program is an extension to the WCM for optimization of the value chain of a site or an Activity. It is already producing very promising results with the first pilot projects executed in Performance Plastics Activities, Saint-Gobain Glass and Saint-Gobain Sekurit, mainly in Europe and in South America.

Beyond the economic gains expected by logistic optimization, the World Class Supply Chain is above all a differentiation program with a target delivery period adapted to the customer's wishes. Moreover, the Net Promoter Score, a tool for measuring customer satisfaction (see chapter 2, section 4.1.2.) forms part of the performance indicators monitored in the program.

Thanks to the WCM program and its extension to the supply chain, Saint-Gobain is continuing its effort to achieve industrial excellence, on all its sites throughout the world. This change of culture provides a better customer service, competitiveness and efficiency. It also favors the safety, people commitment and mobility of employees. It is also an essential prerequisite to ensure the digital transformation of the factories. By appropriating the WCM program on the sites, Saint-Gobain is preparing for Industry 4.0.

# 2.2 PURCHASING, A COMPETITIVE CHALLENGE

Purchasing is a key factor in the Group's competitiveness and its organization is adapted to the specific features of its activities to ensure its efficiency and risks relating to the supply chain. With a global annual amount of some €29 billion for more than 200,000 active suppliers, Purchasing meets the needs of the Group's industrial and distribution activities.

# 2.2.1 A rigorous organization, a measure of efficiency

The Purchasing Department is divided into non trade purchases (€16.5 billion of purchases) and trade purchases (more than €13 billion of purchases) in order to best adapt to the specific nature of the Group's activities.

Although the Purchasing functions are based on common policies and a common base, they do not participate at the same level in the Group's value chain:

- non-trade purchases are upstream to the production stage and all logistic aspects;
- trade purchases are downstream of the production stage.

Consequently, the organizations, strategies and objectives are differentiated.

Beyond the specific features connected with its Activities, Saint-Gobain recognizes the major role of the Purchasing Department with regard to competitiveness and innovation. Concerned about its performance, the Group wishes to optimize the purchases of its activities and strengthen the contribution made by the Purchasing Department in order to meet its economic objectives.

To that end, the Group has endeavored to develop the professionalism of its purchasers through training activities. A training path is open to all Group purchasers within the scope of the Purchasing School. More specific training intended for trade purchasers supplements this program. This training, which is particularly important for newcomers in the Purchasing Department, provides them with tools that enable them, and their teams, to achieve behavioral excellence in their daily activities.

# 2.2.2 Responsible Purchasing Policy

The same is true for the Group's Responsible Purchasing Policy, the purpose of which is control and reduce the environmental, social and societal risks to its supply chain. It is built on two pillars, the Purchasers Charter and the Suppliers Charter. It comprises three stages:

- mapping the CSR risks;
- evaluating the CSR performance of suppliers to classify
- building common progress plans with suppliers.

This general framework is adapted by the operational teams based on the specific features of the trade and non-trade purchases and incorporates the strategy for the development of long-term partnerships with suppliers.

Following this process, the methodology to map CSR risks was reviewed in 2016, in a coordinated way. Risks connected to the country of origin and risks connected to the purchase categories are integrated. The risk on human rights, in particular the fight against the forced labor and the child labor and those connected to bribery are specially evaluated. The risks of purchasing categories integrate the environmental performance in particular the carbon and water footprints and health and safety. The mapping evaluation is based on international and recognized sources. The risks connected to suppliers are then identified and evaluated to determine priorities for action and engage a constructive dialogue for improvement.

### a) Non-trade responsible purchasing

This CSR risk analysis deployed in the non-trade purchasing allow the identification of suppliers "at risks". Depending on the level of risks identified, the supplier is answering to a questionnaire based on documentation verified and evaluated by a third party and, depending on the results; a social audit on site is organized. The entire approach falls within a constant dialog with the supplier and leads to the establishment of action plans and CSR performance improvement plans.

The Responsible Purchasing Policy is applied to non-trade suppliers via the R-Net online platform, a private website totally dedicated to the subject of Responsible Purchasing.

Suppliers have access to R-Net to acknowledge receipt of the Saint-Gobain Suppliers Charter, to send essential supporting documents electronically (wood certificates, quality certificates, ISO standards), to answer self-assessment questionnaires, to obtain all information on Saint-Gobain's Responsible Purchasing guidelines and to access details of their CSR evaluations or, where appropriate, the social audits.

The 2017-2021 objective is to assess the CSR performance of almost all suppliers deemed to be a CSR risk and achieving annual consolidated net sales of more than €100,000 with the Group. With regard to social audits, the objective is to conduct around 40 to 50 audits a year, mainly in the emerging countries. These audits may lead to de-listings if the corrective plans necessary are not implemented within the agreed periods.

The department of non-trade purchasing initiated in 2016 a program to audit on site the suppliers identified at risk by the Group purchasing managers. Firstly, the program is deployed in emerging countries (Brazil, China, India). The objective is to propose an alternative to the CSR risk evaluation tools already in place to suppliers in order to favor the suppliers' commitment.

The Responsible purchasing policy integrates also a continuous training program of purchasing managers on the Principles of Conduct and Action, with a specific attention to anti-bribery, work conditions of suppliers' employees, forced labor or child labor. A constant information on the sustainable development stakes are also communicated.

### b) Trade responsible purchasing

To draw up and convey the Group's Responsible Purchasing Policy within the Building Distribution Sector, a rigorous and methodical measure has been introduced. The aim is to obtain acceptance by all the parties involved, both internal and external, of the objectives and principles of this policy.

It is initially applied to distribution Category Managers, whose role is to express the customer's needs in terms of products and solutions, to then select the best suppliers meeting these needs in the best possible way. Finally, they have to ensure the availability of these products and solutions in the Sector's distribution network.

In order to do this, all the Category Managers are initially trained in Responsible Purchasing before signing the Purchasers Charter. They thus undertake to observe the principles of integrity, professionalism, spirit of service, confidentiality and competition law and to disseminate the Responsible Purchasing Policy among their suppliers. The partner suppliers, who are signatories to the Suppliers Charter, agree to scrupulously monitor the requirements of responsible development with regard to the environment, social policy, legality and compliance of the products and manufacturing processes with the national and international standards and rules. They also undertake, within the scope of the Sector's Responsible Together program, to complete a self-assessment questionnaire every two years. Based on the responses given, a constructive exchange takes place with the supplier in order to jointly draw up action plans incorporated within a measure for continuous improvement, with characterized, quantified and planned commitments. The policy has been applied in two stages. The first stage, between 2012 and 2013, concerned the "Strategic Partners". The second stage, launched in 2014, concerned the "National Strategic" suppliers.

The suppliers known as "Strategic Partners" are those with whom a strong international partnership is built year after year; the "National Strategic" suppliers are those on whom the Sector's brands rely nationally.

At the same time, risk mapping takes place and the Building Distribution Sector conducts factory audits on selected suppliers whose aim is to assess in particular their management system and the environmental, social and legal aspects of the production activities and to examine their production capacities in terms of volume and quality. These audits also relate to the supply chain upstream. Following an audit, the supplier receives a report as well as recommendations on compliance with an expected effective date or paths for improvement.

### 2.2.3 **Purchases based on the** competitiveness factor

### a) Non-trade purchases

Non-trade purchases are divided into five overall families: production purchases, investment purchases, transport purchases (on sales and on supplies), energy purchases and general purchases (general expenses, non-production services, etc.).

The high number of non-trade suppliers reflects the great diversity of Saint-Gobain's activities.

The non-trade purchases rely on a community of more than 800 professional purchasers, trained in purchasing practices based on the various categories of purchases and positioned within the various levels of the Saint-Gobain organization: Group, General Delegations, Activities, countries, companies and sites

This collaborative and professional community of purchasers operates at the service of the Group's operations and is recognized as a key factor of the Group's competitiveness and innovation. A specific leadership program has been developed, World Class Purchasing (WCP), in order to strengthen the industry and improve the contribution made by the Purchasing Department to Saint-Gobain's performance, particularly in the field of responsible purchasing.

### b) Trade purchases

Trade purchases are purchases of products made by the brands and entities of the Building Distribution Sector with a view to meeting and serving customer requirements throughout their path.

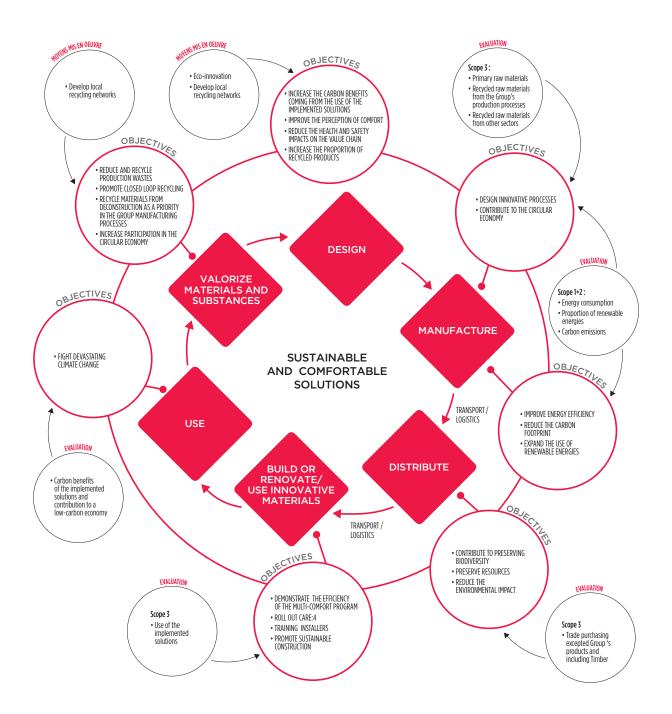
The Building Distribution supplier portfolio comprises 26,000 suppliers from more than 50 countries distributed over 15 markets, reflecting the various markets of customers of the Building Distribution Sector brands. An annual segmentation of purchases makes it possible to identify the "Strategic Partner" suppliers with whom a strong international partnership is built year after year; the "National Strategic" suppliers on whom the Sector brands rely nationally; and the

"Niche" suppliers who contribute particular products that are essential for the product mix of a region.

This categorization constitutes stage 1 of a process of concentrating trade purchases among a certain number of loyal, innovating partners capable of anchoring their activities over time while respecting the environment, offering quality products at a competitive price, supporting brands in sales and advice, providing an effective logistic network and being profitable. This measure results in the listing of the best suppliers selected to provide the best products at the best price with the best service to satisfy customers. Optimization of the supplier portfolio is a priority objective which, following listing, is reflected in personalized support for partners thanks to the annual Partnership Analysis. Every year, all the Business Units of the Building Distribution Sector evaluate the partners with whom they are working based on seven standard criteria: trade, marketing, logistics, purchases, teams, CSR and digital strategy. A report is then drawn up, including the data collected from all the countries in which the Building Distribution Sector and the partner have joint activities, allowing the latter to measure and understand how he is positioned within the markets in which he is active. Finally, an action plan is drawn up jointly in order to improve the quality of the local partnership.

The Building Distribution Category Managers form a community of more than 800 employees. They are responsible for the management of one or more supplier portfolios. This community is guided by three authorities with well-defined roles: the Sector Management Committee establishes the strategy; the Purchasing Committee meets four times a year, passes on and leads the Purchasing strategy in the brands; and, finally, the European market meetings define common action plans with partners. The 150 representatives of this community meet once a year at the time of the Global Category Committee meeting which provides the opportunity to take stock of the development of the markets, to present the development of the division and to exchange good practices. Finally, a training named the Purchasing Excellence Program, makes it possible to strengthen this community and its skills. It defines the purchasing and category management strategy and promotes good practices. An e-learning version of this program has been developed in four languages, making it accessible to the highest possible number of employees.

# 2.3 AN ENVIRONMENTAL POLICY INCORPORATING THE CHALLENGES OF SUSTAINABLE DEVELOPMENT



### CARBON IMPACTS AND BENEFITS FROM CIRCULAR ECONOMY FOR THE ENTIRE VALUE CHAIN

Saint-Gobain's environmental approach is to ensure the sustainable development of its Activities, while controlling the environmental impact of its processes, products and services over their entire lifecycle. The Group thus wishes to ensure the preservation of the environment, to meet the expectations of the stake holders involved and to offer its

customers the greatest value added for a minimum environmental impact.

The Group has set two long-term objectives: zero environmental accidents and maximum reduction of the impact of its activities on the environment.

These objectives are conveyed by means of short- and medium-term objectives which concern the five main environmental challenges identified by the Group: resources; energy, atmospheric emissions and climate; water; biodiversity and the use of soil; environmental accidents and nuisances.

The methodology of the WCM Environment pillar makes it possible to identify environmental aspects and differences and to reduce and control them (see chapter 4, section 2.1).

The Saint-Gobain Group has drawn up a priority action framework for those sites representing the bulk of the Group's environmental impact worldwide: these are the 558 sites concerned for the environment (see chapter 10, section 2.1). The environmental objectives are set for the scope of these sites concerned by the environment composed of 558 sites which represent 91% of the Group's environmental impact. For water discharges, they represent, for example, 95% of the Group's impact.

Every year, Environment Emeralds are awarded to projects contributing towards reducing the environmental impact of our sites. In 2016, six Emeralds were awarded by a jury composed of Group employees and external personalities.

# 2.3.1 Sustainable management of resources

### Target<sup>(1)</sup>

Non-recovered waste:

-50% (2010-2025)

In the long term, zero non-recovered waste

Faced with the decline in raw materials, the sustainable management of resources makes it possible to ensure the competitiveness and continuity of the Group's activities by securing supplies and by anticipating changes in legislation and the depletion of natural resources. The treatment and recovery of waste is also a major challenge for Saint-Gobain.

Developed in 2015, the Sustainable Management of Resources Policy (2) aims to reduce the impact of the use of resources and their responsible management to favor the transition to a circular economy. Through cross-business actions and synergies between industry and distribution, Saint-Gobain undertakes to provide innovating solutions for the sustainable management of resources during the lifecycle of its products, throughout the entire value chain.

In 2016, short- and medium-term objectives were defined for the application of this policy, with a view to the implementation thereof by all General Delegations, Activities and Group divisions, observing local regulations. In particular, each Activity and each General Delegation have to draw up a roadmap by the end of 2019 to develop the circular economy with three priorities:

- have a maximum recycled content in its products;
- generate a minimum amount of production waste;
- recover the waste originating from these processes either internally or externally.

In connection with the Health policy and in compliance with the local regulations, the management of dangerous waste is is closely monitored to protect the health of employees, residents, customers and users of its products and services.

### a) Promote the use of recycled materials

The two main raw materials used by the Group are gypsum (plaster) and sand (glass activities and mortars). The recovery of production waste internally and the use of external recycled materials (cullet, gypsum, recovered scrap metal, etc.) enable the Saint-Gobain activities to reduce their consumption of raw materials.

Gypsum is a fully recyclable material. The main limits to its recycling lie in the difficulties of recovery and sorting of demolition waste. In order to increase the quantities recycled, national networks for the collection of plaster originating from construction sites have been established by Saint-Gobain in many European countries.

For glass furnaces  $^{(3)}$ , the reduction in the consumption of resources essentially results from the inclusion of cullet  $^{(4)}$  among the materials placed in the furnace. The Group's internal logistics are being optimized to increase the flow of cullet between the processing sites (Sekurit, Building Glass Europe) and the flat glass production sites.

To obtain cast iron, the Pipe Activity uses two fusion processes: one, known as "first fusion", involves the reduction in iron oxide ores in the blast furnaces; the other, known as "second fusion", is carried out by fusing scrap and recovery cast iron. Through the "second fusion" process, more recycled raw materials are incorporated in the cast iron production. The annual quantities are depending on their availability on the market

Optimizing the recycling of internal waste products involves all of the Group's Activities. In 2016, Saint-Gobain Cougnaud in Aizenay, France, manufacturer of PVC windows, was awarded an Environment Emerald for an exemplary project in the raw materials and waste category. This project allowed to increase the amount of PVC waste recycled and allowed to reduce the waste PVC tonnage on site by 33%. This recycling method could be deployed over time on several sites using PVC of Lapeyre Industries with the involvement of an external partner.

<sup>(1)</sup> Based on iso-production for the scope concerned.

<sup>(2)</sup> Saint-Gobain's Sustainable Management of Resources Policy is available on request from the Group's EHS Department.

<sup>(3)</sup> Furnaces used for flat glass and for glass wool.

<sup>(4)</sup> Broken glass originating from manufacturing waste or from the selective collection of waste and recycling content.

### change and associated risks. These objectives take into account comparisons made on processes between different sites involved in the same Activity. The Group's commitment to energy efficiency and a

Each site concerned based on its Activity has to define

progress objectives and procedures for monitoring the management of energy, atmospheric emissions, climate

reduction in its CO<sub>2</sub> emissions has led it to participate since 2003 in the CDP Climate Change, whose aim is to encourage businesses to draw up detailed reports on risks and opportunities concerning climate change and to report the results transparently. In 2016, Saint-Gobain obtained a score of A- on the CDP Climate change questionnaire (97B in 2015).

### b) Minimize the quantities of production waste and not recovered waste

The priority waste management actions initially relate to a reduction in the quantities of production waste generated. They then relate to the recovery of production waste internally, followed by the promotion of external recovery industries (reuse, recycling or, failing that, recovery of energy by incineration) for production waste that cannot be recovered internally. Waste is landfilled as a last resort, if no other solution is possible.

Progress in the reduction of production waste achieved on certain Group sites shows that "zero non-recovered waste" is an achievable ambition. In 2016, Saint-Gobain Gypsum in Laem Chabang, Thailand, was awarded an Environment Emerald for an exemplary project in the raw materials and waste category. This project makes it possible to recover production waste previously sent to the landfill center, in the form of a new product: floor tiles used locally.

The Group is also developing the recovery of waste between Activities, so that the waste from one becomes the raw materials of another. Some working groups to promote the cooperation between Activities are organized to make it. The Group is also involved in the creation of recycling networks with the help of external local partners.

The goal for reducing non-recycled waste during 2010-2025 is set at 50%. Between 2010 and 2016, the Group recorded at a 7.9% reduction in the quantity of non-recycled waste, i.e. 15.8% progress toward acheving this goal.

#### 2.3.2 **Energy and climate**

### Objectives(1)

- Energy consumption: -15% (2010-2025)
- ◆ Total CO₂ emissions (scopes 1 and 2): -20% (2010-2025)
- ◆ NO<sub>x</sub>, SO<sub>2</sub> and dust emissions: -20% for each category of emissions (2010-2025)

In 2014, Saint-Gobain drew up an Energy, Atmospheric Emissions and Climate Change Policy<sup>(2)</sup> which aims to reduce the energy consumption and the greenhouse gas emissions of its industrial processes, its infrastructures and its transport.

Saint-Gobain places all its sites in a phase of continuous improvement. In this respect, they aim to identify and evaluate the Best Techniques and Practices Available (MTD) and then progressively upgrade them at an economically acceptable cost, in accordance with the Group's environmental vision. An MTD deployment plan is defined, updated annually and included in the 3-year strategic plan.

### a) Reduce energy consumption and CO<sub>2</sub> emissions (scopes 1 and 2)

The Group's direct CO<sub>2</sub> emissions (scope 1) are mostly connected with its industrial activities. These CO2 emissions result from the combustion of fossil fuels and chemical reactions used in the manufacturing processes (e.g. the decarbonization of carbonates in the glass fusion processes). More than 88% of direct CO<sub>2</sub> emissions from the sites of the scope concerned are connected with the glass, cast iron and gypsum production activities.

The Group's indirect CO<sub>2</sub> emissions (scope 2) are essentially connected with its electricity purchases.

To coordinate the actions for a reduction in energy consumption and CO<sub>2</sub> emissions (scopes 1 and 2), Energy and Climate Managers have been appointed in the Activities that consume most energy. In 2016, these Energy and Climate Managers cover more than 95% of the Group's energy consumption.

Energy efficiency is an essential factor of the environmental and financial performance of the Saint-Gobain sites that also makes it possible to reduce greenhouse gas emissions. The Group is making progress in this field by sharing the Best Techniques and Practices Available, to optimize existing equipment in particular.

The use of recycled raw materials in the processes also makes it possible to reduce energy consumption, particularly for glass fusion. In the case of flat glass, energy consumption is reduced by 3% when the percentage of cullet is increased from 20% to 30% of raw materials. This reduction in energy consumption is accompanied by a reduction in CO<sub>2</sub> emissions (scope 1).

In order to reduce the CO2 emissions connected with electricity purchases (scope 2), several General Delegations and Activities have undertaken a voluntary measure to obtain electricity supplies from renewable sources. On its sites, Saint-Gobain is also developing projects using new energies (wind power, biomass, biogas, solar power, etc.). These developments may be made in association with external partners.

<sup>(1)</sup> Based on iso-production for the scope concerned

<sup>(2)</sup> The Saint-Gobain Energy, Atmospheric Emissions and Climate Change Policy is available on request from the Group's EHS Department.

Saint-Gobain favors the conduct of energy audits on its sites and is introducing an energy management system based on ISO 50001 certification. At the end of 2016, 85 sites of the scope concerned are ISO 50001 certified, compared to 77 a year earlier.

The application on all the Group's industrial sites of a management system designed to improve business performance by eliminating losses, known as *World Class Manufacturing* (WCM) (see chapter 4, section 2.3), is another progress lever.

In 2016, a cross-functional R&D program, "Improvement in our  $CO_2$  footprint", was created to coordinate and increase research and development efforts dedicated to improving the manufacturing processes, with a view to reducing greenhouse gas emissions.

At the beginning of 2016, an internal carbon price was introduced to speed up the Group's transition to low-carbon technologies. This makes it possible to evaluate the real or potential impact of a regulatory carbon price on the Group's activities, to identify opportunities for growth in low-carbon sectors, to redirect industrial and R&D investments and to prioritize actions to reduce CO<sub>2</sub> emissions.

The results of the Lifecycle Analyses also make it possible to demonstrate that the benefits provided by the Group's solutions, particularly in terms of energy consumption, often far exceed the impact associated with their production (see chapter 2, section 2.2.2).

The goal for reducing  $CO_2$  emissions in 2010-2025 period is set at 20%. Between 2010 and 2016, the Group recorded a 7.4% reduction in  $CO_2$  emissions, i.e. progress of 37% toward achieving the objective.

# b) Evaluate the value chain emissions including scope 3

In 2016, Saint-Gobain have continued to evaluate the  $\rm CO_2$  emissions of the entire value chain of its Activities. This initial stage made it possible, in particular, to identify the main categories forming scope 3 of the Group's industrial activities:

- purchases of raw materials;
- transport;
- energy excluding scopes 1 and 2;
- use of products sold.

The impact of business travel and home-to-work travel is lower than that of the categories identified above, i.e. less than 5% of the total emissions (scopes 1, 2 and 3).

The first evaluations of the scope 3 have estimated Soda ash and cement are the 2 main sources of scope 3 emissions of the Group's purchases.

With regard to the use of products sold, the approach adopted by Saint-Gobain involves two points of view:

- impact: the scope 3 emissions resulting from the use of products sold were evaluated, for example, for automobile windows in 2016 and Saint-Gobain Sekurit is constantly progressing in its measures to lighten windows in order to reduce vehicle CO<sub>2</sub> emissions;
- ◆ benefits: the innovating solutions developed by the Group to improve the energy efficiency of the buildings make it possible both to reduce the negative impact of construction on the climate and to reduce the users' energy bill. In order to highlight this contribution, in 2015 Saint-Gobain developed a methodology, in partnership with EY, that made it possible to estimate the greenhouse gas emissions avoided thanks to the insulation sold by the Group (see chapter 2, section 2.2.3).

In the next stage, the Group will extend the scope 3 evaluation while estimating the reliability of the methodology and the data for each category.

### c) Manage the risks connected with climate change

The Group has identified its main risks connected with climate change in order to be able to manage them.

The modification to the water systems and, in particular, the development of water stress areas, which give rise to production risks and penalize local populations, are incorporated into the Water policy. Saint-Gobain forms part of the Alliance of Businesses for Water and Climate Change. This Alliance encourages signatories to measure their water footprint and to reduce their impact.

The Group deals with increased risks of loss due to climate change (flooding, rainfall or storm) within the scope of its industrial and distribution risks prevention policy. This takes into account the increase in extreme climate events, which specifically lead both to damage that may be caused to the facilities or stock and to interruptions in production or supplies. The degree of exposure and vulnerability of the sites to natural events is updated regularly together with the action plan with a view to improving their level of prevention and protection.

### d) Limit other atmospheric emissions

Saint-Gobain has undertaken an active measure to control its atmospheric emissions other than greenhouse gases. The Energy and Climate Managers coordinate this measure within their Activities.

When the primary measures are not sufficiently effective, dust emissions are controlled by investments in electrostatic precipitators or bag filters, depending on the type of industrial facility. This equipment also makes it possible to filter the heavy metals resulting from impurities contained in certain raw materials.

The primary measures introduced to reduce sulfur dioxide emissions include the reduction in energy consumption and the use of fuels with a low sulfur content.

Primary measures to optimize processes, particularly combustion, make it possible to reduce  $NO_x$  emissions at

In addition to these primary measures, equipment for the secondary treatment of sulfur dioxide and nitrogen oxides is also installed.

#### 2.3.3 Water management

### Objectives<sup>(1)</sup>

Water discharges:

-80% (2010-2025)

In the long-term, no industrial water discharge in liquid form

Saint-Gobain's Water Policy, which was adopted in 2011, followed the signature in 2009 of the CEO Water Mandate by Pierre-André de Chalendar. It confirms the desire to reduce the quantitative and qualitative impact of Saint-Gobain's activities on water resources as much as possible, both on withdrawals and on discharges.

The long-term objective is to withdraw as little water as possible and to aim for "zero discharge" of industrial water in liquid form, while avoiding generating new impacts for other natural environments and/or for other parties involved.

The medium-term objective to reduce water discharges by 80% was fixed taking current and future projects into account in Saint-Gobain's Activities contributing the most, particularly the Pipe Activity.

Particular attention is paid to limiting the Group's withdrawals in water stress areas and in not competing for access to drinking water with the local populations.

To support the application of its Water Policy on the industrial sites, Saint-Gobain has defined a Water standard that describes the minimum requirements that the sites must observe in future. It makes it possible to structure the improvement of the performance of sites in water management and the prevention of risks of water constraints, pollution and flooding. Its application aims to reduce the risks connected with water and the quantities of water withdrawn and of liquid water discharged, to favor the least sensitive sources of withdrawal and discharges, to control the quality of the water and to prevent accidental pollution.

Saint-Gobain regularly evaluates the level of exposure of all its industrial sites to the water risk. The Water standard is applied as a priority on the sites with the highest water risks.

The Pipe Activity site situated in Pont-à-Mousson, France, commissioned new facilities in 2016 in order to largely increase the recycling rate of the water used by the site. This project began in 2010 with a rationalization of use and an improvement in the water treatment devices, and ended with the commissioning of water cooling towers. Over the year 2016, this project made it possible to reduce water withdrawals by 77% and water discharges by 67% compared to 2015.

In 2016, the Huntsville site in USA was awarded an Emerald for an exemplary project in the water category that made it possible to reduce river water withdrawals by 25% in one

The Group's commitment to water preservation has led it to participate in the CDP Water Disclosure since 2012, which aims to encourage businesses to report in detail on the risks and opportunities concerning water management and to report results transparently.

#### 2.3.4 **Biodiversity and soil use**

### **Objectives**

2025: to promote the preservation of natural areas on the sites as far as possible

Saint-Gobain is committed in particular to those sites with a marked impact or to areas with remarkable biodiversity. Based on its experience in quarries, the Group today has significant internal expertise on the subject. It is now a question of grasping every aspect of the subject. Saint-Gobain has set itself the ambition of preserving, restoring, increasing and enhancing biodiversity, ensuring the sustainable and fair use thereof and managing to involve all parties concerned.

The Biodiversity Policy is currently being prepared for publication in 2017.

In 2016, a mapping study was conducted using geographical tools on all the sites initially to evaluate their sensitivity to the ecosystems based on their proximity to areas of high biodiversity value. The protected areas considered are areas recognized by the UICN or more locally defined as Natura 2000 or RAMSAR areas or other national areas. This initial level of analysis attributes a score to all the sites and the results will be sent to the Activities, which will refine this work in 2017 based on more specific criteria. The full analysis will enable them to draw up an initial list of priority sites for the management of biodiversity and an action plan for the application of the Biodiversity policy based on the specific features of their sites.

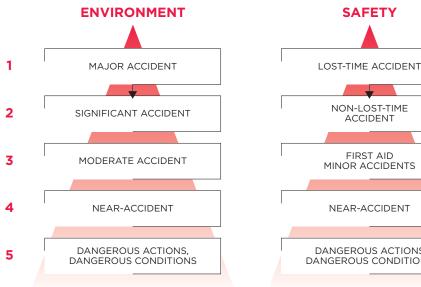
Out of the 149 underground or open quarries operated by the Group throughout the world, the vast majority belong to the Gypsum Activity (127, i.e. 85.2%), which has drawn up a charter for biodiversity in its guarries. The Group's guarries are operated and then restored with the aim of preserving the environment in accordance with the local rules. During the operating and restoration period, the effects on residents and on the environment are reduced as far as possible: visual impact, dust, noise and vibration, consequences to road traffic and repercussions on the local natural environments.

In 2016, the Saint-Gobain Placoplatre guarry in Cormeilles, France, was awarded an Emerald for an exemplary project in the biodiversity category. The actions taken since 1990 have made it possible to restore 60 hectares, previously dedicated to gypsum mining, in order to create various ecosystems including a forest of 70.000 trees.

#### 2.3.5 **Environmental accidents** and nuisances

In 2012, Saint-Gobain launched the standard for managing environmental events and feedback "EvE" (Événement Environnemental). The environmental events mainly include accidental discharge into the atmosphere, into the water and onto the soil and events connected with waste, nuisances (smells, noise, etc.) and non-compliance with the regulations and in relation to the Group's environmental management

### DEFINITION OF THE VARIOUS ENVIRONMENTAL EVENT LEVELS AND PARALLELS TO SAFETY ACCIDENTS



NON-LOST-TIME ACCIDENT FIRST AID MINOR ACCIDENTS **NEAR-ACCIDENT** DANGEROUS ACTIONS DANGEROUS CONDITIONS

SAFETY

The standard also defines criteria for evaluating the severity of an event from three aspects: environmental, regulatory and reputational. The severity of the event is equal to the highest of the three types of severity thus evaluated. The event is declared "major" if it is a major environmental accident whose severity is greater than or equal to 3, on a scale of 0 to 5. The initial stage of application of the standard aims to list all environmental events and to examine their main causes. The second stage aims to reduce the number of these events.

Within the scope of the standard:

"environmental event" means an accidental event giving rise to or that may give rise to an environmental impact or an environmental non-compliance, whatever the level of severity.

♦ "Environmental impact" is defined as any negative change in the environment resulting from the establishment's activities, products or services. Environmental impact resulting from the normal operation of the establishment and/or observing the limits authorized by the establishment's operating permit is excluded.

In 2016, O "major" events occurred, including O accidental

Thanks to this standard incorporated into the training program, the Group has a common methodology for ensuring that all its sites progress towards the zero environmental accidents objective. Saint-Gobain is thus developing for the environment the same type of feedback tools as those used for safety.

#### 2.3.6 Consequences of the Group's activities on climate change

Climate change represents a challenge but also an opportunity for Saint-Gobain. Its effects are having an influence on numerous ecosystems throughout the world whose consequences could impact on the Group's operations. Present in 67 countries, Saint-Gobain operates in regions with different exposure to climate change. The Group evaluates, controls and aims to reduce the vulnerability of its operations to the consequences of climate change throughout the value chain.

Saint-Gobain's climate strategy is at the heart of its businesses: to design, produce and supply materials and solutions designed for comfort, performance and safety while preserving the environment. This strategy aims to:

• ensure a sustainable management of resources to limit the environmental and financial impact thereof on the value chain:

- ◆ reduce discharges and direct and indirect emissions from production activities. The long-term "zero environmental accident" objectives and the maximum reduction in the environmental impact of the Group's activities call upon all the divisions and define the scope of actions. Saint-Gobain has set itself internal objectives for 2025 vs 2010 for the reduction in greenhouse gas emissions, energy consumption, water and waste resulting from such operations:
- ♦ improve energy efficiency and reduce greenhouse gas emissions during the use of products and services. Saint-Gobain offers solutions making it possible to optimize energy efficiency in new construction, renovation and industry, thus reducing greenhouse gas emissions. A significant part of the Saint-Gobain product portfolio consists of solutions that provide environmental benefits
- prevent the risks connected with disruptive climate events that may test the continuity of our activities;
- manage the risks connected with climate change over all the Group's operations and its value chain.

# 3. A Group that is committed to the professional growth of its employees

### 3.1 THE HEALTH AND SAFETY POLICY

Health and safety are central values at Saint-Gobain in the management of its industrial, distribution and research activities. They stem from a strong desire, from the company, strengthened by the commitment of employee.

The number of sites certified for health and safety (OHSAS 18001 - ILO-OSH 2001) was 365 at the December 31, 2016 against 364 in 2015 at constant perimeter.

With regard to safety, the TRAR indicator is the total recordable accident rate for one million hours worked by permanent and temporary employees. As from January 1, 2017, recordable accidents and hours worked by permanent subcontractors will also be taken into account.

With regard to health, the Group's objectives for occupational risks concern toxic agents (including crystalline silica and dust), noise, ergonomics and psychosocial risks. Each General Delegation must draw up and apply action plans for the implementation of the Group's Health Policy following consultation with the Sectors and Activities.

### 3.1.1 A health and safety risk assessment

Saint-Gobain bases its health and safety management on the identification, reduction and control of occupational risks.

Since 2014, a training program on the evaluation of health and safety risks has been applied by the Group's EHS Department. It aims to guarantee its identical and consistent implementation throughout the world, in accordance with the standard developed in 2013. This standard defines the process to be followed to identify dangers and to analyze the potential health and safety risks. It refers to specific health risk assessment standards, such as the standard on exposure to noise (NOS - NOise Standard) and the standard on toxic agents (TAS - Toxic Agents Standard) (see chapter 3, section 6.1.3).

One or more delegates to the risk assessment method have been trained or certified in each General Delegation. These delegates ensure that the local EHS network is trained and applies the method defined by the Group. In future, each Group site will have a guarantor capable of leading the prevention measure according to the method and of ensuring that the processes comply with the Group standards.

Based on the health and safety risk assessments made, the sites define the priorities and the action plans to be implemented in order to best control these risks. Risk prevention applies at 3 levels: primary (avoid or eliminate exposure), secondary (deal with the risks) and tertiary (limit the consequences and deal with the effects thereof).

### 3.1.2 Safety, a central value to the Group

### a) Everyone's responsibility

Employees' safety, in the same way as health, is a priority at all times for the Group with a single acceptable objective: zero work-related accidents. Saint-Gobain aims to ensure for all persons on its sites, including temporary workers and subcontractors, safe conditions and a safe working environment, beyond the requirements of the applicable local legislation.

This measure affects all the Group's businesses and endeavors to place safety at the heart of the corporate culture. Safety is a value held by all management grades and by all employees. The objective is that everyone participates in his own safety and in that of his colleague.

At the highest level, the management has demonstrated its involvement in the development of a culture of safety within the Group. The operational management is responsible everywhere and guarantees all aspects of safety: objectives, action plans and performance measurement. To emphasize this commitment, a portion of the managers is based on the results and the resources invested, particularly by carrying out safety inspections and by applying safety standards.

Safety inspections are organized on all sites according to the SMAT (Safety Management Tool) standard. These inspections aim to encourage open dialogue with the person visited, on the subject of safety (and health), following the observance of work practices by the inspector. The positive points are noted as a priority, as well as any dangerous acts or conditions, which form the subject of an immediate priority action or an action incorporated into an action plan. In 2016 478,545 SMAT inspections were made within the Group, which represents a ratio of 2.73 inspections per employee and temporary worker.

### b) Technical standards, a guarantee of effective introduction of minimum requirements on all

Based on the analysis of serious accidents, the underlying causes contributing most often were identified and the corresponding standards drawn up:

### Technical safety standards, focused on high risks

Management of external businesses	Work permits
Working at height	Lock-out/tag-out
Confined spaces	Safety of machines
Vehicles and pedestrians	Forklift trucks
Storage and logistics operations	Road risks

A self-assessment questionnaire is made available for each standard, so as to evaluate their introduction. Some General Delegations and Sectors organize cross-audits between sites so as to share good practices.

In addition to these technical standards, an accident analysis standard lays down the methodologies to be used to analyze events and to identify the underlying causes.

The Sectors and the Activities also draw up standards specific to their processes, or guides on application.

The Sectors define the compliance objectives to be achieved for the various technical standards. At the same time, the establishments identify the standards whose implementation is a priority and draw up an annual action plan on that basis.

### c) Encouraging safety results

For several years, thanks to the efforts made by everyone, the Group has recorded a constant fall in the number of work-related accidents, with lost time or non-lost time. In 2016, the improvement in safety results was reflected in a reduction in the recordable accident rate. The Group's TRAR fell from 3.9 in 2015 to 3.5 in 2016.

This improvement is the result of reinforcing risk assessments, introducing technical safety standards, involving everyone and sharing a common culture of safety.

Saint-Gobain endeavors to share best practices and to develop the good results and progress made in the field. The "Millionaires Club" comprises the most exemplary sites in terms of safety, with 1 million hours worked or 5 years without any accidents involving lost time specifically. In 2016, it included a total of 251 sites compared to 243 at the end of 2015. Gaining entry to this "Club" increases the standing of the establishments that have the best results and that demonstrate to the entire Group that the objective of zero work-related accidents is possible. Out of these sites, 78 are "silver millionaires" (specifically with 10 years with no lost-time accidents) and 11 are "gold millionaires" (specifically with 15 years with no lost-time accidents) compared to 68 and 9 at December 31, 2015.

Every year, Saint-Gobain rewards its most exemplary sites and companies. 21 health and safety Diamonds were awarded in 2016, 17 to reward sites making remarkable progress and four to distinguish exemplary programs conducted by a company or an Activity within the Group in the field of health and safety prevention.

#### 3.1.3 **Employee health**

### a) A Health Policy covering the various Saint-Gobain parties involved

In 2013, Saint-Gobain adopted a Health Policy that falls within the framework of the continuity of actions already undertaken by the Group. It establishes the guidelines of its action for protecting the health of its employees, its customers and users of its products, as well as for residents adjacent to its sites.

All the Group's sites throughout the world have to implement it, in accordance with their local regulations and in addition to the health and industrial hygiene standards and tools already in place.

Saint-Gobain's ambition is to collectively protect the health of its employees, temporary workers and subcontractors working on its sites throughout the world, by anticipating and preventing risks of occupational illness or disability. The Health Policy also promotes the individual health of each of the Group employees, by taking actions to prevent illness connected with individual risk factors such as a sedentary lifestyle or nicotine addiction. Taking into account the physical constraints of the workstations, promoting a balance between private and work life and preventing the psycho-social risks and the stress connected with work are all challenges to ensure the health of employees and good working conditions.

The second aspect of the Group's Health Policy relates to respect for the health of customers and users of its products and services. This is a major aspect to be taken into account when designing and launching new products and solutions onto the market. EHS tools are available to R&D and marketing to identify the risks throughout the lifetime of the product. Each Activity incorporates control over the health risks in responsible product management, by carrying out Lifecycle Analyses (ACV) in particular. The Group's Health Policy supplements Saint-Gobain's eco-innovation approach

Residents' health is the third aspect of this policy. The sites take measures to reduce environmental impact that could have consequences on the residential areas nearby: noise and emissions and discharge into the air, water, soil and sub-soil.

Within the scope of the Health Policy, Saint-Gobain is strengthening its system of monitoring occupational illness by listing the number and causes of illnesses to adapt its prevention measures to the local contexts.

Each General Delegation draws up and applies action plans for the implementation of the Health Policy following consultation with the Sectors and Activities. Saint-Gobain's General Delegation in Brazil, for example, has introduced a medical monitoring system that enables it to establish the trend of indicators connected with health and occupational illnesses.

Over the last few years, Saint-Gobain has also undertaken various measures with social partners in France in order to act on preventing psycho-social risks and improve the quality of life at work. The Group's framework agreement on the

prevention of stress is the cornerstone of the measures taken by the various companies: the steering committees and members of the CHSCT are trained in the prevention of these risks and an analysis was conducted by the various Activities.

## b) Standards and guides, a guarantee of the correct application of the Health Policy on all the Group's sites

To guarantee the same level of protection to all Saint-Gobain employees throughout the world, the Group has also drawn up compulsory standards and recommendations on health and industrial hygiene.

Health Standards	
◆ Noise risks (NOS = NOise Standard)	◆ Chemical risks (TAS = Toxic Agent Standard)
◆ Mobile phones and smartphones	
Health Recommendations	
• Ergonomic risks:	◆ Posture Lifting Movement guideline (PLM)
	◆ Crystalline silica
◆ Chemical risks: 4 guides on application	◆ Construction, renovation and maintenance of smelting furnaces
	◆ Handling of nanomaterials in the Research and Development Centers
	◆ Use of fibrous materials
Health Tools	
• Ergonomic risks:	◆ PLM
◆ Chemical risks:	◆ SAFHEAR (2 modules: Inventory of Products/Substances and Evaluation of the Chemical Risks)

These standards and recommendations aim to describe the methodologies of industrial hygiene and assessment of health risks; they also indicate the paths for the prevention and control of risks

The Sectors and General Delegations define them according to their specific characteristics and local requirements. They are supplemented by specific standards for certain activities and operating kits.

The reference documents concerning health are regularly updated. This was the case in 2016 for the NOise Standard and for the guide on crystalline silica accompanying the Toxic Agent Standard.

In 2016, the inventory of products and substances was continued, thanks to the SAFHEAR "Inventory" module which was applied to the entire scope concerned by chemicals. Following training, more than 358 sites launched the update to their inventory of chemicals within this section. A training plan on the use of the SAFHEAR's "Risk Assessment" module is currently being drawn up, with the aim of commencing the SAFHEAR risk assessment in accordance with the TAS methodology in 2017.

### c) Specific cross-functional programs

# Prevention of EHS risks ahead of the research and development projects: the EHS Check-list

During each stage of development of an R&D project, the EHS Check-list endeavors to identify and characterize the potential risk connected with the introduction of one or more substances in the project and to decide whether to maintain them or not based on the management of each individual case. Specific training integrated into the training path of R&D project leaders makes it possible to disseminate information and to share good practices on the implementation of the Check-list.

### The Nanowatch program

A multi-disciplinary cross-functional working party (doctors, hygienists, product managers and environment managers) ensures technical, scientific and regulatory monitoring. It aims to identify and establish control over substances in the nanoparticulate state used within the Group, and in particular monitors the implementation of the practices recommended in the Code of Conduct on the handling of nanomaterials in the Research and Development Centers.

# Prevention and management of psychosocial risks and promotion of wellbeing

Incorporating into its everyday practice the principle of respect for and kindness to all employees by means of an honest and fair attitude, seeking to set suitable objectives and to clarify its vision, encouraging personal commitment, anticipating conflicts, recognizing performance and diversity, supporting change, measuring and monitoring the parameters of wellbeing and providing individual assistance in the event of critical situations to promote mental health and not just physical health at work constitute the aspects of a program for the prevention and management of psychosocial risks. The stages of these programs combine communication, training, evaluation and a plan of key indicator actions and measures. Saint-Gobain encourages the introduction of these programs respecting local culture and specific characteristics.

### Application of the requirements connected with the **European REACH regulation**

Connected with the internal standard on toxic agents (TAS), Saint-Gobain is actively involved in the implementation of the REACH Regulation in order to ensure the regulatory compliance of the Group's practices. All the Group's businesses are concerned, whether as manufacturer, importer, user or distributor.

Saint-Gobain is preparing for the deadline for registration in 2018, possibly bringing forward certain registrations in partnership with other European declaring parties concerned by the same substances. The Group is also working to take into account safety data sheets drawn up with exposure scenarios both as user and as manufacturer of substances.

For the files submitted, Saint-Gobain is monitoring the evaluations made by the European Chemicals Agency (ECHA) and the Member States, collaborating in exchanges and answering possible questions via the groups of declaring parties.

The Group informs its suppliers of its uses of substances, for them to be taken into account in their registration files. It also systematically incorporates the REACH clause, reviewed in 2012, into all the purchase contracts in order to ensure the regulatory compliance of its suppliers.

Finally, Saint-Gobain actively monitors the updates to the list of substances applying for authorization or subject to

authorization or restriction. The Group anticipates the first deadlines for the authorization of substances in Europe, in order to fulfil its obligations of substitution and notification to its customers.

In non-EU countries subject to other regulations on chemicals (PARCHEM in Switzerland, Toxic Substances Control Act in the USA, Canadian Environmental Protection Act and the Chemicals Management Plan in Canada, CHINA REACH in China, etc.), Saint-Gobain applies the regulations in force and monitors their development.

### d) Steering indicators

In parallel with the indicators monitoring safety (total recordable accident rate: TRAR) and the environment (number of major and significant accidents for 100 sites: T2E), the Group has defined an indicator to control the risk to the health of its employees connected with their activities, in keeping with its health standards and as a priority targeted on toxic agents and noise risk. It constitutes the rate of significant situations of chronic exposure to a danger to health. This indicator, known as HICE, will be applied as from

A key performance indicator on this subject testifies to the Group's desire to better understand certain facts by objectivizing by measure, and thus be able to provide better guidance and make better decisions.

### 3.2 THE FOUR PILLARS OF THE OPEN PROGRAM

With its history and the wealth of its social dialog, Saint-Gobain's human resources policy seeks to offer every person a working environment favoring professional and personal development that makes it possible to reconcile work performance with employees' wellbeing. In order to increase employees' commitment and satisfaction, the Group

has launched the OPEN (Our People in an Empowering Network) program, a management tool designed for all employees. Saint-Gobain's employees form a community of supportive entrepreneurs based on the Principles of Conduct and Action, respect for the health and safety of employees, exemplary management and social dialogue.

### THE OPEN PROGRAM



In recent years, the Group has experienced significant developments, particularly the transition from a product-oriented to a market-oriented organization, positionning Saint-Gobain in a dynamic of openness: open to listen to the world surrounding it and to provide answers to customers' needs, and open internally to stimulate exchanges, innovation, team work and work in project mode and create differentiation. Four priorities of action are combined in the OPEN program: professional mobility, team diversity, employee commitment and talent development.

The social, economic and technological changes make it necessary to rethink the Group's managerial practices and functioning. In December 2016, Saint-Gobain informed all its employees of five "Saint-Gobain Attitudes":

- cultivate customer intimacy: understand, anticipate and respond to the needs of internal and external customers by "providing solutions";
- act as an entrepreneur: focus on performance and results by being open to new ideas and the ability to adapt to change;

- innovate: show curiosity, promote and value diversity to favor the forming of new ideas;
- be agile: be proactive and anticipate changes, including those connected with digital technology, while remaining focused on results:
- build an open and engaging culture: practice kindly leadership within the context of an unstable, uncertain and complex world.

These "Saint-Gobain Attitudes" will become the Group's new managerial referential in 2017.

### 3.2.1 Enrich the mobility policy

Promoting and enriching professional mobility at Saint-Gobain, whether geographic, functional or between the Activities, is a priority for the development of skills and the opening of each one. It is the best way of contributing diversity, developing innovation, developing the collective skills necessary for the organizational and technological requirements of the Group's Activities, sharing knowledge of markets and customers and in return enriching the careers of its employees.

Professional mobility is an asset to the Group as it increases the sharing of experiences among employees and therefore the potential for innovation at Saint-Gobain. It also presents a solution to reconcile employees' professional development with business requirements: offering more opportunities for the development of employee loyalty and it intensifies the crossover between activities, generating new solutions for customers.

The actions taken by Saint-Gobain to support mobility are based on broad communication of the policy and associated actions, and on a concerted vision of mobility.

This communication is based on a mobility charter, common to all Group entities, allowing movement management rules to be disseminated and harmonizing employee review practices. Similarly, all employees are invited to consult the job offers to be made and to apply for them. The online platform OpenJob has been developed and used in the General Delegations to meet this requirement.

In the various Group entities, mobility committees bring together human resources managers to share job offers and exchange points of view of employees' development prospects. These mobility committees cover all employees and are reinforced for managers. The management teams also encourage employee mobility and include applications from employees from other Activities in their succession plans.

In the event of geographic mobility, the Group offers each employee support for himself and his family. Finally, within the scope of reorganization projects, Saint-Gobain favors the conclusion of mobility agreements.

#### 3.2.2 **Promote diversity**

With the diversification of its teams, the Group is able to adapt to the world around it and to understand the challenges, to benefit from different skills and experiences while developing its ability to innovate. Exemplary management and an equal treatment policy on recruitment, occupational training and remuneration favor diversity within the Group. Wherever the Group is present, Saint-Gobain undertakes to promote diversity in all its forms: gender, nationalities, training, career paths, generational diversity and disabilities.

The increase in the gender diversity of teams is based on a voluntarist recruitment policy and on action plans for occupational promotion, equal pay, training and work/life balance. Tutoring and mentoring programs have been introduced in several General Delegations and an e-learning document on awareness of the challenges of gender diversity, entitled Gender Balance Awareness, has been drawn up and circulated in several languages to the human resources and management teams. Present in several countries, Saint-Gobain's female networks feed this culture of gender diversity. To favor the multi-disciplinary nature and diversity of nationalities, the emphasis is placed on developing diversified paths in the skill areas (Marketing, Research and Development, etc.), and on the establishing local managerial teams.

With regard to generation diversity, Saint-Gobain ensures a balance in the age composition of employees, making room for younger and older employees. Finally, the recruitment and retaining of people with disabilities are important subjects for Saint-Gobain.

In 2016, Saint-Gobain implemented 3 mid and long terms objectives:

- ♦ always have more than 90% of senior executives who meet one of the 3 diversity criteria (gender, nationality, experience)
- ♦ 25% of female managers in 2020
- 25% of female senior executives in 2025

These objectives represent the Group's ambition to promote all ways of diversity.

#### 3.2.3 Reinforce employees' commitment

Increasing employees' involvement in a context of change, both generational and technological, is an essential challenge for the Group. To meet this challenge, the Group places "managerial attitude and involvement" at the heart of this measure: managers motivate and develop the loyalty of employees by giving more meaning to their everyday work and by favoring a spirit of initiative. Whatever the hierarchical level or geographic area, four managerial attitudes guide and commit employees to a situation of supervision: acting in keeping with the Group's values, dealing with their teams and individuals, saying what they are doing and doing what they are saying, and refraining from any complacency. From these principles, Saint-Gobain has defined a set of tools, seeking to contribute towards reinforcing the commitment of its employees: measuring employee commitment, remuneration, health cover, social dialogue, maintaining jobs and corporate culture

In order to measure employee commitment, satisfaction surveys are conducted among managers over all the countries in which the Group is established under the responsibility of the General Delegations. These surveys by country or region are conducted in a coordinated manner and repeated every 2 years. The questionnaires are adapted to the local or regional context and include 7 recurring questions on managers' understanding and acceptance of the Group's strategy, the sharing of corporate values, leadership, employee commitment, effective implementation of the managerial referential (new SG Attitudes), the Group's attractiveness in the choice of professional paths and, finally, trust in the future. The results of these surveys are analyzed and fed into the progress plans and action plans to increase employee commitment. More individually, Saint-Gobain has introduced an annual interview procedure which makes it possible to ensure the regularity and quality of dialogue with employees. Individual interviews are held at least once a year for management and take place regularly among all emplovees.

Finally, with the external partners, Saint-Gobain has developed a 360° assessment tool. This tool is available on request for any manager and is compulsory before taking part in any training in the management school. Saint-Gobain also submits its human resources practices to the Top Employers Institute every year.

Regarding compensation, the basic salary standard are defined by the General Delegations in each country and activity sector based on the market conditions. The companies then draw up their wage policy. At the same time, employee share ownership offers employees the possibility of becoming shareholders under preferential conditions. The Group Savings Plan (PEG) enables them to acquire Saint-Gobain shares benefiting from a discount and, in some countries, from an additional amount. In France, to encourage a team spirit and to associate each person with the success of the Group, Saint-Gobain favors the conclusion of collective profit-sharing agreements.

Saint-Gobain also seeks to offer its employees health cover enabling them to obtain effective protection against the uncertainties of life. In France, social policy on health and pension expenses has been harmonized for all the companies, by mutualizing plans and benefits in order to offer common cover to everyone. The Group wishes to continue this measure for the social protection systems, in all its countries of establishment.

To address social issues specifically, dialogues are held and applied to local priorities. The Group's General Delegates periodically meet employee representatives to exchange views on the strategy and local challenges. In France, besides the numerous meetings held within the companies in particular, the Chairman and CEO of Saint-Gobain chairs the

Group Committee (the authority representing employees at Group level in France) and hosts central union coordinators at least once a year. At European level, the Chairman and CEO chairs the Convention for European Social Dialogue which brings together 70 union representatives from 27 European countries annually. With the aid of an independent expert, this Convention makes it possible to supplement the national dialogue by dealing with subjects of common interest such as safety or the trend of employment on European industrial sites. These subjects are raised in particular by the members of the Select Committee, which acts as spokesman for the Convention, who benefit from specific training to perform their role.

In an uncertain economic context, Saint-Gobain is committed, as far as possible, to implementing solutions to safeguard employment and only to making job cuts as a last resort. The aim is initially to reorganize to deal with situations on a temporary basis, as in the case of temporary lay-off, or to favor internal mobility agreements which, associated with incentive measures, make it possible to maintain jobs within the Group. When restructuring is inevitable, the employees affected by workforce adjustments benefit from personalized support programs which may result in training associated with retraining, assistance for geographic mobility or support for the execution of a personal project, such as the creation of a business. In France, the Saint-Gobain Development structure provides this supporting role (see chapter 4, section 4.1.2).

In order to develop a feeling of belonging among employees, Saint-Gobain relies on a certain number of measures that aim to make the Group a company of reference in terms of safety, health and working conditions. Saint-Gobain thus favors flexibility and telecommuting in order to create a motivating and engaging work environment, respectful of the work/life balance. Saint-Gobain also wishes to guarantee preferential access to the Group's products and solutions, particularly by creating training in the techniques of laying and assembling products. The same applies to the CARE:4\* extension, the energy efficiency improvement program for Saint-Gobain's tertiary buildings, based on concepts of working comfort and conditions (see chapter 2, section 2.3.2).

### 3.2.4 Develop talent

Saint-Gobain's ambition is both to grow the skills and know-how of its employees while still ensuring excellence in each of its businesses, but also to be an employer of reference, known and recognized for the wealth of the career paths offered. It involves taking into account individual wishes and the requirements of the organization, offering adapted developing paths, whether individual or collective, specific or cross-functional.

In a Group of global dimensions with a diversity of businesses, the training policy has to include the following four challenges: facilitate implementation of the Group's strategy and employee mobilization around that strategy, contribute towards the Group's development to allow more room for innovation and to better take into account customers' expectations and needs, consolidate the operational and technical know-how that constitute Saint-Gobain's strength on its markets, and finally support development in the areas of marked growth.

Saint-Gobain develops 3 types of actions:

- ♦ training programs deployed throughout the Group in a systematic and uniform way such as compliance programs (Adhere, Comply, Act, etc.) or those dedicated to digital transformation (Digital journey). In 2016, 27,796 digital journey modules were followed;
- training programs dedicated to Group's functional jobs gathering technical trainings with no connection to specific Activities: mixing onsite training, blended path or e-leaning modules, these programs communicate the Group's policies and procedures, and favor the good practices sharing;
- ♦ The School of Management integrates important stages of a manager professional life in the Group providing programs in 5 levels.

The General Delegations deploy these training programs locally and develop a specific offer to answer to local needs. Sectors and Activities have the responsibility for strengthening and improving technical skills in their specific processes. In the long term, Saint-Gobain's objective is to intensify the training programs for managers and for each industry, to supplement them with specific modules and to make better use of the managerial and non-managerial talent. Throughout their working lives, the training provided by the Group must guarantee the employability and success of all employees. Special emphasis has been placed on digital training, thanks to the e-learning training accessible to all employees or in-house training. The teams in charge of training also use digital to facilitate the access to training, offer different learning processes or design individual training programs. Already 185 trainers and training managers are trained to the new technics of blended learning.

The "Saint-Gobain Talents" program identifies managers with significant development potential or key skills. Defined locally, at all levels and in all Group businesses, it enables this talent to be developed and their career plans to be drawn up, favoring diversified paths. The development of personal reviews and succession plans, mentoring and relations with the Group's target schools and universities reinforce this measure.

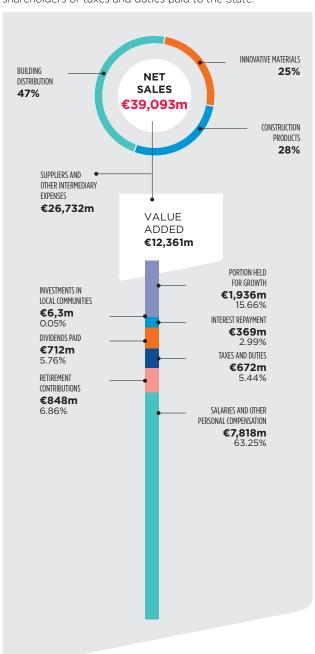
Offering a career within the Group is an asset that Saint-Gobain is constantly promoting to students and young graduates to attract the talent that suits it best, thanks to numerous measures. The development of talent is also the task of any manager who cares about his teams and the values of Saint-Gobain.

# 4. The Group's contribution to local and societal development

### 4.1 CONTRIBUTING TOWARDS THE DEVELOPMENT OF THE REGIONS

# 4.1.1 Socio-economic footprint: towards the creation of shared value

Allocation of Saint-Gobain's turnover and value added to its stakeholders indicates amounts distributed in wages paid to employees, purchases expenses to suppliers, dividends to shareholders or taxes and duties paid to the State.



These distributed amounts can be translated into social value: purchasing power and employee's skills improvement, jobs perpetuation for suppliers and the entire set of supply chains, contribution to public services funding, return for investors.

Saint-Gobain also participates to economic and industrial dynamics in regions where the Group has established sites, as well as in supplier's labor pools. Saint-Gobain's employment footprint can thus be calculated at three levels:

- direct jobs, which take into account the Group's paid employment;
- indirect jobs, which take into account employment generated by purchases of the Group among its suppliers and subcontractors;
- induced job, which take into account employment triggered by purchases within the national economy made by direct employees of the Group through the wages they receive and by the employees of Saint-Gobain's suppliers to the extent of their solicitation in the purchasing frame of the Group.

In 2016, Saint-Gobain has updated and extended the indirect jobs study. Driven by EY, this study henceforth also concerns induced jobs. The study covered the 2015 data and includes more than 90% of the Group's purchases.

For 170 500 direct jobs in 2015, the Group generates over 549 000 indirect jobs, to which are added over 190 000 induced jobs.

### **GROUP EMPLOYMENT FOOTPRINT**



#### 4.1.2 **Developing employment pools**

It is in France where the highest density of establishments is found, where relations with local partners take the most successful form thanks to the measures taken by Saint-Gobain Development, a body that specializes in assisting in local development and the revitalization of the regions. Saint-Gobain Development has made many contributions to the economic fabric:

- direct partnerships with SMEs;
- support in the form of skills;
- support for the development networks and local bodies;
- occupational inclusion of young people isolated from

Detailed indicators of Saint-Gobain Development's measures are shown in chapter 5, section 2.3.

### a) Support for developing SMEs

Global support is offered for developing SMEs. This consists

- participating loans at low rates without guarantees;
- support in the form of skills and transfer of know-how.

This aid falls within the framework of a long-term partnership "from manufacturer to entrepreneur".

### b) Support in terms of skills

Support in terms of skills may be provided by experienced Saint-Gobain employees wishing to share their expertise with the SMEs supported by the Group. These measures take place on a voluntary basis according to the procedures defined by the engagement letter.

4. The Group's contribution to local and societal development

This program has a double impact:

- gain in the efficacy of measures favoring local economic development;
- positive returns internally in terms of team motivation and commitment.

## c) Support for the development networks and local bodies

Saint-Gobain Development contributes towards the economic development through its permanent collaboration

with local participants in the economic development and more particularly the ALIZE system which brings together a large number of local networks and participants (large enterprises, institutional networks, regional communities, chambers of commerce and industry, etc.). Saint-Gobain is more particularly present in the following ALIZE systems: Vaucluse, Nord-Isère, Savoie, Manche, Grand-Hainaut and the L'Arbresle and Tarare region.

# 4.2 ENCOURAGING SPONSORSHIP CONNECTED WITH THE GROUP'S STRATEGY

€6.3 million <sup>(1)</sup> was invested in 2016 in solidarity actions with local communities. Some initiatives are undertaken centrally; others stem from the General Delegations, Activities or the Group's sites.

# 4.2.1 The Saint-Gobain Initiatives International Corporate Foundation



The Saint-Gobain Initiatives International Corporate Foundation relies on employee commitment. All Group employees - whether currently employed or retired - can sponsor solidarity actions in two fields:

- inclusion of young adults in professional life;
- the construction, improvement or renovation for general interest purposes of the social habitat, contributing in particular towards reducing energy consumption and preserving the environment.

The projects must be borne by a non-profit organization and be situated close to a Group site.

The Foundation provides financial support for the projects it selects. In addition, the Saint-Gobain subsidiaries may offer support in terms of technical skills or donate materials. Certain projects provide the opportunity to involve local employees, who become involved in the association and participate on a voluntary basis.

The Foundation was formed in 2008. Up to December 31, 2016, its endowment amounted to €1 million per annum.

Over the period 2008-2016:

 322 projects were submitted to the Foundation, situated in 59 countries; ◆ 136 projects have been supported, representing a commitment by the Foundation of €8.5 million.

### 4.2.2 Local societal actions

In addition to the Saint-Gobain Initiatives Foundation projects, the companies, the Activities and the General Delegations, in their respective scopes and based on their local challenges, carry out sponsorship actions in the Group's reference markets, but also in fields such as education, research, culture or health.

Consequently, all the Group's sites in the UK and in Ireland participate in the charitable program "Together", which brings together employees, customers, suppliers and members of the local communities around a solidarity action.

### 4.2.3 Active local foundations

Certain Saint-Gobain General Delegations or Activities have set up foundations to act more closely with the regions.

### a) The Saint-Gobain Corporation Foundation

In North America, the Saint-Gobain Corporation Foundation operates three programs:

- "matching gifts", enabling personal gifts made by employees to NGOs or in favor of education to be increased by around 50%;
- "community gifts", whereby each industrial site established in the USA or in Canada makes a contribution to a local community; donations and initiatives are left for the assessment of the sites, based on their priorities and local requirements;
- "direct grants", a program providing direct support for certain non-government organizations for social and societal development, improvement in energy efficiency and preservation of the environment; for example, the partnership with YouthBuild, a non-profit association, makes it possible to help young people in underprivileged communities by building and sustainable renovation.

<sup>(1)</sup> These figures include the annual endowment of the Saint-Gobain Initiatives International Corporate Foundation (€1 million) as well as the measures taken with regard to cultural, educational and general interest sponsorship. The decrease compared to 2015 (-2%) is due to a change in the scope reporting in India to be aligned to a new local context. At equivalent scope, the global figure will be €6.8 million, an increase of 5%.

4. The Group's contribution to local and societal development

In India, the Saint-Gobain India Foundation has dedicated itself to improving the living conditions of the most destitute people by supporting projects connected with education, particularly for young girls. It also operates in the fields of training, health and the environment.

### c) Foundations in the Activities

In France, the Fondation PAM of the Pipe Activity helps young people experiencing social or financial difficulties by providing them with the support of sponsorship provided by company employees.

The Fondation Placoplatre promotes the inclusion of young people by working in the building businesses. It also supports programs connected with environmental preservation and the development of cultural activities in the vicinity of the Gypsum Activity sites.

### 4.2.4 Cultural, artistic, educational and general interest sponsorship

Every year, Saint-Gobain undertakes to support cultural and scientific projects connected with its identity, its history or its strategy with regard to habitat.

The sponsorship project is based around 3 main lines: cultural sponsorship, scientific publications and educational seminars and actions.

### Cultural sponsorship

Saint-Gobain provides long-term support for large cultural establishments. Every year, exhibition projects that resonate with its identity, its assets or its businesses also benefit from financial sponsorship or sponsorship in kind.

The Group's know-how and expertise (in glass and other construction materials) are regularly requested, for exhibition designs in particular.

In 2016, Saint-Gobain will have provided financial sponsorship and/or sponsorship in kind for the Louvre-Lens for the Charles Le Brun exhibition, for the Cité de l'architecture et du patrimoine for the exhibition Tous à la plage! on seaside architecture from the 18th century to date, and for the Château de Versailles for the exhibition Fêtes et divertissements à la cour (Court Feasts and Entertainment). Saint-Gobain has also provided the Musée d'Orsay with a glazed enclosure to allow the restoration in public view of a very large painting by Auguste Glaize entitled Les femmes gauloises (The women of Gaul).

In 2016, substantial support was provided for the AROP (Association pour le rayonnement de l'Opéra de Paris) which enabled employees to benefit from behind-the-scenes visits to the Opera and to attend performances or rehearsals.

### Scientific publications and seminars

Saint-Gobain enables institutions, associations, researchers, etc., to publish works and reviews and to organize seminars, meetings or festivals connected with its history or its fields of action (architecture in particular). In 2016, support was provided for the journal of the Société des amis de la Cité de la céramique de Sèvres, as well as the Centre Chastel seminar on Le vitrail dans la demeure des origines à nos jours [Stained-glass windows in the home from their origins to the present day]. Thanks to Saint-Gobain, a structure was supported and an exhibition held at the Université Bordeaux Montaigne on the Fumel site (Lot-et-Garonne) where Pont-à-Mousson owned a major factory (in which a magnificent Watt's machine is housed) as well as art deco structures or even contemporary stained glass works. This year, Saint-Gobain also participated in the Rendez-vous de l'histoire de Blois in which the theme was Partir (Leaving) and supported the Salon Histoire de Lire dedicated to history books in Versailles.

With regard to architecture, Saint-Gobain supported the association Diversum which organized Architectures et commerce (Architectures and trade) meetings and the AFEX (Association des Architectes français à l'Export) which organized an event on Dix ans d'architecture française dans le monde (Ten years of French architecture throughout the world) for its 20<sup>th</sup> anniversary.

### **Educational measures**

These measures aim to promote the dissemination of scientific and technical culture among young people. Saint-Gobain has continued to support the Fondation La Main à la pate and the association C.Génial.

In addition to these 3 main lines, one major event in the year 2016 was the incorporation into Saint-Gobain's collections of a stained-glass window by Raphaël Lardeur. This window, designed by this great art deco master glass artist for Saint-Gobain's glass pavilion for the international exhibition held in Paris in 1937, had been lost following the destruction of the pavilion. It represented the blowing and spreading operations carried out at the Saint-Just Glassworks, near Saint-Étienne, still present in the Group. It was found in a small cinema in the municipality of Saint-Just-Saint-Rambert. It has been restored, acquired by the Group and placed in the new cinema that opened in 2016 in the same municipality, where it is on display with its history.

Finally, Saint-Gobain anxious to make its contribution to thoughts on the common good, has helped the Académie des sciences morales et politiques to organize a cycle of conferences and discussions on Éthique et économie (Ethics and the economy) throughout 2016.

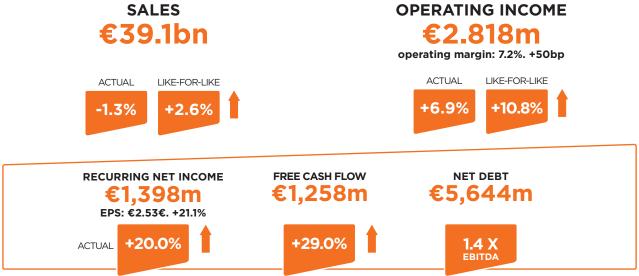


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# 1. Financial Results

The 2016 consolidated financial statements were approved and adopted by Saint-Gobain's Board of Directors at its meeting of February 23, 2017. The consolidated financial statements were audited and certified by the Statutory Auditors.

### **2016 KEY FIGURES**



CHANGES BASED ON 2016 VS. 2015

### STRONG PROGRESS IN RESULTS

- Organic growth of 2.6% led by volumes; prices stable, with a progression of 0.6% in H2;
- Negative 2.9% currency impact on sales (with a negative 2.3% impact in H2); negative 1.0% Group structure impact;
- Further rise in operating income up 10.8% like-for-like, and operating margin up to 7.2% from 6.7%;
- Further strong 20.0% increase in recurring net income (1);
- ◆ 29.0% increase in free cash flow (2) to €1,258 million;
- ◆ Acceleration of acquisitions in H2, totaling €362 million over the full year;
- Increase in net debt to €5.6 billion, due namely to optimization of pension costs; buyback and cancelation of 11 million shares during the year;
- 2016 dividend increased to €1.26, to be paid wholly in cash.

### 1.1 OPERATING PERFORMANCE

The Group reported 2016 sales of €39,093 million, including a significant 2.9% negative currency impact due namely to the depreciation of the pound sterling – and to a lesser extent Latin American currencies – against the euro.

The negative 1.0% **Group structure impact** reflects the time-lag between the impact of disposals made to optimize the Building Distribution portfolio in late 2015/early 2016 and the acquisitions carried out mostly at the end of the period.

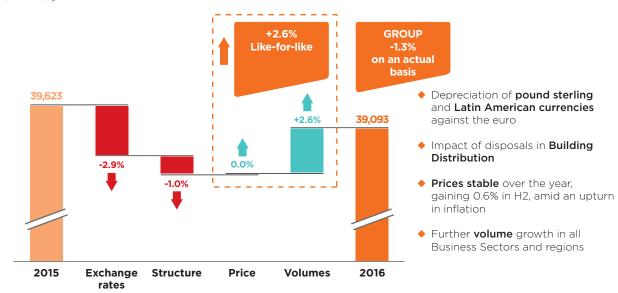
**On a like-for-like basis, sales were** up 2.6%, driven by volume growth in all of our Business Sectors and regions. Based on a constant number of working days (negative calendar effect in the second half), volumes continued to increase in the six months to December 31, at the same pace as the first half. Prices stabilized over the year, gaining 0.6% in the second half amid an uptick in inflation.

<sup>(1)</sup> Recurring net income: net attributable income from continuing operations excluding capital gains and losses on disposals, asset write-downs and material non-recurring provisions.

<sup>(2)</sup> Cash flow from continuing operations excluding the tax impact of capital gains and losses on disposals, asset write-downs and material non-recurring provisions, less capital expenditure of continuing operations.

### **SALES**

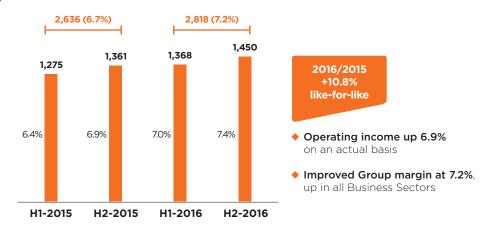
(in EUR million)



The Group's operating margin (= Operating income expressed as a percentage of sales) increased to 7.2% from 6.7% in 2015, with 7.4% for the second half (versus 6.9% in second-half 2015). In line with our objectives, we saw a further like-for-like increase in operating income, up 11.5% in the second half, bringing growth over the full year to 10.8%.

### **OPERATING INCOME**

(in EUR million and % of sales)



In 2016, the Group's capital expenditure was €1.37 billion, in line with our objective; we made €270 million in cost savings (versus 2015), exceeding our €250 million target.

Free cash flow jumped 29% to €1,258 million, in line with the Group's operating performance.

Operating working capital requirements remained at a good level of 28 days, despite a rise of 1.7 days' sales, after the record low of 2015.

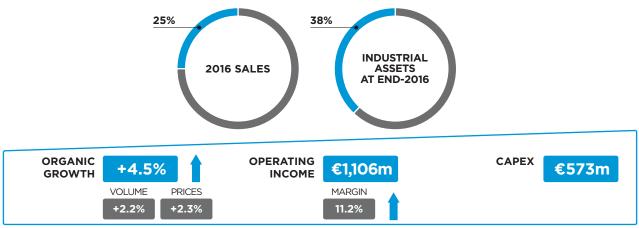
The Group continued to pursue its acquisitions strategy, representing close to €300 million in full-year sales.

Regarding the plan to acquire a controlling interest in Sika, the Group is confident that SWH's rights will be restored.

### 1.1.1 Operating performance by Business Sector

### a) Innovative Materials

### **INNOVATIVE MATERIALS**



2016 VS. 2015

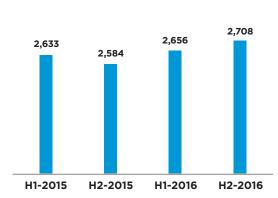
**Innovative Materials** sales climbed 4.5% like-for-like over the year, in line with the first half. The operating margin for the Business Sector widened to 11.2% from 10.5%, driven by the rebound in Flat Glass and a good performance from HPM.

### **FLAT GLASS**

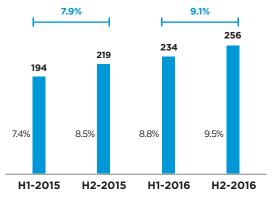


2016 VS. 2015

Sales (€m)



Operating income and margin (€m - %)



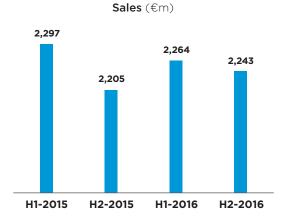
Flat Glass like-for-like sales increased 6.5% over the year, in line with the first half, led by both construction and automotive in Asia and emerging countries. In Western Europe, construction volumes and prices both improved, benefiting from higher float prices and, as from the second

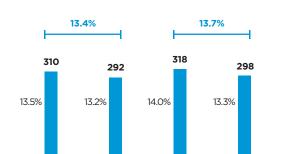
half, from a rise in the price of downstream glass; automotive glass stabilized at a good level.

This organic growth, combined with the optimization of operating leverage over recent years, resulted in a further increase in operating margin, up from 7.9% to 9.1%, and 9.5% in second-half 2016.

H1-2015

2016 VS. 2015





H2-2015

Operating income and margin (€m - %)

♦ High-Performance Materials (HPM) sales rose 2.2% on a like-for-like basis. Despite the decline in industrial markets in the US, all HPM businesses advanced in the second half, led by Asia and emerging countries. Plastics also benefited from robust momentum in Europe. Ceramics stabilized over the year, with a less favorable mix in the second half. Textile Solutions were buoyed by the sharp rise in Roofing volumes in the US.

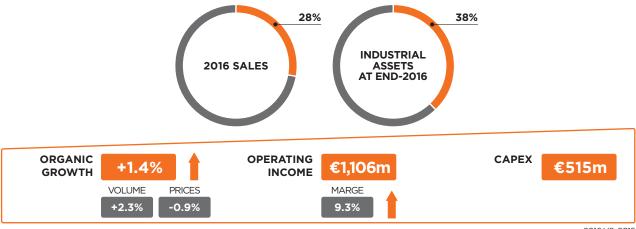
H1-2016

H2-2016

♦ The operating margin for the year widened to 13.7% from 13.4%, and stood at 13.3% for the second half (13.2% in second-half 2015).

#### b) **Construction Products**

### **CONSTRUCTION PRODUCTS**



2016 VS. 2015

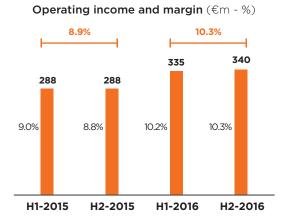
Construction Products (CP) reported 1.4% organic growth, including 1.1% in the second half. The operating margin improved, up to 9.3% from 8.5% despite the decline in Pipe.

### **INTERIOR SOLUTIONS**



2016 VS. 2015



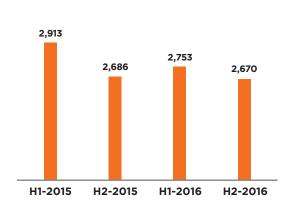


- ◆ Interior Solutions showed good organic growth, at 3.7% (2.2% in the second half owing to the negative calendar impact). Sales were up in Western Europe; the price effect was slightly negative but neutral in the second half. Trading in North America continued to advance, albeit at a slower rate than the first half; prices remained negative over the year but improved in the six months to
- December 31. Asia and emerging countries continued to deliver growth.
- ♦ Good volume levels coupled with productivity gains and a fall in costs - particularly energy - drove a sharp improvement in the operating margin, which reached 10.3% in 2016 compared to 8.9% in 2015.

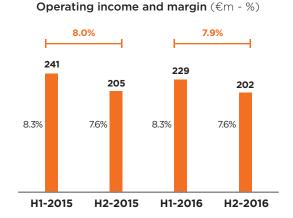
### **EXTERIOR SOLUTIONS**



2016 VS. 2015



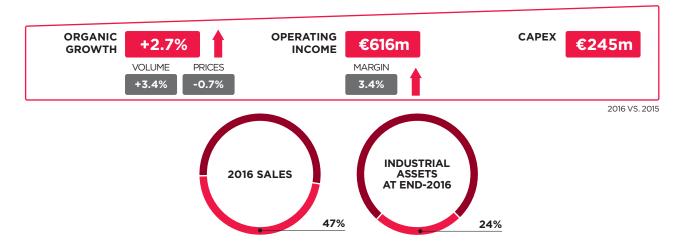
Sales (€m)



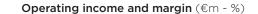
- ◆ Exterior Solutions like-for-like sales stabilized over the second half (slipping 0.1%) and were down by 1.1% over the year, hit by the downturn in Pipe. This business continued to suffer from contracting markets in its main regions except Brazil, where the comparison basis was particularly weak. Exterior Products in the US reported strong volume
- growth, boosted especially by favorable weather impacts; prices remained down over the year but to a lesser extent in the second half. Mortars posted like-for-like growth powered by Asia and emerging countries, despite their exposure to the Brazilian market.
- ♦ The operating margin was 7.9% versus 8.0% in 2015.

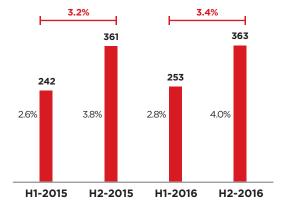
### c) Building Distribution

### **BUILDING DISTRIBUTION**









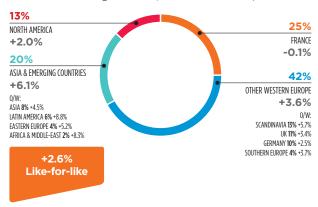
- ◆ Building Distribution reported 2.7% organic sales growth for the year, with 2.2% in the second half, slightly up on the first half based on a comparable number of working days. Trading in France benefited from the upturn in new-builds, while renovation stabilized at a low level in a still deflationary environment, including at the end of the year. Scandinavia confirmed its good momentum over the full year, as did Spain and the Netherlands. The UK has not shown signs of weakness since the Brexit vote and
- continued to advance in line with the first half. Germany enjoyed good growth, although momentum slowed in the second half. Brazil continued to suffer from the market downturn.
- ◆ The operating margin was 3.4% for the year versus 3.2% in 2015 (4.0% in the second half compared to 3.8% in second-half 2015), impacted by the negative price effect which stabilized in the six months to December 31.

### 1.1.2 Operating performance by region

### SALES TRENDS BY REGION

### Sales trends by region

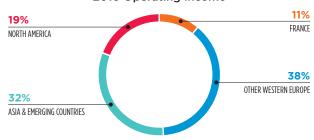
(Breakdown of 2016 sales by region and % change in 2016/2015 like-for-like)



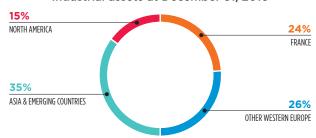
- ◆ In line with our expectations, France stabilized over the year (slipping 0.1% like-for-like). Trading edged down 0.7% in the second half, hit by an unfavorable calendar impact. The decline in Pipe was offset by an improvement in the new-build market, while renovation stabilized at a low level in a still deflationary environment. The operating margin leveled off at 2.9%.
- ♦ Other Western European countries saw like-for-like sales growth of 3.6%, with 2.9% growth in the second half (impacted by a negative calendar impact). This reflects upbeat market conditions in all of our main countries, including in the second half. Only Germany posted a slowdown in growth in the six months to December 31, related in particular to Interior Solutions. The operating margin climbed to 6.2% in 2016 from 5.7% in 2015.

# OPERATING INCOME AND INDUSTRIAL ASSETS BY REGION

### 2016 Operating income



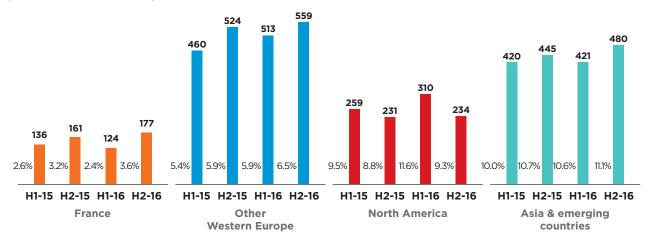
### Industrial assets at December 31, 2016



- North America reported 2.0% like-for-like sales growth, buoyed by volumes in both Exterior Products and Interior Solutions, mainly in the first half. Industrial markets were down slightly. Prices continued to have a negative impact, although this eased in the second half. The operating margin rose to 10.5% from 9.1% in 2015, driven mainly by volumes.
- ◆ Asia and emerging countries continued to advance, reporting 6.1% organic growth (7.3% in the second half). Trading remained robust in all regions despite the slowdown in Brazil. The region delivered further growth in its operating margin, up to 10.9% from 10.3% in 2015.

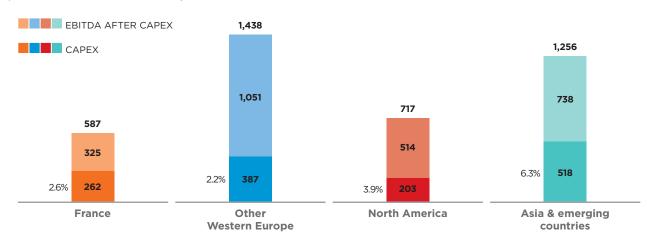
### **OPERATING INCOME BY REGION**

(in EUR million and % of sales)



### **EBITDA AND CAPEX BY REGION**

(2016, in EUR million and % of sales)



#### 1.2 FINANCIAL RESULTS

Consolidated sales advanced 2.6% like-for-like, led by volume growth (stable price effect). On a reported basis, sales were down 1.3%, with a negative 2.9% currency impact due namely to the depreciation of the pound sterling - and to a lesser  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ extent Latin American countries - against the euro. The negative 1.0% **Group structure impact** essentially reflects disposals carried out in the Building Distribution Sector.

**Operating income** increased 6.9% on a reported basis despite a negative currency impact and by 10.8% like-for-like. The operating margin stood at 7.2% of sales versus 6.7% of sales in 2015.

EBITDA (operating income plus operating depreciation and amortization) climbed 4.0% to €3,998 million, or 10.2% of sales (9.7% of sales in 2015).

**Non-operating costs** fell to €312 million from €344 million in 2015, driven by lower restructuring costs thanks to a decrease in the second half. This amount also includes a €90 million accrual to the provision for asbestos-related litigation involving CertainTeed in the US, unchanged from 2015.

### **Business income**

(in EUR million)	2015	2016	2016/2015	Like-for-like change
Operating income	2,636	2,818	+6.9%	+10.8%
Non-operating costs	(344)	(312)		
o/w provision for asbestos-related litigation	(90)	(90)		
o/w other expenses	(254)	(222)		
Other operating expenses	(998)	(202)		
o/w disposal gains (losses)	(65)	(12)		
o/w asset write-downs	(933)	(190)		
Business income	1,294	2,304	+78.1%	

The net balance of capital gains and losses on disposals, asset write-downs and corporate acquisition fees was an expense of €202 million, compared to an expense of €998 million one year earlier. In 2016, this item includes €190 million in asset write-downs, chiefly in Interior Solutions and proppants. **Business income** rose 78.1%.

Net financial expense improved sharply, down 14.0% to €541 million from €629 million in 2015. This primarily reflects the decrease in average net debt over 12 months, compared to a decrease only late in the year in 2015 (disposal of Verallia in October 2015). The cost of gross debt also fell, to 3.4% at December 31, 2016 versus 3.9% at end-December 2015, due mainly to the September 2016 bond issue for €1 billion, at 0% and maturing in three and a half years.

### **Net income**

(in EUR million)	2015	2016	2016/2015
Net financial expense	629	541	
Average cost of gross debt	3.9%	3.4%	
Income tax	248	416	
Tax rate on recurring net income	29%	27%	
Net attributable income	1,295	1,311	+1.2%
EPS (in EUR)	2.32	2.36	+1.7%
Recurring net income*	1,165	1,398	+20.0%
Recurring EPS (in EUR)	2.09	2.53	+21.1%

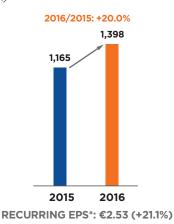
<sup>\*</sup> From continuing operations.

The tax rate on recurring net income was 27%, compared to 29% in 2015, owing mainly to a favorable geographical mix and lower tax rates in certain countries. **Income tax expense** 

was €416 million compared to €248 million in 2015, which had seen the reversal of deferred tax liabilities linked to intangible asset write-downs.

### **RECURRING NET INCOME\***

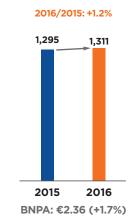
(in EUR million)



Recurring net income (excluding capital gains and losses, asset write-downs and material non-recurring provisions) rose  $% \left\{ \left( 1\right) \right\} =\left\{ \left($ 20.0% to €1,398 million.

### **NET INCOME\*\***

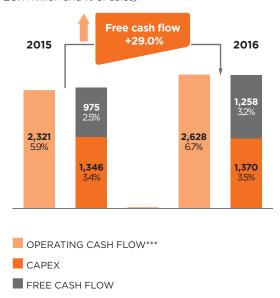
(in EUR million)



Net attributable income, which in 2015 included net income from discontinued operations (Verallia), climbed 1.2% in 2016 to €1.311 million.

### CASH FLOW FROM OPERATIONS\*\*\* AND CAPEX

(in EUR million and % of sales)



Capital expenditure totaled €1,370 million, in line with our objective, representing 3.5% of sales (3.4% of sales in 2015).

**Cash flow from operations** rose 7.3% to €2,749 million (€2,562 million in 2015). Before the tax impact of capital gains and losses on disposals, asset write-downs and material non-recurring provisions, cash flow from operations climbed 13.2% to €2,628 million and **free cash flow** increased 29.0% to €1,258 million (3.2% of sales versus 2.5% of sales in 2015).

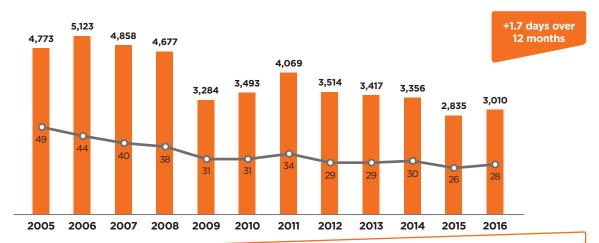
- Net income from continuing operations excluding capital gains and losses on disposals, asset write-downs and material non-recurring provisions.
- \*\* Net attributable income.
- \*\*\* Excluding the tax impact of capital gains and losses on disposals, asset write-downs and material non-recurring provisions.

**Operating working capital requirements (WCR)** remained at a good level of 28 days' sales, a rise of 1.7 days from the

record low recorded in 2015 and representing an increase of €175 million in value terms (to €3,010 million).

### **OPERATING WCR**

(at December 31, in EUR million and no. of days)



### ONGOING TIGHT REIN ON OPERATING WCR

**Investments in securities** totaled €362 million (€227 million in 2015) and relate to targeted acquisitions in Asia and emerging countries, technological niche markets, and efforts to consolidate the Group's positions in Building Distribution, especially in Nordic countries.

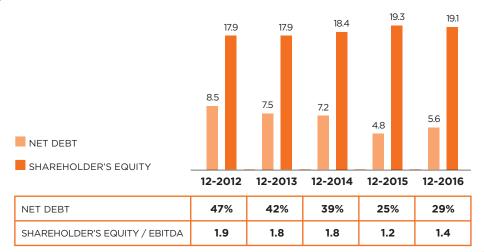
**Net debt** rose from €4.8 billion to €5.6 billion, due mainly to share buybacks of €418 million and a one-off contribution of

\$640 million to US pension funds (\$422 million after the tax credit effective in 2017). This contribution will enable the Group to save around \$20 million in finance costs each year. Net debt represents 29% of consolidated equity, compared to 25% at December 31, 2015.

The net debt to EBITDA ratio came out at 1.4 versus 1.2 at end-2015.

### **NET DEBT AND SHAREHOLDERS' EQUITY**

(in EUR billion)



### PERSISTENTLY STRONG BALANCE SHEET

<sup>\*</sup> EBITDA = operating income + operating depreciation / amortization over a 12-month period.

Share buyback and dividend: in line with its objectives, in 2016 the Group bought back and later canceled around 11 million shares for €418 million, resulting in a decrease in the number of shares outstanding to 553.4 million shares at end-December 2016 (compared to 558.6 million shares at end-December 2015).

At its meeting of February 23, 2017, Compagnie de Saint-Gobain's Board of Directors decided to recommend to the June 8, 2017 Shareholders' Meeting to pay in cash an increased dividend of €1.26 per share (versus €1.24 in 2015), demonstrating our focus on shareholder returns in the context of our strong 2016 results and confidence looking ahead. This dividend represents 50% of recurring net income and a dividend yield of 2.85% based on the closing share price at December 30, 2016 (€44.255). The ex-dividend date has been set at June 12 and the dividend will be paid on June 14, 2017.

#### 1.3 2017 OUTLOOK

In 2017 the Group should benefit from a gradual improvement in France, despite a still uncertain renovation market. Western Europe should deliver organic growth, despite less visibility in the UK. North America should continue to advance in construction markets, excluding the exceptional weather impacts of 2016, but will continue to face uncertainty in industry. Our operations in Asia and emerging countries should enjoy robust growth.

Saint-Gobain will continue its disciplined approach towards cash management and financial strength. In particular, it will pursue:

its focus on sales prices amid an uptick in inflation;

- ♦ its cost savings program, with the aim of unlocking additional savings of **around €270 million** (calculated on the 2016 cost base):
- ♦ its capital expenditure program (around €1,600 million in 2017), with a focus on growth capex outside Western Europe and also on productivity and digital transformation;
- its commitment to invest in R&D to support its differentiated, high value-added strategy;
- its focus on high levels of free cash flow generation.

### The Group is targeting a further like-for-like increase in operating income in 2017.

These statements on outlook constitute either trends or objectives, and are not to be considered as projected results. Although Saint-Gobain believes these forward-looking statements are based on reasonable assumptions as of the date of publication of this document, investors are warned that they are not guarantees of future performance. Actual results may differ quite significantly from forward-looking statements due to a number of risks, both known and unknown, uncertainties and other factors, most of which are difficult to anticipate and are generally outside Saint-Gobain's control, specifically the risks described in Chapter 7, Section 1 of this registration document. Consequently, every precaution must be taken in using these forward-looking statements. The prospective information contained in this registration document can only be applied on the date of its publication. Saint-Gobain makes no commitment to supplement, update or amend these forward-looking statements as a result of any new information, future event or for any other reason.

### **Non-financial results** 2.

### 2.1 ALIGNMENT OF THE CSR DASHBOARD WITH THE GROUP'S PRIORITY **CHALLENGES**

In 2016, the Group prioritized its CSR challenges and actions, improving clarity and refining its long-term objectives. The CSR roadmaps provide a medium/long-term vision for each

category of challenge, and short-term action plans are rolled out across the businesses by the General Delegations and the

Priority challenge category	CSR roadmap	Operational action plan
Climate change	Sustainable solutions: Sustainable Habitat - industrial markets Limitation of environmental impacts	Habitat Committees, Sustainable Construction tools; Environmental action plan; WCM; Training in eco-innovation
Responsible practices	CSR governance	Responsible purchasing; Compliance program; Internal audits; Management reference base
Diversity	Employees' professional growth	WIN program; Training; OPEN program
Health and Safety	Employees: Employees' professional growth  Customers and consumers: Sustainable solutions  Suppliers and subcontractors: CSR governance (Responsible Purchasing)	Implementation of the Health and Safety policy; WCM; Training in eco-innovation; Action plan for responsible purchasing
Development-related CSR challenge category	CSR roadmap	Operational action plan
Circular economy	Sustainable solutions  Limitation of environmental impacts	Action plans by General Delegation as per sustainable resource management policy; Cross-business R&D program
Creation of local value	Group contribution to local development	Responsible Purchasing, Compliance program, OPEN program

In 2016, the Group developed and improved its CSR dashboard under the supervision of the Board of Directors. The long-term objectives of the Compagnie de Saint-Gobain were completed for anti-corruption and diversity.

Challenges	Definition	Result for 2016	Objectives to be defined
PRIORITY INDICATORS: IMPERAT	IVES		
Responsible practices	Percentage of new managers who took Adhere (Principles of Conduct and Action), Comply (competition law) and Act (anti-corruption) in their first year after joining	Adhere: 73.1% Comply: 86.6%	100% for all <b>3 training courses</b> in 2018
Climate change	CO <sub>2</sub>	-7.4%	-20% by 2025 (base is 2010)
Diversity	Diversity index (gender, nationality, experience -the base is Senior Executives)	91% of Senior Executives meet one of the following 3 criteria: - a national of a country other than France - a diversity of experience (countries, industries or experience outside the Group) - gender (female)	General objective: always have more than 90% of Senior Executives who meet one of the 3 criteria Specific objective: 25% of managers to be women in 2020 25% of Senior Executives to be women in 2025
Health and Safety	Safety: TRAR (lost time and non lost time accident rate) Permanent subcontractors to be included in the indicator in 2017	TRAR: 3.5 (objective is 3.6) [result for 2016 with permanent subcontractors: 3.3]	Zero accidents Objective for 2017: TRAR: 3.1
OTHER INDICATORS			
Solutions developed and distributed to help with the Group's CSR challenges, with benefits in terms of carbon and	Number of Multi-Comfort projects including country and market segment coverage	27 projects, 18 countries in Europe, North and South America and Asia; residential and non-residential markets - newbuilding and renovation	Product stewardship (2 pilot projects completed to assess the benefits of CSR for a portfolio of products in 2017)
health/safety.	Training in eco-innovation	623 individuals	,
Operational excellence	Loyalty index: attendance rate + training + turnover rate + mobility indicator Score of A = 4 objectives achieved Score of B = 3 objectives achieved	A (B in 2015)	Positive trend
Creation of local value	Direct and indirect jobs	Direct jobs: 170,500 Indirect jobs: 549,200	-
Evidence and commitments	GRI-G4, remain included in the FTSE4good and CDP/DJSI indices for 3 years	DJSI World CDP Climate A-	DJSI World

xx : new criteria or objectives xx : Developments for 2017

### 2.2 INTEGRATION OF THE UNITED NATIONS SUSTAINABLE **DEVELOPMENT GOALS**



In 2016, Saint-Gobain finalized the integration of the United Nations Sustainable Development Goals (SDG) into its approach to CSR, building on the materiality analysis (see Chapter 2, Section 2.1.5), the Group's stakeholder dialogue, and its understanding of its value chain. CSR is central to the

Group's strategy, which made it easier to integrate the SDGs into Saint-Gobain's objectives.

The 17 SDGs were subdivided into three levels of alignment with the Group's strategy and activities:

- ♦ SDGs aligned with the strategy: those where the Group has levers of action, either via its activity or its value chain;
- ♦ moderately aligned SGDs or in connection with a specific Group activity: those where Saint-Gobain has limited levers of action:
- ♦ non-priority SDGs: those where the Group has little or no impact.

The following table lists and explains the SDGs that are aligned with the Group's strategy.

	•		
Challenges	UN Sustainable Development Goal	Saint-Gobain impacts	Main indicators
Responsible practices	SDG 8: Decent work and economic growth SDG 16: Peace, justice and strong institutions	The Group's commitment to human rights takes into account the whole of its value chain. The Responsible Purchasing policy specifically incorporates the fight against forced labor, and decent working conditions. The Group's governance and its compliance program also illustrate the importance of CSR for the Group.	Responsible Purchasing reporting; Human rights reporting
Climate change	SDG 9: Industry, innovation and infrastructure SDG 13: Climate action	Action and innovation by the Group are centered around combating climate change and specifically, a net reduction in $\text{CO}_2$ emissions. The Group's contribution covers both reducing production impacts and increasing the benefits associated with the performance of sustainable construction solutions.	Carbon commitment; environmental reporting; Top 100 Global Innovators
Diversity	SDG 5: Gender equality SDG 10: Reduced inequalities	Saint-Gobain believes that diversity is an asset for the Group, and makes efforts to overcome stereotypes and potential discrimination through training and its management reference bases. All types of diversity are covered.	Diversity index; diversity reporting
Health and Safety	SDG 3: Good health and well-being	Health and safety are core values for the Group. Its policies ensure consideration of risks throughout its value chain: employees, subcontractors, suppliers, customers and users of the products and solutions developed or distributed by the Group.	TRAR; Responsible Purchasing reporting; product stewardship
Solutions developed and distributed to help with the Group's CSR challenges, included benefits in terms of carbon and health/safety.	SDG 11: Sustainable cities and communities SDG 12: Responsible consumption and production	The perfect illustration of Saint-Gobain's commitment is its brand promise: to design, manufacture and distribute materials which are key ingredients in the wellbeing of each of us and the future of all. The same is true of its mission: to create great living places and improve daily life by combining the dual challenges of contributing to the emergence of sustainable cities with the solutions brought to market, and encouraging sustainable consumption by addressing individual expectations in terms of comfort and wellbeing.	Product stewardship; Multi-Comfort projects; environmental reporting; WCM
Operational excellence	SDG 4: Quality education	The professional development of its employees is a priority for the Group. High-quality training, particularly the use of new options offered by digital technology, is an essential component in addressing the social, economic and technological changes affecting the context in which Saint-Gobain operates.	Loyalty index; reporting on training
Creation of local value	SDG 1: No poverty SDG 8: Decent work and economic growth	The Group's strategy and organizational structure demonstrate its desire to develop locally appropriate markets throughout the world. The General Delegations provide the operational structures for the Group's local contribution.	Indirect jobs and jobs generated; local community reporting
Evidence and commitments	A concordance table of the indi	icators is available on the Saint-Gobain website	

The SDGs moderately aligned with Saint-Gobain's strategy are tracked by the most relevant: an Activity or a Group policy:

- ♦ SDG 6: Clean water and sanitation. This SDG relates directly to the Group's Pipe Systems Activity. More generally, implementation of the Group's water policy fulfills the aim of limiting withdrawals and promoting water reuse;
- ♦ SDG 7: Affordable and clean energy. The Group's energy-related initiatives are focused primarily on efficiency. Access to affordable and clean energy is an absolute necessity to drastically reduce the carbon impact of production. This is the reason why Saint-Gobain works with the International Energy Agency (IEA) and maintains
- an ongoing dialogue with its energy suppliers, to develop access to renewable energies at an acceptable cost. The Energy, Atmospheric Emissions and Climate Change policy reflects the Group's energy vision;
- ♦ SDG 15: Life on land. Saint-Gobain's wood purchases and its quarrying operations have an impact on biodiversity. The Wood Purchasing policy and the Gypsum Activity's Biodiversity charter are the cornerstones of the Group's commitment to biodiversity.

### **NON-FINANCIAL INDICATORS** 2.3

Indicator ENVIRONMENT	2016	2015	2014	GRI
	2016	2015	2014	GRI
ENVIRONMENTAL MANAGEMENT  Tatal as in a paragraph of a paragraph of the pa	1071 MG	107 4 ME	107 C MG	EN171
Total environmental expenditure, of which*:	127.1 M€ 26.1 M€	127.4 M€ 27.0 M€	123.6 M€ 25.1 M€	EN31
Salaries and other payroll expenses for environmental officers     ISO 14001 and EMAS environmental certification and renewal costs	26.1 M€ 3.5 M€	27.0 M€ 2.6 M€	25.1 M€ 2.9 M€	
Finvironmental taxes	6.9 M€	5.8 M€	2.9 M€	
Insurance and warranties	8.4 M€	5.6 M€	4.3 M€	
Environmental fines	0.3 M€	0.1 M€	4.3 M€	ENIO
Cost of environmental incidents	3.9 M€	0,3 M€	0.1 M€	EINZ9
Cost of technical measures	5.9 M€ 6.7 M€	0,3 M€ 6.0 M€	7.1 M€	
Environmental R&D budget	59.7M€	61.8 M€	7.1 M€ 59.0 M€	
Soil decontamination, site remediation and other clean-up costs	18.4 M€	01.6 M€	15.1 M€	
Capital expenditure on environmental protection measures	78.8 M€	63.3 M€	52.1 M€	
Provisions for environmental risks	78.3 M€	163.3 M€	155.2 M€	
Number of sites certified for Environment management (ISO 140001 or EMAS)	83%	83% 77	81%	
Number of sites certified for Energy management (ISO 50001)	85		53	
Number of sites certified for Quality (including ISO 9001)	673	659	643	
DAW MATERIAL C AND PRODUCTION WASTE	(619)	(603)	(591)	
RAW MATERIALS AND PRODUCTION WASTE	0.400.14	0.400.14	0.400.14	ENIOZ
Quantity of non-recovered production waste from the concerned sites*	0.482 Mt	0.469 Mt	0.490 Mt	
Quantity of non-recovered hazardous production waste from the concerned sites*	0.029 Mt	0.033 Mt	0.036 Mt	EN23
Consumption of primary raw materials in glass furnaces, concerned sites*	6.50 Mt	6.50 Mt	6.47 Mt	
Consumption of cullet in glass furnaces, concerned sites*	1.72 Mt of internal cullet, and 1.17 Mt of	1.69 Mt of internal cullet 1.09 Mt of	1.64 Mt of internal cullet and 0.99 Mt	EN2
The internal cullet is the cullet generated and reused in the same industrial site.	external cullet	external cullet	of external cullet	LINZ
Percentage of ton of finished product from primary melt of cast iron produced, concerned sites*	82.1%	83.2%	77.7%	EN2
Percentage of recycled material in each ton of finished product of cast iron produced, concerned sites*	45%	42%	44%	EN2
Percentage of recycled material in each ton of finished product of gypsum produced, concerned sites*	34%	36%	36%	EN2
ENERGY				
Total energy consumption of concerned sites*	147,543 TJ	147,026 TJ	148,732 TJ	EN3
Total energy consumption of entire Group at actual scope of reporting**	161,588 TJ	156,308 TJ	202,840 TJ	EN3
Annual variation in energy consumption of entire Group at scope**	5,280 TJ (+3.4%)	(46,532) TJ (-22.9%)	(10,006) TJ (-4.7%)	EN6
Total indirect energy consumption of entire Group at actual scope**	35,177 TJ	33,289 TJ	39,826 TJ	EN3
Annual variation in indirect energy consumption of entire Group at actual scope**	1,888 TJ (+5.7%)	(6,537) TJ (-16.4%)	(3,662) TJ (-8.4%)	EN6
Electricity consumption of entire Group at actual scope**	34,370 TJ	32,501 TJ	38,767 TJ	EN3
Steam and hot water consumption of entire Group at actual scope**	794 TJ	789 TJ	1,060 TJ	EN3
Direct total energy consumption of entire Group at actual scope**	126,412 TJ	123,019 TJ	163,014 TJ	EN3
	* 3,393 TJ	(39,995) TJ	(6,444) TJ	
Annual variation in direct total energy consumption of entire Group at actual scope*	(+3%)	(-25%)	(-4%)	
Coal and coke consumption of entire Group at actual scope**	20,066 TJ	21,485TJ	27,550 TJ	EN3
Natural gas consumption of entire Group at actual scope**	88,889 TJ	87,322 TJ	114,783 TJ	EN3
Petroleum products consumption of entire Group at actual scope**	12,641 TJ	12,037 TJ	20,454 TJ	EN3
GHG EMISSIONS				
Total CO <sub>2</sub> emissions (scope 1 and 2) at the concerned sites*	12 Mt	12.2 Mt	12.7 Mt	
Annual variation of total CO <sub>2</sub> emissions (scope 1 and 2) at the concerned sites*	(0.2) Mt (-2%)	(0.5) Mt (-4%)	(3) Mt (-19%)	
Total CO <sub>2</sub> emissions (scope 1 and 2) at actual scope**	13.0 Mt	13.0 Mt	16.6 Mt	EN15
Annual variation of total CO <sub>2</sub> emissions (scope 1 and 2) at actual scope**	0 Mt	(3.6) Mt	(1) Mt	EN19
Direct emissions of CO of the concerned sites*	(0%)	(-22%)	(-6%)	EN 11 F
Direct emissions of CO <sub>2</sub> of the concerned sites*	8.8 Mt	8.9 Mt	9.2 Mt	EN15
Direct emissions of CO <sub>2</sub> for the entire Group at actual scope**	9.4 Mt	9.5 Mt	12.4 Mt	EN15
Annual variation of direct emissions of CO <sub>2</sub> for the entire Group at actual scope**	(O.1) Mt (-1%)	(2.9) Mt (-23%)	(0.4) Mt (-3%)	EN19
Other relevant indirect emissions (entire Group or scope of reporting concerned)	(/			

ENVIRONMENT	2016	2015	2014	GRI
Indirect emissions of greenhouse gases (purchases of electricity, steam, hot water) for the entire Group of the concerned sites*	3.2 Mt eq.CO <sub>2</sub>	3.3 Mt eq.CO <sub>2</sub>	3.5 Mt eq.CO <sub>2</sub>	EN16
Indirect emissions of greenhouse gases (purchases of electricity, steam, hot water) for the entire Group at actual scope**	3.6 Mt eq.CO <sub>2</sub>	3.5 Mt eq.CO <sub>2</sub>	4.2 Mt eq.CO <sub>2</sub>	EN16
Annual variation of indirect emissions of greenhouse gases (purchases of electricity, steam, hot water) for the entire Group at actual scope**	0.1 Mt eq.CO <sub>2</sub> (+3%)	(0.7) Mt eq.CO <sub>2</sub> (-17%)	(0.6) Mt eq.CO <sub>2</sub> (-13%)	EN19
CO₂ impact on Group annual turnover (value in 2010: 0.47 kg CO₂/€)	0,34 kgCO <sub>2</sub> /€	0,33 kgCO <sub>2</sub> /€	0,40 kgCO <sub>2</sub> /€	EN18
OTHER AIR EMISSIONS				
SO <sub>2</sub> emissions from the concerned sites in the Pipe and Glass Activities*	11,187 t	13,150 t	15,230 t	EN21
NO <sub>x</sub> emissions from the concerned sites in the Pipe and Glass Activities*	17,824 t	18,679 t	19,972 t	EN21
Dust emissions from the concerned sites of the Pipe and Glass Activities*	3,140 t	5,201 t	7,810 t	EN21
WATER				
Water withdrawal from the concerned sites*	50.9 M of m <sup>3</sup>	64.0 M of m <sup>3</sup>	63.9 M of m <sup>3</sup>	EN8
Total water withdrawal for the entire Group at actual scope**	53.6 M of m <sup>3</sup>	66.9 M of m <sup>3</sup>	69.7 M of m <sup>3</sup>	EN8
Rainwater withdrawal for the entire Group at actual scope**	0.7 M of m <sup>3</sup>	$0.7 \text{ M of m}^3$	$0.7 \text{ M of m}^3$	EN8
Municipal water withdrawal for the entire Group at actual scope**	15.4 M of m <sup>3</sup>	14.3 M of m <sup>3</sup>	15.9 M of m <sup>3</sup>	EN8
Surface water withdrawals for the entire Group at actual scope**	15.6 M of m <sup>3</sup>	29.6 M of m <sup>3</sup>	28 .9 M of m <sup>3</sup>	EN8
Ground water withdrawal for the entire Group at actual scope**	20.3 M of m <sup>3</sup>	19.8 M of m <sup>3</sup>	22.7 M of m <sup>3</sup>	EN8
Total water discharge from concerned sites*	28.0 M of m <sup>3</sup>	37.9 M of m <sup>3</sup>	$39.2 \text{ M of m}^3$	EN22
Total water discharge for the entire Group at actual scope**	29.4 M of m <sup>3</sup>	39.1 M of m <sup>3</sup>	$42.8 \text{ M of m}^3$	EN22
Water discharges into the surrounding environment for the entire Group at actual scope**	19.3 M of m <sup>3</sup>	29.5 M of m <sup>3</sup>	32.1 M of m <sup>3</sup>	EN22
Water discharges into the municipal waste water collection system for the entire Group at actual scope**	9.5 M of m <sup>3</sup>	8.8 M of m <sup>3</sup>	10.2 M of m <sup>3</sup>	EN22
ENVIRONMENTAL EVENTS				
Number of seveso sites	3	4	4	
Environmental events or accidents	0	0	0	EN24

<sup>\*\*\*</sup> Saint-Gobain activities generate no greenhouse gas emissions other than CO<sub>2</sub>.

HEALTH AND SAFETY	2016	2015	2014	GRI
Lost-time and non-lost-time accidents rate (TRAR), Group, actual scope	3.5	3.9	4.5	LA6
Lost-time accidents rate (LTAR), Group, actual scope	1.7	1.9	2.1	LA6
Group accident severity rate at the actual scope	0.09	0.12	0.15	LA6
Number of fatal incidents involving Saint-Gobain employees	2	1	1	LA6
Number of sites with over one million hours worked without lost-time accidents, and/or accumulating over five years of work without lost-time accidents	251	243	210	
Number of Health & Safety certified sites at the actual scope (OHSAS 18001 - ILO OSH 2001)	365	364	345	
Percentage of sites offering regular and periodic medical inspections, comparable scope	80%	79%	77%	
Number of occupational illnesses in France	174	166	115	
Absenteeism rate	3.6%	5.8%	4.6%	
Percentage of employees covered by social security in France, and coverage rate	100% receive 95% coverage rate	95% receive 94% coverage rate	95% receive 94% coverage rate	
Education, training, advising, prevention and risk control programs to assist employees in the event of severe illness	OUI	OUI	OUI	
Extension of the program to families	advice and assistance in case of severe accident	advice and assistance in case of severe accident	advice and assistance in case of severe accident	
Extension of the program to communities	sometimes in collaboration with associations	sometimes in collaboration with associations	sometimes in collaboration with associations	
Proportion of health and safety agreements entered into with entities representing personnel	4.9%	5.4%	7.0%	LA8

The indicators are covering permanent and temporary employees

<sup>\*</sup> Adjusted for 2016 scope of reporting. An update was provided for 2014 et 2015 figures, accounting for closures or sales units.

\*\* The actual scope of reporting refers to all sites open in the Gaïa reporting tool at 31 December of the reporting year.

# **Prevention of severe accidents**

In 2016, the Group experienced five fatal occupational accidents: two involving an employee, two involving subcontractors, and one involving a third party. This fact demands that each employee commit to making efforts to achieve zero occupational accidents.

These accidents covered the following populations:

- Saint-Gobain employees: 2 (1 in 2015);
- subcontractors: 2 (4 in 2015);
- temporary employees: 0 (0 in 2014);
- third parties present at Group sites: 1 (0 in 2015).

In 2016, the Group also recorded ten non-work related deaths and four fatal traffic accidents (versus nine non-work related deaths and 2 fatal traffic accidents in 2015).

# **Absenteeism**

In 2016, the absenteeism rate is at 3.6%. The non-justified causes (representing 7.4% of the total), the journey's

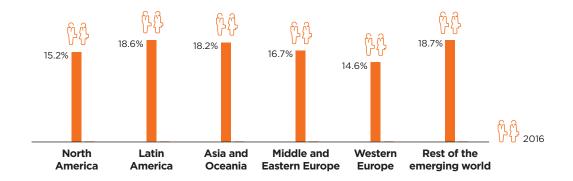
accident (4.14%) and illness (88.46%) are reported. Maternity is no more reported.

Indicator				
EMPLOYMENT	2016	2015	2014	GRI
WORKFORCE				
Total headcount	172,696 persons	170,372 persons	172,032 persons	G4-9
Rate of blue-collar workers	40.8%	40.6%	41.2%	G4-10
Rate of employees, technicians and supervisors	43%	43.5%	43.5%	G4-10
Rate of managers	16.2%	15.9%	15.3%	G4-10
Fixed-term employment contract <sup>(1)</sup>	5.4%	4.6%	4.1%	G4-10
Percentage of fixed-term employment contracts transformed into permanent contract	44.6%	43.1%	32.7%	G4-10
Departure rate	15.2%	14.0%	14.8%	
Resignation rate	6.1%	5.3%	5.5%	
Layoff rate	3.8%	3.8%	4.4%	
RECRUITMENT				
Hiring rate	16.2%	16.2%	14.1%	
Number of employees hired	27,635 persons	27,576 persons	23,786 persons	LA1
Hiring rate of young people under 26	32.6%	30.7%	37.0%	LA1
Proportion of youth contracts (work/study programs, apprenticeship, etc.) in France	3.8%	3.7%	3.6%	
Hiring rate of employees aged 50 or older	7.8%	6.0%	7.2%	LA1
Hiring rate by gender M/F	74.9% 25.1%	74.9% 25.1%	74.6% 25.4%	LA1
Manager hiring rate by gender M/F <sup>(2)</sup>	72.5% 27.5%	71.3% 28.7%	72.8% 27.2%	LA1
MOBILITY				
Number of inter-Activity mobility of managers	588	537	572	
Number of inter-profession mobility of managers	993	986	878	
Number of geographical mobility of managers	184	209	200	
WORK ORGANIZATION				
Share of employees working on shifts	31.7%	31.7%	31.7%	
Rate of overtime	4%	3.8%	3.7%	
Rate of temporary employees	6.7%	6.1%	6.5%	
Rate of part-time employees	2.3%	2.6%	3.0%	

<sup>(1)</sup> Basis of calculation: excluding North America, i.e. 91.7% of the scope of reporting

<sup>(2)</sup> Source: PeopleGroup.

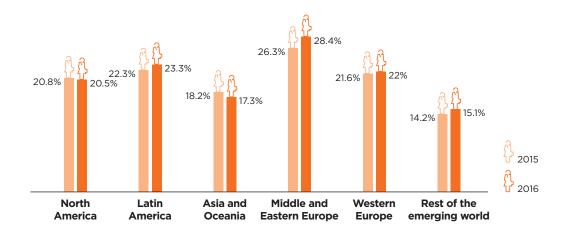
# EMPLOYEE TURNOVER BY GEOGRAPHIC REGION (G4-LA1)



Indicator				
DIVERSITY	2016	2015	2014	GRI
GENDER DIVERSITY				
Employees by gender (M/F)	78.1%/21.9%	78.6%/21.4%	79.0% / 21.0%	G4-10
Proportion of women workers among all women employees	19.9%	19.0%	18.9%	LA12
Proportion of women managers among all women employees	16.3%	15.7%	14.9%	LA12
Share of women managers among managers (1)	22.0%	21.4%	20.9%	LA12
Promotion of female managers among all management promotions (1)	26.6%	25.7%	24.5%	LA12
Percentage of female managers among the senior executives (1)	9.2%	8.7%	10.4%	LA12
AGE DIVERSITY				
Proportion of young people under 26	9.8%	10.0%	9.8%	LA12
Proportion of people between 26 and 40	34.8%	35.3%	35.7%	LA12
Proportion of people between 40 and 55	41.0%	41.2%	41.3%	LA12
Proportion of people over 55	14.4%	13.5%	13.2%	LA12
CULTURAL DIVERSITY				
Proportion of national managers				
Germany	93.3%	94.0%	94.0%	EC6
Poland	97.7%	97.9%	98.0%	EC6
Brazil	98.9%	98.9%	98.0%	EC6
China	94.7%	93.8%	93.0%	EC6
India	99.2%	99.8%	99.9%	EC6
DISABILITY				
Proportion of disabled employees within the Group	1.7%	1.7%	1.6%	
Proportion of disabled employees in France	3%	3.2%	3.7%	
Number of workstations fitted out for disabled employees	121	172	101	

<sup>(1)</sup> Source: PeopleGroup

# PROPORTION OF FEMALE EMPLOYEES BY GEOGRAPHIC REGIONS (G4-10)



2016

2015

28 M€

5.3%

16 M€

4.7%

2014

GRI

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TALENT DEVELOPMENT

TALLER STATES THE TALE				• • • • • • • • • • • • • • • • • • • •
TRAINING				
Proportion of payroll of training investment	1.8%	2.0%	1.8%	
Employees who have received training during the year	83.9%	83.7%	72.9%	LA9
Share of management employees who have received training during the year	100%	100%	86.4%	LA9
Share of non-management employees who have received training during the year	78.4%	78.2%	70.5%	LA9
Average number of training hours per employee per year	25.4 h	26.3 h	23.3 h	LA9
A verses a purchase of training bours and appropriate and appropriate	Male: 24.7 h			LA9
Average number of training hours per employee per year and per gender	Female: 27.9 h		72.9% 86.4% 70.5% 23.3 h  36.1% Technical trainings 43.0% EHS training  63.9% 58.9% 91.0%  67.8% 72.9% (100% in France) 1370 two weeks to several months,	LA9
	36.9%			
Share of technical and EHS training (1)	_	_	-	
	51%			
	EHS training	EHS training	EHS training	
EMPLOYEES ENGAGEMENT				
ANNUAL REVIEWS  Proportion of employees receiving annual reviews	64.6%	65.0%	C7 00/	LA11
	59.5%			LA11
Proportion of non-managers receiving annual reviews	90.9%			
Proportion of managers receiving annual reviews	90.9%	90.5%	91.0%	LA11
SOCIAL RELATIONSHIP  Percentage of employees with employee representation	64.4%	66.9%	C7.00/	
Percentage of employees covered by a collective bargaining agreement (2) (in France)	79.8%			G4-11
	(100% in France)	(100% in France)	· · · · · ·	
Number of agreements signed with employee representatives	1569	1677		
	two weeks to several months.	two weeks to several months.		
Minimum prior notice period before any organizational change	depending on the			LA4
	country	country	country	
THE GROUP SAVING PLAN				
Proportion of shares held by Group employees	7.7%			
Number of countries participating in the Group Savings Plan	41	43		
Proportion of employees covered by profit-sharing agreement in France	99.1%	98.6%		
Profit-sharing agreement paid in France	56 M€	49 M€	58 M€ <sup>(3)</sup>	

<sup>(1)</sup> In 2016, the indicators are calculated based on the number of technical, EHS and personal development numbers of training courses

Share of payroll concerned by interests and profit-sharing programs

Interests agreements paid in France

31 M€ <sup>(3)</sup>

5.6% (3)

<sup>(2)</sup> Basis of calculation: excluding North America, i.e. 91.7% of the scope of reporting

<sup>(3)</sup> Including Verallia

# Indicator

NON-DISCRIMINATION	2016	2015	2014	GRI
TRAINING FOCUSED ON NON-DISCRIMINATION				
e-learning Gender Balance for managers: number of persons	1,157 persons		10,131 since launch	
e-learning Gender Balance for managers: hours	778 h	5,8	344 h since launch	
EQUAL TREATMENT				
Ratio of average male to female wages in France	0.9	0.9	0.9	LA13
Ratio of average male to female wages for junior managers in France	0.97	0.97	0.97	LA13
Ratio of average male to female wages for confirmed managers in France	0.93	0.93	0.91	LA13
Ratio of average male to female wages for senior managers in France	0.95	0.94	0.91	LA13
NUMBER OF INDICIDENTS COLLECTED				
Total of incidents including:	65	89	35	LA16
Disability	6	6	4	HR3
Harassment	37	64	20	HR3
Ethnic origin	6	6	6	HR3
Gender	2	2	5	HR3
Other	14	11		HR3

All incidents are systematically subject to internal investigation

# Indicator

illucator				
GROUP VALUES	2016	2015	2014	GRI
PRINCIPLES OF CONDUCT AND ACTION				
Proportion of managers trained in the 1st year after joining the Group	73.1%			HR2
Number of dedicated training sessions	18	30	23	HR2
Number of in presence training session in the management school	23	26	23	HR2
HUMAN RIGHTS				
Total number of incidents involving child labor	0	0	0	HR5
Total number of incidents involving forced or mandatory labor	0	0	0	HR6
Total number of incidents involving union freedom	0	0	2	HR4
Other incidents involving human rights	0	0	0	
Alerts received through the compliance alerts system and subjected to investigation	81	63	9	HR12
ANTI-CORRUPTION PREVENTION				
Managers trained (e-learning ACT started in 2015)	24,463	23,313		SO4
In 2017, ACT will be compulsory for all manager joining the Group in the 1st year of presence, considering others managers are trained.				
cases of corruption identified.	0	0	0	SO5
COMPLIANCE PROGRAM				
compliance statements (part of the Internal Control)	655	Près de 700		
Training seminars including (anti-trust law, anti-bribery rules, economic sanctions and embargos)	209	207		
COMPLIANCE TO LAW				
Online training <i>Comply (anti-trust laws)</i> : Proportion of managers trained in the 1st year after joining the Group	86.6%			
Considering the managers are already trained since the beginning of the program, the indicator changed to focus on managers joining the Group with an objective of 100% trained in their 1st year.				
Major fines for non-compliance with laws and regulations	0	0	€715 million	
Number of non-financial penalties for violation of laws and regulations	0	0	0	SO8

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RESPONSIBLE PURCHASING	2016	2015	2014
TRADE SUPPLIERS AND SUB-CONTRACTORS			
Training to the Responsible Purchasing policy (category managers)	100%	100%	100%
Total trade purchases covered by the Suppliers Charter	83.5%	77%	60%
Proportion of suppliers per CSR performance level (evaluation includes in patorced labour, against child labour)	rticular human rights, working c	onditions, fight against o	corruption, against
Critical	4%	4.5%	6%
To be improved	28%	32%	31%
Effective	68%	63.5%	63%
Number of audited supplier plants	32	23	34
Critical	0%	0%	0%
To be improved	69%	70%	72%
Effective	31%	30%	28%
Responsibly sourced Timber	94%	85%	85%
NON-TRADE SUPPLIERS AND SUB-CONTRACTORS			
Training to the Responsible purchasing policy (including Purchasing Departm	1,930 persons (1,295)	1,244 persons (1.006)	
Total trade purchases covered by the Suppliers Charter (change in reporting method in 2016)	(, ,	53.5%	
Proportion of suppliers per CSR performance level (evaluation includes in pa forced labour, against child labour)	rticular human rights, working c	onditions, fight against o	corruption, against
Critical	1.7%	2%	3.6%
To be improved	93.7%	93.6%	92.4%
Effective	4.6%	4.3%	4%
Number of audits: 336 Third party audits from 2011 and 38 audits managed be employees in 2016 (new initiative) including:	у		
Critical	7.7%	6 .9%	6.4%
To be improved	57.7%	57.4%	80.9%
Effective	34.5%	35.6%	12.7%
Percentage of certified timber purchases (pallets)	96.1%	95.0%	89.0%

# Indicator

LOCAL IMPACT	2016	2015	2014	GRI
LOCAL ECONOMIC DEVELOPMENT				
Number of agreements signed with companies to create external jobs in France	28 agreements	24 agreements	70 agreements	
Financial commitments under agreements to assist SMEs in France	€1.46 million	€1.1 million	€1.1 million	
Number of days of technical support to SMEs in France	254 days	206 days	256 days	
Number of external jobs created in France through the support of Saint-Gobain Développement	359 jobs	274 jobs	291 jobs	
SOCIAL AND ECONOMIC FOOTPRINT				
Indirect jobs	549,000		460,000	
Induced jobs	190,800			
Ratio indirect jobs/direct jobs	3.20		2.50	
SUPPORT TO LOCAL COMMUNITIES				
Investments in projects				
The decrease compared to 2015 (-2%) is due to a change in the scope of reporting in India to be aligned to a new local context. At equivalent scope, the global figure will be €6.8 million, an increase of +5%)	€6,3 million	€6,4 million	€5,5 million	
Number of projects received by the International Saint-Gobain Initiatives Corporate Foundation	49	48	37	
Number of projects accepted by the International Saint-Gobain Initiatives Corporate Foundation	24	16	28	

# Information and labeling required for products and services

Group products comply with current regulation such as EC marking or the obligation for chemical products to have Safety File (SF) labels.

Saint-Gobain also provides specific non-mandatory information on its products, such as:

- voluntary reporting files on safety data for non-classified items or substances;
- declaration in an automotive industry database IMDS (International Material Data System) automobile industry

data base of the composition of components and materials supplied;

 specific labels such as the Environmental and Health Data Sheet in France for Construction Products.

# Programs to ensure compliance with laws, standards and voluntary codes on marketing communications, including advertising, promotion and sponsorships

Saint-Gobain bases its development on the values contained in the Principles of Conduct and Action. These specifically require compliance with regulation (compliance with the law),

2016 RESULTS AND OUTLOOK FOR 2017

For its part, the Sustainable Habitat mission team performs monitoring and issues recommendations to assist marketing teams in the Activities to become more familiar with existing labels for buildings and Construction Products. The purpose is to promote labels corresponding to the life cycle analysis of selection criteria.

# Subsidies and substantial public assistance

The Group's Activities are not directly dependent upon subsidies or public assistance. Subsidies and public assistance received are not consolidated at the Group level. This assistance may be received either internationally, as well as domestically or locally.

There is, for example:

- case-by-case assistance for certain industrial facilities;
- ♦ assistance in locating of research and development activities, specifically in France;
- insurance measures for foreign investments.



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# **Composition and operation of the Board** 1. of Directors

This Section, prepared with the assistance of the Board's Nomination, Remuneration and Governance Committee pursuant to Article L. 225-37 of the French Commercial Code, reports the composition of the Board, application of the principle of balanced representation between men and women in its composition, and conditions for the preparation and organization of the Board's work (see chapter 7, section 3 for the entire report by the Chairman of the Board of Directors on internal control procedures, risk management and corporate governance).

# Compliance with the AFEP-MEDEF corporate governance code

Compagnie de Saint-Gobain refers to and complies with the AFEP-MEDEF Corporate Governance Code for French listed companies in its updated version of November 2016, which may be found on the MEDEF website at the following address: www.medef.com.

The Company's practices comply with all recommendations contained in the AFEP-MEDEF Code (the "AFEP-MEDEF Code").

AFEP-MEDEF Code recommendation revoked	Saint-Gobain practice and justification
None	None

#### COMPOSITION OF THE BOARD OF DIRECTORS 1.1

#### 1.1.1 **Members of the Board of Directors**

The Board of Directors consists of the 16 members named below, appointed for four-year terms. It includes one Director representing employee shareholders and two employee Directors, in accordance with the law.

The table below gives a general overview of the members of the Board of Directors and Committees as at February 1, 2017.

1. Composition and operation of the Board of Directors

Name	Age	Independent (1)	Other offices (4)	ARC (5)	NRGC (6)	SCSRC (7)	Years of seniority
Pierre-André de Chalendar	58	No	1			(M) <sup>(8)</sup>	11
Alain Destrain	60	No (2)	0				2
Jean-Martin Folz	70	No	1			(C) <sup>(9)</sup>	16
Bernard Gautier	57	No	1		(M)		9
lêda Gomes Yell	60	Yes	2				1
Anne-Marie Idrac	65	Yes	2		(M)		6
Pamela Knapp	59	Yes	3	(M)			4
Pascal Laï	54	No (2)	0		(M)		2
Agnès Lemarchand	62	Yes	2	(M)			4
Frédéric Lemoine	51	No	2	(M)		(M)	8
Jacques Pestre	60	No (3)	0				6
Olivia Qiu	50	Yes	1		(M)		6
Denis Ranque	65	No	1				14
Gilles Schnepp	58	No	1				8
Jean-Dominique Senard	64	Yes	1	(C)			5
Philippe Varin	64	Yes	1		(C)		4
Number of meetings			Board: 10	ARC: 4	NRGC: 4	SCSRC: 7	
Attendance rate			92%	94%	85%	100%	

<sup>(1)</sup> According to the criteria expressed by Recommendation 8.5 of the AFEP-MEDEF Code: (i) not be or not have been during the preceding five years an employee or executive Director of Compagnie de Saint-Gobain nor an employee, executive Director or non-executive Director of a company that Compagnie de Saint-Gobain consolidates, (ii) not hold cross-directorship in the meaning of Recommendation 8.5.2 of the AFEP-MEDEF Code, (iii) not have significant business relationships with the Saint-Gobain Group, (iv) not have close family ties with a Director of Compagnie de Saint-Gobain, (v) not have been a Statutory Auditor of Compagnie de Saint-Gobain for more than twelve years, it being specified that the forfeiture of the position as independent Director occurs at twelve years.

- (4) Held within listed companies (excluding Compagnie de Saint-Gobain).
- (5) Audit and Risk Committee.
- (6) Nomination, Remuneration and Governance Committee.
- (7) Strategy and Corporate Social Responsibility Committee.
- (8) Member of a Committee.
- (9) Chairman of a Committee.

<sup>(2)</sup> Employee Director, appointed pursuant to the law, not included in the calculation of director independence and gender parity ratios on the Board of Directors, in compliance with the recommendations of the AFEP-MEDEF Code.

<sup>(3)</sup> Director representing employee shareholders, appointed pursuant to the law, not included in the calculation of director independence and gender parity ratios on the Board of Directors, in compliance with the recommendations of the AFEP-MEDEF Code.

Each year, specifically on the occasion of its assessment, the Board of Directors considers the desirable balance of its composition and that of the Committees. Regarding the diversity and internationalization of the Saint-Gobain Group's activities, it specifically provides for the presence of directors with international experience, and ensures that the profiles and competencies represented on the Board reflect, to the greatest possible extent, the diversity of challenges the Group may face, to guarantee to shareholders and the market that its tasks are executed with the necessary competency, independence and objectivity. It is envisaged that the Board will continue to reduce its size to bring its composition down to 14 members, at the close of the General Shareholders' Meeting to be held in 2017 (see chapter 6, sections 1.1.4 and

In addition, the Board decided during its meeting of November 24, 2016 to create the position of Lead Independent Director (Administrateur Référent), which will be taken on by Jean-Dominique Senard, independent Director since 2012, at the close of the General Shareholders' Meeting of June 8, 2017. The Lead Independent Director will, in particular oversee the efficient running of the Company's governance bodies (see this chapter 6, section 1.2.1).

The following biographies show the members of the Board of Directors as of February 1, 2017, their experience and their respective competencies, and the principal offices and functions they exercise or have exercised outside the Group over the past five years, to the best of the Company's knowledge.



# PIERRE-ANDRÉ DE CHALENDAR

Chairman of the Board of Directors and CEO Member of the Strategy and CSR Committee Principal office held: Chairman and Chief Executive Officer of Compagnie de Saint-Gobain Professional address: Compagnie de Saint-Gobain - « Les Miroirs » -18 avenue d'Alsace - 92400 Courbevoie

Age 58 Nationality: French Date of first election: June 2006 Term start date: June 2014 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2017 Number of shares held at 12/31/2016: 150,024

### **EXPERTISE AND EXPERIENCE**

A graduate of ESSEC, alumnus of École Nationale d'Administration and former Finance Inspector, Mr. Pierre-André de Chalendar joined Compagnie de Saint-Gobain as Corporate Planning Director on October 1, 1989.

Appointed Director of Abrasives Europe (1992-1996), then of the Abrasives Division (1996-2000), the Head Office of which was

located in Worcester, United States, before being named Vice President for the United Kingdom and the Republic of Ireland (2000-2002), Mr. Pierre-André de Chalendar was named Senior Vice President of Compagnie de Saint-Gobain in charge of the Building Distribution Sector in 2003.

Appointed Chief Operating Officer of Compagnie de Saint-Gobain in May 2005, elected Director in June 2006, then Chief Executive Officer of Compagnie de Saint-Gobain on June 7, 2007, he has been Chairman and Chief Executive Officer since June 3, 2010.

Within the Saint-Gobain Group, he is a Director of Saint-Gobain Corporation and of GIE SGPM Recherche. He was Chairman of the Board of Directors of Verallia (former Packaging Sector) from March 2011 to March 2014.

His offices and duties held outside the Group over the past five years are described below.

Mr. Pierre-André de Chalendar has been a Director of Compagnie de Saint-Gobain since June 2006.

# OFFICES AND DUTIES HELD OUTSIDE THE GROUP

Director of BNP Paribas\*

OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

• Director of Veolia Environnement\* (up to April 2015)

\* Listed company



ALAIN DESTRAIN

**Employee Director** 

Principal office held: Safety Auditor, Saint-Gobain Interservices Professional address: Saint-Gobain Interservices - « Les Miroirs » -

18 avenue d'Alsace - 92400 Courbevoie

Age 60 Nationality: French Date of first election: Dec. 2014 Term start date: Dec. 2014 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2017 Number of shares held

at 12/31/2016: 746

### EXPERTISE AND EXPERIENCE

Mr. Alain Destrain has served the majority of his professional career in the Vauxrot plant at Saint-Gobain Packaging (SGE, former Packaging Sector). Very early on he took a union career path at the Vauxrot plant, then in the local and national union organizations as Secretary responsible for union affairs at the Départemental Union of Alsne for three years, then as member of the Federal Glass and Ceramics Office since 1999. In 2002 he was in charge of collective bargaining in the Mechanical Glass Division through the FNTVC. At Saint-Gobain Packaging and the Saint-Gobain Group, he has been union representative (affiliated with the Confedération Générale du Travail - CGT), then titular member of the Central Enterprise Committee of SGE, Central Union Delegate of Verallia, Secretary of the Saint-Gobain Group Committee, member of the European Convention for Social Dialog and member of the Select Committee

In 2013, in recognition of his union career, he pursued certification training at Sciences Po Paris.

Mr. Alain Destrain has served as Safety Auditor within Saint-Gobain Interservices since January 1, 2015. Mr. Alain Destrain has been a Director of Compagnie de Saint-Gobain since December 2014.

OFFICES AND DUTIES HELD OUTSIDE THE GROUP

OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

None



# **JEAN-MARTIN FOLZ**

Chairman of the Strategy and CSR Committee Principal office held: Director of companies

Professional address: Compagnie de Saint-Gobain - « Les Miroirs » -

18 avenue d'Alsace - 92400 Courbevoie

Age 70 Nationality: French Date of first election: March 2001 Term start date: June 2013 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2016 Number of shares held at 12/31/2016: 1,717

# **EXPERTISE AND EXPERIENCE**

Mr. Jean-Martin Folz is an alumnus of École Polytechnique and a State Mining Engineer (*Ingénieur des Mines*). After one year in Tokyo at the Maison Franco-Japonaise, he began his professional life in 1972 at a regional office of the Ministry of Industry; between 1975 and 1978 he held various positions in ministerial cabinets, culminating as Chief of Staff to the Secretary of State for Industry. In 1978 he joined the Rhône-Poulenc Group, where he was first plant Director at Saint-Fons then Senior Vice President of Rhône-Poulenc Specialty Chemicals. He was Senior Vice President then Chairman - Chief Executive Officer of Jeumont-Schneider, a subsidiary of the Schneider Group, from 1984 to 1987. He was a Director of Compagnie de Saint-Gobain from 1986 to 1987. In July 1987 he became Chief Executive Officer of Pechiney, then Chairman of Carbone Lorraine. In 1991 he was appointed Chief Executive Officer of Eridania Béghin-Say and Chairman of Béghin-Say. He joined the PSA Peugeot Citroën Group in July 1995 and became Director of the Group's Automobile Division in April 1996. He was named Chairman of the PSA Peugeot Citroën Group as of October 1, 1997. On that date he also became Chairman of Automobiles Peugeot and Automobiles Citroën, positions he held until 2007. From June 2007 to March 2010, Mr. Jean-Martin Folz served as Chairman of the French Association of Private Enterprises (AFEP).

His other offices and duties held over the past five years are described below

Mr. Jean-Martin Folz has been a Director of Compagnie de Saint-Gobain since March 2001.

# OFFICES AND DUTIES HELD OUTSIDE THE GROUP

· Director of Axa

### OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED **OVER THE PAST FIVE YEARS**

- Director of Alstom\* (up to June 2015)
- Director of Société Générale\* (up to May 2015)
  Director of Solvay\* (Belgium) (up to 2014)
- Chairman of the Board of Directors of
- Eutelsat-Communications\* (up to 2013)
- Member of the Supervisory Board of ONF-Participations (up to 2012)

\* Listed company



**BERNARD GAUTIER** 

Member of the Nomination, Remuneration and Governance Committee Principal office held: Member of the Management Board of Wendel

Professional address: Wendel - 89 rue Taitbout - 75009 Paris

Age 57 Nationality: French Date of first election: June 2008 Term start date: June 2016 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2019 Number of shares held at 12/31/2016: 1,151

### **EXPERTISE AND EXPERIENCE**

Mr. Bernard Gautier received an engineer training (SUPELEC). He started his career by creating a company in the media sector, AG Euromedia, then pursued his career from 1983 to 1989 as consultant and then as Director of Studies at Arthur Andersen in the media-press and services sector.

After 12 years at Bain & Company, where he became Senior Partner and member of the International Board of Directors in 1999, he joined Atlas Venture in early 2001 as General Partner responsible for the Paris office from 2000 to 2003. He has operational and investment experience and considerable experience in information technology, telecommunications and

related services, as well as in LBO funds and Private Equity.

Mr. Bernard Gautier joined the Wendel Group in 2003 and became a Board member in 2005. He served as Chairman of the Board of Directors of Lineis (2003-2005), Director of Wheelabrator Allevard (2004-2005) and TFM (Wheelabrator Allevard Group) (2004-2005) and Vice Chairman of the Supervisory Board of Editis (2004-2008).

His other offices and duties held over the past five years are described below.

Mr. Bernard Gautier has been a Director of Compagnie de Saint-Gobain since June 2008.

### OFFICES AND DUTIES HELD OUTSIDE THE GROUP

- Member of the Management Board of Wendel\*
   Chairman of Expansion 17 SA SICAR\*\*, Global
  Performance 17 SA SICAR\*\*, Winvest International SA
  SICAR\*\*, Oranje-Nassau Développement SA SICAR\*\*,
  Winvest Conseil SA\*\*, CSP Technologies Parent SA\*\*
   Vice Chairman of Constantia Flexibles GmbH\*\*
- Chairman of Materis Luxembourg S.àr.l.\*
- Director of Constantia Lux Parent SA\*\*, IHS Holding Ltd.\*\*, Materis SAS\*\*, Sofisamc\*\*, Stahl Holdings
- BV\*\*, Stahl Group SA\*\*, Stahl Lux2 SA\*\*, Stichting Administratickantor II Stahl Groep II\*\*, Trief Corporation SA\*\*, Wendel Japan KK\*\*, Winvest Part BV\*\*
- OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

  • Director of Communication Media Partner
- (up to 2013)
- · Vice Chairman of the Board of Directors
- of Deutsch Group SAS\*\* (up to 2012)
   Manager of Materis Parent S.àr.l.\*\* (up to 2015)
- Vice Chairman of Vigilant GP LLC, Vigilant Holdings LLP, Vigilant Merger Sub LLC\* (up to 2015)
- Manager of CSP Technologies S.àr.l.\*\* (up to 2015)



\*\* Company registered outside of France in which Wendel has an equity interest



**IÊDA GOMES YELL** 

# **Independent Director**

Principal office held: Founding Chairman of Energix Strategic Ltd

Professional address: Compagnie de Saint-Gobain - « Les Miroirs » -

18 avenue d'Alsace - 92400 Courbevoie

Nationality: **Brazilian English** Date of first election: June 2016 Term start date: June 2016 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending

December 31, 2019

at 12/31/2016: 800

Number of shares held

Age 60

# EXPERTISE AND EXPERIENCE

Ms. lêda Gomes Yell graduated in Chemical Engineering from the Federal University of Bahia, in Energy from the University of São Paulo and in Environmental Engineering from the École Polytechnique Fédérale de Lausanne.

Ms. Iêda Gomes Yell was Chief Executive Officer of the Companhia de Gas de São Paulo from 1995 to 1998. She also held various

senior position within the BP Group, in particular as Vice President of Pan American Energy (1998-1999), Vice President of Regulatory Affairs (1999-2000), Chairman of BP Brasil (2000-2002), Vice President of Development of BP Solar (2002-2004), and Vice President of BP Integrated Supply and Trading (2004-2011). She has also been Vice President of New Ventures for the Middle East and South Asia (2004-2011) and Independent Chairman of British Taekwondo Ltd (2011-2016).

She also held several senior positions within professional organizations (the Brazilian Association of Infrastructure, the International Gas Union, the US Civil Engineering Foundation and the Brazilian Association of Gas Distribution Companies). In 2013, she founded Energix Strategy Ltd, a consulting company on the energy markets based in Warrington that she chairs

In addition, Ms. Iêda Gomes Yell serves as Director of the Department of the Infrastructure of the Federation of the State Industry of São Paulo (since 2012), member of the Advisory Board of the Companhia de Gas de São Paulo (since 2013), Councillor to the Brazilian Chamber of Commerce of England, research fellow within the Fundação Getulio Vargas Energia and Director and co-founder of Will Latam, a non-profit organization (since 2014). Ms. lêda Gomes Yell has been a visiting research fellow at the Oxford Institute for Energy Studies since September 2012.

Her other offices and duties held over the past five years are described below.

Ms. Iêda Gomes Yell has been a Director of Saint-Gobain since June 2016.

# OFFICES AND DUTIES HELD OUTSIDE THE GROUP

- Founding Chairman of Energix Strategic Ltd\*\* (United Kingdom)
- Director of Bureau Veritas\*
- Director of Exterran Corporation\* (United States)
- · Director of InterEnergy Holdings\*\*
- \* Listed company
- \*\* Company registered outside of France

### OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

Member of the Board of BP Brasil Ltd and BP Egypt



ANNE-MARIE IDRAC

Independent Director Member of the Nomination, Remuneration and Governance Committee Principal office held: Chairman of the Supervisory Board of Aéroport Toulouse-Blagnac

Professional address: Compagnie de Saint-Gobain - « Les Miroirs » - 18 avenue d'Alsace - 92400 Courbevoie

Age 65 Nationality: French Date of first election: June 2011 Term start date: June 2015 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2018 Number of shares held at 12/31/2016: 827

### EXPERTISE AND EXPERIENCE

Ms. Anne-Marie Idrac is a graduate of Institut d'Études Politiques of Paris and an alumna of École Nationale d'Administration.

As a civil administrator, she held various positions from 1974 to 1995 in the Ministry of Equipment in the areas of environment, housing, urban development and transportation, specifically as Chief Executive Officer of the Établissement Public d'Aménagement de Cergy-Pontoise (1990-1993), then Director of Land Transport (1993-1995).

In 1995 she was appointed Secretary of State for Transport, a position she held until June 1997. She was elected Member of Parliament for Yvelines in 1997 and 2002, and Regional Council Member for Île-de-France from 1998 to

2002 From 2002 to 2006 Ms. Idrac was Chairman and Chief Executive Officer of RATP, then Chairman of SNCF from 2006 to 2008.

In March 2008, she was appointed Secretary of State for Foreign Trade, a position she held until November 2010. Ms. Anne-Marie Idrac was also Chairman of the European-France Movement from 1999 to 2005 and member of the Economic and Social Council from 2004 to 2008. She is also Chairman of the Advisory Board of the School of Public Affairs of Sciences Po Paris

and Vice Chairman of the Robert Schuman Foundation. Her other offices and duties over the past five years are described below.

Ms. Anne-Marie Idrac has been a Director of Compagnie de Saint-Gobain since June 2011.

### OFFICES AND DUTIES HELD OUTSIDE THE GROUP

- Chairman of the Supervisory Board of Aéroport Toulouse-Blagnac
- Director of Bouygues\*
- Director of Total\*
- \* Listed company

# OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

- Member of the Supervisory Board of Vallourec\* (up to May 2015)
- Director of Médiobanca\* (Italy) (up to 2014)



**PAMELA KNAPP** 

Independent Director Member of the Audit and Risk Committee Principal office held: Director of companies

Professional address: Compagnie de Saint-Gobain - « Les Miroirs » - 18 avenue d'Alsace - 92400 Courbevoie

Age 59 Nationality: German Date of first election: June 2013 Term start date: June 2013 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2016 Number of shares held at 12/31/2016: 818

# **EXPERTISE AND EXPERIENCE**

A graduate of Berlin University and Harvard University, Ms. Pamela Knapp started her career in 1987 as a Mergers and Acquisitions Consultant at Deutsche Bank Morgan Grenfell GmbH and at Fuchs Consult GmbH.

In 1992 she was named Director of Strategic Projects, then of the Maintenance & Services Branch in the Transportation Systems Division of the Siemens Group, where she served until 1997. From 1998 to 2000 she was a board member and Chief Financial Officer (CFO) of Siemens SA, Belgium and Luxembourg.

In 2000 she became Director of the Siemens Group's central Corporate Development Executives Department then, starting in 2004, board member and Chief Financial Officer of the Power Transmission and Distribution Division of the Siemens Group, until 2009. From 2009 until October 2014 she was a member of the Management Board of GfK SE.

Her other offices and duties held over the past five years are described below.

Ms. Pamela Knapp has been a Director of Compagnie de Saint-Gobain since June 2013.

# OFFICES AND DUTIES HELD OUTSIDE THE GROUP

- Member of the Supervisory Board, the Nomination, Remuneration and Governance Committee and the Finance and Audit Committee of Peugeot SA\*
  • Director of HKP Group AG (Switzerland)
- Director and member of the Audit Committee of Panalpina World Transport (Holding) Ltd.\* (Switzerland)
- Director and member of the Audit Committee of NV Bekaert\* (Belgium)

OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

• Member of the Management Board of GfK SE, (Germany)

- (2009-2014)
- Member of the Supervisory Board of Monier Holdings SCA (Luxembourg) (2009-2013)

\* Listed company



**PASCAL LAÏ** 

**Employee Director** 

Member of the Nomination, Remuneration and Governance Committee

Principal office held: Environment, Health and Safety promoter of Saint-Gobain Sekurit France

Professional address: Saint-Gobain Sekurit France - 249 Bd. Drion - 59580 Aniche

Age 54 Nationality: French Date of first election: June 2014 Term start date: June 2014 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2017 Number of shares held

at 12/31/2016: 1,426

### **EXPERTISE AND EXPERIENCE**

Mr. Pascal Laï joined the Group in 1986 at the Aniche plant (Saint-Gobain Sekurit, Innovative Materials Sector) where he worked for 20 years in production in the furnace environment, then as a toolmaker. In 2000 he started a union career path (affiliated with the Confédération Française Démocratique du Travail - CFDT), where he has successively held positions in the Aniche Facility Committee, as Personnel Representative and as full member of the CHSCT. He is also a full member of the Saint-Gobain Sekurit France Central Enterprise Committee. He has also held member positions on the Saint-Gobain Group Committee, as Group coordinator since 2011 and as full member of the Convention for European Social Dialog. Mr. Laï has held the position of Environment, Health and Safety Officer at Saint-Gobain Sekurit France since December 1, 2014. Mr. Pascal Laï has been a Director of Compagnie de Saint-Gobain since December 1, 2014.

OFFICES AND DUTIES HELD OUTSIDE THE GROUP

OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS



# **AGNÈS LEMARCHAND**

**Independent Director** Member of the Audit and Risk Committee Principal office held: Director of companies

Professional address: Compagnie de Saint-Gobain - « Les Miroirs » -

18 avenue d'Alsace - 92400 Courbevoie

Age 62 Nationality: French Date of first election: June 2013 Term start date: June 2013 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2016 Number of shares held

at 12/31/2016: 2,252

# **EXPERTISE AND EXPERIENCE**

Graduate of École Nationale Supérieure de Chimie de Paris (ENSCP) and MIT (USA), and holder of an MBA from INSEAD, Ms. Agnès Lemarchand began her professional career with various operational responsibilities within the Rhône-Poulenc Group from 1980 to 1985.

Appointed in 1986 as Chief Executive Officer of Industrie Biologique Française (IBF), she created IBF Biotechnics, a subsidiary of the Rhône-Poulenc Group and the Institut Mérieux, in the United States in 1987, of which she was appointed Chairman and Chief Executive Officer.

In 1991, she joined the Ciments Français Group as Chief Executive Officer of Prodical, an industrial minerals subsidiary which she led from 1991 to 1996. She joined the Lafarge Group in 1997, held the position of Director of Strategy for the Specialty Materials branch, then in 1999 was appointed Chairman and Chief Executive Officer of Lafarge Chaux.

In 2004, she took over, together with its senior executives, the Lafarge Chaux subsidiary in the United Kingdom and founded Steetley Dolomite Limited, where she served as executive Chairman for 10 years before selling the company to the industrial group Lhoist. Ms. Agnès Lemarchand was a member of the Economic, Social and Environmental Council (Economic Activities Section), from March 2012 to April 2014.

Her other offices and duties held over the past five years are described below

Ms. Agnès Lemarchand has been a Director of Compagnie de Saint-Gobain since June 2013.

# OFFICES AND DUTIES HELD OUTSIDE THE GROUP

- · Director of CGG\*
- Director of BioMérieux\* • Chairman of Orchad SAS

### OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED **OVER THE PAST FIVE YEARS**

- Member of the Supervisory Board of Vivescia Industries, representing BPI France Participations (up to December 2015)
- · Member of the Supervisory Board of Areva\* (up to January 2015)
- · Executive Chairman of Steetley Dolomite Limited (United Kingdom) (up to 2014)
- Member of the Supervisory Board of Mersen\* (up to 2013)

<sup>\*</sup> Listed company

1. Composition and operation of the Board of Directors



FRÉDÉRIC LEMOINE

Member of the Audit and Risk Committee Member of the Strategy and CSR Committee

Principal office held: Chairman of the Management Board of Wendel

Professional address: Wendel - 89 rue Taitbout - 75009 Paris

Age 51 Nationality: French Date of first election: April 2009 Term start date: June 2016 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2019 Number of shares held at 12/31/2016: 835

### EXPERTISE AND EXPERIENCE

Graduate of École des Hautes Études Commerciales (HEC) and Institut d'Études Politiques de Paris, holding a degree in law, an alumnus of École Nationale d'Administration, Mr. Frédéric Lemoine is a Finance Inspector.

In 1992-1993, he led the Heart Institute of Ho Chi Minh City, Vietnam, for one year, and became from 2004 to 2013 General Secretary of the Alain Carpentier Foundation which supported that hospital.

From 1995 to 1997, he was Deputy Chief of Staff to the Ministry of Labor and Social Affairs, in charge of coordinating social security reform and hospital reform, and was simultaneously a Technical Advisor for the Secretary of State for Health and Social Security

From 1998 to 2002, he reported to Mr. Serge Kampf and the Management Board of Capgemini as Vice-Executive Director, then Chief Financial Officer, before being appointed Senior Vice President in charge of Capgemini Ernst & Young finances.

From 2002 to 2004, he was Deputy Secretary-General to the office of the French President Jacques Chirac, specifically in charge of economic and financial affairs.

From October 2004 to 2008, he was Senior Advisor at McKinsey. From March 2005 to April 2009 he was Chairman of the Supervisory Board of Areva, and member and then non-voting member of the Supervisory Board of Générale de Santé from 2006

He became a member of the Wendel Supervisory Board in June 2008, a position he resigned from upon his appointment as Chairman of the Management Board of Wendel in April 2009.

His other offices and duties held over the past five years are described below.

Mr. Frédéric Lemoine has been a Director of Compagnie de Saint-Gobain since April 2009.

### OFFICES AND DUTIES HELD OUTSIDE THE GROUP

- Chairman of the Management Board of Wendel\*
- Chairman of the Board of Directors of Bureau Veritas\*
- Chairman of the Supervisory Council of Constantia Flexibles\*\* (Austria)
- Chairman of the Supervisory Board of Oranje-Nassau Groep  $\mathsf{BV}^{**}$  (Netherlands)
- Chairman of the Board of Directors of Trief Corporation\*\* (Luxembourg)
- OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED
- OVER THE PAST FIVE YEARS
   Vice Chairman of the Board of Directors of Bureau Veritas\* (up to 2013)
- Director of Legrand\* (2009-2013)
- Director of Groupama\* (2005-2012)

- \* Listed company
- \*\* Company registered outside of France in which Wendel has an equity interest



# **JACQUES PESTRE**

Director representing employee shareholders Principal office held: Senior Vice President of SGDB France, in charge of Point. P Matériaux de Construction

Professional address: SGDB France - Immeuble le Mozart -13/15 rue Germaine Tailleferre - 75940 Paris cedex 19



# **EXPERTISE AND EXPERIENCE**

Mr. Jacques Pestre is a graduate of École Supérieure de Commerce de Toulouse. Joining the Saint-Gobain Group more than 30 years ago, he began his career in 1980 within the Insulation Division as a field sales representative, then as Director of Sales (1982-1984), before being appointed Southwest Regional Director of Isover. In 1987, Mr. Jacques Pestre was appointed Regional Director of Saint-Gobain Flat Glass, a position he held until 1988, before being

appointed as Agency Head of Miroiteries de l'Ouest. From 1989 to 1995 Jacques Pestre was Chief Executive Officer of Somir SA. From 1995 to the end of August 2011, Mr. Jacques Pestre successively served as Operational Sales Director for POINT.P BMSO (until 2000), Regional President for the POINT.P Group (until 2007) then Area President for the POINT.P Group (2010), Senior Vice President in charge of Specialist Brands of SGDB France.

Since September 2011, Mr. Jacques Pestre has been the Deputy CEO of SGDB France responsible for the POINT.P brand.

Mr. Jacques Pestre also serves as Chairman, Chairman of the Board of Directors, Chairman and Chief Executive Officer or Director

in the following companies of the Saint-Gobain Group Building Distribution Sector: DOCKS DE L'OISE, SONEN (since 2012), BMSO, BMCE, COMASUD, BMRA, Méridionale des Bois et Matériaux MBM, CIBOMAT.

Mr. Pestre has been a Director of Compagnie de Saint-Gobain since June 2011 and Chairman of the Supervisory Board of FCPE "Saint-Gobain PEG France".

OFFICES AND DUTIES HELD OUTSIDE THE GROUP

OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

None



**OLIVIA QIU** 

Independent Director

Member of the Nomination, Remuneration and Governance Committee Principal offices held: Director of innovation for Philips Lighting **Executive Vice Chairman of Philips** 

Professional address: Philips Lighting - Herikerburgweg 102 - 1101 CM Amsterdam (Netherlands)

Age 50 Nationality: French Chinese Date of first election: June 2011 Term start date: June 2015 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2018 Number of shares held

at 12/31/2016: 800

### **EXPERTISE AND EXPERIENCE**

Ms. Olivia Qiu is an engineer from the University of Nankai with a degree in electronics from China Electronic Science and Technology University (UESTC) and a doctorate in management science from Grenoble École Supérieure des Affaires.

Starting in 1987, Ms. Olivia Qiu was an engineer responsible for the design of military radars, then for research and development at China Chengdu Design Institute nº 784.

In 1997 she joined Alcatel as Project Director for the negotiation of three joint ventures for Alcatel China Cable Sector. In 1998 she was appointed Alcatel's Director of Sales for the Eastern China Region, then in 2000 Director of Commercial Operations. In 2002 she became Director of Marketing and 3G Operations for Alcatel Shanghai Bell, and from 2004 to 2005 Director of Development for Alcatel's Asia-Pacific region.

Starting in 2005 she directed the commercial, marketing, technical solutions and implementation activities for Alcatel China. In

2008 she was appointed Regional Director for East Asia, President of Alcatel-Lucent Shanghai Bell.

Ms. Olivia Qiu was General Director responsible for development of the "Strategic Industries" branch of activities for Alcatel-Lucent until 2013. She has been an independent Director of the Board of Directors of Renault since 2016. Her other offices

and duties held over the past five years are described below.

Ms. Olivia Qiu has been a Director of Compagnie de Saint-Gobain since June 2011.

### OFFICES AND DUTIES HELD OUTSIDE THE GROUP

Director of Renault\*

# OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

- Executive Director of Alcatel-Lucent Shanghai Bel\*\* (up to 2013)
- Director of Alcatel-Lucent Shanghai Bell\*\*
- Vice Chairman of the Board of Directors of Alcatel-Lucent Qingdao Telecommunications\*\*
- Chairman of the Board of Directors of Alcatel-Lucent Shanghai Bell Enterprise Communications Co. Ltd\*\*, Alcatel-Lucent Sichuan Bell Communication System Co. Ltd\*\*, Lucent Technologies Qingdao Telecommunications Enterprise Co. Ltd\*\*, Lucent Technologies Information\*\* and Communications of Shanghai Ltd\*\*

- \* Listed company
- \*\* Company registered outside of France



**DENIS RANQUE** 

Principal office held: Chairman of the Board of Directors of Airbus Group

Professional address: Airbus Group - 12 rue Pasteur - BP 76 - 92152 Suresnes Cedex

Age 65 Nationality: French Date of first election: June 2003 Term start date: June 2015 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2018 Number of shares held at 12/31/2016: 888

# EXPERTISE AND EXPERIENCE

Mr. Denis Ranque is an alumnus of École Polytechnique and of École des Mines.

He began his career at the Ministry of Industry, where he held several positions in the energy sector, before joining the Thomson Group in 1983 as Planning Director.

The following year he was transferred to the Electronic Tubes Division, first as Director of the "Space" activity then, starting 1986, as Director of the Hyperfrequency Tubes Department. Two years later, this division became a subsidiary of Thomson Tubes Electroniques, for which he was appointed Chief Executive Office in 1989.

In April 1992 he was appointed Chairman and Chief Executive Officer of Thomson Sintra "Submarine Activities". Four years later he became Chief Executive Officer of Thomson Marconi Sonar, the sonar systems joint venture of THOMSON-CSF and GEC-MARCONI.

In January 1988 Mr. Denis Ranque was appointed Chairman and Chief Executive Officer of the THOMSON-CSF Group, which in 2000 took the name THALES. He left in 2009 due to a change in shareholder control. He is currently Chairman of the Board of Directors of the Airbus Group. He has served as Chairman of the Board of Mines Paris Tech, of the Cercle de l'Industrie and Association Nationale Recherche et Technologie. Mr. Denis Ranque is currently Chairman of the Haut Comité de Gouvernement d'Entreprise (High Committee on Corporate Governance), co-Chairman of La Fabrique de l'Industrie, and Chairman of the Board of Directors of the Fondation École Polytechnique.

His other offices and duties held over the past five years are described below.

Mr. Denis Ranque has been a Director of Compagnie de Saint-Gobain since June 2003.

# OFFICES AND DUTIES HELD OUTSIDE THE GROUP

- Chairman of the Board of Directors of Airbus Group\* SE\* (Netherlands)
- · Director of CMA-CGM
- · Director of Scilab Enterprises

# OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED

- Director of Fonds Stratégique d'Investissement and of CGG\* (up to 2012)

<sup>\*</sup> Listed company



**GILLES SCHNEPP** 

#### Directo

# Principal office held: Chairman and Chief Executive Officer of Legrand

Professional address: Legrand - 128 avenue du Maréchal de Lattre de Tassigny - 87045 Limoges Cedex

Age 58
Nationality:
French
Date of first election:
June 2009
Term start date:
June 2013
Term end date:
Shareholders' Meeting convened to approve the financial statements for the year ending

December 31, 2016

Number of shares held at 12/31/2016: 800

### EXPERTISE AND EXPERIENCE

Mr. Gilles Schnepp is a graduate of École des Hautes Études Commerciales (HEC). He began his career at Merrill Lynch as Director of the Bonds and Derivatives Departments. In 1989 he joined the Legrand Group where he held several positions before being appointed Senior Vice President (2000), member of the Management Committee and Director (2001), Vice Chairman and Chief Executive Officer (2004) then Chairman and Chief Executive Officer of Legrand since 2006. He has also been Chairman of FIEEC (Federation of Electrical, Electronic and Communications Industries) since July 2013.

His other offices and duties held over the past five years are described below.

Mr. Gilles Schnepp has been a Director of Compagnie de Saint-Gobain since June 2009.

### OFFICES AND DUTIES HELD OUTSIDE THE GROUP

- Chairman and Chief Executive Officer of Legrand\*
- Various positions and functions within subsidiaries of the Legrand Group
- \* Listed company

# OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

 Various positions and functions within subsidiaries of the Legrand Group



# **JEAN-DOMINIQUE SENARD**

Independent Director

Chairman of the Audit and Risk Committee

Principal office held: Chief Executive Officer of Michelin

Professional address: Michelin - 23 place des Carmes-Déchaux - 63040 Clermont-Ferrand Cedex 9

Age 64
Nationality:
French
Date of first election:
June 2012
Term start date:
June 2016
Term end date:
Shareholders' Meeting
convened to approve
the financial statements
for the year ending
December 31, 2019
Number of shares held
at 12/31/2016: 1,830

# EXPERTISE AND EXPERIENCE

Graduate of École des Hautes Études Commerciales (HEC) and holder of a master's degree in law, Mr. Jean-Dominique Senard began his career with various financial and operational responsibilities within the Total Group from September 1979 to September 1987, then at Saint-Gobain from 1987 to 1996.

From September 1996 to March 2001 he was Finance Director of the Péchiney Group and member of the Group's Executive Committee. He then managed the Primary Aluminum Division of the Péchiney Group until 2004. Then, as member of the Alcan Group Executive Committee, he was in charge of Péchiney's integration and Chairman of Pechiney SA.

Mr. Senard joined Michelin in March 2005 as Chief Financial Officer and member of the Executive Council of the Michelin Group. In May 2007 he became Non-Limited Partner of the Michelin Group before being appointed Limited Managing Partner in May 2011 alongside Mr. Michel Rollier, and then Chairman in May 2012.

His other offices and duties held over the past five years are described below.

Mr. Jean-Dominique Senard has been a Director of Compagnie de Saint-Gobain since June 2012.

# OFFICES AND DUTIES HELD OUTSIDE THE GROUP

Chief Executive Officer of Michelin\*

# OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

Director of SEB\* (up to 2013)

\* Listed company



**PHILIPPE VARIN** 

Independent Director

Chairman of the Nomination, Remuneration and Governance Committee Principal office held: Chairman of the Board of Directors of Areva

Professional address: Areva - 1 place Jean Millier - 92400 Courbevoie

Age 64 Nationality: French Date of first election: June 2013 Term start date: June 2013 Term end date: Shareholders' Meeting convened to approve the financial statements for the year ending December 31, 2016 Number of shares held

at 12/31/2016: 3,026

### **EXPERTISE AND EXPERIENCE**

An alumnus of École Polytechnique and of École des Mines de Paris, Mr. Philippe Varin joined the Pechiney Group in 1978 as a researcher. He subsequently held various management positions within this Group (management control, strategy, project management), before being appointed as head of the Rhenalu Division in 1995 and then General Director of the Aluminum Division and member of the Group's Executive Committee in 1999.

In 2003 he joined the Anglo-Dutch Steelmaking Group Corus as Chief Executive Officer.

In June 2009 he was appointed as Chairman of the Board of PSA Peugeot Citroën, and left the Group in June 2014.

He is currently Chairman of the Board of Directors of Areva. He is also special representative of the Minister of Foreign Affairs and International Development for the ASEAN countries and Chairman of the Cercle de l'Industrie (since 2012).

His other offices and duties held over the past five years are described below.

Mr. Philippe Varin has been a Director of Compagnie de Saint-Gobain since June 2013.

# OFFICES AND DUTIES HELD OUTSIDE THE GROUP

Chairman of the Board of Directors of Areva\*

### OTHER OFFICES HELD OUTSIDE THE GROUP AND EXPIRED OVER THE PAST FIVE YEARS

- · Chairman of the Board of Directors of PSA Peugeot Citroën\* (2009-2014)
- Director of PCMA Holding BV (2009-2014)
  Director of Faurecia SA\* (2009-2014)
- Director of Banque PSA Finance SA (2009-2014)
  Director of BG Group Plc (from 2006 to 2013)
- Director of GEFCO SA (2009-2012)
- Director of EDF\* (2014-2016)

\* Listed company

### 1.1.2 Independence of the members of the Board of Directors, gender parity, employee shareholder representation and employee representation

# Independence

The Board has reviewed each Director's situation with regard to all the independence criteria set out in the AFEP-MEDEF Code, with which the Company complies, at the proposal of the Nomination, Remuneration and Governance Committee.

In particular the Board scrutinized, as it does every year, with the same attention as it reviewed the other criteria the business relationships that existed between the Saint-Gobain Group and the other companies or groups of companies where each independent Director (with respect to the other independence criteria listed under the table in section 1.1.1 in this chapter 6) held office. The Board's review concluded that, with the exception of Mr. Senard as described below, none of the independent Directors, nor any company or group of companies on the Board of which they sit, or within which they hold office as senior executives, has any business relationship with the Company, its group or its management.

The Board then carried out a quantitative and qualitative review of the particular case of Mr. Jean-Dominique Senard, Chief Executive Officer of Michelin, and the business relationship between the Michelin and Saint-Gobain groups.

The business transactions between these two groups of companies, including business activities at an international level, which represent less than 0.1% of their respective consolidated net sales, fall substantially below the 1% materiality threshold set by the Board. Furthermore, the Board of Directors highlighted that, because of the structure of the Saint-Gobain group, its size and the diversity of its business activities, the Board's role was not designed to intervene in the business relations of the Group's various business activities: the Sectors and their branches (Activities, Business lines and their divisions) are in effect managed in a decentralized manner by their respective heads. Mr. Senard, therefore, in his capacity as Director of the Saint-Gobain Group, has no direct or indirect decision-making powers within the implementation or the carrying out of these business transactions. If, however, for any extraordinary reason, such an issue should be discussed by the Board, the Board's internal rules regarding conflict of interest are such that the Director concerned would be required to inform the Chairman of his situation, and to abstain from participating in such debates or deliberations on the matter in question (see chapter 10, section 1.1).

On the basis of the above, the Board has deemed that Mr. Senard, does not maintain, either directly or indirectly, any significant business relationship with the Group which may affect his freedom of judgement or his independence.

Chapter 6, section 1.1.3 deals with conflicts of interest of members of the Board of Directors, and the absence of services contract between Directors and the Company or any company within the Group.

The Board of Directors concluded from its review of Directors' independence against the criteria set down by the AFEP-MEDEF code that, as of February 1, 2017, seven Directors out of 13 (i.e. 53.8%) completely satisfied the independence criteria, and were therefore considered to be independent Directors: Iêda Gomes Yell, Anne-Marie Idrac, Pamela Knapp, Agnès Lemarchand, Olivia Qiu, Jean-Dominique Senard and Philippe Varin. In compliance with the recommendations of the AFEP-MEDEF Code. Jacques Pestre, representing employee shareholders, and Alain Destrain and Pascal Laï, representing employees, were not included in calculating that proportion.

# Gender parity

At February 1, 2017, the Board includes five women among fourteen members (35.7%), and thus differs since the General Shareholders' Meeting of June 2, 2016 with the former recommendation of the AFEP-MEDEF Code (updated version of November 2015) recommending that a 40% ratio of women be represented on the Board by the end of that General Shareholders' Meeting, due to the progressive reduction of the size of the Board of Directors which counted 18 members at the end of 2014.

As a result of the envisaged continuing reduction of its size, at the time of the General Shareholders' Meeting to be held on June 8, 2017 (see chapter 6, section 1.1.4), the Board should include, as from that date, five women among twelve members (41.7%), i.e., more than 40% of women, in compliance with the recommendations of the Law of January 27, 2011 on gender parity on boards of directors, and this in respect of the required deadline. Pursuant to the recommendations of the AFEP-MEDEF Code, Jacques Pestre, representative of employee shareholders, is counted in calculating this proportion, unlike Alain Destrain and Pascal Laï, representing employees, who are not.

### Diversity and complementarity of the skills of the Directors

As of February 1, 2017, three members of the Board of Directors out of thirteen (i.e., 23%) are of foreign nationality (excluding employee Directors). Further, the majority of Directors have, or have had, very strong international exposure, managing groups with a significant proportion of their activities abroad or exercising significant duties abroad (see chapter 6, section 1.1.1).

As part of its assessment carried out during 2016 with a specialized consulting firm (see chapter 6, section 1.2.4), the Board of Directors considered its composition more balanced and more diversified than during its last assessment carried out in a similar process in 2013. It estimated that the expertise and experience of its members were varied and complementary, in matters such as knowledge of the industry or the activities/business of the Group, innovation/digital, management, strategy, finance, governance, and/or corporate social responsibility (see biographies in chapter 6, section 1.1.1). It also estimates that it would be desirable, at the time of future replacements or renewals, to retain the skills in distribution and digital, increase internationalization and maintain the ratio of executive Directors operating within other large groups.

# Representation of employee shareholders and employees

Pursuant to the bylaws of the Company and to the laws, Alain Destrain and Pascal Laï were appointed employee Directors by the Company's Group Committee. These two Directors, as well as Mr. Pestre, the Director representing employee shareholders appointed pursuant to the law as well, sit on the Board of Directors and are entitled to vote in the same way as the other Directors. Subject to the laws applying specifically to them, these Directors are subject to all legal and statutory provisions, have the same rights and are subject to the same duties, as fixed, in particular, by the Board's internal rules, as those applicable to the other Directors.

By law, one member of the Works Council (Mr. Cotrel, elected by the members of the Works Council and representing employees, who succeeded Ms. Daveau in November 2016) holds a seat on the Board of Directors in a consultative capacity.

The Company bylaws and the Board's internal rules provide that each Director must hold a minimum of 800 registered shares, with the law exempting employee Directors, whether shareholders or not, from this type of obligation.

### 1.1.3 **Conflicts of interest and statements** regarding members of the Board of **Directors**

To the best knowledge of Compagnie de Saint-Gobain, as of February 1, 2017 there are no family relationships between the Company's Directors and, within the past five years, no Director has been found guilty of fraud, been associated with a bankruptcy, sequestration or liquidation, received an official public penalty or sanction issued by a statutory or regulatory authority, and/or been prevented by a court from acting as a member of an administrative, management or supervisory body of an issuer of securities, or from taking part in managing or conducting an issuer's business.

To the best of the Company's knowledge, there are no conflicts of interest between Compagnie de Saint-Gobain and the personal and professional activities of the members of its Board of Directors, and there are no service contracts between any members of the Board and either Compagnie de Saint-Gobain or any of its subsidiaries that provide for the conferral of benefits at the term of such contracts.

The Board's internal rules address conflicts of interest in the event such a situation arises: the Director in question has the duty to inform the Chairman and Chief Executive Officer and the Lead Independent Director, from the date he takes on his duties, thereof and to refrain from participating in the discussions and deliberations on the subject in question (see chapter 10, section 1.1.2).

#### 1.1.4 Re-election of the Board of Directors and changes in its composition

The members of the Board of Directors may be re-elected in a staggered and balanced fashion as follows:

Date of expiration of the term of office	Director and date of first election
Upon completion of the General Shareholders' Meeting approving the financial	Jean-Martin Folz (March 2001)
statements for the fiscal year ended December 31, 2016	Pamela Knapp (June 2013)
	Agnès Lemarchand (June 2013)
	Gilles Schnepp (June 2009)
	Philippe Varin (June 2013)
Upon completion of the General Shareholders' Meeting approving the financial	Pierre-André de Chalendar (June 2006)
statements for the fiscal year ended December 31, 2017	Alain Destrain (December 2014)
	Pascal Laï (December 2014)
Upon completion of the General Shareholders' Meeting approving the financial	Anne-Marie Idrac (June 2011)
statements for the fiscal year ended December 31, 2018	Jacques Pestre (June 2011)
	Olivia Qiu (June 2011)
	Denis Ranque (June 2003)
Upon completion of the General Shareholders' Meeting approving the financial	Bernard Gautier (June 2008)
statements for the fiscal year ended December 31, 2019	lêda Gomes Yell (June 2016)
	Frédéric Lemoine (April 2009)
	Jean-Dominique Senard (June 2012)

# 1. Composition and operation of the Board of Directors

It will be proposed to the General Shareholders' Meeting scheduled for June 8, 2017 that the terms of office of Ms. Knapp and Ms. Lemarchand and Messrs. Schnepp and Varin be renewed. These directors have diligently proven themselves through their attendance. In fiscal year 2016, Pamela Knapp attended nine of the Board's ten meetings and all Audit and Risk Committee meetings; Agnès Lemarchand attended all Board meetings and all meetings of the Audit and Risk Committee; Gilles Schnepp attended nine out of ten Board meetings; and Philippe Varin attended nine out of ten Board meetings and all the meetings of the Nomination, Remuneration and Governance Committee.

Mr. Folz did not seek renewal of his term due to the statutory age limit which he will reach during a potential new term. During the years of his term, his experience and judgment contributed immensely to the Board's discussions and decisions.

In addition, Wendel has informed the Company of its desire to reduce its representation on the Board of Directors of Compagnie de Saint-Gobain to two Directors following the General Shareholders' Meeting scheduled for June 8, 2017 instead of three as provided for by the existing agreements, considering the objective of reducing the size of the Board and as part of the reduction of its stake in the share capital of Saint-Gobain which took place in May 2016 (see chapter 8, sections 2.1 and 2.4).

In the event of the renewal of the terms of office of Ms. Knapp and Ms. Lemarchand and Messrs. Schnepp and Varin, the non-renewal of the term of Mr. Folz and the reduction in the representation of Wendel to two members, the number of women with seats on the Board of Directors will be five out of twelve (i.e., a proportion of 41.7%), and the number of independent Directors on the Board, calculated in accordance with the rules set by the AFEP-MEDEF Code, will be seven out of eleven (i.e., a proportion of 63.6%).

# Summary of changes in the composition of the Board of Directors

The following table shows the changes in the composition of the Board of Directors in fiscal year 2016 and the changes proposed to the General Shareholders' Meeting of June 8, 2017:

	General Shareholders' Meeting of June 2, 2016	General Shareholders' Meeting of June 8, 2017
Cessation of duties	Isabelle Bouillot	Jean-Martin Folz
	Sylvia Jay <sup>(2)</sup>	A Director representing Wendel
Renewal	Bernard Gautier (3)	Pamela Knapp (1)
	Frédéric Lemoine (3)	Agnès Lemarchand (1)
	Jean-Dominique Senard (1)	Gilles Schnepp (3)
		Philippe Varin (1)
Proposed nomination	lêda Gomes Yell (1)	N/A

- (1) Independent Director.
- (2) Independent Director up to June 2, 2016.
- (3) In accordance with existing agreements between the Company and Wendel (see chapter 8, section 2.4).

The following table shows the changes in the composition of the Board with regard to independence, representation of women, and representation of foreign members during fiscal year 2016, and as envisaged by the end of the General Shareholders' Meeting to be held in 2017:

	As from the General Shareholders' Meeting of June 4, 2015	As from the General Shareholders' Meeting of June 2, 2016	As from the General Shareholders' Meeting of June 8, 2017 (contemplated)
Percentage of independents (1)	50%	54%	64%
Percentage of women (1)	40%	36%	42%
Percentage of foreign nationals (2)	21%	23%	27%

- (1) In compliance with computation rules set by the AFEP-MEDEF Code.
- (2) Excluding employee Directors appointed under specific mandatory legal provisions.

# Summary of the composition of the Board of Directors Committees

The following tables show the changes in the composition of the three Board of Directors Committees in fiscal year 2016, and as planned upon completion of the General Shareholders' Meeting scheduled for June 8, 2017:

Audit and Risk Committee	As from the General Shareholders' Meeting of June 4, 2015	As from the General Shareholders' Meeting of June 2, 2016	As from the General Shareholders' Meeting of June 8, 2017
Chairman	Jean-Dominique Senard (1)	Jean-Dominique Senard (1)	Philippe Varin (1)
Members	Pamela Knapp (1)	Pamela Knapp (1)	Pamela Knapp (1)
	Agnès Lemarchand (1)	Agnès Lemarchand (1)	Agnès Lemarchand (1)
	Frédéric Lemoine	Frédéric Lemoine	Gilles Schnepp

<sup>(1)</sup> Independent Director

Nomination, Remuneration and Governance Committee	As from the General Shareholders' Meeting of June 4, 2015	As from the General Shareholders' Meeting of June 2, 2016	As from the General Shareholders' Meeting of June 8, 2017
Chairman	Philippe Varin <sup>(1)</sup>	Philippe Varin (1)	Anne-Marie Idrac (1)
Members	Bernard Gautier	Bernard Gautier	Frédéric Lemoine
	Anne-Marie Idrac (1)	Anne-Marie Idrac (1)	Pascal Laï (2)
	Sylvia Jay (1)	Pascal Laï <sup>(2)</sup>	Olivia Qiu (1)
		Olivia Qiu (1)	

<sup>(1)</sup> Independent Director

<sup>(2)</sup> Employee Director, not included in the ratio of independent Directors, in accordance with the recommendations of the AFEP-MEDEF Code.

Strategy and Corporate Social Responsibility Committee	As from the General Shareholders' Meeting of June 4, 2015	As from the General Shareholders' Meeting of June 2, 2016	As from the General Shareholders' Meeting of June 8, 2017
Chairman	Jean-Martin Folz	Jean-Martin Folz	Dominique Senard (1)
Members	Pierre-André de Chalendar	Pierre-André de Chalendar	Pierre-André de Chalendar
	Frédéric Lemoine	Frédéric Lemoine	Frédéric Lemoine

<sup>(1)</sup> Independent Director.

#### 1.2 OPERATION OF THE BOARD OF DIRECTORS

### 1.2.1 **Governance structure: combined** Chairman of the Board/CEO roles and Lead Independent Director

### Combination of the Chairman of the Board and CEO roles

At its meeting of June 3, 2010, the Board of Directors of Compagnie de Saint-Gobain resolved to recombine the roles of Chairman of the Board of Directors and Chief Executive Officer by appointing Mr. Pierre-André de Chalendar as Chairman and Chief Executive Officer.

The roles of Chairman of the Board of Directors and Chief Executive Officer were separated in June 2007 to ensure a smooth handover of powers from Mr. Jean-Louis Beffa - then reaching the age limit for the position of Chief Executive Officer, and who subsequently became honorary Chairman of Compagnie de Saint-Gobain - to Mr. Pierre-André de Chalendar.

Having discussed the matter most recently in their meeting of November 24, 2016, the Board of Directors concluded that, within Compagnie de Saint-Gobain, combining the two roles helps to ensure more responsive and efficient corporate governance and strategy implementation. It is particularly advantageous in a period of challenging economic conditions.

Moreover, the decision to combine the two roles once again was in line with the Group's longstanding management tradition. The assessment of the Board's work completed in 2013, on the occasion of the renewal of the term of Director of Mr. Pierre-André de Chalendar, and repeated every year since, found that all Directors were satisfied with the combining of the roles, and wished for this to continue.

The Chairman and Chief Executive Officer is vested with the broadest authority to act under all circumstances on behalf of the Company within the scope of its corporate purpose and subject to the limits set by law, the bylaws and/or internal rules of the Board of Directors (see chapter 6, section 1.2.2 and chapter 10, section 1.1).

In addition, the key factor in good governance is that the other members serve as a counterweight on the Board. Must be especially emphasized:

- all Board Directors, especially, but not only, independent Directors, who account for 54% of the Board of Directors, 75% of members of the Audit and Risk Committee and 75% of the members of the Nomination, Remuneration and Governance Committee, and the Committee Chairmen, independent in the case of the Audit and Risk Committee and the Nomination, Remuneration and Governance Committee, all of whom are extremely competent and experienced; as well as
- the permanent representatives of the main shareholders Wendel and the PEG corporate mutual fund; and
- the employee Directors appointed by the Saint-Gobain Group Works Council, in accordance with the bylaws of the Company and prevailing legislation.

To this should be added the role of the Nomination, Remuneration and Governance Committee, which is specifically responsible for preparing the Board's examination of questions relating to governance and for conducting an assessment each year of the Board of Directors, in addition to the ability of the Directors to meet in the absence of the executive Director during or after a Board meeting (see chapter 6, section 1.2.2 and chapter 10, section 1.1.2).

The role that the Lead Independent Director (*Administrateur Référent*) will play in particular in respect of governance matters and management of conflicts of interest, starting from the close of the next General Shareholders' Meeting, should be highlighted (see below).

# Lead Independent Director (Administrateur Référent)

The Board of Directors, within the context of its 2016 assessment of its operation conducted with a specialized consulting firm, taking into account the development of the practice within companies in France chaired by a combined Chairman of the Board/CEO and the expectation of certain investors expressed during the dialog that the Company has with them, indicated its desire to appoint a Lead Independent Director among the independent Directors of the Board, who will in particular oversee the efficient running of the Company's governance bodies.

Following the discussions regarding the responsibilities and role to be entrusted to him, the Board decided on November 24, 2016, at the proposal of the Nomination, Remuneration and Governance Committee, to create with effect at the close of the General Shareholders' Meeting of June 8, 2017, the role of Lead Independent Director which will be taken on by Jean-Dominique Senard, independent Director since 2012.

His reponsibilities, which will be described in the internal rules of the Board of Directors (see chapter 10, section 1.1.2), will be the following:

prevent and manage conflicts of interest: the Lead Independent Director is responsible for preventing the occurrence of situations of conflicts of interest. He brings to the attention of the Board of Directors possible conflicts of interest that he is aware of concerning the Directors;

- lead the assessment of the organization and the operations of the Board of Directors which is periodically carried out:
- ◆ convene, chair, organize and report to the Chairman and Chief Executive Officer on the meetings of the Directors held without the presence of the executive Directors ("executive sessions"). These sessions may be held during or at the close of a meeting of the Board of Directors, as the case may be such sessions may be co-chaired with the Chairman of the Nomination and Remuneration Committee in the event he/she is a different person and for matters falling under the responsibility of the Nomination and Remuneration Committee (in particular succession plans and the executive Director's compensation);
- be a point of contact of the shareholders of Compagnie de Saint-Gobain on governance matters, and meet them at the request of the Chairman and Chief Executive Officer;
- ensure that the Directors receive the relevant information to exercise their duties under the best possible conditions, in accordance with the provisions of the internal rules of the Board of Directors;
- more generally, ensure compliance with the internal rules of the Board of Directors is honored.

In the course of his duties, the Lead Independent Director shall have the right to:

- suggest to the Chairman and Chief Executive Officer the addition of points to the agenda of any meeting of the Board of Directors:
- request the Chairman and Chief Executive Officer to convene the Board of Directors on a specific agenda;
- convene and chair the meetings of the Board of Directors in the event of the temporary inability or death of the Chairman and Chief Executive Officer; and
- attend, as the case may be, the meetings of the Committees of which he is not a member to the extent strictly necessary to accomplish his duties and upon the approval of the Chairman of the relevant Committee.

The Lead Independent Director will report to the Board of Directors on the completion of his mission on an annual basis.

Considering the duties assigned to the Lead Independent Director, the Nomination, Remuneration and Governance Committee will be renamed "Nomination and Remuneration Committee" and its role will be adapted as a result, starting from the time the Lead Independent Director enters into office at the close of the General Shareholders' Meeting of June 8, 2017.

# 1.2.2 Operating rules of the Board of Directors – internal rules

In line with the recommendations of the AFEP-MEDEF corporate governance code for French listed companies, the Board of Directors adopted a set of internal rules in 2003, as a supplement to the applicable laws and regulations and the Company's bylaws, aimed at defining the conditions for the operation of the Board and its Committees (Nomination, Remuneration and Governance Committee, Audit and Risk Committee, Strategy and Corporate Social Responsibility Committee).

The version of the Board's internal rules in force at February 1, 2017, which incorporates successive revisions of the AFEP-MEDEF Code, is reproduced in its entirety in chapter 10, section 1.1.2, with the exception of the provisions regarding the Board Committees which are reproduced below.

### **Board activities**

The internal rules provide for Board activities to include the followina:

- ◆ examination and approval of the Saint-Gobain Group annual report and consolidated and corporate financial statements, both annual and interim;
- examination and approval each year of the Saint-Gobain Group budget;
- examination and approval at least once per year of the Saint-Gobain Group's strategic guidelines;
- approval prior to execution of investment transactions, restructurings, disposals, acquisitions, taking or selling of equity interests in individual amounts greater than €150 million, and any significant transaction not falling within the strategy announced by the Saint-Gobain Group.

### Ability to debate without the presence of the executive Directors

The Board's current internal regulation affords Directors the authority to meet without the presence of the corporate representatives during or after a session, in order to assess the performance of the corporate representatives and to reflect on the future of the Saint-Gobain Group's senior management. Thus, each year, the Chairman and Chief Executive Officer shall leave the sessions of the Board and the Nomination, Remuneration and Governance Committee during such discussions (deliberations and votes) on issues involving the assessment of his performance and the setting of his variable compensation (February sessions), as well as during the Board's assessment, the discussion on the combination of the Chairman of the Board of Directors and CEO roles, and his allocation of stock options, performance shares or performance units (November sessions).

The Board intends to continue meeting in 2017 without the presence of the Chairman and Chief Executive Officer to discuss matters of governance in general, beyond the issues of compensation of the Chairman and Chief Executive Officer and assessment of the Board, and at the initiative and under the lead of the Lead Independent Director starting from the time he enters into office, if need be as co-chair with the Chairman of the Nomination and Remuneration Committee (chapter 6, section 1.2.1).

# Prior and permanent information for Directors

At each meeting, the Board is provided with an analysis of the Saint-Gobain Group's operating income and net debt situation, prepared as of the end of the month preceding the meeting, as well as an update on the Saint-Gobain stock price compared to the CAC 40 index and an industry index.

Between meetings, Directors receive copies of all press releases issued by the Company, along with relevant information, if required, about events or transactions that are material for the Group. Directors are entitled to request any other documents they consider necessary to make an informed contribution to the Board's discussions; requests are put to the Chairman and Chief Executive Officer, who may submit the request to the Board for a decision.

### **Directors' duties**

The internal rules also stipulate the duties of Directors, specifically with regard to stock trading ethics (prevention of insider trading, closed periods, reporting of trades involving Saint-Gobain securities and the obligation to hold their Saint-Gobain shares in registered form), with regard to confidentiality and the management of potential conflicts of interest

# Other provisions in the internal rules

Finally, the internal rules provide for the distribution of attendance fees and the right of Directors to additional training on the specific activities of the Saint-Gobain Group, its businesses and its business lines.

### 1.2.3 **Principal activities of the Board** and Committees in 2016

# a) Principal activities of the Board in 2016

The Board of Directors held ten meetings in 2016. The rate of attendance of those Directors in office at February 1, 2017 at all these meetings was 92%. Eight of the sixteen Directors attended every meeting of the Board. Five Directors missed a single meeting, two Directors missed two meetings and one Director missed four meetings.

The principal topics discussed during these meetings are listed below.

# Monitoring of the strategic guidelines of the Group and its Activities

At each meeting, consistent with its internal rules, the Board assessed changes in the Group's situation. During each meeting, including a half-day seminar dedicated to a presentation on the Group's strategy, the Board reviewed and approved the Group's strategic guidelines or a specific aspect of the strategy (specifically, disposals and acquisitions in progress, including the plan to acquire a controlling interest in Sika (see chapter 3, section 1.2), benchmarks with the main competitors, status of a Sector or Activity within a country, etc.) where appropriate after hearing members of the senior management of the Activities in question.

It also followed the implementation of the roadmap relative to the digital transformation of the Group.

# Financial management

Pursuant to its legal competency, the Board approved annual and interim financial statements, both corporate and consolidated, as well as the various reports relating to them, after hearing the opinion of the Chairman of the Audit and Risk Committee and the Statutory Auditors. The Board also approved the draft resolutions to be submitted to the General Shareholders' Meeting of June 2, 2016, specifically the proposed dividend distribution, as well as reports be provided to shareholders, and convened the General Shareholders' and holders of *Titres Participatifs*'s Meetings. It approved the report on payments made to Governments (extractive industries).

It approved the budget of the Saint-Gobain Group, various provisional management reports and documents, and renewed the annual authorizations granted to the Chairman and Chief Executive Officer to issue bonds, sureties and guarantees, and awarded specific authorizations. It also examined related-party agreements and commitments entered into and authorized in previous years, the execution of which continued during fiscal year 2015.

It resolved to implement the Company's stock buyback program. It authorized the Chairman and Chief Executive Officer to buyback some of the Saint-Gobain shares disposed of by Wendel on May 3, 2016 as part of an accelerated bookbuilding carried out by Wendel and later decided on their cancellation as of May 30, 2016 (see chapter 8, section 1.3.1).

# Internal control and risk management

The Board of Directors undertook a review of the Group's current internal control and risk management processes following analysis of the principal risk mapping established in 2016 by the Audit and Internal Control Office, and after having received the report of the Chairman of the Audit and Risk Committee on these subjects.

On several occasions, it reviewed the position of the Company and Group with regard to certain risks, procedures, litigation (specifically asbestos, competition environment) and the evolving regulatory environment. The Corporate Secretary reported on the implementation and changes in the Group's Compliance program (see chapter 4, section 11)

It updated the procedure in force within the Group that regulates the services which could be assigned to the Statutory Auditors and their network, to prescribe, in accordance with the new regulation, the competence of the Audit and Risk Committee to approve, under the responsibility of the Board of Directors, the services other than the legal certification of the accounts which could be entrusted to them, and to modify the internal rules of the Board of Directors as a result.

# Corporate Social Responsibility

Over six sessions, one point on the agenda was dedicated to subjects concerning corporate social responsibility, specifically the following topics: circular economy (recycling of production and construction/deconstruction waste, protection of resources and limiting CO<sub>2</sub> emissions),

compliance program, (competition, embargoes, fight against corruption), human resources policy (in particular male/female diversity and professional equality and equal pay), security policy and, more generally, the corporate social responsibility policy within the Group (first participation at a very satisfactory level in the "Down Jones Sustainability Index")

### Governance

Pursuant to the AFEP-MEDEF code of corporate governance for French listed companies, the Board formally performed the annual assessment of its operations with the assistance of a specialized consulting firm and discussed the results of this assessment (see chapter 6, section 1.2.4).

It discussed the opportunity and decided to appoint, at the proposal of the Nomination, Remuneration and Governance Committee, a Lead Independent Director to enter into office at the close of the General Shareholders' Meeting scheduled for June 8, 2017 and decided the new composition of the Committees at the close of that same General Shareholders' Meeting (see chapter 6 sections 1.1.4 and 1.2.1).

At the proposal of the Nomination, Remuneration and Governance Committee, it also discussed the combining of the roles of Chairman of the Board and Chief Executive Officer.

It confirmed the existence and application of succession plans for the Chairman and Chief Executive Officer in the event of an unanticipated vacancy as well in the long-term.

It reviewed the situation of Director independence. It also discussed, at the proposal of the Nomination, Remuneration and Governance Committee, the size and changes in its composition as a result of the expiration of the terms of office of certain Directors, made proposals for the renewal of terms of office, the nomination of a Director and composition of the Committees for the General Shareholders' Meeting of June 2, 2016 (chapter 6, section 1.1.4) then in view of the General Shareholders' Meeting of June 8, 2017.

It ruled on the training program of the employee Directors.

# Compensation of the Chairman and Chief Executive Officer and long-term employee profit sharing

The Board reviewed and prepared the various components of Mr. Pierre-André de Chalendar's compensation (fixed and variable compensations and allocations of stock options and performance shares) and their respective balance (see chapter 6, section 2.2).

The Board further approved the implementation of and adopted the principal features of the stock options and performance share plans, and set the performance criteria for these plans, from which certain categories of employees may benefit (see chapter 6, section 2.4).

As part of the ongoing development of employee shareholders, the Board resolved to again offer its employees and former employees the opportunity to subscribe to, under certain conditions, a share capital increase reserved for them in 2017, up to a maximum of six million shares, i.e. slightly more than 1% of share capital at a maximum (see chapter 8, section 2.3).

Finally, it discussed the Company's policy regarding professional and salary equality.

# b) Principal activities of the Committees in 2016

### **Board Committees**

The Board has established three Committees aimed at improving its operations and effectively contributing to the preparation of its deliberations: the Audit and Risk Committee, the Nomination, Remuneration and Governance Committee, and the Strategy and Corporate Social Responsibility Committee. These Committees do not have their own decision-making authority (barring specific provision otherwise provided for by the internal rules of the Board of Directors as regards the Audit and Risk Committee's approval of non-audit services assigned to the Statutory Auditors), and report to the Board regarding their activities, conclusions and proposals

The Board's internal rules incorporate the rules governing the composition, prerogatives and responsibilities of each Committee, as described below.

The activities of these three Committees in 2016 were regularly presented to the Board in the form of activity reports and proposals.

# **Composition of Committees**

The Board's practice is to allow some time for all new Directors to adapt before proposing a position on a Committee, since active participation on a Committee requires familiarity with the operation of a Board of Directors and its Committees, and the ability to understand the major challenges with which the Company is faced and which, without the necessary experience, is only acquired after a certain period of time.

At the recommendation of the Nomination, Remuneration and Governance Committee, the Board of Directors thus considers, on a case-by-case basis, the opportunity to propose to Directors their participation in one of the three Committees, depending upon the most appropriate schedule. Further, in its examination of the composition of the Committees and appointment of new Directors to these Committees, the Board ensures compliance with the recommendations of the AFEP-MEDEF Code with regard to the proportion of independent Directors on these Committees.

Considering the non-renewal of the term of office of Mr. Jean-Martin Folz, due to the statutory age limit which he will reach during a possible new term, and assuming the Director terms which will be submitted to the approval of the next General Shareholders' Meeting will be renewed, the chairs of the Committees and their composition will be modified as indicated in section 1.1.4 of chapter 6 ("Summary of changes in the composition of the Committees of the Board of Directors").

# Audit and Risk Committee

### Composition

Mr. JEAN-DOMINIQUE SENARD Chairman (since June 6, 2013)

Ms. AGNÈS LE MARCHAND

Ms. PAMELA KNAPP

Mr. FRÉDÉRIC LEMOINE

At February 1, 2017, three of the four members of the Audit and Risk Committee (75%), including its Chairman, were independent Directors. No executive Directors sit on the

By virtue of their current or past positions as finance directors and/or chief executive officer, each Committee member has considerable experience and high-level expertise in financial and accounting matters (see biographies in chapter 6, section 1.1.1). It should be noted that each newly appointed member consults with the Group's Chief Financial Officer on specific accounting, financial and operational aspects of the Saint-Gobain Group.

### Responsibilities (extracts from the Board's internal rules)

According to the Board of Directors' internal rules, the Audit and Risk Committee has the following responsibilities:

- ♦ Without encroaching on the role of the Board of Directors, the Audit and Risk Committee is primarily responsible for overseeing the following matters:
  - processes used to prepare financial information;
  - efficiency of the internal control and risk management systems;
  - work performed by the Statutory Auditors on the financial statements of the Company and the Group;
  - Statutory Auditor's independence.
- ◆ It ensures that any questions relating to the preparation and control of accounting and financial information are followed up, that the accounting policies used to prepare the financial statements are both appropriate and applied consistently from one period to the next, and that the internal procedures used to collect and control accounting and financial information provide the necessary assurance in this regard.
- ♦ It reviews the interim and annual financial statements of the Company and the Group, as presented by senior management, prior to their examination by the Board of Directors.
- ◆ It reviews the scope of consolidation and, if applicable, the reasons why any companies have been excluded.
- ◆ It reviews significant risks and off-balance sheet commitments, based on an explanatory report prepared by the Chief Financial Officer.
- ♦ It receives updates from senior management on organization and operation of the risk management system.
- ◆ It reviews the Group's internal control action plan and receives updates at least once a year on the plan's results.
- It makes recommendations concerning the organization of the internal audit function and receives a copy of the internal audit program as well as executive summaries of the internal audit reports.

- ♦ It reviews the external Statutory Auditors' work plan and conclusions of their checks, as well as the post-audit report prepared by the Statutory Auditors concerning their main observations and the accounting options selected for preparation of the financial statements.
- ♦ It conducts the Statutory Auditor selection process, expresses an opinion on the amount of proposed statutory audit fees requested for performing tasks connected with a statutory audit, submits the results of the selection process to the Board and puts forward candidate Statutory Auditors for appointment by the General Shareholders' Meeting.
- ◆ It approves, with regard to rules in force and in accordance with the procedures implemented within the Group, under the responsibility of the Board of Directors, the services other than the certification of the accounts they can be assigned to the Statutory Auditors and members of their network to be provided to Compagnie de Saint-Gobain and other Group entities.
- ◆ Each year it reviews the Statutory Auditors statement of independence, the amount and breakdown of the fees paid to them and to the members of their network by the Group over the past year, by category of service, as well as the percentage of these fees in their turnover, and reports to the Board its opinion concerning the Statutory Auditors' independence.

### **Activities in 2016**

The Audit and Risk Committee met four times in 2016, in February, April, June, July and September, with an attendance rate at these meetings of 94%.

The following were the major topics of discussion:

- ◆ Detailed advance review of the corporate and consolidated annual financial statements (February) and interim statements (July) and discussions with senior management, the Finance Department and the Statutory Auditors prior to the meetings scheduled with the Board of Directors. On these occasions, the Committee discussed with the Statutory Auditors the main audit issues raised with the Finance Department during the accounts closing process, particularly the key risk exposures and material off-balance sheet commitments described in the Chief Financial Officer's explanatory report to the Committee. The main points of the results of the statutory audit, as well as the accounting options applied, were also discussed.
- ◆ Review of activities relating to the mapping of primary risks carried out in 2016 by the Audit and Internal Control Department and discussion with senior management, the Finance Department and Audit and Internal Control.
- ◆ The status of asbestos litigation, in particular in the United States and France. The Committee regularly discusses in detail with the Statutory Auditors the financial and accounting consequences of this litigation for the US subsidiaries involved and for the Group, in order to present a report on this issue to the Board.

◆ Fees received by each Statutory Auditor of the Group's companies during 2016 for their auditing assignments, as well as for their other services (see chapter 10, section 1.4.2). To this end, the Committee has proposed to the Board an update of the Group procedure defining the services that could be assigned to the Statutory Auditors and their network, to provide, in compliance with the new regulation, the competence of the Audit and Risk Committee to approve, under the responsibility of the Board of Directors, the services other than the legal certification of the accounts that can be assigned to them.

Among its other activities, the Committee specifically reviewed the draft report of the Chairman on internal control and risk management, and the reference framework for internal control standards prepared by the Group. It examined a summary report prepared by the Statutory Auditors on cash management transactions, and the Internal Audit and Internal Control Department's activity report for 2016, its 2017 audit program and its report on major fraud incidents.

The Committee held one-on-one discussions with the Statutory Auditors, the Vice President - Financial Management, the Vice President - Treasury and Financing, Risks & Insurance, the Senior-Vice President in charge of Internal Audit and Internal Control, and the Chief Financial Officer, in accordance with the recommendations of the AFEP-MEDEF Code. It did not call on outside experts to assist in the fulfillment of its tasks

The Committee reported to the Board of Directors on its activities during the Board meetings of February 25, April 28, July 28 and September 22, 2016.

# Nomination, Remuneration and Governance Committee

# Composition

Mr. PHILIPPE VARIN Chairman (since June 6, 2013)

Mr. BERNARD GAUTIER

Ms. ANNE-MARIE IDRAC

Mr. PASCAL LAÏ

Member (since June 2, 2016)

Ms. OLIVIA QIU Member (since June 2, 2016)

The Nomination, Remuneration and Governance Committee includes three independent Directors out of four (75%), including its Chairman, as of February 1, 2017, and an employee Director in accordance with the recommendations of the AFEP-MEDEF Code. This Director is not included in the computation of the ratio of independent Directors, in accordance with the recommendations of that same code. No executive Directors sits on this Committee.

# Responsibilities (extracts from the Board's internal rules)

The Committee fulfills the duties of both a nominations committee and a remuneration committee, provided for in the AFEP-MEDEF Code.

According to the Board of Directors' internal rules in force at February 1, 2017, the Nomination, Remuneration and Governance Committee has the following responsibilities:

- ◆ It is responsible for making proposals to the Board in all cases where one or more seats on the Board fall vacant or the terms of one or more Directors are due to expire. The Committee organizes the procedure to select candidates for election as independent Directors, based on the independence criteria set out in the AFEP-MEDEF Code.
- ◆ It reviews annually each Director's situation in relation to the independence criteria set out in the AFEP-MEDEF code, and reports its conclusions to the Board.
- ◆ Through its Chairman, it obtains assurance from the Chairman and Chief Executive Officer that a candidate has been identified for succession to his position in the event that it falls vacant for an unforeseen reason, and that enough potential successors are available to step in when they might be needed.
- ◆ It recommends candidates to the Board in the event that the position of Chairman and Chief Executive Officer falls vacant for any reason.
- ♦ It reviews any proposals by the Chairman and Chief Executive Officer for the appointment of a Chief Executive Officer and/or one or more Chief Operating Officers, and reports its conclusions to the Board.
- ◆ It makes recommendations to the Board concerning the Chairman and Chief Executive Officer's compensation package, and the criteria to be applied to determine his bonus, as well as the other aspects of his position.
- ♦ It discusses the Group's overall stock option and performance share policy and whether options should be exercisable for new or existing shares, and reviews senior management's proposals concerning stock option and performance share plans for Group employees.
- ◆ It reviews the Chairman and Chief Executive Officer's recommendations concerning his implementation of long-term incentive plans.
- ◆ It makes recommendations concerning the granting of stock options, performance shares and long-term incentives to the Chairman and Chief Executive Officer and other members of senior management.
- ◆ It prepares the Board's debate on corporate governance issues and leads periodic assessments of the Board's organization and operations.

When the term of office of the Lead Independent Director takes effect at the close of the General Shareholders' Meeting of June 8, 2017, this last responsibility of the Committee will be withdrawn and the Committee will be renamed "Nomination and Remuneration Committee" (see chapter 6, section 1.2.1 and chapter 10, section 1.1).

### **Activities in 2016**

The Nomination, Remuneration and Governance Committee met four times in 2016, in February, March, September and November, with an attendance rate of 85%.

The following were the major topics of discussion:

- ◆ The Committee made recommendations to the Board on Mr. Pierre-André de Chalendar's 2015 bonus, the amount of the fixed compensation and the cap, the criteria and the targets to use to determine the variable part of his compensation for 2016 and his allocation of stock options and performance shares that are subject to performance criteria (see chapter 6, section 2.2).
- ♦ It confirmed the existence, reviewed and discussed succession plans for the Chairman and Chief Executive Officer in the event of an unanticipated vacancy and on the long-term.
- ◆ The Committee examined the Directors' independence status with regard to all independence criteria set forth in the AFEP-MEDEF Code (see chapter 6, section 1.1.2).
- ◆ It resolved to propose that the Board, Mr. Jean-Martin Folz having expressed his desire not to renew his term of office as a result of the statutory age limit that he would reach during a possible new term, continues to reduce its size, which counted 18 members in December 2014, and to propose the renewal of the terms of office of the independent Directors that are coming due. It examined the consequences of these proposals with regard to the proportion of independent Directors, the composition of the Committees and the representation of women and men on the Board
- ◆ The Committee launched, as it does every three years, the assessment process of the Board with a specialized consulting firm, reviewed the conclusions of the report and proposed improvements to the Board.
- ◆ As a result of the conclusions reached following the assessment process of the Board of Directors, it proposed to create the position of Lead Independent Director effective from the close of the General Shareholders' Meeting of June 8, 2017 and made proposals regarding the scope of his responsibilities.
- ◆ The Committee also discussed the performance stock option and performance share plans to be renewed by the Board - all consisting of long-term incentive, deferred, variable, and incentive-based compensation payable to certain employees, all subject to performance criteria being met - and specifically set the service and performance criteria that it considered should be applied to these plans.
- ◆ It made proposals regarding the training program of the employee Directors.
- ◆ Finally, it reviewed the "Corporate Governance" section of the 2015 Registration Document.

The Committee reported to the Board on its activities and offered its recommendations during the Board meetings of February 25, September 22 and November 24, 2016.

# Strategy and Corporate Social Responsibility Committee

# Composition

Mr. JEAN-MARTIN FOLZ Chairman (since June 6, 2013) Mr. FRÉDÉRIC I EMOINE

Mr. PIERRE-ANDRÉ DE CHAI ENDAR

### Responsibilities (extracts from the Board's internal rules)

According to the Board of Directors' internal rules in force at February 1, 2017, the Strategy and Corporate Social Responsibility (CSR) Committee has the following responsibilities:

It is responsible for examining and identifying potential improvements to the Group's business plan, reviewing any strategic issues proposed by its members.

It ensures that corporate social responsibility issues are taken into account when defining and implementing the Group's strategy.

# **Activities during 2016**

The Strategy and CSR Committee met seven times in 2016, in February, March, May, July, September and twice in November, with an attendance rate of 100%.

During these meetings, the Committee discussed the 2016 budget, the outlook and development of the Group's business, the potential impact on the Group of various economic scenarios, disposals and acquisitions in progress including the plan to acquire a controlling interest in Sika (see chapter 3, section 1.2), and all strategic issues presented to the Board. More specifically, the Committee examined certain aspects of the Group's strategy (specifically the status of a Sector or Activity within a country). It also proposed to the Board subjects to address during the course of the strategic seminar.

It also worked on corporate social responsibility matters, specifically the following topics: circular economy (recycling of production and construction/deconstruction waste, protection of resources and limit on CO2 emissions), compliance program (competition, embargoes, fight against corruption), security policy and, more generally, the corporate social responsibility policy within the Group (first participation at a very satisfactory level in the "Dow Jones Sustainability Index").

The Committee reported to the Board on its activities during the Board meetings of February 25, March 24, May 25, July 28, September 22 and November 24, 2016.

#### 1.2.4 **Board assessment**

# **Procedure**

Formal assessments of the Board's performance and that of the Committees are carried out each year, in accordance with the Board's internal rules. These assessments are conducted at the initiative of the Nomination, Remuneration and Governance Committee, with the assistance of outside consultants (as in 2016) every three years and, in intermediate years, based on a questionnaire sent to each Director by the Committee Chairman, and an individual

interview with Directors who so request. The Directors who are members of a Board Committee also report on the operation of the Committees in which they participate.

The organization of the 2016 assessment was decided by the Board at its meeting of September 22, 2016. The sixteen Directors in office as of that date were consulted and participated in the Board's assessment process conducted by a specialized consulting firm. The Nomination, Remuneration and Governance Committee dedicated a part of its meeting of November 10, 2016 to this assessment and reported on it at the Board of Directors meeting of November 24, 2016.

The Chairman of the Nomination, Remuneration and Governance Committee and the Chairman and Chief Executive Officer have in addition reviewed the effective contributions of each Director to the Board's work, with regard to their competencies and their respective participation in the discussions. To this end, each year, each Director answers a detailed questionnaire that specifically addresses the Board's operation, allowing them, if they so wish, to freely express their assessment of the other Directors' individual contributions. In 2016, this assessment was completed through the questionnaire submitted by the consulting firm to all Directors, and through the interview that each Director had with the consultant. Directors also have an opportunity to speak individually on this topic with the Chairman of the Nomination, Remuneration and Governance Committee. The Directors' individual contributions are also closely examined by the Nomination, Remuneration and Governance Committee, and then by the Board, on the occasion of the renewal of the terms of Directors and recomposition of the Committees, as needed.

The assessment carried out in 2016 having demonstrated the desire by the Directors to obtain, for those who wish it, feedback on their individual contribution, the Board decided to complete this procedure so that it includes in addition to the annual questionnaire and the discussions as part of the renewals of the terms of office, the following three steps in 2017: (i) annual meeting between the Lead Independent Director and the Chairman and Chief Executive Officer regarding the individual contribution of each Director, (ii) annual individual meeting between each Director and the Chairman of the Board and (iii) possibility for each Director to request feedback on his/her individual contribution from the Chairman and Chief Executive Officer or the Lead Independent Director.

# **General observations**

The assessments carried out in 2016 by the specialized consulting firm highlighted the satisfaction of the Directors with the significant progress made, over several years and in particular since the last assessment performed following a similar process in 2013. This positive perception is therefore confirmed in the long term.

A vast majority of the Directors are of the opinion that the operation of the Board has improved since the last outside assessment conducted in 2013 and that the dynamics of the Board, characterized by the interaction of the Directors in the decision-making process for all matters within their remit, as well as its performance, characterized by the quality of the decisions made, are absolutely satisfactory.

The Directors considered indeed that the Board operates well, is independent, competent, and that its composition is more balanced and diversified than in 2013, addresses all the topics within its remit and has access to the information it needs to fulfill its role. They noted the constructiveness of the dialog and the free discussions within the Board and with senior management, the transparent operation of the Board, the contribution of the preparatory work of the Committees, as well as the availability of the management.

The Directors once again appreciated the strategic seminar and noted the usefulness of on-site visits, allowing them in particular to meet the Sector and Business Directors and the Delegates, and the Director's training program. Finally, they praised the quality of the work of the Board Committees, and in particular the role played by the Strategic and Corporate Social Responsibility Committee in the preparation of the strategic subjects discussed during the Board meetings.

### Composition of the Board of Directors

The Board's size has changed over the last two years, from 18 members in December 2014 due to the incorporation of two employee Directors whose appointment was required by law, to 17 members after the 2015 General Shareholders' Meeting then to 16 members after the 2016 Shareholders' Meeting (see chapter 6, section 1.1.4). Directors noted their desire to continue to reduce the number of Directors in 2017 to 14 members, with the view, for the future replacement, to retain the proportion of executive Directors operating within other large groups, while continuing to diversify the Board's composition with regard to gender, age, nationality, profile and skills and maintaining the distribution and innovation/digital profiles. The appointment of Ms. lêda Gomes Yell during the 2016 General Shareholders' Meeting, whose international career, knowledge of emerging markets and management experience within an international group caught the attention of the Nomination, Remuneration and Governance Committee and of the Board, highlights this approach. Employee Directors who began servicing in December 2014 are considered to be well integrated.

The assessment of the Board carried out during 2016 revealed that, the expertise and experience of the Directors were deemed varied and complementary, in particular such as knowledge of the industry. activities/business of the Group, innovation/digital, management, strategy, finance, governance and/or corporate social responsibility.

Moreover, the Board members, during their meeting of November 24, 2016, decided to create the position of Lead Independent Director, for the reasons described in chapter 6, section 121

# Results of implementing the 2016 recommendations and paths to improvement

Directors believe that the recommendations formulated upon completion of the 2015 assessment, concerning: the reflection on changes in the Board's composition (size, diversity) in connection with the Group's strategic and geographic guidelines; the consolidation of work carried out in relation to corporate social responsibility matters; the improvement of the Board's monitoring of the implementation of its decisions and the in depth exploration of strategic matters, value creation, innovation, digital transformation and geographic development, were well taken into account in 2016.

In order to continue move forward, the Board retained the following proposals resulting from the assessment performed with the specialized consulting firm:

- ♦ improve the feedback to the Directors regarding their individual contribution (see "Procedure" above);
- ◆ continue reviewing the Board's composition, the size of which must continue to be reduced while maintaining the proportion of executive Directors and continuing to diversify the profiles and expertise and retaining the distribution and digital skills (see "Composition of the Board" above);
- ♦ improve the Directors' knowledge of the principal operational managers of the Group;
- ◆ continue improving the monitoring by the Board of the implementation of its decisions;
- continue the in-depth exploration of the strategic subjects, the creation of value, innovation, digital transformation and geographic dynamics.

#### 1.2.5 **Directors' induction process**

The Board of Directors meets once a year at one of the Group's plants or research centers.

In May 2016, the Board of Directors visited the Saint-Gobain Adfors factory in the Czech Republic, which specializes in glass fiber fabrics within the Innovative Materials Sector.

Each new Director may ask for training on the topic of his or her choice and visit the Group's plants, distribution facilities or research centers. As part of this process, new Directors are also able to tour various manufacturing or Building Distribution sites and, upon their request, to meet the Sector general managers or members of senior management.

Further, employee Directors benefit from the law on supplementary training, the content of which is set every year by the Board of Directors, after consultation of such employee Directors.

# 2. Management and Directors' compensation

# 2.1 COMPENSATION PAID TO DIRECTORS - ATTENDANCE FEES

Directors receive attendance fees which amount has been set at €1.1 million by the General Shareholders' Meeting of June 5, 2014 with effect from January 1, 2015.

The rules for distribution of attendance fees, applicable since the 2015 fiscal year, and agreed by the Board of Directors on September 25, 2014, are the following:

- the Chairman and Chief Executive Officer receives no attendance fees;
- the other Directors each receive a fixed amount of €24,750 per year plus €3,300 for each Board meeting attended during the year;
- the Chairmen and members of the Audit and Risk Committee, the Nomination, Remuneration and Governance Committee, the Strategy and Corporate Social Responsibility Committee (excluding Mr. Pierre-André de Chalendar) each receive a fixed amount of €5,500 and €2,750 per year,

- respectively, plus a variable portion of €2,200 for each Committee meeting attended during the year;
- the amounts granted in respect of the fixed base amount are pro-rated when terms of office begin or end during the course of a fiscal year;
- the fees are paid in two half-yearly installments in arrears, with any balance available from the annual amount distributed at the beginning of the next year based on each Director's or Committee member's attendance rate at the prior year's Board or Committee meetings.

The variable fee represents the bulk of their compensation if Directors consistently attend both Board and Committee meetings.

The total fixed and variable Director's fees paid to each individual Director in respect of 2015 and 2016 are shown in Table 3 below.

TABLE 3 - SUMMARY OF EACH DIRECTOR'S COMPENSATION (AMF NOMENCLATURE)

Non-executive Directors	Gross amounts received (in EUR)			
	for 2016	for 2015		
Isabelle Bouillot (1)	30,443	47,224		
Alain Destrain (2)	64,808	60,708		
Jean-Martin Folz	89,002	84,188		
Bernard Gautier	78,241	70,950		
lêda Gomes Yell (3)	30,359	-		
Anne-Marie Idrac	71,564	75,445		
Sylvia Jay <sup>(1)</sup>	32,935	75,445		
Pamela Knapp	74,235	63,789		
Pascal Laï <sup>(2)</sup>	71,742	56,214		
Agnès Lemarchand	78,241	67,953		
Frédéric Lemoine	93,008	96,174		
Gérard Mestrallet (4)	-	10,510		
Jacques Pestre	64,808	60,708		
Olivia Qiu	53,049	51,719		
Denis Ranque	56,797	63,374		
Gilles Schnepp	60,803	60,708		
Jean-Dominique Senard	72,980	81,191		
Philippe Varin	76,985	73,700		
TOTAL	1,100,000	1,100,000		

<sup>(1)</sup> Director up to June 2, 2016.

With the exception of Alain Destrain, Safety Auditor for Saint-Gobain Interservices, Pascal Laï, Saint-Gobain Sekurit France Environment, Health and Safety Promoter, and Jacques Pestre, Senior Vice President of SGDB France, in charge of POINT.P Matériaux de Construction, who received

compensation in respect of their salaried positions, none of the non-executive Directors received any other compensation from Compagnie de Saint-Gobain or any Saint-Gobain subsidiary for 2015 or 2016.

#### 2.2 CHAIRMAN AND CHIEF EXECUTIVE OFFICER COMPENSATION POLICY

#### 2.2.1 **General principles of the Chairman** and CEO compensation policy

The policy governing the Chairman and Chief Executive Officer's compensation is decided by the Board based on the recommendations of the Nomination, Remuneration and Governance Committee

The Board of Directors and the Nomination, Remuneration and Governance Committee are committed to ensuring that Mr. Pierre-André de Chalendar's compensation complies at all times with the recommendations of the AFEP-MEDEF corporate governance code for French listed companies and

in particular meets transparency and performance measurement requirements.

The Chairman and Chief Executive Officer's compensation package is determined by taking into account all pay components (fixed compensation, annual variable multi-year variable compensation. compensation. compensation for loss of office and pension benefits), with a view to achieving a balanced mix of these components.

When setting the various components of Mr. Pierre André de Chalendar's compensation, the Board of Directors also takes into consideration benchmarks of CAC 40 companies comparable to Saint-Gobain in terms of sales, workforce and international scope of operations.

<sup>(2)</sup> It should be noted that, at the time they took up their positions in December 2014 and for the entire duration of their terms as employee Directors, Messrs. Destrain and Laï each decided to donate to the trade unions with which they are each affiliated, i.e. Confédération Générale du Travail and Confédération Française Démocratique du Travail, respectively, all the attendance fees (net of social charges) paid by the Company for their terms as Directors. The net amount of these Director's fees is consequently paid directly by Compagnie de Saint-Gobain to these trade unions.

<sup>(3)</sup> Director from June 2 2016

<sup>(4)</sup> Director up to June 4, 2015.

The Board also seeks to ensure that the allocation of long-term compensation instruments, (stock options, performance shares and performance units, as the case may be) to the Chairman and Chief Executive Officer in a given year does not represent a disproportionate share of his total maximum compensation for that year and has conditioned these allocations to demanding ceiling and holding rules (see paragraph c) of section 2.2.3 below).

#### 2.2.2 Summary of compensation and benefits allocated to the Chairman and Chief Executive Officer

The following table presents a summary of the total compensation, stock options, performance shares and performance units allocated to Mr. Pierre-André de Chalendar for the fiscal years ended December 31, 2015 and 2016.

TABLE 1 - SUMMARY OF COMPENSATION, STOCK OPTIONS, PERFORMANCE SHARES AND PERFORMANCE UNITS ALLOCATED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)

(in EUR before social charges and income tax)	Fiscal year 2016	Fiscal year 2015
Pierre-André de Chalendar, Chairman and Chief Executive Officer		
Compensation for the year (see Table 2 for details)	2,632,531	2,386,719
Value in multi-year variable compensation allocated during the year	0	0
Value of stock options granted during the year (see Table 4 for details)	244,200	245,000
Value of performance shares granted during the year (see Table 6 for details)	1,189,900	0
Value of performance units granted during the year	0	1,232,400
TOTAL	4,066,631	3,864,119

#### 2.2.3 Compensation and benefits allocated to the Chairman and Chief Executive Officer

The table below presents a breakdown of the fixed and variable compensation and other benefits allocated to Mr. Pierre-André de Chalendar for the fiscal years ended December 31, 2015 and 2016.

TABLE 2 - SUMMARY OF THE COMPENSATION OF THE EXECUTIVE DIRECTOR (AMF NOMENCLATURE)

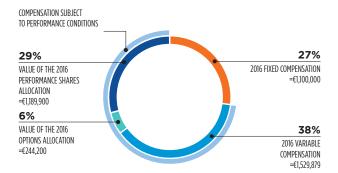
(in EUR before social charges and income tax)	2016		2015	15	
	Amount due (2)	Amount paid (3)	Amount due (2)	Amount paid (3)	
Pierre-André de Chalendar, Chairman and Chief Executive Officer					
Fixed compensation (1)	1,100,000	1,100,000	1,100,000	1,100,000	
Annual variable compensation (1)	1,529,879	1,284,067	1,284,067	1,178,100	
Multi-year variable compensation	0	0	0	0	
Exceptional compensation (1)	0	0	0	0	
Directors' attendance fees (4)	0	0	0	0	
Benefits in kind: company car	2,652	2,652	2,652	2,652	
TOTAL	2,632,531	2,386,719	2,386,719	2,280,752	

<sup>(2)</sup> Compensation allocated during the year, regardless of payment date.

<sup>(3)</sup> Compensation paid during the year.

<sup>(4)</sup> Attendance fees allocated to Compagnie de Saint-Gobain's Chairman and Chief Executive Officer for his Director's duties in non-Group companies in which the Group holds stakes are repaid to Compagnie de Saint-Gobain in their entirety.

The following chart presents the distribution of the various components of the compensation of Mr. Pierre-André de Chalendar, Chairman and Chief Executive Officer, due or granted in respect of fiscal year 2016.



The various components of the compensation due or granted to Mr. Pierre André de Chalendar in respect of fiscal year 2016 were decided by the Board of Directors at its meetings of February 25, 2016, November 24, 2016 and February 23, 2017, as follows:

### a) Fixed compensation

The fixed compensation component is commensurate with the Chairman and Chief Executive Officer's experience and responsibilities, and shall be compared with fixed compensations offered by similar large companies.

Mr. Pierre-André de Chalendar's 2016 fixed compensation was set by the Board at  $\ensuremath{\mathfrak{e}}$ 1,100,000, an amount that has not changed since 2010.

# b) Annual variable compensation

The annual variable compensation, expressed as a percentage of his annual fixed compensation, is allocated to the Chairman and Chief Executive Officer in recognition of his contribution to the Group's results for the year.

At its meeting on February 25, 2016, based on the recommendation of the Nomination, Remuneration and Governance Committee the Board decided to fix the cap on Mr. Pierre-André de Chalendar's variable compensation for 2016 at 170% of his annual fixed compensation (same as for 2015).

Based on the recommendation of the Nomination, Remuneration and Governance Committee, during the same meeting, the Board also decided on the components and objectives of Mr. Pierre-André de Chalendar's 2016 variable compensation, as follows (structure unchanged since 2014):

- concerning the quantitative portion of the variable compensation, which represents two-thirds, the four following objectives adapted to the strategy of the Group, each counting for 25%, were defined:
  - ◆ ROCE (Return on Capital Employed),
  - the Group's operating income,
  - the Group's recurring net income per share, and
  - OFCF (Operating Free Cash Flow);
- ◆ a qualitative portion consisting of one-third, based on the four following objectives:
  - Sika transaction.
  - Group's digital transformation,
  - implementation of the corporate social responsibility policy, and
  - continuation of the Group's development strategy.

Variable compensation owed for fiscal year 2016 to the Chairman and Chief Executive Officer was set by the Board of Directors at its meeting of February 23, 2017, at the proposal of the Nomination, Remuneration and Governance Committee, as follows:

		Weighting of objectives	Assessment scale for each objective	Percentage completion	Completion by amount (in EUR)
	ROCE	25%	0 to 100%	79%	245,844
Quantitative objectives* (2/3),	Group operating income	25%	0 to 100%	83%	259,628
of which:	Group recurring net income per share	25%	0 to 100%	100%	311,667
	OFCF	25%	0 to 100%	89%	276,407
	Total quantitative	2/3	-	88%	1,093,546
Qualitative objectives (1/3)	Qualitative (global)	1/3	0 to 100%	70%	436,333
TOTAL VARIABLE SHARE		100%	-	82%	1,529,879

For each quantitative objective, the corresponding portion of variable compensation becomes payable if from 89% to 90% of the budget is achieved, depending on the objective concerned, and it reaches its maximum if the objective reaches 111% to 116% of the budget, depending on the objective concerned (with base 100 corresponding to the budget). If actual performance is less than the above mentioned thresholds from 89% to 90%, the portion of variable compensation corresponding to the objective in question is equal to 0.

When the budget is met, the variable compensation determined according to all quantitative criteria is 68% of the fixed part of his compensation. Within the Group, the budget is based on ambitious objectives that are not always met and the variable compensation's objectives are therefore challenging.

In all, Mr. Pierre-André de Chalendar's total compensation (fixed and variable) for fiscal year 2016 represented €2,629,879, an increase of 10.31% over that of 2015.

# c) Long-term incentive policy

### Cap on the Chairman and Chief Executive Officer's total compensation

In addition to the restrictions set out below, the Board of Directors resolved, in accordance with the AFEP-MEDEF Code, that at the time they are granted to the Chairman and Chief Executive Officer, the 2016 allocations of stock options, performance shares and performance units could not represent a value (according to IFRS standards) greater than 100% of his total gross maximum compensation for the same year (fixed compensation plus maximum variable compensation for the same year).

In 2016, these allocations represented a total value (according to IFRS standards), at the time of their grant, of €1,434,100 corresponding to 48% of his 2016 total maximum gross compensation.

#### **Hedging rules**

The Chairman and Chief Executive Officer formally undertook not to hedge his risk on either stock options or on shares allocated upon the exercise of stock options, on performance shares or on performance units he has been or will be granted, until the cessation of his duties. To the best of the Company's knowledge, the Chairman and Chief Executive Officer has not hedged his risk.

### **Negative windows**

Under the Board's internal regulations (see chapter 10, section 1.1.2), Mr. Pierre-André de Chalendar, as a Director, is required to abstain from trading in Saint-Gobain shares for 30 days prior to Board meetings at which the annual and semi-annual consolidated financial statements are examined, for 15 days preceding publication of quarterly consolidated net sales, as well as on the day following the publication of the annual and half-year results.

### Stock options

The following tables show the allocation of stock options to the Chairman and Chief Executive Officer in 2016 and the options he exercised.

# TABLE 4 - STOCK OPTIONS GRANTED IN 2016 TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)

Name	Plan date	Options exercisable for new or existing shares	Value (based on method used to prepare the consolidated financial statements)	Number of options granted during the year	Exercise price	Exercise period
Pierre-André de C	halendar 11/24/2016	Not yet defined	€244,200	58,000	€40.43	from 11/24/2020 to 11/23/2026

### TABLE 5 - STOCK OPTIONS EXERCISED IN 2016 BY THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)

Name	Plan date	Options exercisable for new or existing shares	Number of options exercised during the year	Exercise price
Pierre-André de Chalendar	11/20/2008	new shares	34,400	€25.88

At its meeting of November 24, 2016, the Board granted 58,000 stock options to Mr. Pierre-André de Chalendar, with an IFRS value equivalent to his 2015 allocation, representing approximately 0.01% of the share capital, and less than the sub-cap set by the General Shareholders' Meeting on June 2, 2016.

The features of the stock options, specifically the service and performance conditions to which the allocation is subject and which apply to the Chairman and Chief Executive Officer, are explained in chapter 6, section 2.4.

### Rules for holding shares

As for previous years, the Chairman and Chief Executive Officer is required to retain a number of Saint-Gobain shares equal to at least 50% of the net capital gain on the underlying shares (after deducting social charges and taxes) at the time he exercises the 2016 options, until the cessation of his duties. However, this obligation will cease to apply if and when the total number of Saint-Gobain shares he personally holds in registered form represents the equivalent of five years' gross fixed compensation (based on the opening price quoted for Saint-Gobain shares on the option exercise date and the amount of his gross compensation applicable at that time).

# Performance shares

The following tables show the performance shares granted or delivered to the Chairman and Chief Executive Officer during the 2016 fiscal year.

### TABLE 6 - PERFORMANCE SHARES GRANTED IN 2016 TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)

Name	Plan date	shares granted	to propose the contract and	Vesting date	Availability date	Performance conditions
Pierre-André de Chalendar	11/24/2016	67,000	€1,189,900	11/23/2020	11/24/2020	See chapter 6 section 2.4.3

During the Board meeting of November 24, 2016, Mr. Pierre-André de Chalendar was granted 67,000 performance shares, with an IFRS value equivalent to his allocation of performance units in 2015, representing approximately 0.01% of the share capital and less than the sub-cap set by the General Shareholders' Meeting of June 2, 2016.

The features of the performance shares, specifically the service and performance conditions to which the allocation is subject and which apply to the Chairman and Chief Executive Officer, are explained in chapter 6, section 2.4.

### TABLE 7 - PERFORMANCE SHARES DELIVERED IN 2016 TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)

Name	Plan date	Number of shares delivered during year	Availability date
Pierre-André de Chalendar	-	-	-

#### Rules for holding shares

The Chairman and Chief Executive Officer is required to retain 50% of the performance shares he received in 2016, that will be delivered to him, until the cessation of his duties. However, this obligation will cease to apply if and when the total number of Saint-Gobain shares he personally holds in registered form, at the delivery date of the performance shares, represents the equivalent of five years' gross fixed compensation (based on the average opening price quoted for Saint-Gobain shares in the twenty trading days preceding the delivery date of the performance shares and the amount of his gross compensation applicable at that time).

# Performance units

By analogy with the rules applicable to performance shares, the tables below present performance units granted to the Chairman and Chief Executive Officer during 2016, and the number of performance units that became exercisable during the year.

### TABLE 6 BIS - PERFORMANCE UNITS GRANTED IN 2016 TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

Name	Plan date	Number of performance units granted during year	Value of units (based on method used to prepare the consolidated financial statements)	Exercise period	Performance conditions
Pierre-André de Chalendar	-	-	-	-	-

No performance units plan was implemented during the 2016 fiscal year.

# TABLE 7 BIS - PERFORMANCE UNITS THAT THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER WAS ABLE **TO EXERCISE DURING 2016**

Name	Plan date	that became exercisable in 2016	Start date of the exercise period
Pierre-André de Chalendar	11/22/2012	39,300	11/22/2016

#### 2.2.4 Employment contract, retirement benefits and termination benefits allocated in case of termination of office of the Chairman and Chief Executive Officer

TABLE 11 - EMPLOYMENT CONTRACT. RETIREMENT BENEFITS AND TERMINATION BENEFITS ALLOCATED IN CASE OF TERMINATION OF OFFICE OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)

Name	Employme	nt contract	Supplen pensio		Benefits due o owing to term change of	ination or a	Non-compe	te indemnity
	Yes	No	Yes	No	Yes	No	Yes	No
Pierre-André de Chalendar Chairman and Chief Executive Officer		X <sup>(1)</sup>	X		X		×	

<sup>(1)</sup> Termination of his employment contract as of June 3, 2010.

At its meeting of March 20, 2014 and at the recommendation of the Nomination, Remuneration and Governance Committee, the Board authorized renewal of the following commitments in favor of Mr. Pierre-André de Chalendar, Chairman and Chief Executive Officer, corresponding to components of compensation, indemnities or benefits due or to be due for termination of his duties as Chairman and Chief Executive Officer of Compagnie de Saint-Gobain, within the scope of application of Article L.225-42-1 of the French Commercial Code. These commitments were approved by the General Shareholders' Meeting of June 5, 2014 (resolutions 6, 7 and 8)

The terms of these commitments, similar to those of 2010, were amended on the occasion of their renewal to incorporate the new recommendations introduced by the revised version of the AFEP-MEDEF code, published in June 2013.

#### a) Compensation for loss of office of the Chairman and Chief Executive Officer

The conditions applying to Mr. Pierre-André de Chalendar's compensation for termination of office as Chairman and Chief Executive Officer of Compagnie de Saint-Gobain are the followina:

# Forced departure

The indemnity for termination of office may only be paid in the event that Mr. Pierre-André de Chalendar's loss of office as Chairman and Chief Executive Officer was due to forced departure, regardless of the form such departure might take, and related to a change of control or strategy under the following circumstances:

- ♦ he is removed before the end of his term of office or his mandate as Chairman and Chief Executive Officer is not renewed on expiry, unless this is at his own initiative, or in the event of gross or willful misconduct or serious misconduct not related to his duties as Chairman and Chief Executive Officer; or
- he is forced to resign within the twelve months following:
  - the date of approval by the shareholders of a merger or demerger affecting Compagnie de Saint-Gobain, or
  - the effective date on which an investor or group of investors acting in concert acquire control of the Company (as defined by Article L.233-3 of the French Commercial Code), or

• the announcement by Compagnie de Saint-Gobain's governance bodies of a significant change in the Group's strategy leading to a major refocusing of its business.

In any case, no compensation for termination of office would be due if Mr. Pierre-André de Chalendar were to leave the Company at his own initiative under circumstances other than those described above, or if, upon leaving the Company at his own initiative under one of the circumstances described above, he were eligible to retire during the twelve months following the date on which he ceases his functions, and to receive a pension under the so-called "SGPM" defined-benefit plan for engineers and supervisory employees (see paragraph (c) below).

### Cap on indemnity for termination of office

Mr. Pierre-André de Chalendar will be able to receive compensation for termination of office not to exceed a maximum of the equivalent of double his gross total annual compensation, defined as the sum of his final year's fixed compensation as Chairman and Chief Executive Officer paid as of the date on which his functions cease, and of the average of the variable part of the annual compensation received or receivable as Chairman and Chief Executive Officer for his last three full years in office. This gross total annual compensation is henceforth defined as the "Reference Compensation".

Under no circumstances may the cumulative amount of such indemnity for termination of office and the non-compete indemnity (see paragraph (b) below) exceed double the amount of Mr. Pierre-André de Chalendar's Reference Compensation.

# Performance condition

Payment of the compensation for termination of office will be subject to fulfillment of a performance condition defined as an allocation by the Board of Directors of a variable part of compensation at least equal to one-half of the average maximum amount fixed for this variable part for the last three full years during which he will be Chairman and Chief Executive Officer and ending prior to the date on which he ceases his functions. This performance condition is challenging, as demonstrated by the overall completion rate of the objectives corresponding to the variable share of his compensation for the past two fiscal years, which in 2016 totaled 82%, and 69% in 2015.

Payment of an indemnity for termination of office will be subject to the Board's prior determination, in accordance with applicable laws, of fulfillment of this performance condition, on his date of termination of office.

### Stock options, performance shares and performance units in the event of termination of office of the Chairman and Chief Executive Officer

In the event of termination of his office as Chairman and Chief Executive Officer under circumstances qualifying him for compensation for termination of office (see the cases listed in the paragraph "Forced departure" above), and subject to fulfillment of the performance condition described in the previous paragraph, the Board reserves the right, on the proposal of the Nomination, Remuneration and Governance Committee, to decide whether or not to maintain all or some of Mr. Pierre-André de Chalendar's rights to Saint-Gobain stock options, performance shares and performance units granted to him as of the date of termination and which have not been delivered as of this date, or for which the exercise period has not expired, as the case may be, provided at all times, the performance condition(s) set out in the plans concerned have been fulfilled.

# b) Non-compete indemnity

Mr. Pierre-André de Chalendar has signed a firm and irrevocable non-compete agreement with Compagnie de Saint-Gobain for a period of one year from the date his functions as Chairman and Chief Executive Officer are terminated in circumstances qualifying him for compensation for termination of office.

In consideration for this commitment, Mr. Pierre-André de Chalendar would receive a non-compete indemnity equal to the Reference Compensation (see Paragraph (a) above), it being specified that the amount of the compensation for termination of office due to Mr. Pierre-André de Chalendar will, if necessary, be reduced so that the sum of the compensation under the non-compete agreement and the compensation for termination of office amount to no more than two times the Reference Compensation.

with the recommendations of the accordance AFEP-MEDEF Code, the Board of Directors is entitled to unilaterally waive application of the non-compete agreement, no later than the date of termination of Mr. Pierre-André de Chalendar's duties as Chairman and Chief Executive Officer, in which case he shall be free of any commitment and no sum shall be due to him on this account.

# c) Supplementary pension arrangements

### Pension commitments to Mr. Pierre-André de Chalendar in his capacity as non-employee executive Director

Mr. Pierre-André de Chalendar continues to benefit from all provisions governing the so-called "SGPM" defined benefits pension plan for engineers and executive staff, on the same basis as for all other beneficiaries of this plan.

Mr. Pierre-André de Chalendar does benefit from the SGPM pension plan covering all employees who, as he did, joined Compagnie de Saint-Gobain before January 1, 1994, the date the plan was closed to new entrants. It is a so-called differential type system, according to Article 39 of the

General Tax Code. As of December 31, 2016, 213 retired former employees of Compagnie de Saint-Gobain were receiving benefits under the plan and a further 31 active employees will be entitled to benefits on retirement.

Commitments made to Mr. Pierre-André de Chalendar and all beneficiaries of the retirement system (current and retired employees) are partly financed, in the amount of approximately 60% of the total, through outsourcing to two insurance companies, without transfer of the lifetime income

To benefit from the plan, Mr. Pierre-André de Chalendar will have to retire at 60 or over on a full pension under the government-sponsored schemes contributing to the SGPM plan for at least 15 years. If he leaves Compagnie de Saint-Gobain before fulfilling these conditions, he will not be able to claim this benefit, unless forced to terminate his activity for health reasons.

Benefits under the plan are determined so that retirees receive a guaranteed total income in retirement. The guaranteed amount depends on the retiree's years of service (up to 35 years) and is determined on a declining scale for each tranche of gross annual compensation excluding exceptional or temporary payments. Benefits received by the retiree under other basic and compulsory pension plans during the period are deducted from the guaranteed amount for the purpose of calculating the plan's total guaranteed benefits.

Mr. Pierre-André de Chalendar's pension will be based on his final year's fixed compensation and his years of service with the Group, calculated as from October 1, 1989, the date on which he joined the Saint- Gobain Group. If he were to leave after completing the maximum number of pensionable years of service under the SGPM plan, Mr. Chalendar would be entitled to total guaranteed pension benefits (including pension benefits paid under the basic and compulsory pension schemes) representing a guaranteed replacement rate of approximately 47% of his final year's fixed compensation. The seniority-based supplementary pension benefits under the SGPM plan that would be paid by Compagnie de Saint-Gobain therefore corresponds to the difference between these guaranteed total benefits and benefits paid under the basic and compulsory pension schemes and would therefore be approximately 35% of his latest fixed compensation set in the event of retirement at maximum seniority.

Mr. Pierre-André de Chalendar's maximum supplementary retirement payout is significantly lower than the AFEP-MEDEF code's recommended ceiling, which is 45% of the sum of the fixed and variable compensations. The annual increase in Mr. Pierre-André de Chalendar's potential rights is 1.5% of his fixed compensation per year of seniority, and thus represents only 50% of the 3% ceiling of the annual compensation set by law, that will be applicable from 2018 should Mr. Pierre-André de Chalendar's term of office be

Finally, with regard to expenses associated with the payment of the seniority-based supplementary pension benefits referred to above, the Company would be required to pay a contribution on the premiums paid to the two insurance companies mentioned above, the rate of which is set at 24%.

At December 31, 2016, the estimated amount of the pension that Mr. Pierre-André de Chalendar will receive as supplemental pension would come to a gross amount of €243,000 per year. This indicative amount is calculated in accordance with the methodology set by Article D.225-104-1 of the French Commercial Code, according to which the pension must be estimated on an annual basis, take into account the seniority acquired by the executive Director in his/her duties at the closing date of the fiscal year, be based on the remunerations recorded during the last fiscal year(s) and be calculated independently of the conditions of realization of the commitment, as if the executive Director could benefit from it starting the day after the close of the fiscal year.

The lifetime benefits granted consist of the retirement income described above, as well as life insurance, to which Mr. Pierre-André de Chalendar will have an opportunity to

subscribe like other retirees upon retiring, the annual premium of which is estimated as at December 31, 2016 to be less than €9,000. This premium is assumed in its entirety by Compagnie de Saint-Gobain in the first year of retirement, after which only 50% continues to be assumed by the Company.

### Benefits under the Group health and personal risk insurance policies applicable to Compagnie de Saint-Gobain employees to be maintained for Pierre-André de Chalendar in his capacity as non-salaried executive Director.

Mr. Pierre-André de Chalendar will continue to benefit in full from the Group's health and personal risk insurance policies entered into with GAN and Mutuelle Malakoff Médéric, respectively, which all the employees of Compagnie de Saint-Gobain also benefit from.

#### 2.2.5 Compensation components due or granted to Mr Pierre-André de Chalendar, Chairman and Chief Executive Officer, in 2016 subject to shareholders' approval at the General Shareholders' Meeting of June 8, 2017 ("Say on Pay" ex post).

The following table shows the compensation components due or granted to Mr Pierre-André de Chalendar, Chairman and Chief Executive Officer in 2016, decided by the Board of Directors at the recommendation of the Nomination, Remuneration and Governance Committee, that are subject to shareholders' approval at the General Shareholders' Meeting of June 8, 2017, in accordance with the AFEP-MEDEF Code.

Compensation component due or granted at year-end	Amount or book value submitted to vote (in EUR)	Description
Fixed compensation	Amount due: €1,100,000	Fixed compensation unchanged since 2010.
Annual variable compensation	Amount due: €1,529,879 (Board of Directors' meeting of February 23, 2017)	At its February 25, 2016 meeting, the Board of Directors decided that Mr. Pierre-André d'Chalendar's variable compensation in respect of fiscal year 2016 could not exceed 170% of his fixed compensation, (as for 2015), and fixed the quantitative and qualitative objective detailed below, determining, up to a limit of 2/3 and 1/3 respectively, the variable portion of his compensation (structure unchanged since 2014). Based on the recommendations of the Nomination, Remuneration and Governance Committee, the Board of Directors, at its February 23, 2017 meeting, determined Mr. Pierre-André de Chalendar's variable compensation as follows, taking into account the extent to which the objectives outline below have been achieved:
		• the portion of the variable compensation based on the fulfillment of the four quantitative objectives (ROCE, Group operating income, Group recurring earnings pershare and operating free cash flow) amounted to €1,093,546, corresponding to an achievement rate of 88% (the completion rate of the various quantitative objectives in presented in chapter 6, section 2.2.3);
		◆ the amount of the variable portion of the four qualitative objectives (Sika transaction digital transformation of the Group, implementation of the corporate social responsibility policy and continuation of the Group's development strategy) amounte to €436,333, corresponding to a percentage of overall completion of the qualitative objectives of 70%.
		On this basis, his 2016 annual variable compensation totaled $\[ \in \]$ 1,529,879, corresponding to an achievement rate of 82%.
		Overall, Mr. Pierre-André de Chalendar's total compensation (fixed and variable amounted to €2,629,879 for 2016, an increase of 10.31% over 2015.
Deferred variable compensation	N/A	Mr. Pierre-André de Chalendar has not been granted any deferred variable compensation.
Multi-year variable compensation	N/A	Mr. Pierre-André de Chalendar has not been granted any multi-year variable compensation.

Mr. Pierre-André de Chalendar has use of a company car.

In-kind benefits

Amount due: €2,652 (book value)

Compensation components voted on at the General Shareholders' Meeting of June 5, 2014 in respect of procedures for related-party	Amounts due or granted in 2016 (in EUR)	Description
agreements and undertakings  Compensation for loss of office	None	In the event of forced termination of office, irrespective of the form of termination, linked to a change in control or strategy under the following circumstances:
		a) he is removed from office or his mandate as Chairman and Chief Executive Officer is no renewed on expiry, other than at his own initiative or as a result of gross or willful misconduct o serious misconduct not related to his duties as Chief Executive Officer; or
		b) he is forced to resign within the 12 months following:
		<ul> <li>the date of approval by the shareholders of a merger or demerger affecting Compagnie de Saint-Gobain, or</li> </ul>
		♦ the effective date on which a third party or group of third parties acting in concert acquires control of Compagnie de Saint-Gobain (in accordance with Article L.233-3 of the French Commercial Code), or
		◆ the announcement by the Company's governance bodies of a significant change in the Group's strategy leading to a major refocusing of its business.
		Mr. Pierre-André de Chalendar will be able to receive compensation not to exceed the double o the sum of the fixed portion of his annual compensation received as of the date of termination o his duties, and the average annual variable compensation received or receivable in respect of his last three full years in office.
		In any case, no compensation for loss of office would be due if Mr. Pierre-André de Chalenda were to leave Compagnie de Saint-Gobain at his own initiative under circumstances other that those described above, or if, upon leaving the Company under one of the circumstance described above, he were eligible to retire during the twelve months following termination of his duties as Chairman and Chief Executive Officer and to receive a pension under the so-called "SGPM" defined benefit plan.
		In no case may the sum of the indemnity for termination of office and the non-compete indemnity described below exceed twice Mr. Pierre-André de Chalendar's gross annual total compensation.
		The indemnity for loss of office shall be subject to fulfillment of a performance condition: see chapter 6, section 2.2.4.
		Date of renewal of the authorization by the Board of Directors: March 20, 2014.
		Date of approval by the General Shareholders' Meeting: June 5, 2014 (6th resolution).
Non-compete indemnity	None	If Mr. Pierre-André de Chalendar were to leave the Group in circumstances entitling him to compensation for loss of office as described above (see chapter 6, section 2.2.4), he would receive a non-compete indemnity equal to one year's total gross compensation. Gross annua compensation is considered as comprising the same fixed and variable amounts used to calculate his compensation for loss of office referred to above.
		Under no circumstances will the sum of the indemnity under the non-compete agreement and the compensation for loss of office exceed double Mr. Pierre-André de Chalendar's total gross annual compensation.
		The Board of Directors reserves the right to unilaterally waive application of the non-compete agreement no later than on the date of termination of the Chairman and Chief Executive Officer's duties, in which case he will be released from any commitment and no amount will be due to him on this account.
		Date of renewal of the authorization by the Board of Directors: March 20, 2014.
		Date of approval by the General Shareholders' Meeting: June 5, 2014 (6th resolution).
Supplementary pension plan	None	Mr. Pierre-André de Chalendar participates in the defined benefit pension plan applicable to a employees and managers of Compagnie de Saint-Gobain who, as he did, joined the Company prior to January 1, 1994, and which was closed to new entrants as from that date.
		For information about the triggering events for benefits payments and potential benefits rights see chapter 6, section 2.2.4.

Date of renewal of the authorization by the Board of Directors: March 20, 2014. Date of approval by the General Shareholders' Meeting: June 5, 2014 (7th resolution).

#### 2.2.6 Compensation Policy for the Chairman and Chief Executive Officer subject to shareholders' approval at the General Shareholders' Meeting of June 8, 2017 (Article L.225-37-2 of the Commercial Code) ("Say on Pay" ex ante)

The so-called "Sapin II" law (loi relative à la transparence, à la lutte contre la corruption et à la modernisation de la vie économique), enacted on December 9, 2016 requires that the compensation policy for the executive Directors, i.e., the principles and criteria applying to the determination, distribution and allocation of fixed, variable and exceptional components of their total compensation and the benefits of any kind attributable to them in respect of their mandate, be submitted every year for approval of the Shareholders' Meeting. This vote is binding (as opposed to an advisory vote).

The compensation policy of the Chairman and Chief Executive Officer, the sole executive Director of Compagnie de Saint-Gobain, is decided by the Board of Directors, based on the recommendations of the Nomination, Remuneration and Governance Committee

The general principles of the compensation policy of the Chairman and Chief Executive Officer are described in chapter 6, section 2.2.1.

The following table describes the principles and criteria applying to the determination and allocation of the compensation items of the Chairman and Chief Executive Officer for the 2017 fiscal year, decided by the Board of Directors during its meeting of February 23, 2017, based on the recommendations of the Nomination, Remuneration and Governance Committee, and submitted to the approval of the General Shareholders' Meeting of June 8, 2017 in accordance with Article L.225-37-2 of the French Commercial Code.

		tion and allocation of the compensation components of the Chairman and Chief oproval of the General Shareholders' Meeting (Article L.225-37-2 of the French
Compensation components attributable to the Chairman and Chief Executive Officer	Сар	Description
Fixed compensation	-	The fixed compensation of the Chairman and Chief Executive Officer is commensurable with his experience and responsibilities, and shall be compared with fixed compensation offered by similar large companies in terms of sales, workforce and international scope of operations. This amount is reviewed at relatively long intervals of time.
		In application of these principles, the Board of Directors maintained the fixed compensation of Mr. Pierre-André de Chalendar at €1,100,000 for the 2017 fiscal year (unchanged since 2010).
Annual variable compensation	170% of the fixed compensation	The Board of Directors decided to cap the annual variable part of the compensation of the Chairman and Chief Executive Officer at 170% of his fixed compensation (cap unchanged since 2014).
		The amount of the variable compensation for the 2017 fiscal year will be decided by the Board of Directors in 2018 based on the achievement of quantifiable and qualitative objectives that it established, respectively at 2/3 and 1/3 of the variable portion of his compensation (structure unchanged since 2014).
		As regards the quantifiable objectives, the Board decided to maintain for the 2017 fiscal year, the following four objectives, each counting for 25%, deemed relevant for assessing the operational and financial performance of the Saint-Gobain Group and its strategy (unchanged since the renewal of his mandate in 2010): ROCE, the operating income of the Group, the recurring net income of the Group per share and the operating free cash flow.
		In addition, the Board retained the following qualitative objectives, deemed relevant to the extent that they reflect the implementation of strategic guidelines for the 2017 fiscal year: continuation of the digital transformation of the Group, implementation of the corporate social responsibility policy and continuation of the Group's development strategy.
		In accordance with the law, the payment of the annual variable compensation will be conditioned to the approval of the 2018 Ordinary Shareholders' Meeting.
Deferred variable compensation	N/A	The Board of Directors does not intend to grant deferred variable compensation to the Chairman and Chief Executive Officer in 2017.
Multi-year variable compensation	N/A	The Board of Directors does not intend to grant multi-year compensation to the Chairman and Chief Executive Officer in 2017.
Exceptional compensation	N/A	The Board of Directors does not intend to grant exceptional compensation to the Chairman and Chief Executive Officer in 2017.
		The Board of Directors reserves the option, if a new Chief Executive Officer should be recruited outside the Group, to grant him/her an exceptional compensation to compensate for the loss of benefits, in compliance with current practices, such as the annual variable compensation and/or long-term compensation components which he/she was entitled to as part of his/her previous duties. This exceptional compensation could take the form of payments in cash and/or allocation of securities subject to performance conditions.
		In accordance with the law, the payment of the exceptional compensation will be conditioned to the approval of the 2018 Ordinary Shareholders' Meeting.

Principles and criteria applying to the determination, distribution and allocation of the compensation components of the Chairman and Chief Executive Officer, for the 2017 fiscal year, submitted to the approval of the General Shareholders' Meeting (Article L.225-37-2 of the French

reformance shares and performance units to the Chairman and Cleo, te, stock options, free shares and performance units (valuation based on IFRS standards) set at 100% of his 2017 total maximum gross compensation on the 2017 feed layer (fixed compensation for the 2017 feed layer).  and  and  and  cap for allocation to the Chairman and CEO fixed at 10% of the overall grants of stock options, performance shares and performance units to the Chairman and Clief Executive Officer for the 2016 and 2015 fixed years represented a value of less than 50% of his total maximum gross compensation for such fixed years.  In addition, the Board of Directors has decided that the Chairman and Chief Executive Officer may not receive more than 10% of the overall grants of performance shares and performance units in 2017  Exp for allocation to the Chairman and CEO fixed at 10% of the overall grants of performance shares and performance units in 2017  and  and  caps for allocation to the Chairman and CEO fixed at 10% of the swell-limit at 10% of the swell-limit at 10% of the swell-limit at 10% of the limit set by the resolution for the allocation to the Chairman and CEO fixed at 10% of the swell-limit at 10% of the limit set by the resolution for the allocation to the Chairman and CEO fixed as sub-limit at 10% of the limit set by the resolution for the allocation to the Chairman and CEO fixed as sub-limit at 10% of the limit set by the resolution for the allocation to the Chairman and CEO fixed for the control of the co	Commercial Code)		•
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Officer may not receive more than 10% of the overall grants of performance shares and performance units allocated under the long-term compensation plans 2017.  For the record, the sub-limit for the grant of stock options to the executive Directors was set by the General Shareholders' Meeting of June 2, 2016 at 10% of the limit set performance shares and performance shares and performance units in 2017  and  Caps for allocation to the Chairman and CEO provided by resolutions 13 (stock options) and 14 (free shares) of the General Shareholders' Meeting of June 2, 2016, the Board of Directors indicated its intention to subject the exercise of the stock options and the vesting of the performance shares under long-term compensation plans to a service condition and performance conditions which will be based as a minimum on an internal performance criterion (group ROCE) and on an external performance criterion (the stock market indicator). As published market indicator (for more information see pages 31 and 32 of the Notice of Meeting for the General Shareholders' Meeting of June 2, 2016). These criteria have been considered relevant by the Board of Directors, to reflect the operational and financial performance of the Saint-Gobain vane-holders. At the conclusion of the dialog that the Company has with its investors, the Board reserves the right to add, or as an alternative, a criterion related to corporate social responsibility which add, or as an alternative, a criterion related to corporate social responsibility which add, or as an alternative, a criterion related to corporate social responsibility which and to be shorter than three years.  In the event that the Board of Directors should decide in 2017 to implement in favor of cretain beneficiaries as the grants of performance units instead of the grant of performance shares so in the past, the grants of performance units instead of the grant of performance shares or or creinvest in shares upon exercise of stock options or vested performance shares or to reinvest in			The grants of stock options, performance shares and performance units to the Chairman and Chief Executive Officer for the 2016 and 2015 fiscal years represented a value of less than 50% of his total maximum gross compensation for such fiscal years.
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indicated its intention to subject the exercise of the stock options and the vesting of the performance shares under long-term compensation plans to a service condition and performance conditions which will be based as a minimum on an internal performance criterion (group ROCE) and on an external performance criterion (the stock market index), taken individually or combined and that it reserves the right to add the criterion of free cash flow, a published market indicator (for more information see pages 31 and 32 of the Shareholders' Meeting of June 2, 2016). These criteria have been considered relevant by the Board of Directors, to reflect the operational and financial performance of the Saint-Gobain Group and to ensure an alignment of the beneficiaries with the interest of the Saint-Gobain shareholders. At the conclusion of the dialog that the Company has with its investors, the Board reserves the right to add, or as an alternative, a criterion related to corporate social responsibility which cannot exceed 20% of the total weighting.  The duration of vesting periods applicable under long-term compensation plans shall not be shorter than three years.  In the event that the Board of Directors should decide in 2017 to implement in favor of certain beneficiaries a plan of performance units will be subject to the same service and performance conditions as the grants under performance share plans which would be implemented in 2017 in favor of other beneficiaries of long-term compensation plans.  As in the past, the Board will set for the Chairman and Chief Executive Officer, for any allocation in 2017 under long-term compensation plans, a demanding obligation to retain shares resulting from the exercise of stock options or vested performance shares or to reinvest in shares upon exercise of performance units, that the Chairman and Chief Executive Officer will be required to retain in registered form until the cessation of his duties.		Chairman and CEO fixed at 10% of the overall grants performance shares and	For the record, the sub-limit for the grant of stock options to the executive Directors was set by the General Shareholders' Meeting of June 2, 2016 at 10% of the limit determined by the 13th resolution (such limit being also applicable to the 14th resolution of the same General Shareholders' Meeting relative to the grant of free shares which fixed a sub-limit at 10% of the limit set by the resolution for the allocation to the executive Directors).
not be shorter than three years.  In the event that the Board of Directors should decide in 2017 to implement in favor of certain beneficiaries a plan of performance units instead of the grant of performance shares, as in the past, the grants of performance units will be subject to the same service and performance conditions as the grants under performance share plans which would be implemented in 2017 in favor of other beneficiaries of long-term compensation plans.  As in the past, the Board will set for the Chairman and Chief Executive Officer, for any allocation in 2017 under long-term compensation plans, a demanding obligation to retain shares resulting from the exercise of stock options or vested performance shares or to reinvest in shares upon exercise of performance units, that the Chairman and Chief Executive Officer will be required to retain in registered form until the cessation of his duties.  Directors' attendance fees  N/A  The Chairman and Chief Executive Officer is not paid any Directors' fees.		Caps for allocation to the Chairman and CEO provided by resolutions 13 (stock options) and 14 (free shares) of the General Shareholders' Meeting of	During the General Shareholders' Meeting of June 2, 2016, the Board of Directors indicated its intention to subject the exercise of the stock options and the vesting of the performance shares under long-term compensation plans to a service condition and performance conditions which will be based as a minimum on an internal performance criterion (group ROCE) and on an external performance criterion (the stock market performance of Saint-Gobain vis-à-vis the CAC 40 stock market index), taken individually or combined and that it reserves the right to add the criterion of free cash flow, a published market indicator (for more information see pages 31 and 32 of the Notice of Meeting for the General Shareholders' Meeting of June 2, 2016). These criteria have been considered relevant by the Board of Directors, to reflect the operational and financial performance of the Saint-Gobain Group and to ensure an alignment of the beneficiaries with the interest of the Saint-Gobain shareholders. At the conclusion of the dialog that the Company has with its investors, the Board reserves the right to add, or as an alternative, a criterion related to corporate social responsibility which cannot exceed 20% of the total weighting.
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allocation in 2017 under long-term compensation plans, a <b>demanding obligation</b> to retain shares resulting from the exercise of stock options or vested performance shares or to reinvest in shares upon exercise of performance units, that the Chairman and Chief Executive Officer will be required to retain in registered form until the cessation of his duties. <b>Directors' attendance fees</b> N/A  The Chairman and Chief Executive Officer is not paid any Directors' fees.			In the event that the Board of Directors should decide in 2017 to implement in favor of certain beneficiaries a plan of performance units instead of the grant of performance shares, as in the past, the grants of performance units will be subject to the same service and performance conditions as the grants under performance share plans which would be implemented in 2017 in favor of other beneficiaries of long-term compensation plans.
			As in the past, the Board will set for the Chairman and Chief Executive Officer, for any allocation in 2017 under long-term compensation plans, a <b>demanding obligation</b> to retain shares resulting from the exercise of stock options or vested performance shares or to reinvest in shares upon exercise of performance units, that the Chairman and Chief Executive Officer will be required to retain in registered form until the cessation of his duties.
In-kind benefits - The Chairman and Chief Executive Officer has use of a company car.	Directors' attendance fees	N/A	The Chairman and Chief Executive Officer is not paid any Directors' fees.
	In-kind benefits	-	The Chairman and Chief Executive Officer has use of a company car.

Compensation components voted on at the General Shareholders' Meeting of June 5, 2014 in respect of procedures for related-party agreements and undertakings	Description
Compensation for loss of office	In the event of <b>forced termination of office</b> , irrespective of the form of termination, linked to a change in control or strategy under the following circumstances:
	a) he is removed from office or his mandate as Chairman and Chief Executive Officer is not renewed on expiry, other than at his own initiative or as a result of gross or willful misconduct or serious misconduct not related to his duties as Chief Executive Officer; or
	b) he is forced to resign within the 12 months following:
	• the date of approval by the shareholders of a merger or demerger affecting Compagnie de Saint-Gobain ; or
	◆ the effective date on which a third party or group of third parties acting in concert acquires control of Compagnie de Saint-Gobain (in accordance with Article L.233-3 of the French Commercial Code); or
	<ul> <li>the announcement by the Company's governance bodies of a significant change in the Group's strategy leading to a major refocusing of its business.</li> </ul>
	Mr. Pierre-André de Chalendar would be able to receive compensation not to exceed the double of the sum of the fixed portion of his annual compensation received as of the date of termination of his duties, and the average annual variable compensation received or receivable in respect of his last three full years in office.
	In any case, no compensation for loss of office would be due if Mr. Pierre-André de Chalendar were to leave Compagnie de Saint-Gobain at his own initiative under circumstances other than those described above, or if, upon leaving the Company under one of the circumstances described above, he were eligible to retire during the twelve months following termination of his duties as Chairman and Chief Executive Officer and to receive a pension under the so-called "SGPM" defined benefit plan.
	In no case may the sum of the indemnity for termination of office and the non-compete indemnity described below exceed twice Mr. Pierre-André de Chalendar's gross annual total compensation.
	The indemnity for loss of office shall be subject to fulfillment of a performance condition: see chapter 6, section 2.2.4.
	Date of renewal of the authorization by the Board of Directors: March 20, 2014.
	Date of approval by the hareholders' Meeting: June 5, 2014 (6th resolution).
Consequences of cessation of duties on stock options, performance shares and performance units	Should the Chairman and Chief Executive Officer leave office under circumstances entitling him to compensation for loss of office (see the circumstances listed in the paragraph "Forced Termination of office" above) and subject to fulfillment of the performance condition described in the heading "Compensation for loss of office" above, the Board of Directors may, at the proposal of the Nomination, Remuneration and Governance Committee, decide to maintain, or not, for the Chairman and Chief Executive Officer, the benefit of all or part of the stock options, performance shares and performance units which he would hold on the date of cessation of his duties and for which the minimum exercise period would not have elapsed or which would not have been delivered on that date, depending on the case, subject to the fulfillment of the performance conditions provided by the rules of the relevant plans.
	Under this circumstance, in accordance with the AFEP-MEDEF Code, maintaining all or part of the benefit of the long-term compensation (stock options, performance shares and performance units) or its allocation must be explained by the Board of Directors.
Non-compete indemnity	Should the Chairman and Chief Executive Officer leave office under circumstances entitling him to compensation for loss of office as described above, he would receive a <b>non-compete indemnity equal to one year's total gross compensation</b> . Gross annual compensation is considered as comprising the same fixed and variable amounts used to calculate his compensation for loss of office referred to above.
	Under no circumstances will the sum of the indemnity under the non-compete agreement and the compensation for loss of office exceed double Mr. Pierre-André de Chalendar's total gross annual compensation.
	The Board of Directors reserves the right to unilaterally waive application of the non-compete agreement no later than on the date of termination of the Chairman and Chief Executive Officer's duties, in which case he will be released from any commitment and no amount will be due to him on this account.
	Date of renewal of the authorization by the Board of Directors: March 20, 2014.
	Date of approval by the General Shareholders' Meeting: June 5, 2014 (6th resolution).
Supplementary pension plan	Mr. Pierre-André de Chalendar is a beneficiary under the defined benefit pension plan applicable to all employees and managers of Compagnie de Saint-Gobain who, as he did, joined the Company prior to January 1, 1994, date on which this plan was closed to new entrants.
	For information about the triggering events for benefits payments and potential benefits rights, see chapter 6, section 2.2.4.
	Date of renewal of the authorization by the Board of Directors: March 20, 2014.
	Date of approval by the General Shareholders' Meeting: June 5, 2014 (7th resolution).

# 2.3 COMPENSATION OF MEMBERS OF THE GROUP'S SENIOR MANAGEMENT

Compensation paid to members of the Group's senior management (see chapter 1, section 3) is set at a level consistent with compensation packages offered by comparable companies. It is determined and reviewed, among other things, based on the results of specific surveys from specialized consultants commissioned by senior management.

In addition to a fixed portion, it consists of a variable compensation set at a reasonable proportion of total compensation, the purpose of which is to reflect the manager's personal contribution to the Group's growth and results.

This principle has now been extended to all managerial staff. The performance objectives used are based on financial indicators such as Return On Investment (ROI) and Return On Capital Employed (ROCE), as well as personal objectives such as developing a certain type of business or entering a new geographic market. Most often, a safety indicator is also applied.

In this way, management compensation is clearly linked to performance and to the achievement of objectives that

promotes a high level of personal commitment. Each manager's compensation can fluctuate significantly from one year to the next, based on the results achieved.

Gross compensation received by the members of senior management Committee (excluding the Chairman and Chief Executive Officer and long-term compensation) in 2016 from Group companies within and outside France, totaled €10.9 million in 2016 (2015: €13.4 million), including gross variable compensation of €3.2 million (2015: €3.3 million) and no termination benefits (€1.5 million in 2015).

Pensions and other post-employment benefits (defined benefit obligations in respect of retirement bonuses and pensions) accruing to the members of the senior management Committee (including the Chairman and Chief Executive Officer) totaled €47.0 million at December 31, 2016 (December 31, 2015: €55.8 million).

Attendance fees allocated to Directors representing the Group (particularly members of Group management) in Group companies other than Compagnie de Saint-Gobain are either reverted to their employer company, or paid directly to that company.

# 2.4 LONG-TERM COMPENSATION PLANS (STOCK OPTIONS, PERFORMANCE SHARES AND PERFORMANCE UNITS)

# 2.4.1 Allocation policy

The objective of the Group's long-term compensation policy is to retain and motivate the Group's senior management, officers and employees, and to associate them with the Group's performance, in particular through conditional allocations of stock options, performance shares or performance units to reflect their fulfillment of the Group's long-term strategy.

At the recommendation of the Nomination, Remuneration and Governance Committee, the Board of Directors authorizes the features of the stock option and performance share plans, as well as the identity of the beneficiaries, and approves the principle of long-term compensation plans in the form of performance units to be implemented, if need be, by the Chairman and Chief Executive Officer. These plans are subject to a service condition and to the strict internal and/or external performance criteria set by the Board (see below for details of each allocation).

In 2016, these plans covered 1,896 Group officers and employees, in France and outside France, including high-potential managers and managers who have performed exceptionally well (193 grantees), key corporate and line executives in the Sectors and Delegations (1,663 grantees), members of the Group Liaison Committee excluding the senior management team (30 grantees) and senior management (10 grantees), with grants to the Chairman and Chief Executive Officer being described in chapter 6, section 2.2.3(c).

The beneficiaries of these plans belong to 59 different nationalities and work in 51 countries.

On November 24, 2016 the Board of Directors resolved that the origin of the shares of the 2016 stock options plan, new or existing shares, would be determined at its discretion no later than by the end of the vesting period. This plan represents 0.05% of the share capital and therefore has no material impact in terms of dilution. The performance share plan entitles beneficiaries to existing shares and therefore has no impact in terms of dilution. No performance unit plan was implemented during fiscal year 2016.

The members of the Liaison Committee were allocated both stock options and performance shares.

The other instruments designed to associate employees with business results are presented in chapter 8, section 2.3 and chapter 4, section 3.2.3.

# 2.4.2 Stock option plans

Stock option plans have been set up by the Board of Directors every year since 1987.

Under the authorization granted by the 13<sup>th</sup> resolution of the General Shareholders' Meeting of June 2, 2016, at its meeting of November 24, 2016 the Board of Directors resolved to implement a stock option plan, following analysis and the recommendation of the Nomination, Remuneration and Governance Committee.

This plan covers 39 employees and officers of the Group, in France and outside France, who were granted a total of 280,000 options (including allocations to the Chairman and Chief Executive Officer), with the type of options, whether for new or existing shares, to be determined by the Board no later than by the end of the vesting period (noting that any options that may be exercised before their type is determined will be options to subscribe for new shares). Grants to the Chairman and Chief Executive Officer are less than the grant sub-cap defined by the General Shareholders' Meeting on June 2, 2016.

The lifetime of the options is 10 years. The option price was set at €40.43, without rebate or discount based on the average opening price of the Saint-Gobain shares in the 20 trading days preceding the date of the grant by the Board of Directors.

The performance criteria applicable to the stock options plan implemented on November 24, 2016 entail, as in 2015, in addition to a performance condition external to the Saint-Gobain Group, an internal performance condition, that are identical but weighted differently, for all long-term compensation plans (stock options and performance shares).

Exercise of the stock options is subject to fulfillment of the following cumulative conditions (the same as those of the plan implemented in 2015):

- ◆ service condition: to be an employee or officer of a Saint-Gobain Group company throughout the period up to the exercise date of the stock options, without interruption, except in a number of defined specific cases such as death, disability (as defined in paragraphs (2) and (3) of Article L.341-4 of the French Social Security Code), no-fault termination, negotiated departure, retirement, transfer to another position within the Group, or change of control of the grantee's host company to outside the Group:
- performance condition linked to the two following criteria:
  - ◆ 70% of the options initially allocated are subject to a criteria linked to performance of the Saint-Gobain stock price versus the CAC 40 stock market index; and
  - 30% of the options initially allocated are subject to the criteria of Return On Capital Employed, including goodwill, of the Saint-Gobain Group ("ROCE").

Stock market performance will be calculated by comparing the average opening prices quoted for Saint-Gobain shares for the six months to November 24, 2016 with average prices for the six months to November 24, 2020. The two performances will then be compared, and the options will be exercisable as follows:

Performance of the Saint-Gobain stock price compared to the CAC 40	Exercisable percentage of initially granted options, contingent upon stock market performance (i.e. 70% of allocation), exercisable
At least 15% higher	All
Between -15% and +15%	[(Saint-Gobain's stock market performance/CAC 40 index) (1) - 85%]/[115% - 85%]
Over 15% lower	None

<sup>(1)</sup> Saint-Gobain stock price performance/CAC 40 index performance (performance of the Saint-Gobain stock price versus performance of the CAC 40 index) is equal to: 100% + the difference between the performance of the Saint-Gobain stock price and that of the CAC 40 index, in both cases expressed as a percentage.

### ROCE performance is calculated as follows:

Arithmetic average of the ROCE for the years 2017, 2018 and 2019	Percentage of options initially granted, contingent upon the ROCE (i.e., 30% of the allocation), exercisable
Greater than 12%	All
Between 9% and 12%	[Arithmetic average of the ROCE for the years 2017, 2018 and 2019 - 9%]/[12% - 9%]
Less than or equal to 9%	None

The performance conditions for stock options granted by the Group are demanding, as evidenced by the achievement rates for the three latest stock option plans for which the performance conditions have been determined (16.5% for the 2012 plan, 0% for the 2011 plan, and 0% for the 2010 plan).

The following table shows stock options granted to the ten highest-paid non-executive employees, and options exercised by them in 2016 (global information).

# TABLE 9 - OPTIONS GRANTED TO THE TEN EMPLOYEES (EXCLUDING EXECUTIVE OFFICERS) WHO WERE GRANTED THE HIGHEST NUMBER OF OPTIONS AND OPTIONS EXERCISED BY THEM (AMF NOMENCLATURE)

	Total options granted or subscribed or purchased shares	Weighted average price	Plans
Options granted during the year by the issuer and any company included within the scope of the options allocation, to the ten employees of the issuer or of any company within this scope with the highest number of options granted (global information)	130,500	€40.43	2016
Options on the issuer and the companies referenced above, exercised during the year by the ten employees of the issuer or of these companies with the highest number of options thus purchased or subscribed (global information)	72,492	€28.48	2008-2009 2012

The following table shows the history of the stock option allocation plans in place at December 31, 2016. There are no other stock option plans in place or other option instruments involving the shares, whether listed or non-listed, of Group companies within or outside France.

### TABLE 8 - HISTORICAL INFORMATION ABOUT STOCK OPTION PLANS (AMF NOMENCLATURE)

Year	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Date of General Meeting	06/02/2016	06/05/2014	06/05/2014	06/07/2012	06/07/2012	06/04/2009	06/04/2009	06/04/2009	06/07/2007	06/07/2007
Date of Board of Directors' meeting	11/24/2016	11/26/2015	11/20/2014	11/21/2013	11/22/2012	11/24/2011	11/18/2010	11/19/2009	11/20/2008	11/22/2007
Type*	Purchase or subscription		Purchase or subscription	Purchase or Subscription	Subscription	Subscription	Subscription	Subscription	Subscription	Subscription
Total number of exercisable options at the start of the plan	280,000	224,950	234,550	247,250	253,000	482,150	1,144,730	1,479,460	3,551,900	3,673,000
Adjustment to number of shares under option**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	375,614	383,133
Cumulative number of cancelled or forfeited options	0	0	0	0	202,994 (5)	459,650 <sup>(4)</sup>	1,117,390 (4)	493,154 <sup>(3)</sup>	773,932 <sup>(2)</sup>	652,962 <sup>(1)</sup>
Total number of exercisable options after adjustments and forfeitures:	280,000 (7)	224,950 <sup>(7)</sup>	234,550 (6)	247,250 <sup>(6)</sup>	50,006	22,500	27,340	986,306	3,153,582	3,403,171
Of which: options granted to executive Directors:										
Mr. Jean-Louis Beffa	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	46,856 <sup>(9)</sup>	55,288 <sup>(8)</sup>
Mr. Pierre-André de Chalendar	58,000	50,000	50,000	50,000	8,235 (9)	O (10)	O (10)	133,333 (9)	109,331 <sup>(9)</sup>	110,575 (8)
Starting date of exercise period	11/24/2020	11/26/2019	11/20/2018	11/21/2017	11/22/2016	11/25/2015	11/19/2014	11/20/2013	11/21/2012	11/23/2011
Expiry date of exercise period	11/23/2026	11/25/2025	11/19/2024	11/20/2023	11/21/2022	11/23/2021	11/17/2020	11/18/2019	11/19/2018	11/21/2017
Exercise price**	€40.43	€39.47	€34.13	€38.80	€27.71	€31.22	€35.19	€36.34	€25.88	€64.72
Number of options exercised at 12/31/2016**	0	0	0	10,000	20,290	22,500	27,340	176,438	1,450,760	0
Exercisable options outstanding at 12/31/2016**	280,000	224,950	234,550	237,250	29,716	0	0	809,868	1,702,822	3,403,171

- Of the plans in place at December 31, 2016, 2007-2012 plans are for the subscription of new shares. For the 2013 to 2016 plans, the Board of Directors resolved that the type of options, whether for the purchase of existing shares or the subscription of new shares, would be determined at its discretion no later than by the beginning of the exercise period, and that any options that might be exercised before their type had been determined would be to subscribe new shares.
- Following the March 23, 2009 capital increase in cash carried out by issuing and allocating stock warrants, the rights of stock option plan holders were maintained in accordance with the applicable regulations (Article R.228-91 of the French Commercial Code). The new exercise price was determined by taking into account the number of shares issued per existing share (2 new shares for 7 existing shares), the issue price of the new shares ( $\mathfrak{C}14$ ) and the cumulative rights share price ( $\mathfrak{C}24.58$ , corresponding to the weighted average price for the three trading days preceding the rights issue, i.e. March 18, 19 and 20, 2009).
  - On this basis, the original exercise price was multiplied by 0.904363 to calculate the new price and the number of options was multiplied by 1.10575 so that the total value of option holders' rights (number of options multiplied by the exercise price) was the same before and after the adjustment
- Including 514,502 non-exercisable options because the performance condition was not met (performance condition attached to half of the options granted in November 2007 to 38 members of senior management).
- Including 718,644 non-exercisable options because the performance condition was only partly met (performance condition attached to all the options granted in November 2008 to corporate Directors, and half of the options granted in November 2008 to 176 members of the Group's senior management).
- Including 493,154 non-exercisable options because the performance condition was only partly met (performance condition attached to all the options granted in November 2009).
- (4) Because the performance condition for the 2010 and 2011 plans was not met, options not exercised before determining the result of the performance conditions as part of the early-exercise conditions were forfeited.
- (5) Options which cannot be exercised following the partial fulfillment of performance conditions related to the relative performance of the Saint-Gobain share price to which all options granted in November 2012 were subject.
- (6) Before application of the performance condition as a reflection of relative Saint-Gobain share price performance.
- (7) Before application of the performance condition as a reflection of relative Saint-Gobain share price performance and of the ROCE of the Saint-Gobain Group.
- (8) After deducting half of the options granted that are not exercisable because the related performance condition was not met.
- (9) After deducting the options granted that are not exercisable because the related performance condition was only partly met.
- (10) After deducting all the options granted that are not exercisable because the related performance condition was not met.

#### 2.4.3 **Performance share plans**

Performance share plans have been set up by the Board of Directors every year since 2009.

Under the authorization granted by the fourteenth resolution of the General Meeting of June 2, 2016, at its meeting of November 24, 2016 the Board of Directors resolved to implement a performance share plan, following analysis and the recommendation of the Nomination, Remuneration and Governance Committee

This plan covers 1,896 employees and officers of the Group in France and abroad, who were granted a total of 1,231,320 performance shares (including the grant to the Chairman and Chief Executive Officer). It should be noted that no performance units plan was implemented in 2016, all the beneficiaries being granted performance shares.

The duration of the vesting period was set at four years, with delivery of the shares to occur on the day after the close of this period

The performance criteria applicable to the performance share plan implemented on November 24, 2016 entail as in 2015, in addition to a performance condition internal to the Saint-Gobain Group, an external performance condition, that are identical but weighted differently, for all long-term compensation plans (stock options and performance shares).

Vesting of performance shares is subject to fulfillment of the following cumulative conditions (the same as those of the plan implemented in 2015):

◆ service condition: applies for the entire duration of the acquisition period in a manner similar to that stipulated for stock options above (see section 2.4.2 above);

- performance condition linked to the two following criteria:
  - ◆ 70% of the shares initially allocated are subject to criteria linked to Return On Capital Employed, including goodwill, of the Saint-Gobain Group ("ROCE"), and
  - ◆ 30% of the shares initially allocated are subject to the criteria of Saint-Gobain stock price performance compared to the CAC 40 stock market index.

ROCE performance and stock market performance will be calculated in the same way, mutatis mutandis, as for stock options (see section 2.4.2 above).

However, the first 100 shares allocated to each grantee other than to Liaison Committee members will be exempt from the performance conditions.

The performance conditions for performance shares allocated by the Group are demanding, as evidenced by the achievement rates for the performance share plans for which the performance condition has been determined (89.2% for the 2013 plan, 65.5% for the 2012 plan and 32% for the 2011 plan).

The ten Group employees and non-executive officers who were granted the highest number of shares in 2016 were allocated 194,500 performance shares (global information). The closing stock price on the day preceding the grant decided by the Board of Directors of November 24, 2016 was €41.06 per share.

The following table shows the history of the performance share plans outstanding at December 31, 2016 as well as the features of the 2012 plan, delivered in November 2016.

TABLE 10 - HISTORICAL INFORMATION ABOUT PERFORMANCE SHARE PLANS (AMF NOMENCLATURE)

Year	2016	2015	2014	2013	2012
Date of General Shareholders' Meeting	06/02/2016	06/04/2015	06/05/2014	06/07/2012	06/07/2012
Date of Board of Directors' meeting	11/24/2016	11/26/2015	11/20/2014	11/21/2013	11/22/2012
Type of shares	existing	existing	existing	existing	existing
Total number of performance share rights initially granted (4+0)	1,231,320	500,910	530,240	541,655	542,370
Of which, rights granted to executive Director, P-A. de Chalendar	67,000	0	0	0	0
Cumulative number of shares delivered	0	0	450 <sup>(2)</sup>	550 <sup>(2)</sup>	366,275 <sup>(1)</sup>
Number of rights forfeited	0	0	0	58,299 <sup>(3)</sup>	176,095 <sup>(3)</sup>
Total outstanding performance share rights	1,231,320 (5)	500,910 <sup>(5)</sup>	529,790 <sup>(5)</sup>	482,806 <sup>(4)</sup>	0

<sup>(1)</sup> After taking into account the service and performance conditions.

<sup>(2)</sup> In advance, as part of the exception defined for the service condition (in particular death, disability - see section 2.4.2 of this chapter 6).

<sup>(3)</sup> Of which, respectively, 149,126 rights of the 2012 plan and 58,299 rights of the 2013 plan were forfeited as a result of the partial fulfillment of the performance

<sup>(4)</sup> Subject to the fulfillment of the service condition.

<sup>(5)</sup> Subject to the fulfillment of both service and performance conditions.



#### 2.4.4 **Performance unit plans**

The Board approved the principle of implementing performance unit plans annually from 2012 to 2015, implemented by the Chairman and Chief Executive Officer (with the performance units granted to the latter being approved by the Board of Directors). No performance unit plan was implemented in 2016.

Subject to fulfillment of the service and performance conditions, performance unit plans in place offer grantees the opportunity to receive, over the long term (an exercise period of between four years from the grant date to 10 years from that date), cash compensation for each unit equal to the Saint-Gobain share price on the reference date plus any dividend paid or distribution made from the start of the exercise period up to the reference date. Performance units constitute an operating expense adjustable each year but creating no shareholder dilution since they do not result in the creation of new shares.

The performance criteria applicable to the performance unit plans implemented between 2012 and 2015 are strictly identical to those applicable to the performance share plans for the same year.

The performance conditions pertaining to the performance units granted by the Group are demanding, as evidenced by the achievement rates of the performance unit plans for which the performance condition has been determined (89.2% for the 2013 plan and 65.5% for the 2012 plan).

The following table shows the history of performance unit plans not vested at December 31, 2016 as well as the features of the 2012 plan, which vested in November 2016.

# TABLE 10 BIS - HISTORICAL INFORMATION ABOUT PERFORMANCE UNIT PLANS

Year	2016	2015	2014	2013	2012
Date of Board of Directors' meeting	N/A	11/26/2015	11/20/2014	11/21/2013	11/22/2012
Total number of units initially granted (4+0)	-	556,340	598,400	588,535	536,400
Of which, units granted to executive Director, P-A. de Chalendar	-	60,000	60,000	60,000	60,000
Starting date of exercise period	-	11/26/2019	11/20/2018	11/21/2017	11/22/2016
Expiry date of performance unit exercise period	-	11/25/2025	11/19/2024	11/20/2023	11/21/2022
Total number of units that have become exercisable	-	0	1,350 <sup>(2)</sup>	17,750 <sup>(2)</sup>	345,431 <sup>(1)</sup>
Total number of units forfeited	-	0	0	61,645 <sup>(3)</sup>	190,969 <sup>(3)</sup>
Of which, number of performance units granted to executive Director, P-A. de Chalendar, forfeited	-	0	0	6,480	20,700
Performance units outstanding	-	556,340 <sup>(5)</sup>	597,050 <sup>(5)</sup>	509,140 (4)	

<sup>(2)</sup> In advance, as part of the exceptions defined for the service condition (in particular death, disability - see section 2.4.2 of this chapter 6).

<sup>(3)</sup> Of which, respectively, 180,038 units of the 2012 plan and 61,645 units of the 2013 plan which were forfeited as a result of the partial fulfillment of the performance

<sup>(4)</sup> Subject to the fulfilment of the service condition.

<sup>(5)</sup> Subject to the cumulative fulfillment of the service and performance conditions.

# **Company stock traded by Directors 3.**

Transactions by Directors involving Compagnie de Saint-Gobain shares exceeding an aggregate amount of €20,000 reported to the French Autorité des marchés financiers in 2016 pursuant to Article L.621-18-2 of the French Financial and Monetary Code were the following:

	Securities	Type of transaction	Transaction date	Unit price	Total amount
Pierre-André de Chalendar	Units of the Saint-Gobain France FCPE (Saint-Gobain Group Savings Plan)	Subscription	May 17, 2016	€29.42	€303,611
	Units of the Saint-Gobain France FCPE (Saint-Gobain Group Savings Plan)	Sale	August 24, 2016	€39.60	€683,745
	Exercise of stock options	Subscription	August 29, 2016	€25.88	€631,472
	Exercise of stock options	Subscription	December 23, 2016	€25.88	€258,800
Individual related to Pierre-André de Chalendar	Shares	Sale	May 31, 2016	€40.20	€452,250
Individual related to Pierre-André Chalendar	Shares	Sale	May 31, 2016	€40.20	€452,250



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# 1. Risk factors

The Saint-Gobain Group conducts its affairs in a constantly evolving environment. It is therefore exposed to risks, the occurrence of which could have a material adverse effect on its businesses, financial position, results and outlook. This chapter presents the significant risks to which the Group believes it is exposed, as of the date of this Registration Document.

However, there are other risks which may exist or arise, of which the Group is not aware as of the date of this Registration Document, or the occurrence of which has not been considered as of that date as being likely to have a material adverse effect on the Group, its businesses, financial position, results and outlook.

# 1.1 RISKS ASSOCIATED WITH THE GROUP AND ITS OPERATIONS

# 1.1.1 Risks associated with economic cycles

Most of the Group's markets are cyclical in nature. A significant portion of revenues depends on the level of investment in the construction market, which generally closely follows the cyclicity of economic trends. Consequently, the Group's results are sensitive to the economic conditions of the geographic zones, both at regional and local levels, where the Group is active.

The recent global economic slowdown has negatively affected the construction industry and the Group's operations, particularly in Europe.

Further deterioration in the global economic environment and in financial markets conditions could have a material adverse effect on the Group's sales, results, cash flow and outlook.

# 1.1.2 Risks associated with the Group's international operations

The Group is active worldwide, including outside Western Europe and North America. Specifically, it is active in Eastern Europe, Asia and emerging countries, particularly Brazil. In certain countries located in these regions, there is greater economic and political instability, as well as greater exposure to social disruption and infrastructure malfunctions than in the more mature markets. Thus, the direct and indirect consequences of political instability, or of an unstable economic or regulatory environment in which the Group operates, in a country in which the Group is active or markets its products, could have a material adverse impact on investment levels in that country's construction sector, and consequently on the Group's businesses, financial position, results or outlook.

Moreover, legal or regulatory changes (involving, among other things, taxation, restrictions on capital transfers, customs duties, intellectual property and import and export licenses, the employment system or health, safety or the environment) could significantly increase the Group's costs in the various countries in which it is active, or limit its ability to

freely transfer its capital, and consequently have a material adverse impact on its businesses, financial position, results and outlook

#### 1.1.3 Risks associated with innovation

The Group has made research and innovation the focus of its strategy and sustainable development policy, in order to remain competitive and maintain a high level of performance and operational excellence. The emergence of new technologies and new markets is driving rapid change in some of the Group's markets. The Group has to keep pace with these changes and integrate these new technologies into its product offerings, in order to respond effectively to customers' needs.

This innovation policy requires significant spending on research and development, with no guaranteed impacts.

The Group's sales, operating margins and results could be affected if it fails to invest in appropriate technologies or to rapidly bring new products to market, or if competing products are introduced or the Group's new products do not adequately address customer needs.

# 1.1.4 Intellectual property risk

Development of the Group's business relies on protecting its manufacturing secrets, patents, trademarks and models and other intellectual property rights. If the Group was unable to obtain, protect and preserve its intellectual property rights, this could result in the loss of its exclusive right to use technologies and processes, with a material adverse effect on results.

Since the Group's activities are, in part, in countries where the protection of intellectual property rights is not as developed as in Western Europe or North America, the Group cannot guarantee the level of protection that will be accorded to its portfolio of patents and brands, and must address risks of counterfeiting of its products, and the appropriation or illicit use of its intellectual property rights.

The Group may be forced to take legal action against third parties suspected of breaching its rights. Any such proceedings may give rise to significant costs and hamper growth in sales of the products manufactured using the rights concerned, or force the Group to incur additional expenses to develop other technologies that do not use the disputed technology.

#### 1.1.5 Risks associated with the cost and supply of raw materials

The Group's businesses, some of which are heavy consumers of energy, may be affected by a significant increase in prices and difficulties in obtaining a supply of raw materials and/or energy (such as natural gas). Its ability to pass on these cost increases to its customers depends to a large extent on market conditions and practices. If the Group's ability to immediately and/or fully pass on increases in raw materials and/or energy costs were limited, this could have a material adverse effect on its businesses, financial position or results.

#### **Industrial and environmental risks** 1.1.6

The Group could incur significant expenses and be exposed to environmental liabilities as a result of its operation of past, present or future industrial sites.

The industrial and environmental risks arising from the operation of some sites primarily relate to the storage of certain hazardous substances.

As at December 31, 2016, three sites were classified under Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances, known as "Seveso III". These industrial sites are subject to specific regulations and close supervision by the competent authorities and the Group's Environment, Health and Safety

One of these facilities is classified as "lower-tier" under the Seveso III Directive: the Balsta (Gypsum) in Sweden, which stores liquid natural gas. Two other facilities are classified as "upper-tier": Bagneaux-sur-Loing (Flat Glass) in France, which stores arsenic (AS2O3) and Carrascal del Río (Flat Glass) in Spain, which stores, among other things, hydrofluoric acid

In France, under the Law of July 30, 2003 on the prevention of technological and natural risks and the remediation of contaminated sites, specific risk prevention and safety policies have been implemented at all of the French sites listed above. After identifying accident risks and their potential impact on the environment, preventive measures were implemented at these facilities, covering the design and construction of storage areas, as well as the manner in which they are used and maintained. Internal contingency plans have been developed to respond to incidents. The financial consequences of personal injury and damage to property that may arise by accident from plant operations are covered by

the current Group civil liability insurance program, except for the Bagneaux-sur-Loing plant, which is insured under a specific policy subscribed by the joint venture operating the facility. In the event of a technological accident, compensation payments to victims would be organized jointly by the joint venture, the insurance broker and the

The Saint-Gobain Group also has to deal with risks relating to chronic pollution, and could therefore be required to incur expenses to restore industrial sites or clean up the environment. 70 Group sites are classified as "IED" installations as defined by Directive 2010/75/EU on industrial emissions, and are subject to integrated pollution prevention and control regulations.

Breach of these regulations could result in fines or other civil, administrative or criminal penalties, specifically the withdrawal of permits and licenses needed for the activities in question to continue operations.

Lastly, changes in environmental regulations, including their interpretation, and consideration of climate change risks (see sections 2.3.2 c) and 2.3.6 of chapter 4 and section 3 of chapter 7) could cause the Group to incur significant expenses and/or investments.

#### 1.1.7 Risks associated with external growth

The Group's strategy is based, in part, on external growth, in particular by acquiring businesses or assets, taking equity interests or establishing joint ventures in the Group's business lines and in geographic regions where the Group seeks to establish or strengthen itself. The Group may, however, not be able to identify attractive targets or enter into transactions at the optimal time and/or under satisfactory conditions. The expected benefits of these external growth operations depend, in part, on the realization of expected synergies and integration of the activities of the acquired companies, and on relationships with other participants in the joint ventures. The Group gives no guarantees as to these objectives, which, if not fulfilled within the expected timeframes and at the expected levels, could affect the Group's financial position, results and outlook.

# 1.1.8 Risks associated with information

Daily management of the Group's activities, specifically the conduct of its commercial, industrial and accounting processes, particularly in its Distribution activities, requires the proper functioning of all technical infrastructure and computer applications. The risk of system malfunction or shutdown, which may be external or internal in origin (computer viruses or hacking, service providers' defaults, blackouts or network shutdowns, natural disasters, human error, etc.) cannot be underestimated.

To minimize the impact of this type of malfunction, the Information Systems Department has set strict rules for information systems governance and security, relating to infrastructure and applications, data backups and business continuity plans, rolled out at the Group level and controlled by the Internal Audit and Control Department.

These malfunctions may adversely affect the Group's operations, the protection of its know-how and its financial results.

#### 1.1.9 **Customer credit risk**

The Group's exposure to customer credit risk is limited due to its wide range of businesses, worldwide presence and very large customer base. Past-due receivables are regularly analyzed and provisions are booked whenever necessary (see Note 3 to the Consolidated Financial Statements, chapter 9. section 1). Nevertheless, changes in the economic situation could lead to an increase in customer credit risk.

#### 1.2 **GROUP STRUCTURAL RISKS**

#### 1.2.1 **Cost reduction and restructuring risks**

The Group has undertaken a variety of cost-cutting and restructuring initiatives. While further savings are planned, there is no guarantee that the forecast reductions will be achieved or that the related restructuring costs will not be higher than originally budgeted. In particular, certain restructuring operations and other initiatives may cost more than expected, or the cost savings may be less than expected or take longer than expected to achieve. An increase in restructuring costs and/or the Group's inability to achieve the expected savings could have a material adverse effect on the Group's results and outlook.

#### Risks associated with the Group's 1.2.2 pension commitments and similar commitments

The Group makes significant accounting accruals to cover pension and other post-employment benefit plans, mainly in Western Europe (particularly France, Germany, the Netherlands and the United Kingdom) and in North America (United States and Canada). Most of these plans are closed to new entrants. At December 31, 2016, total commitments under pension and other post-employment benefit plans were €12.7 billion.

The provision for pension plans recognized in the consolidated balance sheet (€3.5 billion at December 31, 2016) may be affected by adverse changes in the actuarial assumptions used to calculate the projected benefit obligation, by a reduction in the discount rates used to measure future commitments, a change in life expectancy or higher inflation, or a fall in the market values of plan assets, consisting mainly of equities and bonds.

#### 1.2.3 Risks associated with goodwill and impairment of property, plant and equipment and intangible assets

Brands and goodwill make up a significant proportion of the Group's intangible assets, representing €2.1 billion and €10.7 billion, respectively, at December 31, 2016. In line with Group accounting policies, goodwill and certain other intangible assets with indefinite use lives are tested for impairment periodically and whenever there is an indication that their carrying amount may not be fully recoverable. Goodwill and other identified intangible assets may become impaired as a result of worse-than-expected Group performance, unfavorable market conditions, unfavorable legal or regulatory changes or many other factors. The recognition of impairment losses on goodwill could have an adverse effect on consolidated net income.

Property, plant and equipment (€11.7 billion at December 31, 2016) represent roughly one-third of total assets and may become impaired in the event of adverse development of the business.

Property Plant and equipment totaled €11,654 million at December 31, 2016 (€11,587 million at December 31, 2015), representing 27% of total assets (26% in 2015), which were €43,767 million at December 31, 2016 (€44,856 million at December 31, 2015).

#### 1.3 FINANCIAL RISKS

#### 1.3.1 **Liquidity risk**

# a) Liquidity risk on financing

In a crisis environment, the Group might be unable to raise the financing or refinancing needed to cover its investment plans on the credit or capital markets, or to obtain such financing or refinancing on acceptable terms.

The Group's overall exposure to liquidity risk on its net debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain, the Group's parent company. Except in special cases, the subsidiaries enter into short- or long-term financing arrangements with Compagnie de Saint-Gobain or with the National Delegations' cash pools.

The Group's policy is to ensure that the Group's financing will be rolled over at maturity and to optimize borrowing costs. Long-term debt therefore systematically represents a high percentage of overall debt. At the same time, the maturity schedules of long-term debt are set in such a way that replacement capital market issues are spread over time.

The Group's main source of long-term financing is bonds, which are generally issued under the Medium Term Notes program. Saint-Gobain also uses perpetual bonds, participating securities, a long-term securitization program, bank borrowings and lease financing.

Short-term debt is composed of borrowings under Negotiable European Commercial Paper (NEU CP), and occasionally Euro Commercial Paper and US Commercial Paper, but also includes receivables securitization programs and bank financing. Financial assets comprise marketable securities and cash and cash equivalents.

Compagnie de Saint-Gobain's liquidity position is secured by two confirmed syndicated lines of credit (see chapter 9, section 1).

A breakdown of long-and short-term debt by type and maturity is provided in Note 8.3 to the Consolidated Financial Statements, which also details the main characteristics of the Group's financing programs and confirmed credit lines.

Saint-Gobain's long-term debt issues have been rated BBB with a stable outlook by Standard & Poor's since December 9, 2014.

Saint-Gobain's long-term debt issues have been rated Baa2 with a stable outlook by Moody's since December 9, 2014.

There is no guarantee that the Company will be in a position to maintain its credit risk ratings at current levels. Any deterioration in the Group's credit risk rating could limit its capacity to raise funds and could lead to higher rates of interest on future borrowings.

### b) Liquidity risk on investments

Short-term investments consist of bank deposits and mutual fund units. To reduce liquidity and volatility risk, whenever possible, the Group invests in money market and/or bond funds

#### 1.3.2 **Market risks**

# a) Interest rate risks

The Group's overall exposure to interest rate risk on consolidated debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain. subsidiaries use derivatives to hedge interest rate risks, their counterparty is generally Compagnie de Saint-Gobain, the Group's parent company.

The Group's policy is aimed at fixing the cost of its medium-term debt against interest rate risk and optimizing borrowing costs. According to Group policy, the derivative financial instruments used to hedge these risks can include interest rate swaps, cross-currency swaps, options - including caps, floors and swaptions - and forward rate agreements.

The table below shows the sensitivity at December 31, 2016 of pre-tax income and pre-tax equity to fluctuations in the interest rate on the Group's net debt after hedging:

(in € millions)	Impact on pre-tax income	Impact on pre-tax equity
Interest rate increase of 50 basis points	12	1
Interest rate decrease of 50 basis points	(12)	(1)

Note 8.4 to the Consolidated Financial Statements (see chapter 9, section 1) provides a breakdown of interest rate risk hedging instruments and of gross debt by rate type (fixed or variable) after hedging.

# b) Foreign exchange risk

The currency hedging policies described below could be insufficient to protect the Group against unexpected or sharper than expected fluctuations in exchange rates resulting from economic and financial market conditions.

Foreign exchange risks are managed by hedging virtually all transactions entered into by Group entities in currencies other than the functional currency of the particular entity. Compagnie de Saint-Gobain and its subsidiaries may use forward contracts and options to hedge exposures arising from current and forecast transactions.

The subsidiaries set up contracts generally through the Group's parent company, Compagnie de Saint-Gobain, which then carries out the corresponding forex hedging transaction, or through the National Delegations' cash pools. Failing this, contracts are taken out with one of the subsidiary's banks.

Most forward contracts have short maturities of around three months. However, forward contracts taken out to hedge firm orders may have longer terms.

The Group monitors its exposure to foreign exchange risk using a monthly reporting system that captures the foreign exchange positions taken by its subsidiaries. At December 31, 2016, 98% of the Group's foreign exchange exposure eligible for hedging was hedged.

The residual net foreign exchange exposure of subsidiaries for the currencies presented below was as follows at December 31, 2016:

(in millions of euro equivalent)	Long	Short
EUR	1	6
USD	7	9
Other currencies	0	6
TOTAL	8	21

The table below shows the sensitivity at December 31, 2016 of the Group's pre-tax income to a 10% increase in the exchange rates of the following currencies to which the subsidiaries are exposed after hedging:

# **Currency of exposure**

in millions of euro equivalent) impact on pre-tax in	
EUR	(0.5)
USD	(0.2)
Other currencies	(0.6)
TOTAL	(1.3)

Assuming that all other variables remained unchanged, a 10% fall in the exchange rates for these currencies at December 31, 2016 would have the opposite impact.

Note 8.4 to the Consolidated Financial Statements (see chapter 9, section 1) provides a breakdown of foreign exchange risk hedging instruments.

# c) Energy and commodity risk

The Group is exposed to changes in the price of the energy it consumes and the raw materials used in its activities. Its energy and commodity hedging programs may be insufficient to protect the Group against significant or unforeseen price swings that could result from the prevailing financial and economic environment.

The Group may limit its exposure to energy price fluctuations by using swaps and options to hedge part of its fuel oil, natural gas and electricity purchases. The swaps and options

are mainly contracted in the functional currency of the entities concerned. Hedges of fuel oil, gas and electricity purchases are managed by a steering committee comprising members of the Group Finance Department, the Group Purchasing Department and the relevant Delegations.

Hedges of energy purchases (excluding fixed-price purchases negotiated directly with suppliers by the Purchasing Department) are generally arranged by the Group Treasury and Financing Department (or with the Delegations' treasury departments) in accordance with instructions received from the Purchasing Department.

From time to time, the Group may enter into contracts to hedge purchases of certain commodities, in accordance with the same principles as those outlined above for energy purchases.

Note 8.4 to the Consolidated Financial Statements (see chapter 9, section 1) provides a breakdown of instruments used to hedge energy and commodity risks.

#### 1.3.3 Saint-Gobain share price risk

The Group is exposed to changes in the Saint-Gobain share price as a result of its performance units long-term incentive plan. To reduce its exposure to fluctuations in the share price, the Group uses hedging instruments such as equity swaps.

As a result, if the price of the Saint-Gobain share changes, any changes in the expense recorded in the income statement will be fully offset by the hedges in place.

Note 8.4 to the Consolidated Financial Statements (see chapter 9, section 1) provides a breakdown of these share price risk hedging instruments.

# Financial counterparty credit risk

The Group is exposed to the risk of default by the financial institutions that manage its cash or other financial instruments, since such default could lead to losses for the Group.

The Group limits its exposure to risk of default by its counterparties by dealing solely with reputable financial institutions and regularly monitoring their credit ratings. However, the credit quality of a financial counterparty can change rapidly, and a high credit rating cannot eliminate the risk of a rapid deterioration of its financial position. As a result, the Group's policy in relation to the selection and monitoring of its counterparties is unable to entirely eliminate exposure to a risk of default.

To limit the Group's exposure to credit risk, the Treasury and Financing Department deals primarily with counterparties with a long-term rating of A- or above from Standard & Poor's or A3 or above from Moody's. Concentrations of credit risk are also closely monitored to ensure that they remain at reasonable levels, taking into account the relative CDS (Credit Default Swap) level of each counterparty.

#### 1.4 **LEGAL RISKS**

#### 1.4.1 **Risk of regulatory changes**

The Group is not subject to any specific regulations that could have an impact on its financial position, although the Group companies that operate industrial sites are generally required to comply with the specific national laws and regulations of the country where such sites are located. In France, for example, Group plants are subject to the laws and regulations applicable to classified sites.

Laws and regulations applicable to the Group and to the materials and products it uses in its activities may change in a manner that may be unfavorable to the Group. The introduction of stricter regulations or more diligent enforcement of existing regulations may affect the conditions under which the Group operates its businesses, which could increase its operating expenses, limit the scope of its activities or act as a brake on business growth. More generally, the Group cannot guarantee that there will be no rapid or significant regulatory changes in the future with a material adverse effect on its business, financial position or results

#### 1.4.2 Risks associated with legal and administrative procedures

# a) Asbestos-related litigation

Current legal actions related to asbestos are described below.

# Asbestos-related litigation in France

# Inexcusable fault lawsuits

In France, further individual lawsuits were filed in 2016 by former employees (or persons claiming through them) of Everite and Saint-Gobain PAM which in the past had carried fiber-cement operations for asbestos-related occupational diseases they have or had. As at December 31. 2016, a total of 805 such lawsuits had been issued against the two companies since 1996 with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of December 31, 2016, 761 of these 805 lawsuits had been completed in terms of both liability and quantum. In all these cases, the employers were held liable on the grounds of "inexcusable fault".

Compensation paid by Everite and Saint-Gobain PAM in settlement of these lawsuits totaled approximately €1.7 million.

Concerning the 44 lawsuits outstanding against Everite and Saint-Gobain PAM at December 31, 2016, the merits of three have been decided but the compensation awards have not yet been made, pending Appeal Court rulings. A further four of these 44 lawsuits have been completed in terms of both liability and quantum, but liability for the payment of compensation has not yet been assigned.

Out of the 37 remaining lawsuits, at December 31, 2016 the procedures relating to the merits of 33 cases were at different stages, with four in the process of being investigated by the French Social Security authorities and 29 pending before the Social Security courts. The last four actions have been canceled but the plaintiffs may request their restoration at any time within a two-year period.

In addition, as of December 31, 2016, 221 similar suits had been filed since the outset of the litigation by current or former employees of 13 other French companies of the Group (excluding suits against companies that are no longer part of the Group), in particular by current or former employees who used equipment containing asbestos to protect themselves against heat from furnaces.

As of December 31, 2016, 164 lawsuits had been completed. In 89 of these cases, the employer was held liable for "inexcusable fault".

The compensation definitively paid by these companies totaled approximately €2.5 million.

With regard to the 57 suits outstanding at December 31, 2016, two cases were still at the investigation stage by the French Social Security authorities, 41 were being investigated including 25 pending before the Social Security courts and 16 before the Appeal Courts. In addition, seven suits had been completed in terms of liability but are still pending with regard to the quantum or liability for paying the compensation, of which one was pending before the French Social Security court and five before the Appeal Courts. The seven remaining suits have been canceled but the plaintiffs may request their restoration at any time within a two-year period.

### Anxiety claims

Eight of the Group's French companies, including six that operate or have operated facilities classified as containing asbestos, are subject of damages claims that are different from those described above.

"Facilities classified as containing asbestos" are defined as industrials facilities, that have been closed or are still operating, which previously manufactured materials containing asbestos or used protection and insulation equipment containing asbestos and are included by ministerial decree on the official list of facilities whose current or former employees are entitled to the early-retirement benefits paid to asbestos workers (ACAATA).

At December 31, 2016, a total of 822 suits had been brought by current or former employees claiming compensation for various damages suffered as a result of their alleged exposure to asbestos. None of these plaintiffs were suffering from an asbestos-related disease and some of them were not receiving the ACAATA benefit. Of these 822 suits, 585 have been terminated. Three plaintiffs had their claims dismissed, while for the 582 others who were recognized as having been exposed to an asbestos risk, the total amount of compensation is €7.6 million at December 31, 2016. Of the remaining 237 suits, 97 are pending before the competent Appeal Courts, eight before the competent labor tribunals (bureau de jugements des Conseils de prud'hommes), five are pending before the Court of Cassation and 110 have been canceled but the plaintiffs may request their restoration at

any time during a period of two years. Finally, six suits have been dismissed by the competent labor tribunals and 11 plaintiffs have withdrawn the action they initiated.

It should be clarified that the figures above do not take into account suits filed against companies that are no longer part of the Group.

#### Asbestos-related litigation in the United States

In the United States, several companies that once manufactured products containing asbestos such as asbestos-cement pipes, roofing products, specialized insulation or gaskets, are facing legal action from persons other than their employees or former employees. These claims for compensatory - and in some cases punitive - damages are based on alleged exposure to these products, although in many instances the claimants cannot demonstrate any specific exposure to one or more products, or any specific illness or physical disability. The vast majority of these claims are made simultaneously against many other non-Group entities which have been manufacturers, distributors, installers or users of products containing asbestos.

#### Developments in 2016

About 3,200 new claims were filed against CertainTeed in 2016, stable compared to 2015 and 4,000 in 2014. Over the last few years, the number of new claims has remained relatively stable.

Almost all of the claims against CertainTeed are settled out of court or dismissed. Approximately 3,700 of the pending claims were resolved in 2016, compared to 4,600 in 2015 and 6,500 in 2014. Taking into account the 35,600 outstanding claims at the end of 2015 and the new claims having arisen during the year, as well as claims settled, around 35,100 claims were outstanding at December 31, 2016. A large number of these pending claims were filed more than five years ago by individuals without any significant asbestos-related impairment, and it is likely that many of these claims will ultimately be dismissed.

### Impact on the Group's financial statements

The Group recorded a USD 100 million charge in 2016 to cover future developments in relation to claims. This amount is stable compared to the amount recorded in 2015 and 2014. At December 31, 2016, the Group provision for asbestos-related claims against CertainTeed in the United States amount to USD 562 million, (USD 581 million at December 31, 2015 and USD 571 million at December 31, 2014).

# Cash-flow impact

Compensation paid in respect of these claims against CertainTeed, including claims settled prior to 2016 but only paid out in 2016, and those fully resolved and paid in 2016, and compensation paid (net of insurance) in 2016 by other Group businesses in connection with asbestos-related litigation, amounted to USD 97 million, compared to USD 65 million in 2015 and USD 68 million in 2014.

#### Situation in Brazil

In Brazil, former employees of Group companies suffering from asbestos-related occupational illness linked to asbestos are offered, depending on the case, solely financial compensation, or otherwise lifetime medical assistance combined with financial compensation; only a small number of former employee litigants or their legal successors were outstanding at December 31, 2016, and they do not present a material risk for the subsidiaries concerned.

### b) Anti-trust law and related proceedings

Legal provisions covering competition apply to the Group companies in countries in which it operates. Violation of competition law exposes the Group to fines and, in certain countries, potential criminal sanctions on the Group and its employees involved. Any litigation filed by a competition authority could, in the event of conviction, give rise to the payment of fines and potentially damages, which is likely to have a significant impact on the Group's reputation, financial situation and operating results.

The Saint-Gobain Group is firmly committed to opposing any practice that might violate competition rules and has long applied the principle of zero tolerance. A plan for compliance with competition law (the "Competition Plan") has been in place within the Group since 2007. The content of the Competition Plan is described further above in chapter 4, section 1.1.

# Investigation by the Swiss Antitrust Commission in the sanitary products wholesale

In November 2011, the Swiss Antitrust Commission (Commission Suisse de la Concurrence) opened an investigation for anti-competitive practices in the sanitary products wholesale sector. In May 2014, the Commission Secretariat issued a notification of complaints against Sanitas Troesch and against other wholesalers in the sector alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine decided against all the companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.5 million. Sanitas Troesch appealed this decision on May 2, 2016. Sanitas Troesch continues to firmly refute the claims made; however a provision for litigation was recognized at December 31, 2015 for an amount equivalent to the fine (unchanged at December 31, 2016).

### Investigation by the French Competition Authority in the building insulation products sector

On August 6, 2014, Saint-Gobain Isover and Compagnie de Saint-Gobain (as the parent company of Saint-Gobain Group) received a notice of complaints from the French Competition Authority (Autorité de la Concurrence Française). The only complaint made was of having exchanged allegedly strategic and confidential information, between 2002 and 2007, relating to a certification request lodged by Actis before the Versailles Commercial Court for one of its products, and in relation to a dispute between Actis and the mineral wool manufacturers' association (FILMM), of which Saint-Gobain Isover was a member.

Saint-Gobain Isover and Compagnie de Saint-Gobain are challenging this complaint. The hearing was held on May 11, 2016. The Competition Authority's final ruling has been postponed to a date not yet known.

In the civil law area, in March 2013 Actis served a civil liability writ on Saint-Gobain Isover, the Centre Scientifique et Technique du Bâtiment, and the FILMM before the Paris Civil Court (Tribunal de Grande Instance) for the adverse consequences of facts forming the subject of the investigation by the Competition Authority. In an order dated December 16, 2014, the pre-trial judge declared a stay of proceedings while waiting for the decision from the Competition Authority.

### Investigation by the Anti-trust Division of the United States Department of Justice in the United States drywall industry

In July 2015, the Anti-trust division of the United States Department of Justice opened a criminal investigation into potential anti-competitive practices, specifically a price agreement, in the United States drywall industry. This investigation followed complaints filed in late 2012 in the form of class actions in the civil courts against eight drywall manufacturers in the sector, including CertainTeed, by some of their customers.

On the basis of testimony and documents submitted in the civil proceedings, CertainTeed and its attorneys have not identified any element that might create liability for CertainTeed, and as a result filed a motion for summary judgment in May 2015 in order to end the civil proceedings. This application was accepted on February 18, 2016 by the competent court. An appeal against this decision is still possible.

### c) Environmental-related litigation

# PFOA matters in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of U.S. Environmental Protection Agency (EPA) or state health advisories have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics (SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluorethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained traces of PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in the Hoosick Falls and North Bennington areas, and installed carbon filtration systems on the municipal water supply in Hoosick Falls. In addition, it has voluntarily committed to fund water line extensions in certain communities in the Merrimack area. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation and clean-up obligations at these sites has not vet been established. Responsibility, if any, is expected to be shared with other parties as regards in particular the Hoosick Falls' site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL.

On December 31, 2016, the Company established a provision in the amount of USD 23 million in connection with defense and various costs.

### d) Other proceedings and disputes

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities. Apart from the proceedings and litigation described above, to the best of the Company's knowledge no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or which has had, in the last 12 months, a significant impact on the financial or profit position of the Company and/or Group. Note 7 to the Consolidated Financial Statements (see chapter 9, section 1) is related to the provision for claims and litigations.

#### 1.5 INSURANCE

The Group transfers its risks to the insurance market when this is the most efficient solution. Default by one or more of the Group's insurers could therefore lead to financial losses.

The Group's policy is to implement preventive programs and purchase insurance coverage to protect its assets and revenue. This policy is embedded within a Group doctrine, which takes into account current conditions in the insurance market. It is determined, coordinated and overseen by the Risks and Insurance Department. It defines insurance criteria

for the most significant risks, such as property and business interruption, as well as general and product liability.

For other types of coverage, such as automobile fleet insurance, the Risks and Insurance Department advises the individual operating units on policy content, broker selection and which market to consult. These are called "high-frequency" risks, for which claims are monitored internally and appropriate action taken. The 2015 policies were renewed as 2016 policies.

The captive insurance company set up to cover property risks was highly successful and delivered real benefits for the Group.

Companies acquired during the year have been integrated into existing insurance programs.

#### 151 **Property and business interruption** insurance

The Group's non-excluded property and casualty risks and business interruption risks arising from accidental damage to insured assets are covered by a worldwide insurance program. It does not cover operations in Brazil, which are insured by a local program. These local insurance programs come under the Risk and Insurance Department's supervision.

The programs meet the insurance criteria laid down by the Department, specifically:

- all policies are "all risks" policies with named exclusions;
- claims limits of liability are based on worst-case scenarios where safety systems operate effectively;
- deductibles are proportionate to the size of the site concerned and cannot be qualified as self-insurance.

These criteria take into account current insurance offerings, which exclude certain risks, such as computer viruses and their impact on operations, and cover natural disasters like floods, storms, earthquakes or tsunamis only up to a certain amount.

In extreme scenarios, such events could have a substantial uninsured financial impact in terms of both reconstruction costs and lost production costs.

The Risks and Insurance Department's policy is based on the findings of the annual audits carried out by independent prevention experts recognized by the Group's insurers. These audits give a clear picture of the risk exposure of the main sites in the event of a fire or other incident, and provide an estimate of the financial consequences in a worst-case scenario

Individual claims in excess of €12.5 million are transferred to the insurance market for all Group subsidiaries, excluding Brazil

Claims up to this amount are self-insured through the Group's captive insurance company, which purchases reinsurance coverage against increases in frequency and/or severity rates.

#### 1.5.2 **Liability insurance**

A program provides coverage for third-party personal injury and property damage claims for which the Group would be legally held liable. This program comprises several programs for the lower tranches of coverage.

The first program covers all subsidiaries and has a coverage limit of €100 million. Subsidiaries situated in the geographical territory of the United States and Canada Delegation have a deductible of USD 50 million. The program's exclusions are consistent with market practice and concern in particular potentially carcinogenic substances and gradual pollution.

In order to satisfy local regulatory requirements, a policy is taken out in each country in which the Group has a significant presence. Local policies are backed up by the master policy issued in Paris, which can be activated when local coverage proves inadequate.

The second program covers subsidiaries located in the geographic area covered by the United States and Canada Delegation and has a coverage limit of USD 50 million. This program is structured differently to deal with the specific nature of liability risks in the United States. It is divided into several lines of coverage, requiring it to be placed, if needed, on the London insurance market. Exclusions are in line with current market practice in the United States and primarily concern contractual liability, pollution and third-party consequential loss.

In addition to the two programs described above, a number of supplementary programs have been set up in order to bring the total coverage limit to a level considered compatible with the Group's businesses.

Within the operating units, action is taken to raise awareness of liability risks, and the units are motivated to control costs by assuming a deductible that does not, however, constitute self-insurance. The Group also runs a risk prevention program at its operating units with the support of the Environment, Health and Safety Department.

#### 1.5.3 **Exceptions**

Joint ventures and companies not controlled by the Group are excluded from the above programs and purchase separate insurance coverage.

# Internal control

Every Group company assesses the key risks affecting the application of its strategy, the effective conduct of operations, compliance with laws and regulations, and resilience to external events as quantified in a business continuity plan.

The entities are responsible for their own internal control and for managing their process risks, and work collaboratively with teams under the umbrella of the shared service centers or IT centers. It is essential that there is a segregation of tasks between these organizations for successful skills optimization and transaction security. In France, the shared service centers are managed by the Sectors and Activities; elsewhere, they are managed by the General Delegations. The Group Corporate Departments help to define shared common guidelines with the Sectors and General Delegations.

Priority measures, or "6 Essentials", have been defined in connection with balance sheet and cash flow reviews, improved competitive bidding, analysis of inventory discrepancies, margin analysis and validation of sales policies, and excellence in managing travel expenses. The systematic addition of computer access management and risk management helps to ensure optimum performance and alignment of objectives.

Internal control and risk management are matters for all Group employees. Every entity is responsible for implementing an internal control system appropriate to its needs, under the personal responsibility of its manager.

#### COMPAGNIE DE SAINT-GOBAIN'S INTERNAL CONTROL AND RISK 2.1 MANAGEMENT SYSTEM

Saint-Gobain's internal control and risk management system is based on the internal control and risk management framework defined by the French securities regulator (Autorité des marchés financiers - AMF), as updated in July 2010, and on the 2013 update to the framework from the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The system complies with the legal requirements applicable to companies listed on the Euronext Paris Stock Exchange regulated market.

Supported by a continuous improvement process and an Internal Control Reference Framework, Saint-Gobain Group's internal control and risk management system is a whole set of means, behaviors, procedures and actions tailored to each company's specific characteristics which:

- contributes to the control of its activities and the implementation of its strategy, the effectiveness of its operations and the efficient use of its resources;
- enables it to appropriately address material operational, financial, compliance and other risks.

It is more specifically designed to provide assurance concerning:

- application of general management's instructions and quidelines;
- compliance with the laws and regulations applicable to the
- the efficiency and effectiveness of internal operating, industrial, marketing, financial and other processes;
- the protection of tangible and intangible assets, in particular the prevention of fraud;
- the reliability of financial information.

The Saint-Gobain Group's internal control and risk management system is therefore more than just a set of procedures and it extends beyond accounting and financial processes. It is in place in all Group entities, where it contributes to value creation and strengthens companies' performance.

#### The internal control and risk 211 management environment

The cornerstones of the internal control and risk management system are as follows:

- adherence to the values and behavioral rules set out in the Saint-Gobain Principles of Conduct and Action (regarding the Principles, see Saint-Gobain today, Corporate culture), which are distributed to all employees;
- clearly defined organization and allocation responsibilities, supported by written procedures and ensuring effective segregation of duties;
- delegations of signature authority and other powers that are aligned with the effective allocation of responsibilities;
- policies for human resources management aimed at ensuring that new hires have the knowledge and skills needed to fulfill their responsibilities and training policies to help Group employees expand and update their skills and knowledge;
- written internal procedures distributed in an appropriate manner to employees;
- secure information systems with access rights granted on the basis of allocated roles and responsibilities, to maintain effective segregation of duties. Saint-Gobain subsidiaries have an obligation to comply with the basic security rules issued by the Group Information Systems Department.

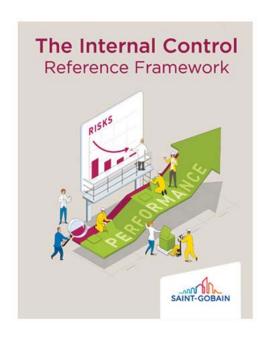
# Internal control and risk management 2.1.2

Within Saint-Gobain, internal control is a continuous and ongoing process that integrates risk management procedures. It involves four key stages:

- analyzing the main identifiable risks;
- developing controls that are proportionate to the risks involved; in each process
- communicating the objectives of internal control to employees and implementing controls;
- permanent oversight of and regular checks on the effectiveness of internal control.

This process is described in the Internal Control Reference Framework and applies to all Group subsidiaries.

Oversight controls and effectiveness checks may lead to corrective action being taken, and to changes, as needed, to the internal control and risk management system.



#### ORGANIZATION OF INTERNAL CONTROL AND THE RISK 2.2 MANAGEMENT SYSTEM

Everyone within the organization has some responsibility for internal control and risk management, from general management down to the employees of the individual entities.

#### The Board of Directors of Compagnie 2.2.1 de Saint-Gobain

Regular reports on the Group's internal control and risk management are submitted to the Board of Directors after being reviewed by the Audit and Risks Committee (see chapter 6, section 1).

The Audit and Risks Committee is specifically tasked with monitoring the process of preparing financial information and the effectiveness of the internal control and risk management system. It also reviews the risks map prepared by the Internal Audit and Business Control Department. It provides regular reports to the Board of Directors on the performance of its mission and informs the Board promptly of any issues encountered (see chapter 6, section 1).

In accordance with Article L.225-37 of the French Commercial Code, the Chairman of the Board of Directors presents a report, once a year, on the Compagnie internal control and risk management procedures, specifically describing the procedures for preparing and processing the accounting and financial information for individual company financial statements and, if applicable, the consolidated financial statements. The report is approved by the Board of Directors and is made available to the public.

In accordance with Article L.225-235 of the French Commercial Code, the Statutory Auditors are required to submit their observations on the section of the Chairman's report that deals with the internal control procedures for

preparing and processing accounting and financial information (see section 3 of this chapter 7).

#### **Group General Management** 2.2.2

The Group's general management oversees implementation of the internal control process and the existence and appropriateness of internal control and risk management monitoring systems within the subsidiaries.

#### 2.2.3 **Internal Audit and Business Control Department**

The Internal Audit and Business Control Department is tasked by the Group's general management with designing the Group's internal control and risk management system and with coordinating the roll-out of the system, in conjunction with the Company's corporate departments, the General Delegations and the Sectors.

The Internal Audit and Business Control Department also seeks to deliver added value to the Group and enhance its performance. Its general remit is to provide systematic, methodical assurance that the internal control systems are relevant and effective, and to make recommendations for reinforcing them.

The Internal Audit and Business Control Department organizes oversight of internal control and risk management systems based on four principal components, which are: the compliance statement, the audit results, the action plan follow-up system and the fraud and incident monitoring system. The results of this oversight are reported to the Audit and Risks Committee.

The Internal Audit and Business Control Department plays a key role in the Group Compliance Program.

At the end of 2016, the Internal Audit and Business Control Department had 95 staff, working in the areas of audit, internal control and anti-fraud.

Internal Audit and Business Control Department	Main responsibilities	Reference standards and/or measures	2016 key figures
Internal control	<ul> <li>Develop and maintain the Internal Control Reference Framework</li> <li>Communicate and provide training on internal control and risk management</li> <li>Lead the annual compliance statement process</li> <li>Analyze incidents, self-assessments and audit results</li> <li>Monitor implementation of action plans</li> </ul>	<ul> <li>Internal Control Reference Framework and associated practical data sheets or Group memos</li> <li>Internal Control briefs</li> <li>Webinars and training sessions (Business Control Forums (**))</li> <li>Intranet and Internal Control Community (My SG)</li> <li>ACTT2 database (*2)</li> <li>Dashboard/QlikView (**)</li> </ul>	<ul> <li>2016 Compliance Statement update (655 questionnaires sent)</li> <li>Approximately 6,700 action plans open within ACTT2 database at the end of 2016</li> <li>1,213 corporate leaders and managers trained during 16 Business Control Forums in 14 different countries</li> <li>19 webinars delivered and 13 newsletters published</li> <li>Approximately 630 members of the Internal Control community</li> </ul>
Risk management	<ul> <li>Define and maintain the Group's risk universe</li> <li>Perform risks map</li> <li>Develop the risk management methodology</li> </ul>	<ul> <li>Risks universe</li> <li>Risks map</li> <li>Methodological tool for Group companies</li> </ul>	<ul> <li>67 existing maps, of which 21 were updated in 2016</li> <li>6 methodological training sessions via webex</li> </ul>
Internal Audit	Ensure the relevance and effectiveness of internal control systems     Check the accuracy of compliance statements     Identify and share best practices     Perform organizational advisory tasks at general management's request     Cross-functional audits according to the department's main objectives	<ul> <li>Audit plan</li> <li>Audit methodology</li> <li>6 Essentials (4)</li> <li>Best practices library</li> <li>IT Analysis Tool</li> <li>Auditor training Program</li> </ul>	<ul> <li>169 audits performed</li> <li>52 new best practice briefs published</li> <li>Entities covered every 5 years</li> </ul>
<b>Anti-fraud</b>	<ul> <li>Develop anti-fraud policies</li> <li>Ensure fraud prevention</li> <li>Investigate fraud incidents</li> </ul>	<ul><li>Training and awareness</li><li>Fraud incident reports</li></ul>	<ul> <li>More than 200 Directors and managers trained</li> </ul>

<sup>(1)</sup> Business Control forums are 1- to 2-day training programs for Directors and managers, carried out within the Delegations. They primarily cover the fundamentals of internal control, anti-fraud measures, audit and compliance statements results, as well as practical case studies on various processes.

<sup>(2)</sup> Centralized database for monitoring compliance statements and action plans.

<sup>(3)</sup> Online dashboard containing all information relating to internal control (compliance statement results, action plan implementation rates), audit assignments, IT security, risk and insurance, fraud reporting and financial data.

<sup>(4)</sup> Fraud detection audit methodology.

# 2.2.4 Corporate departments

Compagnie de Saint-Gobain's corporate departments are responsible for setting up an internal control structure and defining internal control strategies and procedures in their area. To this end, they:

- identify and analyze the main risks associated with their internal processes;
- define appropriate controls based on those described in the Internal Control Reference Framework;
- inform and train the employees responsible for internal controls within their area;
- analyze any internal control weaknesses or incidents and the results of internal audits.

The corporate departments are also responsible for the internal control system within the Company entities.

Corporate departments	Main responsibilities	Reference standards and/or measures	2016 key figures
Environment, Health and Safety (EHS) Department and Medical Department	<ul> <li>Promote and coordinate Group EHS policy</li> </ul>	<ul> <li>EHS reference framework and standards</li> <li>Integrated EHS audits</li> </ul>	<ul> <li>Industry audits:</li> <li>43 "12-step" audits</li> <li>135 "20-step" audits (1)</li> </ul>
	<ul> <li>Monitor the application of EHS reference framework principles</li> </ul>	<ul><li>Self-diagnostic tool</li><li>OSHAS 18001 and ISO 14001 standards</li></ul>	<ul><li>Distribution audits:</li><li>448 ESPR audits (2)</li></ul>
Information Systems Department	<ul> <li>Define Group policy for information systems and computer network security</li> <li>Promote and coordinate an annual self-assessment plan</li> <li>Develop rules and best practices</li> </ul>	<ul> <li>Minimum security rules</li> <li>Technical standards</li> <li>Development standard for secure web applications</li> <li>Note on the Cloud</li> <li>Datacenter security rules</li> <li>ITAC reference bases</li> <li>SAP users control tool</li> </ul>	<ul> <li>See chapter 7, section 2.4.4, General doctrine on information systems security</li> </ul>
Purchasing Department	Manage the World-Class Purchasing program, an approach focusing on purchasing performance, department professionalization and supplier innovation  Execute multi-business and multi-country purchasing Coordinate the purchasing function in France and conduct multi-business purchasing activities in France	<ul> <li>ISO 9001 standard with certification in Raw Materials, Precious Metals and Energy for Saint-Gobain Purchasing</li> <li>Purchasing process of the Internal Control Reference Framework (14 risks, 38 controls to be applied)</li> </ul>	<ul> <li>Completion of 12,000 individual purchaser actions in 2016</li> <li>24 internal audit assignments on technical purchases</li> <li>63 Buy/Techs executed in 20 different countries</li> </ul>
Risk and Insurance Department	<ul> <li>Define Group policy for property damage at industrial or distribution sites</li> <li>Define Group policy for insurance and monitoring its implementation</li> <li>Steering centralized insurance programs</li> </ul>	<ul> <li>Prevention/ protection reference base</li> <li>"Risks Grading" self-assessment tool</li> <li>Doctrine memos</li> <li>Risks and Insurance Intranet</li> </ul>	<ul> <li>485 site visits by prevention engineers</li> <li>1,357 sites that have performed their Risk Grading self-assessment</li> <li>911 assessments of Building Distributio Sector sales outlets by, including 289 ESPR audits</li> <li>22 prevention training sessions</li> <li>Regular field inspections</li> </ul>
Treasury and Financing Department	<ul> <li>Define policy for financing, market risk control and banking relationships for the entire Group</li> </ul>	<ul> <li>Procedures reference base         <ul> <li>for DTF activities</li> <li>for subsidiary activities</li> </ul> </li> <li>Daily reports (DTF) and monthly reports (subsidiaries and DTF)</li> </ul>	<ul> <li>112,813 internal/external foreign exchange transactions per year</li> <li>25,816 internal/external transfers issue per year</li> </ul>
Financial Control Department	Implement continuous control of the Group's results and operating performance     Participate in drawing up the budget and quarterly budget reviews     Oversee monthly results figures at all levels of the organization     Closely analyze and validate the financial consequences of investment, acquisition, divestment, merger and capital expenditure plans and	<ul> <li>Dashboards</li> <li>Permanent relationship with Delegations and Sectors</li> <li>Oversight of the network of Group controllers</li> <li>Implementation of common analysis tools</li> <li>Group reference base and notices to corporate departments and Sectors</li> </ul>	<ul> <li>Over 200 meetings per year with Sectors and Delegations</li> <li>15 training sessions with the participation of 150 employees</li> <li>215 DAC (Credit Authorization Requests)</li> <li>58 planned acquisitions, 34 of which have been completed</li> <li>70 divestments and mergers completed</li> </ul>

<sup>(1)</sup> Audits following a 12- and 20-step schedule for the Group's industrial activities.

<sup>(2)</sup> ESPR (Environment, Safety, Prevention of Risks) audit: specific to the Building Distribution Sector.

Corporate departments	Main responsibilities	Reference standards and/or measures	2016 key figures
Doctrine Department	<ul> <li>Manage, update and distribute all financial, administrative and management procedures applicable to the Group's companies</li> </ul>	<ul> <li>Group organization and procedures</li> <li>Financial and accounting standards</li> <li>Group Intranet</li> </ul>	<ul> <li>403 documents available on the Doctrine Intranet</li> <li>338 questions addressed via the hotline</li> <li>1,417 employee subscribers to Doctrine News</li> </ul>
Legal Department	<ul> <li>Identify the main legal risks</li> <li>Define and implement relevant policies and controls</li> <li>Provide guidance to operational staff through the network of compliance and embargo correspondents</li> </ul>	<ul> <li>Group Doctrine in respect of legislation in force (particularly in relation to laws on competition, anti-corruption rules, economic sanctions and embargos, gifts and invitations policies, conflicts of interest, etc.)</li> <li>Employee training related to legislation in force and Group policy adopted on the subject (online and in person trainings)</li> <li>Questions on the compliance statement</li> <li>General Management controls in the Internal Control Reference Framework</li> </ul>	<ul> <li>More than 23,000 employees completed online training on anti-corruption rules or competition law at least once</li> <li>More than 5,000 employees completed "Saint-Gobain Economic Sanctions and Embargos" online training on economic sanctions and embargos</li> <li>More than 145 sites subject to competition audit by specialized legal counsel (since 2007)</li> <li>In 3 years, more than 400 compliance training seminars (competition law, anti-corruption rules, economic sanctions and embargos) have been organized</li> </ul>

#### 2.2.5 **Sectors, Activities and General Delegations**

The Presidents of the Sectors, Activities on the one hand, and of the General Delegations on the other, are tasked with distributing the Internal Control Reference Framework to the companies under their responsibilities and ensuring compliance with Group instructions. They are responsible for managing the specific risks associated with their business. Their responsibilities also include:

- assessing and managing the principal risks in their domain which are laid out in their own risk map;
- specifying, so far as is necessary, the specific conditions for implementation of Group controls to reflect the particular features of the processes and information systems within their scope;

- prescribing the supplementary controls which are made necessary by risks specific to the operations carried out in entities in their scope;
- leading the compliance statement procedure set up by the Internal Audit and Business Control Department;
- analyzing internal control failures and incidents, and the results of audits to achieve continuous improvement of the internal control system;
- coordinating the supervisory controls or second line of defense, which they represent directly through the dissemination of standard procedures or the sampling of controls on major points.

#### 2.3 IMPLEMENTATION OF THE INTERNAL CONTROL AND RISK MANAGEMENT PROCESS IN THE GROUP'S ENTITIES

Each entity is responsible for implementing an internal control system that is appropriate to its needs and aligned with the Group's internal control system.

The head of each entity is responsible for:

- ◆ the relevance and effectiveness of the internal control system in place within their entity;
- its compliance with the Group's internal control system;
- appropriate management of the risks faced by their entity.

This responsibility can not be delegated and is exercised with support from the Company's corporate and operational Directors and from the site Directors.

To build a suitable internal control system for their business, the Directors of the entities have to follow the steps described below:

- introducing the fundamentals of internal control;
- ◆ implementing the controls described in the Internal Control Reference Framework;
- analyzing the main risks and extending the Internal Control by incorporating controls for dealing with the identified risks;
- deploying the internal control in all of the entities' sites;
- overseeing the internal control and risk management system, specifically at the time of the compliance statement.

#### 2.3.1 **Compliance statement**

The compliance statement is a self-assessment process which is used to periodically assess entities' compliance with a limited number of Internal Control Reference Framework fundamentals

Directors of the operating entities, the heads of the IT centers and the heads of the shared service centers report annually to the Group's General Management on the level of internal control within their entity or center, by filling out a questionnaire relating to the Internal Control Reference Framework. They also commit to taking all necessary actions to remedy any cases of non-compliance with the internal control reference framework.

The compliance statements and action plans are centralized and tracked by the Internal Audit and Internal Control Department, which also prepares an executive summary of the information. They are reviewed if necessary with the heads of the Company's Sectors, General Delegations and corporate departments. An annual report on compliance statements is submitted to Saint-Gobain's Chairman and Chief Executive Officer, to whom the Internal Audit and Business Control Department reports, and to the Audit and Risks Committee of the Board of Directors.

# 2.3.2 Action plans follow-up

An action plan management and monitoring database is used to centralize information about the measures implemented to remedy any non-compliance issues identified during the compliance statement campaign, and about the action plans drawn up following audits performed by the internal audit.

This means that each Group company has access to a centralized operational platform it can use to manage its action plans by reporting the corrective measures taken and the progress made compared with the predefined implementation schedule. The corporate departments can also use the system to monitor these action plans.

Compliance statements results, internal audit memoranda and changes to the related action plans are also monitored via a dashboard circulated to the heads of the Sectors, Activities and General Delegations.

# 2.4 REFERENCE STANDARDS AND PROCEDURES

Compagnie de Saint-Gobain has developed internal control and risk management procedures for its own needs and those of its subsidiaries.

# 2.4.1 Internal Control Reference Framework

There are three parts to the Internal Control Reference Framework:

- Part 1 Internal control and risk management at Saint-Gobain;
- Part 2 Risk universe;
- ◆ Part 3 The 18 internal control processes.

Part 1 describes the Group's internal control and risk management system, its implementation in the subsidiaries and the current oversight arrangements.

Part 2, added in 2016, introduces the Group's risk universe, which comprises 13 main categories of risk, covering 86 sub-categories. The framework thus provides Directors with a means of identifying the risks for their entities.

Part 3 contains all the controls (around 500), organized by process and sub-process. The controls identified as "Key controls" (around 200) are mandatorily implemented in all Group entities.

The risk sub-categories listed in Part 2 are used in each process to refer specifically to risk types by control, using control/risk matrices that assist in understanding the control system.

# The 18 internal control processes



In 2016, the Internal Control Reference Framework was subject to a major review of both form and content.

R1. Strategy implementation R2. Innovation R3. Country and macro-economics R4. Treasury and financing R5. Financial Information R6. Legal and tax

R8. Human resources and social R9. Environment, Health and Safety

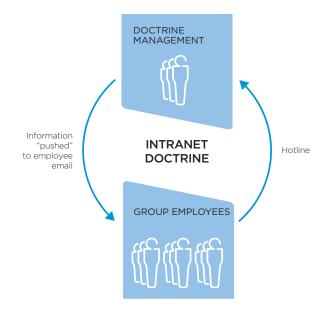
In essence, this involved clarifying the role of the Delegations, the Sectors and the Activities, as the second line of defense for internal control, to reflect the recent compliance statement campaigns. The addition in Part 2 of the new description of the Group's risk universe encompasses strategic and operational aspects. Lastly, a major review of the controls was conducted with process owners, looking at

the following process areas in particular: 1 - General management, 6 - Purchasing, 10 - Human Resources, 12 -Information systems, 16 - Accounting and assets and lastly, 18 - Shared service centers.

Furthermore, the Internal Control Reference Framework is available on the IABC (Internal Audit and Business Control) portal and on My SG (My Business Control), as well in iPhone/iPad-compatible interactive iBook format.

## 2.4.2 Doctrine

The Doctrine Department is responsible for preparing all financial, administrative and management procedures applicable to Group companies.



These procedures, accessible on the Group's intranet, cover two main themes: Group Organization and Procedures, and Financial and Accounting Standards.

Reports on the Doctrine Department's activities are prepared twice a year for the Audit and Risk Committee.

# 2.4.3 Environment, Health and Safety (EHS) Reference Manual

The EHS Reference Manual describes the approach to be followed by all entities to introduce an EHS management system and contributes to meeting the objectives set by the Group in terms of environmental protection and prevention of workplace accidents and occupational illnesses. The approach is structured around the main steps of risk identification, preventive actions implementation, reduction and control of risks.

The EHS Reference Manual (2012 version) is accessible on the Group Intranet and is distributed to all sites. It is consistent with the ISO 14001:2004 and OHSAS 18001 certifications and with the Group's World Class Manufacturing (WCM) approach (see section 4.2), and is used as the reference document for the audit of the EHS management systems (12-and 20-step audit). The Reference Manual and the audit will be reviewed in 2017 to reflect the latest developments in international standards.

In addition, the purpose of the EHS Handbook, updated in 2014, is to help all Group entities to develop and roll out an

integrated EHS management system as required by the EHS Reference Manual. The EHS Handbook is intended as a tool to be available to all, and follows the continuous improvement cycle to describe and illustrate how to implement the chapters of the Reference Manual. Hence, it describes the requirements for each area and provides reference documents, examples of implementation or best practices.

Furthermore, the EHS Department works with its network to develop and update Group EHS standards, which describe the minimum applicable requirements and/or methodologies. These tools help to ensure that risks are assessed and controlled on the same basis in all Group entities, irrespective of the country and the local laws and regulations (see chapter 4, section 1.3). Implementation guides, procedures, training packs, assessment questionnaires, and cross-audits of standards implementation and computer tools have been developed to support the application of the standards at the sites.

# 2.4.4 General doctrine on information systems security

The Information Systems Department compiles rules and best practices concerning information systems and networks, based on four sets of compulsory minimum security rules in the following areas:

- infrastructure, with 15 minimum security rules (22 control points, 112 entities) and SGTS Security Reporting (34 control points, 17 SGTS covering 440 entities);
- industrial information technology systems, with 14 minimum security rules (20 control points, 301 entities with critical or large industrial IT systems);
- research and development systems, with 7 minimum security rules (13 control points, 14 R&D Centers);
- applications, with 17 minimum security rules (35 control points, 61 competency centers);
- hosting of our resources in partner-operated Datacenters coordinated by the Group ISD or the SGTS (55 control points, 17 Datacenters).

Technical standards are also issued as a supplement to these rules, and are updated periodically to keep pace with technological advances and control infrastructure services.

The Information Systems Department has defined and rolled out:

- a tool (RMT, Rights Management Tool) for controlling SAP user rights and managing conflicting segregations of duties. This tool will be gradually integrated into all the Group's SAP systems;
- a technical standard to manage technical and business accounts that access to applications (ATA/ABA, Application Technical Accounts/Application Business Accounts);
- a Web Application Secured Development (3.0) standard (WASD);

- a technical standard to Secure the Hosting of Internet Applications (SHIA):
- a technical standard for SaaS systems which defines responsibilities and security measures for implementation;
- a set of security rules to annually monitor the security of the central and regional datacenters (Datacenter Security Rules 4 SG, the new version of the 55 Datacenter Rules);
- a technical standard for the security of applications hosted by Saint-Gobain partners for publication on the internet.

Moreover, the ITAC reference guide was published in 2012 as an addition to the Internal Control Reference Framework. It describes the automated and semi-automated controls used for five key processes: Purchasing, Sales, Inventory, Cash Management and Accounting. It covers the Group's main ERP software and includes:

- ♦ a reference guide for SAP: ITAC4SAP with 143 control points;
- ♦ a reference guide for MOVEX M3: ITAC4M3 with 96 control points;
- reference guide for EXACT: ITAC4EXACT with 85 control points.

The ITAC4SAP reference guide was updated for consistency with the update to the Internal Control Reference Framework (143 control points, including the controls for the separation of tasks)

The controls are being gradually integrated into the Group's information systems as follows:

- ♦ ITAC100 ITAC4SAP for SAP systems (deployed in 22 SAP systems covering 121 Group companies), including specific updates for the Building Distribution Sector;
- ◆ ITAC96 ITAC4M3 for MOVEX M3 systems (deployed in 4 M3 systems covering 17 Group companies);
- ◆ ITAC85 ITAC4EXACT for EXACT systems (deployed in 1 EXACT system covering 2 Group companies);
- ◆ ITAC principles deployed in 1 MS Dynamics system covering 1 Group company.

#### 2.4.5 **Industrial and distribution risk** prevention manual

The Group's policy for prevention of property damage and the resulting operating losses, compiled as part of an internal collection of standards and best practices, is defined by the Risk and Insurance Department (DRA). The DRA coordinates policy implementation through the Sectors and Activities with the support of the General Delegations. Within the Sectors and Activities, Prevention Coordinators manage the application of Group policy within the scope of their activities.

At the site level, those in charge of Prevention Management perform an annual self-assessment of risks at their sites via a risk rating software package. This tool assesses risks as well as the corresponding levels of protection and prevention. This self-assessment is updated annually by the industrial sites, the Research and Development Centers and logistical sites. A special assessment is carried out for the points of sale.

Furthermore, regular inspections of the Group's most important sites are carried out by prevention engineers, who are auditors external to the Group (approximately 450 inspections per year). The sites update their action plans with a view to improving their level of prevention and protection based on recommendations prepared by these prevention engineers.

#### 2.4.6 **Tools of the Group's culture of** compliance

The culture of compliance that drives the Group has developed through its values, which are formally stated in the Principles of Conduct and Action.

The compliance program currently focuses on the following main themes: compliance with rules relating to competition law, preventing corruption, and compliance with economic sanctions and embargos.

The tools used in implementing the program include:

- ♦ a dedicated intranet, entitled Conform'Action, on which key messages are posted and tools made available;
- online training modules such as Comply (competition law), ACT (preventing corruption) and Saint-Gobain Economic Sanctions and Embargos (rules relating to economic sanctions and embargos);
- in-person training;
- distribution of technical guides:
  - the Thread of Competition,
  - 20 best practices in competition law for purchasers;
- the dissemination and implementation of internal policies such as:
  - anti-corruption policy,
  - gifts and invitations policy,
  - conflicts of interest policy.
  - economic sanctions and embargos policy,
  - sales agents policy,
  - policy on membership of professional associations,
  - frequent dissemination of messages from General managers.

# 2.5 ORGANIZATION OF INTERNAL CONTROL IN PREPARING AND PROCESSING FINANCIAL AND ACCOUNTING INFORMATION FOR SHAREHOLDERS

# 2.5.1 Compagnie de Saint-Gobain (parent company) financial statements

The Accounting Department is responsible for producing financial information for shareholders, partners and other third parties in accordance with French legal requirements. This information is prepared in accordance with current and generally accepted accounting standards and principles, including the going concern principle, the principles of consistent application of accounting policies, alignment of the opening balance sheet with the prior-period closing balance sheet, recognition of expenses in the same period as the revenue to which they relate, segregation of accounting periods, and substance over form.

# 2.5.2 Accounting organization

The accounting organization is based on the rules, methods and procedures set out in the Group's doctrine memos. It enables the monthly reconciliation and substantiation of the accounts and the true and fair view of the events which are represented. The organization also has an advisory role and works upstream to anticipate the accounting impacts of events and the regulatory changes that are likely to have a material impact on the Company's financial statements.

The chart of accounts is aligned with the Company's needs in terms of classification of transactions, and complies with the materiality principle. It is linked to the Group's Financial Information system.

## 2.5.3 Internal control

Internal control is based on periodic assessments of the process for preparing accounting and financial information.

In addition to controlling compliance with payment authorization procedures and the double signature rule for secure payment means, the Accounting Department contributes to internal control by acting as guarantor in respect of responsibilities defined by general management and formalized through a cost accounting system organized by cost center. Specifically, cost center managers receive monthly schedules listing the expenses incurred under their

signature, allowing them to check these expenses and also to compare actual and year-to-date expenses with the initial budget.

A summary of these cost accounting reports is sent to the Finance Department and the Group's general management at the end of each month.

Measures are implemented to strengthen the arrangements for managing accounting risks and contributing to the reliability of the financial statements.

For this purpose, in 2016, Group units were subject to a Balance Sheet Review under the direction of the Group Financial Control Department, with the aim of increasing the level of accounting control by the Finance Department of each entity.

# 2.5.4 Group consolidated financial statements

The consolidated financial statements are prepared by the Group Consolidation and Reporting Department. This department is also responsible for updating consolidation procedures, training, and integrating the subsidiaries into the consolidation process, processing information, and utilizing, maintaining and developing consolidation systems and the Financial Information System for the Group and all the Sectors

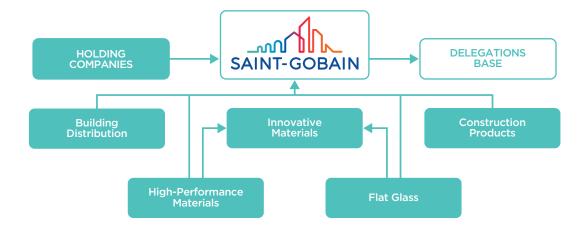
# 2.5.5 Group standards

The Consolidation Department is responsible for providing information and periodic training to subsidiaries in conjunction with the Sectors and General Delegations, using the consolidation manual, a number of data input manuals, an intranet site and an online training application in French and English. New consolidation instructions are issued for each monthly closing, describing the changes compared with the previous period-end and enhancements to reporting systems, standards and procedures, in collaboration with the Group's Doctrine Department.

Each year, the Consolidation Department offers training sessions.

# 2.5.6 Organization of the Group's consolidation process

The consolidation is organized by consolidation levels with hierarchical relationships with the head of each Sector, and reporting directly to the Group Consolidation and Reporting Department.



# 2.5.7 Processing information and control of the accounts

Each subsidiary submits its accounts in accordance with the timetable set by the Company. The account packages are checked and processed at Sector level, reviewed by the General Delegation concerned, then transmitted to the Consolidation Department, which performs an overall review of the Group's accounts and records the necessary consolidation adjustments. These consolidated accounts are submitted to General Management every month.

The consolidated financial statements are then examined by the external auditors in accordance with professional auditing standards.

# 2.5.8 Consolidation tools

The consolidated financial statements are prepared using consolidation software equipped with a powerful, efficient and highly secure database that is aligned with the Group's matrix management structure. The software is regularly updated to guarantee the financial information system's sustainability. A tightly controlled access procedure has also been put in place to ensure that the overall system is secure, and a comprehensive access review is performed every quarter.

This tool is capable of managing a database with several levels of consolidation and transparently centralizing data in the Group database.

It feeds data into a secure reporting system accessible on the Group's intranet for Group general management and the management of the Sectors and General Delegations, contributing to internal control of information output.

# 2.5.9 A reporting process that contributes to the reliability of financial statements

The monthly reporting process ensures that the annual and interim consolidated financial statements are reliable. Hard closes are performed at May 31 and October 31, to reduce the workload at June 30 and December 31. Hard close results and balance sheets are reviewed by finance executives from the Finance Department, the Sectors and the General Delegations in the same detail and in accordance with the same principles as the annual and interim financial statements. The entity's accounts are then analyzed before the final closing dates of June 30 and December 31 and are reviewed by the external auditors. This procedure helps to ensure early detection of any errors and their adjustment during the actual close.

A consolidated report is prepared each month for the Company's general management, with supporting comments and analyses of material events over the period.

7

# Report from the Chairman of the Board of **3**. **Directors on internal control and risk** management procedures and corporate governance (Article L.225-37 of the French Commercial Code)

Report from the Chairman of the Board of Directors on certain aspects of corporate governance, on internal control and risk management systems implemented by Compagnie de Saint-Gobain, on any restrictions on the Chief Executive Officer's powers, and on the financial risks associated with the impacts of climate change and the measures adopted by the Group to reduce them

This report on internal control and risk management procedures and corporate governance was prepared in accordance with Article L.225-37 of the French Commercial Code, under the responsibility of the Chairman of the Board of Directors and on the basis of information provided by the relevant departments of Compagnie de Saint-Gobain, and was approved by the Board of Directors on February 23,

French law requires to report to shareholders on certain aspects of corporate governance. The required disclosures relate to the composition of the Board of Directors, gender parity on the Board, its organization and work, the Company's compliance with and implementation of a recognized corporate governance code, any restrictions on the powers of the Chairman and Chief Executive Officer, the specific formalities for shareholders' participation in General Shareholders' Meetings, and lastly the principles and rules applied by the Board to determine the compensation and benefits of any kind awarded to the Directors. This information is provided in chapter 6, sections 1 and 2, and chapter 10, section 1.1. It was prepared on the basis of data supplied by the Legal, Human Resources and Finance Departments, was reviewed by the Nomination, Remuneration and Governance Committee and is incorporated by reference into this report.

The report must moreover include a description of internal control and risk management procedures implemented within the Group. This information, as set out in chapter 7, sections 2.1 through 2.5, was prepared with the support of the Group Internal Audit and Business Control Department and has been reviewed by the Risk and Audit Committee and incorporated by reference into this report.

Lastly, the report should describe the financial risks associated with the impacts of climate change and the measures that Saint-Gobain is taking to reduce them, by implementing a low-carbon strategy in all of its business

The Group's environmental policy, specifically the control of atmospheric emissions and the climate impact, is set out in chapter 4, section 2.3.2.

The low-carbon strategy and the climate change impact of the Group's businesses are described in sections 2.2.2 and 2.2.3 of chapter 2 and section 2.3.6 of chapter 4.

Chapter 7, section 1.3.2 (c) describes how price volatility is managed for energy and raw materials.

This information was prepared with the support of the Group's Responsible Development Department, the Insurance Department and the Treasury and Financing Department and has been reviewed by the Risk and Audit Committee and incorporated by reference into this report.

# Statutory Auditors' report, prepared in accordance with Article L.225-235 of the French commercial code, on the report from the Chairman of the Board of **Directors of Compagnie de Saint-Gobain**

This is a free translation into English of the Statutory Auditors' report, prepared in accordance with Article L.225-235 of the French Commercial Code, on the report prepared by the Chairman of the Board of Directors on internal control and risk management procedures relating to the preparation and processing of financial and accounting information issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

### Year ended December 31, 2016

## To the Shareholders, of Compagnie de Saint-Gobain S.A.

In our capacity as Statutory Auditors of Compagnie de Saint-Gobain, and in accordance with Article L.225-235 of the French Commercial Code (Code de commerce), we hereby report to you on the report prepared by the Chairman of your company in accordance with Article L.225-37 of the French Commercial Code for the year ended December 31, 2016.

It is the Chairman's responsibility to prepare, and submit to the Board of Directors for approval, a report describing the internal control and risk management procedures implemented by the company and providing the other information required by Article L.225-37 of the French Commercial Code in particular relating to corporate governance.

It is our responsibility:

- to report to you on the information set out in the Chairman's report on internal control and risk management procedures relating to the preparation and processing of financial and accounting information, and
- ♦ to attest that the report sets out the other information required by Article L.225-37 of the French Commercial Code, it being specified that it is not our responsibility to assess the fairness of this information.

We conducted our work in accordance with professional standards applicable in France.

# Information concerning the internal control and risk management procedures relating to the preparation and processing of financial and accounting information

The professional standards require that we perform procedures to assess the fairness of the information on internal control and risk management procedures relating to the preparation and processing of financial and accounting information set out in the Chairman's report.

These procedures mainly consisted of:

- ◆ obtaining an understanding of the internal control and risk management procedures relating to the preparation and processing of financial and accounting information on which the information presented in the Chairman's report is based, and of the existing documentation;
- ♦ obtaining an understanding of the work performed to support the information given in the report and of the existing documentation;
- determining if any material weaknesses in the internal control procedures relating to the preparation and processing of financial and accounting information that we may have identified in the course of our work are properly described in the

On the basis of our work, we have no matters to report on the information given on internal control and risk management procedures relating to the preparation and processing of financial and accounting information, set out in the Chairman of the Board's report, prepared in accordance with Article L.225-37 of the French Commercial Code.

# **Other information**

We attest that the Chairman's report sets out the other information required by Article L.225-37 of the French Commercial Code.

Neuilly-sur-Seine and Paris-La Défense, February 23, 2017

The Statutory Auditors

PricewaterhouseCoopers Audit KPMG Audit

Department of KPMG S.A.

Édouard Sattler Cécile Saint-Martin Jean-Paul Thill Bertrand Pruvost



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# 1. Capital

# 1.1 CAPITAL STOCK

# 1.1.1 Capital stock at December 31, 2016

At December 31, 2016, Compagnie de Saint-Gobain's capital stock amounted to  $\[ \le \]$ 2,221,121,432, represented by 555,280,358 common shares with par value of  $\[ \le \]$ 4, compared with 560,943,439 shares at the previous year-end, fully paid up and all of the same category.

At December 31, 2016, the Company had issued no shares not representing its capital stock and had issued no securities giving access to its capital stock other than stock options and performance shares (see chapter 6, sections 2.4.2 and 2.4.3).

# 1.1.2 Changes in capital stock over the last three fiscal years

Since December 31, 2013, Saint-Gobain's capital stock has changed as follows:

Date	Type of transaction	Capital stock after transaction	Number of shares after transaction
12/2016	Issuance of 433,292 shares upon exercise of the same number of subscription options and allocation of 86 performance shares to employees	€2,221,121,432	555,280,358
05/2016	Capital reduction: cancellation of 10,984,088 shares	€2,219,387,920	554,846,980
05/2016	Group Savings Plan: issuance of 4,653,810 shares (at €29.42)	€2,263,324,272	565,831,068
04/2016	Allocation of 29,211 performance shares to employees	€2,244,709,032	561,177,258
03/2016	Issuance of 16,790 shares upon exercise of the same number of subscription options and allocation of 187,818 performance shares to employees	€2,244,592,188	561,148,047
12/2015	Issuance of 60,983 shares upon exercise of the same number of subscription options	€2,243,773,756	560,943,439
11/2015	Capital reduction: cancellation of 4,000,000 shares	€2,243,529,824	560,882,456
10/2015	Issuance of 431,641 shares upon exercise of the same number of subscription options and allocation of 325 performance shares to employees	€2,259,529,824	564,882,456
10/2015	Capital reduction: cancellation of 9,000,000 shares	€2,257,801,960	564,450,490
07/2015	Payment of 50% of the dividend in stock: issuance of 6,559,204 shares (at €36.62)	€2,293,801,960	573,450,490
06/2015	Issuance of 240,615 shares upon exercise of the same number of subscription options and allocation of 685 performance shares to employees	€2,267,565,144	566,891,286
05/2015	Group Savings Plan: issuance of 4,449,939 shares (at €32.44)	€2,266,599,944	566,649,986
04/2015	Allocation of 28,825 performance shares to employees	€2,248,800,188	562,200,047
03/2015	Issuance of 68,601 shares upon exercise of the same number of subscription options and allocation of 207,055 performance shares to employees	€2,248,684,888	562,171,222
12/2014	Issuance of 160,945 shares upon exercise of the same number of subscription options	€2,247,582,264	561,895,566
11/2014	Capital reduction: cancellation of 6,100,000 shares	€2,246,938,484	561,734,621
07/2014	Payment of 50% of the dividend in stock: issuance of 6,601,189 shares (at €36.89)	€2,271,338,484	567,834,621
06/2014	Issuance of 410,976 shares upon exercise of the same number of subscription options	€2,244,933,728	561,233,432
05/2014	Group Savings Plan: issuance of 4,303,388 shares (at €33.89)	€2,243,289,824	560,822,456
03/2014	Issuance of 146,283 shares upon exercise of the same number of subscription options and allocation of 1,195,995 performance shares to employees	€2,226,076,272	556,519,068

# 1.1.3 Liens, guarantees and pledges

At December 31, 2016, to the best of the Company's knowledge, there were no significant liens, guarantees or pledges applying to Compagnie de Saint-Gobain shares.

#### 1.2 **CURRENT FINANCIAL AUTHORIZATIONS**

The following table shows the status of delegations of authority and authorizations granted by the General Shareholders' Meetings of June 4, 2015 and June 2, 2016 to the Board of Directors and the use made of these delegations during the 2016 fiscal year.

Purpose of the resolution and concerned securities	Source (resolution no.)	Authorization duration and expiration	Maximum par value of the capital increase
Issuances with preferential subscription right			
Capital increase (common shares or share warrants) (A)	2015 AGM 12 <sup>th</sup> resolution	26 months (August 2017)	€450 million excluding adjustments, i.e. approximately 20% of the share capital (A)+(B)+(C)+(D)+(F) limited to €450 million ("Global Cap") $^{(1)}$
Capital increase by incorporation of premiums, reserves, profits and free allocation of shares to shareholders (B)	2015 AGM 16 <sup>th</sup> resolution	26 months (August 2017)	$\footnotement{\footnot$
Issuance without preferential subscription right			
Capital increase, with compulsory priority period for shareholders, through issuance of debt securities giving access to shares in the Company or its subsidiaries, or shares in the Company to which entitlement would be granted by securities to be issued, where applicable by subsidiaries (C)	2015 AGM 13 <sup>th</sup> resolution	26 months (August 2017)	€225 million (shares), excluding adjustments, i.e. approximately 10% of the share capital <sup>(2)</sup> Included in the Global Cap <sup>(1)</sup>
Option for complementary issuance in case of oversubscription of an issuance of ordinary shares with preferential subscription rights or debt securities giving access to the share capital without preferential subscription right (D)	2015 AGM 14 <sup>th</sup> resolution	26 months (August 2017)	For each issuance, legal limit of 15% of the initial issuance Included in the Global Cap $^{\rm (l)}$
Capital increase (common shares or securities giving access to the share capital) in compensation for contribution in kind (E)		26 months (August 2017)	10% of the share capital on the date of the 2015 AGM, i.e approximately €225 million, excluding adjustments Allocation to the cap of (C), included in the Global Cap <sup>(1)</sup>
Issuances reserved for Group employees and Directors			
Capital increase (equity securities) through the Group Savings Plan (F)	2015 AGM 17 <sup>th</sup> resolution	26 months (August 2017)	€45 million, excluding adjustments, i.e. approximately 2% of the share capital Included in the Global Cap <sup>(3)</sup>
Allocation of stock options for new or existing shares (G)	2016 AGM 13 <sup>th</sup> resolution	38 months (August 2019)	1.5% of the share capital on the date of the 2016 AGM, i.e. approximately €33.2 million, with a sub-cap of 10% of this limit of 1.5% for executives Directors (G)+(H), limited to 1.5% of the share capital (4)
Allocation of existing free shares (H)	2016 AGM 14 <sup>th</sup> resolution	38 months (August 2019)	1.2% of the share capital on the date of the 2016 AGM, i.e. approximately €26.6 million with a sub-cap of 10% of this limit of 1.2% for executives Directors Allocation to the cap of (G) <sup>(5)</sup>
Share buyback program			Features
Share buyback (6)	2016 AGM 12 <sup>th</sup> resolution	18 months (December 2017)	10% of the total number of shares forming the share capital on the date of the AGM <sup>(7)</sup> Maximum purchase price per share: €80
Cancellation of shares (8)	2015 AGM 19 <sup>th</sup> resolution	26 months (August 2017)	10% of the share capital per 24-month period

- (1) No use of the delegation made in 2016.
- (2) Maximum par value of debt securities that may be issued capped at  $\epsilon$ 1.5 billion.
- (3) Based on the 17th resolution of the AGM of June 4, 2015, confirmation of the issuance of 4,653,810 shares in May 2016 by the Chairman and Chief Executive Officer, acting pursuant to a delegation granted by the Board of Directors on November 26, 2015 to implement a capital increase through the Group Savings Plan.
- (4) Allocation of 280,000 options to purchase new or existing shares by the Board of Directors on November 24, 2016.
- (5) Allocation of 1,231,320 existing free performance shares by the Board of Directors on November 24, 2016.
- (6) The purposes of the program are the following: cancellation, delivery of shares upon exercise of the rights attached to securities giving access to the share capital of the Company or in the context of external growth, merger, demerger and contribution transactions, market animation under a liquidity agreement, delivery of existing shares in the context of free shares allocations, upon exercise of stock options, or as part of an Employee Group Savings Plan, hedging against the dilutive impact of potential free shares' allocations, the grant of stock options and allocations of shares under the Group Savings Plan.
- (7) See chapter 8, section 1.3 for a description of implementation of the share buyback program in 2016.
- (8) Cancellation of 11 million shares resulting in a reduction in share capital of a par value of €44 million, decided by the Board of Directors of May 25, 2016, effective on May 30, 2016.

# 1.3 SAINT-GOBAIN TREASURY SHARES AND ACQUISITION OF OWN SHARES

# 1.3.1 Treasury shares and own stock

At December 31, 2016, Compagnie de Saint-Gobain directly held a total of 1,230,716 own shares, i.e. 0.2% of its capital stock, with par value of €4, acquired at an average purchase price of €35.05. At that date it was not holding any own shares indirectly.

The following table shows, at December 31, 2016, the allocation of treasury shares held directly by Compagnie de Saint-Gobain for purposes of the program authorized by the General Shareholders' Meeting of June 2, 2016:

Purpose	Number of shares and percentage of capital stock	Average purchase price (in euros)
Coverage of performance share plans and other allocations to employees	1,230,716 shares	075.05
(including stock options for existing shares)	(0.20% of capital stock)	€35.05
Liquidity agreement	O share	-
Cancellation	0 share	-

During the 2016 fiscal year, 366,105 treasury shares were remitted as part of existing performance share plans.

By resolution of the Board of Directors, 11 million shares were cancelled on May 30, 2016, of which 10 million shares had been previously bought back on May 3, 2016, as part of an accelerated bookbuilding process completed by Wendel (see Section 2.2.2 of this Chapter 8). This share cancellation resulted in a share capital reduction of a €44 million par value.

# 1.3.2 Information on transactions involving own shares during the 2016 fiscal year (excluding liquidity agreement)

In 2016, as part of the authorizations granted by the General Shareholders' Meetings of June 4, 2015 and June 2, 2016 to the Board of Directors, the Company purchased, excluding the liquidity agreement, 10,920,230 shares, at an average price of €38.18, and did not sell any of its own shares. Total trading expenses, fees and taxes incurred by the Company in 2016 in connection with all transactions on its own shares (including the liquidity agreement) amounted to €1,046,000.

It made no use of derivative products in connection with these transactions. Further, the Company was holding no open purchase or sale positions at December 31, 2016.

# 1.3.3 Liquidity agreement

In November 2007, Compagnie de Saint-Gobain entered into an agreement with Exane BNP Paribas to provide liquidity for Saint-Gobain shares, in accordance with the code of ethics issued by the *Association Française des Marchés Financiers* (AMAFI). Under the terms of the agreement, Exane is mandated to maintain a liquid market in Compagnie de Saint-Gobain shares and ensure that prices are regularly quoted for the shares, so as to avoid price fluctuations not justified by market trends.

The resources provided by Compagnie de Saint-Gobain under this agreement and applied to the credit of the liquidity account were reduced from €6.7 million at December 31, 2013 to €5 million at June 26, 2014. At December 31, 2016 no shares were held in the account, which was in credit for €5.3 million in cash.

Cumulative purchases during the 2016 fiscal year under the liquidity agreement involved 1,325,926 shares at an average price of  $\leqslant$ 37.81, while 1,339,926 shares were sold at an average price of  $\leqslant$ 37.96. No shares allocated to the liquidity agreement were reallocated to another purpose of the share buyback program in 2016.

# **Ownership structure**

#### 2.1 MAJOR SHAREHOLDERS

At December 31, 2016, Compagnie de Saint-Gobain's capital stock amounted to €2,221,121,432, represented by 555,280,358 common shares, corresponding to 646,539,749 theoretical voting rights.

The following table presents, to the best of the Company's knowledge, changes in the distribution of the Company's capital stock and voting rights over the last three years.

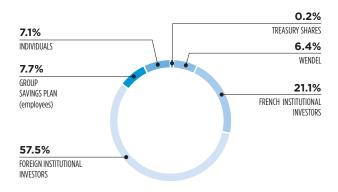
	De	ecember 31, 201	16	Dec	ember 31, 20	15	De	cember 31, 20	14
	Number of shares	% of capital stock (1)	% of voting rights (2)	Number of shares	% of capital stock (1)	% of voting rights (2)	Number of shares	% of capital stock (1)	% of voting rights (2)
Group Savings Plan Funds	42,736,720	7.7	12.7	42,424,604	7.6	11.9	42,365,221	7.5	11.8
Wendel	35,812,635	6.4	11.1	65,812,635	11.7	19.3	65,812,635	11.7	19.3
BlackRock Inc.	(5) 28,199,633	5.1	4.4	(4) 29,025,332	5.2	4.3	(3) 28,359,250	5.0	4.2
Treasury shares	1,230,716	0.2	0.0	1,674,679	0.3	0.0	857,741	0.2	0.0
Other shareholders (6)	447,300,654	80.6	71.8	422,006,189	75.2	64.5	424,500,719	75.6	64.7
TOTAL		100	100		100	100		100	100

- (1) The percentages of capital stock are calculated with reference to the total number of shares comprising the Company's capital stock, including treasury shares.
- (2) The percentages of voting rights are calculated with reference to the number of voting rights exercisable at General Shareholders' Meetings. Since 1987, registered shares in the name of a single shareholder for at least two years benefit from a double voting right. For further information, see chapter 10, section 1.1.1
- (3) To the best of the Company's knowledge, based on the disclosure threshold statement prepared by BlackRock, Inc. on September 30, 2014.
- (4) To the best of the Company's knowledge, based on the disclosure threshold statement prepared by BlackRock, Inc. on December 4, 2015.
- (5) To the best of the Company's knowledge, based on the disclosure threshold statement prepared by BlackRock, Inc. on June 10, 2016. For further information, see
- (6) The percentage of capital stock and voting rights held by all Directors and members of the Group's Senior Management is less than 0.5%. The number of shares held by each Director is shown in chapter 6, section 1.1.1.

To the best of the Company's knowledge, at December 31, 2016 no other shareholder directly or indirectly, acting alone or in concert, held more than 5% of the Company's capital stock or voting rights.

According to the latest study of identifiable bearer shares, at December 31, 2016 the number of shareholders was estimated at approximately 210,000.

The following graphic shows Compagnie de Saint-Gobain's ownership structure at December 31, 2016 by major shareholder category.



# 2.2 DISCLOSURE THRESHOLDS IN 2016

## 2.2.1 BlackRock

During the 2016 fiscal year, BlackRock, Inc., acting on behalf of customers and funds it manages, made several threshold disclosures stating that it had exceeded or dropped below the 5% legal threshold. Most recently, on June 14, 2016 BlackRock Inc., acting on behalf of customers and funds it manages, disclosed to the French Financial Markets Authority (Autorité des marchés financiers) that on June 10, 2016, it had exceeded the threshold of 5% of the capital stock of Compagnie de Saint-Gobain, holding 5.08% of the capital stock and 4.36% of the voting rights on behalf of those customers and funds.

BlackRock, Inc. also reported that it held 732,755 "contracts for differences" (cash unwinding derivative instruments), with no scheduled maturity date, applying to Compagnie de Saint-Gobain shares, settled solely in cash. BlackRock, Inc. disclosed that it also holds 2,905,697 shares of Compagnie de Saint-Gobain on behalf of customers who have retained the exercise of voting rights.

## **2.2.2** Wendel

On May 10, 2016, Wendel informed the *Autorité des marchés financiers* that, on May 3, 2016, it had indirectly, through companies it controls, dropped below the thresholds of 15% of Compagnie de Saint-Gobain's voting rights and 10% of its capital stock and indirectly held 6.38% of the capital stock and 10.96% of the voting rights. These thresholds were crossed following an off market block trade of 30 million Saint-Gobain shares.

# 2.2.3 Statutory disclosure thresholds

In addition, the Company received several notifications during the year in respect of the obligation set out in the Company's bylaws to disclose any and all changes in interest to above or below 0.5% of the capital stock or voting rights, or any multiple thereof. Those disclosure notifications, upwards or downwards, were received following the sale of shares or changes in Compagnie de Saint-Gobain's shares and voting rights.

## 2.3 EMPLOYEE OWNERSHIP STRUCTURE

At December 31, 2016, Group employees held 7.7% of the capital and 12.7% of the voting rights attached to Compagnie de Saint-Gobain shares, through the Group Savings Plan. The Funds of the Group Savings Plan are thus the Group's main shareholder.

The Group Savings Plan (*Plan d'Épargne Groupe*, "PEG") is a key feature of Saint-Gobain's social contract. It represents an excellent means of giving employees a stake in the Group's success and profits.

In 2016, 4,653,810 shares were issued under a standard plan offering Group employees two classic formulae with a five- or

ten-year lock-up, for a total of €136.9 million (compared with 4,449,939 shares and €144.4 million in 2015).

In France, 47.2% of employees invested in the PEG through Employee Mutual Funds (*Fonds Communs de Placement d'Entreprise*, "FCPE"). With employees in 25 other European countries and 15 countries outside Europe also given the opportunity to take part in the PEG, in all, 32,896 Group employees participated in the PEG during 2016.

A new plan will be launched in 2017, giving employees the opportunity to acquire up to six million shares, i.e. just over 1% of the capital stock, with a five- or ten-year lock-up.

# 2.4 SHAREHOLDER PACTS OR AGREEMENTS INVOLVING COMPAGNIE DE SAINT-GOBAIN SHARES

The Company has no knowledge of shareholder pacts or agreements, nor of shareholders acting in concert with regard to the shares comprising its capital stock.

Since the agreements signed with Wendel on March 20, 2008 expired upon completion of the General Shareolders' Meeting of June 9, 2011, new agreements between Wendel and Compagnie de Saint-Gobain setting the principles and objectives of the long-term cooperation were entered into and announced on May 26, 2011 (see the press release available at www.saint-gobain.com and pages 58 to 60 of the Registration Document prepared for the 2011 fiscal year). On that occasion Wendel and Saint-Gobain reiterated their adherence to the following principles:

 support for the strategy approved by the Board of Directors and implemented by its Senior Management, primarily organized around three priorities: Construction Products, Building Distribution and Innovative Materials, each of which contributes specific factors to the Group and which, together, will serve as growth drivers, particularly through targeted acquisitions;

- respect for the independence of the Saint-Gobain Group and equal treatment of all shareholders; and
- stability in share ownership, Wendel's contribution to the Group's projects, and its long-term commitment.

These agreements specifically provide for the following:

a cap on Wendel's stake, either direct or indirect, alone or in concert, up to 21.5% of the Company's capital stock, except in the case of passive accretion by Wendel. This cap will cease to apply in the event that another shareholder, acting alone or in concert, comes to own more than 11% of Saint-Gobain's capital stock or in case of filing of a takeover bid targeting Saint-Gobain's shares;

- ♦ a right of first offer in favor of Saint-Gobain in the event that Wendel seeks, on one or more occasions, to transfer securities representing at least 5% of Saint-Gobain's capital stock to a limited number of buyers;
- regarding governance, three seats on the Board of Directors appointed at Wendel's proposal, unless Wendel's stake falls under 10% of the voting rights, in which case this number shall be reduced to one, and participation on the Board committees; and
- coordination on any draft resolution to be submitted to the Saint-Gobain General Shareholders' Meetings.

Finally, Wendel agrees not to participate in a takeover bid whose terms are not approved by the Saint-Gobain Board of Directors, to abstain from any measure that would provoke, encourage or favor the success of such a takeover bid, and to abstain from publicly recommending it, being provided that Wendel will remain free to contribute all or part of its shares if such an offering were nevertheless to occur.

The commitments provided for under these agreements will remain in force for a 10-year period after the General Shareholders' Meeting of June 9, 2011 and were approved as related-party transactions by the General Shareholders' Meeting of June 7, 2012.

#### **COMPANY'S CONTROL** 2.5

At December 31, 2016, to the best of its knowledge, the Company was not controlled and has not been subject to any agreement binding on one or more shareholders or any other individual or legal entity, acting alone or in concert, concerning the direct or indirect holding of its capital or its control, or for which the implementation thereof might subsequently involve a change in the Company's control.

#### 2.6 INFORMATION THAT COULD HAVE AN IMPACT IN THE EVENT OF A TAKEOVER BID

#### 2.6.1 Agreements that could result in restrictions on share transfers and the exercise of voting rights

See chapter 8, section 2.4 for a summary of the agreements entered into with Wendel on May 26, 2011. These may also be consulted at www.saint-gobain.com.

#### 2.6.2 Impact of a change of control on certain Company's operations

Company bonds issued since 2006 contain a bearer protection clause in the event of change of control (a change of control put), allowing bearers to request the Company (at its discretion) for either their early redemption, or their purchase at par (plus accrued interest). This option is only available in the following cases: (i) the rating of the bonds in question by a designated rating agency falls from "investment grade" to "non-investment grade"; (ii) the "non-investment grade" rating of the bonds in guestion by a designated rating agency falls by one notch (e.g. from BB+ to BB); (iii) the rating is withdrawn; - and, in each of these cases (i) to (iii), the rating agency's action is expressly associated with the change of control - or (iv) at the time of the change of control, the concerned bonds had no rating. Total outstanding borrowings concerned at December 31, 2016 were €7,639 million.

In addition, the agreements relating to the syndicated lines of credit for general corporate purposes (made available in December 2012 for €1,461 million and in December 2013 for €2,539 million) also contain change of control clauses.

Finally, certain deferred compensation and defined benefit pension plans of the Group's U.S. subsidiaries would be immediately terminated in case of change of control with the rights of the beneficiaries to become due within 12 months. The total potential cost was USD 161.6 million at December 31,

# 3. Stock market/securities market information

# 3.1 THE SAINT-GOBAIN SHARE

Compagnie de Saint-Gobain shares are traded on Compartment A of the Euronext market in Paris (ISIN FR 0000,125007). As of December 31, 2016, the Company represented the 25th largest market capitalization of the CAC 40 (€24,569 million), and the 19th most actively traded stock on this market, with average daily trading volume of 1,783,405 shares during 2016. Saint-Gobain shares are also traded on the Frankfurt, London and Zurich stock exchanges (since 1987) and on the Amsterdam and Brussels stock exchanges (since 1988).

During the fiscal year ended December 31, 2016, the Group undertook a process of delisting from the Frankfurt Stock Exchange regulated market owing to the low trading volume recorded on that market. Delisting took effect on February 2, 2017

Compagnie de Saint-Gobain is included on the DJ Euro Stoxx 50 index and the Global Dow, a 150-stock index representing both the traditional and innovative sectors.

With regard to sustainable development and corporate social responsibility, Saint-Gobain is also included on the MSCI Global Sustainability Indexes, STOXX\* Global ESG Leaders, Euronext Vigeo Europe 120, Euronext Vigeo Eurozone 120, Ethibel's ESI Excellence Europe and FTSE4Good sustainable development indices. Since September 2016, Saint-Gobain has been included on the Dow Jones Sustainability Index 2016 (DJSI), among the top-three best global companies and the number one European company for construction products. This index is one of the first global indexes to distinguish best-in-class companies in the field of corporate social responsibility.

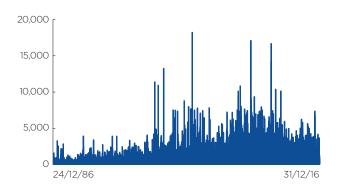
Saint-Gobain equity options are also traded on the options markets in Paris (MONEP) and on the London Stock Exchange, with MONEP trading volume representing 438,387 contracts in 2016, versus 436,448 in 2015.

# SAINT-GOBAIN STOCK PRICE (1) (in euros)



(Source: Euronext Paris)

# NUMBER OF SHARES TRADED PER DAY (IN THOUSANDS) IN 2016 (1)



(Source: Euronext Paris)

(1) Data adjusted for the effects of the March 1994 and February 2009 capital increases, and the four-for-one stock split in June 2002.

## HIGHEST AND LOWEST SHARE PRICES (IN EUROS)

Year	Highest	Lowest	Year-end price
2014	46.395	29.510	35.230
2015	44.840	32.360	39.850
2016	44.255	31.470	44.255

(Source: Euronext Paris)

#### TOTAL SHAREHOLDER RETURN (TSR) 3.2

The total shareholder return on Saint-Gobain shares amounts

- ♦ 8.5% *per annum* over the period from December 22, 1986 (date of privatization of Saint-Gobain) to December 30,
- ◆ 12.1% *per annum* over the last five years (from December 30, 2011 to December 30, 2016).

The TSR is the effective profitability rate for the shareholder: it includes the variation in the share price, the dividends received over the period and deemed to be reinvested in shares and securities transactions (share capital increases).

It is calculated based on the "Total Return" published by Datastream for all listed companies.

## TRADING VOLUME SINCE SEPTEMBER 2015

Paris Stock Exchange ISIN FR0000125007	Number of shares	Amount (in €)	Highest (in €)	Lowest (in €)
2015				
September	53,326,441	2,128,693,816	42.455	37.155
October	53,303,664	2,067,680,462	41.350	36.540
November	35,826,542	1,431,307,870	41.995	37.585
December	42,453,484	1,682,438,907	42.115	37.825
TOTAL	595,204,232	23,834,679,810		
2016				
January	49,198,536	1,803,706,235	39.540	34.980
February	47,323,748	1,638,177,029	38.020	31.470
March	38,690,936	1,453,455,472	39.000	35.700
April	34,756,991	1,371,187,675	41.175	37.170
May	36,980,909	1,437,777,520	40.450	37.730
June	56,686,326	2,084,905,311	40.385	32.285
July	37,173,518	1,314,117,621	38.040	32.150
August	28,786,037	1,114,683,434	39.975	36.725
September	32,998,319	1,269,412,576	40.000	37.040
October	28,258,796	1,101,946,039	41.180	37.365
November	35,254,796	1,432,255,964	42.500	38.050
December	32,226,246	1,376,465,705	44.255	39.815
TOTAL	458,335,158	17,398,090,580		

(Source: Euronext Paris)

In 2016, 99,688,400 shares were traded on the London Stock Exchange, and 323,155 shares were traded on the Frankfurt Stock Exchange (Source: Datastream).

The only other Group companies whose shares are traded on a regulated market are Hankuk Glass Industries (Seoul Stock Exchange), Grindwell Norton and Saint-Gobain Sekurit India (Mumbai Stock Exchange), Izocam (Istanbul Stock Exchange) and Compañía Industrial El Volcán (Santiago de Chile Stock Exchange).

#### 3.3 **BONDS**

The majority of bonds issued by the Company are traded on a regulated market (See Note 8.3 to the Consolidated Financial Statements, chapter 9, section 1).

#### NON-VOTING PARTICIPATING SECURITIES (TITRES PARTICIPATIFS) 3.4

#### Non-voting participating securities (titres participatifs) issued in June 1983 3.4.1

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities (titres participatifs) with a face value of FRF 1,000. Their face value is now €152.45, following their conversion to euros in 1999.

A certain number of securities have been repurchased over the years. At December 31, 2016, 606,883 securities were outstanding with an aggregate face value of €92.5 million.

Interest on those securities ranges from 75% to 125% of the average corporate bond rate (TMO), based on the Group's consolidated earnings. Interest paid in 2016 amounted to €2.05 per security.

# TRADING VOLUME SINCE SEPTEMBER 2015 (1ST TRANCHE)

Paris Stock Exchange ISIN FR0000140030	Number of securities	Amount (in €)	Highest (in €)	Lowest (in €)
2015				
September	1,962	287,159	149.950	138.650
October	2,348	342,813	149.950	138.650
November	10,595	1,566,220	149.950	139.250
December	4,116	600,624	148.950	140.200
TOTAL	64,561	9,606,944		
2016				
January	2,125	313,712	155.000	137.150
February	986	140,013	149.000	137.000
March	1,258	181,788	148.500	137.550
April	1,087	155,716	148.900	140.550
May	1,568	223,659	146.950	137.500
June	1,256	178,770	146.500	138.100
July	1,424	204,051	145.950	139.350
August	8,812	1,247,578	144.000	136.000
September	4,575	648,780	141.950	138.500
October	3,961	553,384	141.950	135.000
November	4,985	695,531	141.500	138.250
December	14,578	2,037,363	141.000	137.600
TOTAL	46,615	6,580,345		

(Source: Euronext Paris)

# TRADING VOLUME SINCE SEPTEMBER 2015 (2<sup>ND</sup> TRANCHE)

Paris Stock Exchange ISIN FR0000047607	Number of securities	Amount (in €)	Highest (in €)	Lowest (in €)
2015				
September	96	12,779	136.500	130.000
October	420	54,085	131.000	126.030
November	15	1,898	126.500	126.500
December	311	38,917	128.000	119.000
TOTAL	2,152	289,586		
2016				
January	251	30,063	120.000	119.550
February	39	4,641	119.000	119.000
March	219	25,829	119.000	117.100
April	386	46,182	119.900	115.250
May	307	35,691	119.850	115.150
June	246	29,036	120.850	115.000
July	0	0		
August	220	24,855	115.100	109.120
September	190	21,499	115.000	109.890
October	262	29,926	115.470	112.510
November	59	6,718	114.760	113.610
December	386	44,702	118.570	112.010
TOTAL	2,565	299,143		

(Source: Euronext Paris)

#### 3.4.2 Non-voting participating securities (titres participatifs) issued in April 1984

In April 1984, 194,633 non-voting participating securities (titres participatifs) were also issued with a face value of ECU 1,000, now €1,000.

A certain number of those securities have been repurchased over the years. At December 31, 2016, 77,516 securities were outstanding with an aggregate face value of €77.5 million.

Interest comprises (i) a fixed portion of 7.5% paid per year applicable to 60% of the nominal amount of the security, and (ii) a variable portion applicable to the remaining 40% of the nominal amount of the participating security, which is linked to consolidated net income of the previous fiscal year and the LIBOR EUR 6-month reference rate +7/8%. The amount paid per security in 2016 is €63.38, paid in two installments (€30.83 + €32.55).

# TRADING VOLUME SINCE SEPTEMBER 2012

Luxembourg Stock Exchange ISIN LU0002804531	Number of securities	Amount (in €)	High <i>(in €)</i>	Low (in €)
2012				
September	6	5,575	950.00	900.00
TOTAL	6	5,575		
2013				
March	16	13,753	875.00	847.50
April	12	9,810	830.00	815.00
May	56	42,050	800.00	750.00
June	4,001	2,920,730	730.00	730.00
December	51	33,200	700.00	700.00
TOTAL	4,136	3,019,543		
2014				
April	1,545	817,500	530.00	500.00
June	11	6,600	600.00	600.00
July	4,002	2,401,100	600.00	550.00
September	12	7,800	650.00	612.00
December	2	1,400	700.00	700.00
TOTAL	5,572	3,234,400		
2015	No trade			
2016				
February	55	41,250	750.00	750.00
April	2	1,420	720.00	700.00
TOTAL	57	42,670		

(Source: Luxembourg Stock Exchange)

None of the non-voting participating securities is redeemable and interest on them is classified as a component of finance costs. No securities issued by Compagnie de Saint-Gobain were traded on a stock market in 2016, other than shares, bonds and non-voting participating securities (titres participatifs).

# 4. Information policy and financial calendar

## Information policy

The Investor Relations Department is responsible for implementing the Group's information policy with the financial community, investors and shareholders. The head of Investor Relations is Mr. Vivien Dardel.

This department is available to answer questions and address requests for information about the Group:

Saint-Gobain

Direction de la Communication Financière

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Numerous meetings were organized throughout 2016 with various members of the international financial community, including analysts, institutional investors and journalists. In addition to the annual and interim results presentations held in Paris, London, New York and Boston following the publication of its annual and interim results in February and July, Compagnie de Saint-Gobain held several dozen road shows in various financial centers.

Compagnie de Saint-Gobain offered its individual shareholders a diverse program of onsite visits, stock market courses and meetings with the Group's executives. It organized meetings in Nantes, Annecy, Metz and Toulouse. Compagnie de Saint-Gobain, also participated in the Salon Actionaria for the nineteenth time. Among other things, the Investor Relations Department issues regular Shareholder Newsletters and a Shareholders' Guide, which can be obtained upon request.

The Compagnie de Saint-Gobain website (www.saint-gobain.com) gives information about the Group and its businesses, including downloadable information documents and webcasts of General Shareholders' Meetings and meetings with analysts.

The Saint-Gobain Shareholder app, which is free to download from the Apple Store and Google for Android, lets investors follow the Saint-Gobain Group's financial news, and also provides essential and useful investor information (share

prices, financial calendar dates, important investors' club dates, press releases...).

The Investor Relations team can be contacted by email at the following address:

actionnaires@saint-gobain.com

Compagnie de Saint-Gobain also makes additional services available to holders of registered shares through BNP Paribas, to improve the management of their fully registered shares. For more information, contact the Compagnie de Saint-Gobain Investor Relations Department or:

BNP Paribas Securities Services

BP2S/GCT - Émetteur Adhérents Euroclear 30

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By fax: +33 (0)1 55 77 34 17

Online, on the PlanetShares website: www.planetshares.bnpparibas.com

## 2017 financial calendar

2016 final results: February 23, 2017, after the market closes.

First quarter 2016 sales: April 26, 2017 after the market closes.

Investor Day: May 17, 2017

General Shareholders' Meeting: June 8, 2017 at 3:00 p.m., at Palais des Congrès (Porte Maillot), Paris 17 (France).

Dividend:

• ex-dividend date: June 12, 2017

• dividend payment date: June 14, 2017

First-half 2017 results: July 27, 2017, after the market closes

Sales for the first nine months of 2016: October 26, 2017, after the market closes

# 2018 financial calendar

General Shareholders' Meeting: June 7, 2018.

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## **Dividends 5**.

Year	Number of shares with dividend rights	Net dividend per share (in €)	Adjusted yield based on year-end share price
2014	560,497,926 shares <sup>(1)</sup>	1.24	3.5%
2015	548,857,730 shares (2)	1.24	3.1%
2016	554,041,294 shares <sup>(3)</sup>	1.26	2.85%

<sup>(1)</sup> Based on 561,895,566 shares which entitled to dividend in respect of the financial year ending December 31, 2014 minus 1,397,640 treasury shares held on the ex-dividend date.

Dividends not claimed within five years are time-barred and are paid over to the French State.

At its meeting of February 23, 2017, the Board of Directors of Compagnie de Saint-Gobain decided to recommend to the General Shareholders' Meeting on June 8, 2017 a dividend of €1.26 per share.

<sup>(2)</sup> Based on 549,959,351 shares which entitled to dividend in respect of the financial year ending December 31, 2015 minus 1,101,621 treasury shares held on the

<sup>(3)</sup> Amount estimated, based on 555,281,510 shares which entitled, at January 31, 2017, to dividend in respect of the financial year ending December 31, 2016 minus 1,240,216 treasury shares held on January 31, 2017.



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# **2016 Consolidated Financial Statements** 1.

# **CONSOLIDATED BALANCE SHEET**

# At December 31

Assets

(in € millions)	Notes	2016	2015
Goodwill	(5)	10,669	10,683
Other intangible assets	(5)	2,662	2,748
Property, plant and equipment	(5)	11,654	11,587
Investments in equity-accounted companies	(6)	376	319
Deferred tax assets	(10)	1,188	1,337
Other non-current assets	(6)	710	635
NON-CURRENT ASSETS		27,259	27,309
Inventories	(3)	5,875	5,715
Trade accounts receivable	(3)	4,935	4,751
Current tax receivable	(10)	445	296
Other receivables	(3)	1,515	1,405
Cash and cash equivalents	(8)	3,738	5,380
CURRENT ASSETS		16,508	17,547
TOTAL ASSETS		43,767	44,856

(in € millions)	Notes	2016	2015
Capital stock	(9)	2,221	2,244
Additional paid-in capital and legal reserve		6,090	6,341
Retained earnings and consolidated net income		11,077	10,805
Cumulative translation adjustments		(742)	(528)
Fair value reserves		191	181
Treasury stock	(9)	(72)	(87)
SHAREHOLDERS' EQUITY		18,765	18,956
Minority interests		375	364
TOTAL EQUITY		19,140	19,320
Long-term debt	(8)	6,959	7,330
Provisions for pensions and other employee benefits	(4)	3,615	3,849
Deferred tax liabilities	(10)	363	466
Other non-current liabilities and provisions	(7)	1,242	1,276
NON-CURRENT LIABILITIES		12,179	12,921
Current portion of long-term debt	(8)	1,835	2,231
Current portion of other liabilities and provisions	(7)	436	454
Trade accounts payable	(3)	5,805	5,716
Current tax liabilities	(10)	148	150
Other payables	(3)	3,636	3,448
Short-term debt and bank overdrafts	(8)	588	616
CURRENT LIABILITIES		12,448	12,615
TOTAL EQUITY AND LIABILITIES		43,767	44,856

The accompanying notes are an integral part of the consolidated financial statements.

# CONSOLIDATED INCOME STATEMENT

(in € millions) Note	2016	2015
Net sales (3	39,093	39,623
Cost of sales (3	(29,106)	(29,694)
General expenses including research (3	(7,200)	(7,336)
Share in net income of core business equity-accounted companies (6	31	43
OPERATING INCOME	2,818	2,636
Other business income (3	61	49
Other business expense (3	(575)	(1,391)
BUSINESS INCOME	2,304	1,294
Borrowing costs, gross	(376)	(444)
Income from cash and cash equivalents	27	25
Borrowing costs, net	(349)	(419)
Other financial income and expense	(192)	(210)
NET FINANCIAL EXPENSE (8	(541)	(629)
Share in net income of non-core business equity-accounted companies (6	5	0
Income taxes (10	(416)	(248)
Net income from continuing operations	1,352	417
Net income from discontinued operations	0	929
NET INCOME	1,352	1,346
Group share of net income from continuing operations	1,311	374
Group share of net income from discontinued operations	0	921
GROUP SHARE OF NET INCOME	1,311	1,295
Minority interests in net income from continuing operations	41	43
Minority interests in net income from discontinued operations	0	8
Minority interests	41	51

Earnings per share (in €)	Notes	2016	2015
Weighted average number of shares in issue		554,624,285	562,001,188
Earnings per share, Group share	(9)	2.36	2.30
Earnings per share from continuing operations, Group share	(9)	2.36	0.66
Earnings per share from discontinued operations, Group share	(9)	0.00	1.64
Weighted average number of shares assuming full dilution		557,163,247	564,780,983
Diluted earnings per share, Group share	(9)	2.35	2.29
Diluted earnings per share from continuing operations, Group share	(9)	2.35	0.66
Diluted earnings per share from discontinued operations, Group share	(9)	0.00	1.63

The accompanying notes are an integral part of the consolidated financial statements.

# CONSOLIDATED STATEMENT OF RECOGNIZED INCOME AND EXPENSE

(in € millions)	2016	2015
NET INCOME	1,352	1,346
Items that may be subsequently reclassified to profit or loss		
Translation adjustments	(217)	397
Changes in fair value	10	241
Tax on items that may be subsequently reclassified to profit or loss	(3)	(81)
Items that will not be reclassified to profit or loss		
Changes in actuarial gains and losses	(366)	(30)
Tax on items that will not be reclassified to profit or loss	76	(18)
Liability method on items that will not be reclassified to profit or loss	(49)	(33)
INCOME AND EXPENSE RECOGNIZED DIRECTLY IN EQUITY	(549)	476
TOTAL RECOGNIZED INCOME AND EXPENSE FOR THE YEAR	803	1,822
Group share	766	1,800
Minority interests	37	22

The accompanying notes are an integral part of the consolidated financial statements.

# CONSOLIDATED STATEMENT OF CASH FLOWS

(in € millions)	Notes	2016	2015
GROUP SHARE OF NET INCOME FROM CONTINUING OPERATIONS		1,311	374
Minority interests in net income	(a)	41	43
Share in net income of equity-accounted companies, net of dividends received	(6)	(20)	(29)
Depreciation, amortization and impairment of assets	(3)	1,369	2,085
Gains and losses on disposals of assets	(3)	2	70
Unrealized gains and losses arising from changes in fair value and share-based payments		42	(15)
Changes in inventory	(3)	(173)	26
Changes in trade accounts receivable and payable, and other accounts receivable and payable	(3)	72	192
Changes in tax receivable and payable	(10)	(135)	(134)
Changes in deferred taxes and provisions for other liabilities and charges (	(4) (7) (10)	(544)	(143)
Net cash from (used in) operating activities of continuing operations		1,965	2,469
Net cash from (used in) operating activities of discontinued operations		0	140
NET CASH FROM OPERATING ACTIVITIES		1,965	2,609
Acquisitions of property, plant and equipment [2016: (1,370), 2015: (1,346)] and intangible assets	(5)	(1,521)	(1,475)
Increase (decrease) in amounts due to suppliers of fixed assets	(3)	24	8
Acquisitions of shares in consolidated companies [2016: (252), 2015: (201)], net of cash acquired		(233)	(189)
Acquisitions of other investments	(6)	(110)	(26)
Increase in investment-related liabilities	(7)	15	14
Decrease in investment-related liabilities	(7)	(9)	(28)
Investments		(1,834)	(1,696)
Disposals of property, plant and equipment and intangible assets	(5)	85	122
Disposals of shares in consolidated companies, net of cash divested		49	1,667
Disposals of other investments	(6)	1	2

(in € millions)	Notes	2016	2015
Divestments		135	1,791
Increase in loans, deposits and short-term loans	(6)	(144)	(136)
Decrease in loans, deposits and short-term loans	(6)	150	72
Changes in loans, deposits and short-term loans		6	(64)
Net cash from (used in) investment and divestment activities of continuing operations		(1,693)	31
Net cash from (used in) investment and divestment activities of discontinued operations		0	(175)
NET CASH FROM (USED IN) INVESTMENT AND DIVESTMENT ACTIVITIES		(1,693)	(144)
Issues of capital stock	(a)	149	412
(Increase) decrease in treasury stock	(a)	(418)	(545)
Dividends paid	(a)	(680)	(695)
Transactions with shareholders of parent company		(949)	(828)
Minority interests' share in capital increases of subsidiaries	(a)	2	23
Acquisitions of minority interests without gain of control	(6)	0	0
Changes in investment-related liabilities following the exercise of put options of minority shareholders	(7)	(13)	(8)
Dividends paid to minority shareholders of consolidated subsidiaries	(a)	(31)	(37)
Transactions with minority interests		(42)	(22)
Increase (decrease) in bank overdrafts and other short-term debt		(138)	(8)
Increase in long-term debt	(b)	1,322	1,212
Decrease in long-term debt	(b)	(2,104)	(1,164)
Changes in gross debt		(920)	40
Net cash from (used in) financing activities of continuing operations		(1,911)	(810)
Net cash from (used in) financing activities of discontinued operations		0	273
NET CASH FROM (USED IN) IN FINANCING ACTIVITIES		(1,911)	(537)
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		(1,639)	1,928
Net effect of exchange rate changes on cash and cash equivalents		(1)	(25)
Net effect of changes in fair value on cash and cash equivalents		(2)	(10)
Net effect of exchange rate changes on discontinued operations		0	(6)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR		5,380	3,493
CASH AND CASH EQUIVALENTS AT END OF YEAR		3,738	5,380

<sup>(</sup>a) Please refer to the consolidated statement of changes in equity.

Income tax paid amounted to €460 million in 2016 (€591 million in 2015) and interest paid net of interest received amounted to €369 million in 2016 (€438 million in 2015).

The accompanying notes are an integral part of the consolidated financial statements.

<sup>(</sup>b) Including bond premiums, prepaid interest and issue costs.

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(number o	of shares)					(in € m	illions)				
Issued	Outstanding		Capital stock		Retained earnings and consolidated	Cumulative translation adjustments		Treasury stock		Minority interests	Total equity
561,895,566	560,385,966	AT JANUARY 1, 2015	2,248	6,437	10,411	(953)	(63)	(67)	18,013	405	18,418
		Income and expenses recognized directly in equity	0	0	(161)	425	241	0	505	(29)	476
		Net income for the year			1,295				1,295	51	1,346
		Total income and expense for the year	0	0	1,134	425	241	0	1,800	22	1,822
		Issues of capital stock									
4,449,939	4,449,939	Group Savings Plan	18	126					144		144
1,038,730	1,038,730	Stock option plans	4	24					28		28
6,559,204	6,559,204	Dividends paid in shares	26	214					240		240
		Other							0	23	23
		Dividends paid (€1.24 per share)			(695)				(695)	(37)	(732)
	(15,050,261)	Shares purchased						(594)	(594)		(594)
	1,223,943	Shares sold			(13)			62	49		49
(13,000,000)		Shares canceled	(52)	(460)				512	0		0
		Share-based payments			9				9		9
		Changes in Group structure			(41)		3		(38)	(49)	(87)
560,943,439	558,607,521	AT DECEMBER 31, 2015	2,244	6,341	10,805	(528)	181	(87)	18,956	364	19,320
		Income and expenses recognized directly in equity	0	0	(341)	(214)	10	0	(545)	(4)	(549)
		Net income for the year			1,311				1,311	41	1,352
		Total income and expense for the year	0	0	970	(214)	10	0	766	37	803
		Issues of capital stock									
4,653,810	4,653,810	Group Savings Plan	18	118					136		136
667,197	667,197	Stock option plans	3	10					13		13
		Dividends paid in shares							0		0
		Other							0	2	2
		Dividends paid (€1.24 per share)			(680)				(680)	(31)	(711)
	(12,246,156)	Shares purchased						(468)	(468)		(468)
	1,706,031	Shares sold			(10)			60	50		50
(10,984,088)		Shares canceled	(44)	(379)				423	0		0
		Share-based payments			11				11		11
		Changes in Group structure			(19)				(19)	3	(16)
555,280,358	553,388,403	AT DECEMBER 31, 2016	2,221	6,090	11,077	(742)	191	(72)	18,765	375	19,140

The accompanying notes are an integral part of the consolidated financial statements.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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The consolidated financial statements reflect the accounting position of Compagnie de Saint-Gobain and its subsidiaries ("the Group"), as well as the Group's interests in associate companies and joint ventures. They are expressed in euros rounded to the nearest million.

These consolidated financial statements were adopted by the Board of Directors on February 23, 2017 and will be submitted to the Shareholders' Meeting for approval.

Accounting rules and principles are identified through a specific color.

#### ACCOUNTING PRINCIPLES AND POLICIES NOTE 1

The accounting policies applied are consistent with those used to prepare the financial statements for the year ended December 31, 2015, except for the application of the new standards and interpretations described below. The consolidated financial statements have been prepared using the historical cost convention, except for certain assets and liabilities that have been measured using the fair value model as explained in these notes.

#### Standards applied 1.1

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) and interpretations adopted for use in the European Union at December 31, 2016. These financial statements have also been prepared in accordance with the IFRS issued by the International Accounting Standards Board (IASB). Standards adopted by the European Union may be consulted on the European Commission website, at http://ec.europa.eu/finance/accounting/ias/index\_en.htm.

# Standards, interpretations and amendments to existing standards 1.1.1 applicable for reporting periods beginning on or after January 1, 2016

The standards, interpretations and amendments to published standards applicable for the first time for reporting periods beginning on or after January 1, 2016 do not have a material impact on the consolidated financial statements:

- amendment to IAS 1, "Disclosure initiative";
- amendment to IAS 16 and IAS 38, "Clarification of acceptable methods of depreciation and amortization, and amendment to the revaluation method";
- ♦ amendment to IAS 19, "Employee contributions and discount rate (regional market issue)";
- amendment to IFRS 11, "Accounting for acquisitions of interests in joint operations";
- amendment to IAS 27, "Equity method in separate financial statements":
- ◆ amendment to IFRS 2, "Share-based Payment Definition of vesting conditions" (for share-based payments awarded after July 1, 2014 - prospective application);

- ♦ amendment to IFRS 3, "Business Combinations Accounting for contingent consideration" (for business combinations carried out after July 1, 2014 - prospective application);
- ♦ amendment to IFRS 5, "Non-current Assets Held for Sale -Changes in methods of disposal";
- ♦ amendment to IFRS 7, "Financial Instruments Disclosures regarding management mandates and applicability of the amendments to IFRS 7 to condensed interim financial statements":
- "Operating Segments amendment to IFRS 8, Aggregation of operating segments and reconciliations of
- amendment to the Basis for Conclusions of IFRS 13, "Short-term receivables and payables";
- ♦ amendment to IAS 24, "Related Party disclosures Key management personnel";
- ♦ amendment to IAS 34, "Interim Financial Information -Information provided elsewhere in the interim financial

### 1.1.2 Standards, interpretations and amendments to existing standards available for early adoption in reporting periods beginning on or after January 1, 2016

The new standards, interpretations and amendments to existing standards applicable for reporting periods beginning on or after January 1, 2017 were not early-adopted by the Group in 2016.

- ♦ IFRS 9, "Financial Instruments": the initial phase of this project in 2016 involved an analysis of issues relating to financial instruments (excluding trade receivables). The analysis will focus on trade receivables as from early 2017.
- ◆ IFRS 15, "Revenue from Contracts with Customers": although the Group does not expect IFRS 15 to have a material impact on its financial statements, a project was carried out in 2016 with the dual aim of (i) identifying the specific cases in which the standard will change the method of recognizing revenue and (ii) analyzing the overall impacts of the standard.

# 1.2 Estimates and assumptions

The preparation of consolidated financial statements in compliance with IFRS requires management to make estimates and assumptions that affect the amounts of assets and liabilities reported in the balance sheet and the disclosure of contingent assets and liabilities in the notes to the financial statements, as well as the reported amounts of income and expenses during the period. These estimates and assumptions are based on past experience and on various other factors seen in the prevailing economic and financial environment, which makes it difficult to predict future business performance. Actual amounts may differ from those obtained through the use of these estimates and assumptions.

The main estimates and assumptions described in these notes concern the measurement of employee benefit obligations and share-based payments (Note 4 "Employees, personnel expenses and employee benefit obligations"), asset impairment tests (Note 5 "Property, plant and equipment and intangible assets"), provisions for other liabilities and charges (Note 7 "Other current and non-current liabilities and provisions, contingent liabilities and litigation"), the measurement of financial instruments (Note 8 "Financing and financial instruments") and deferred taxes (Note 10 "Taxes").

# NOTE 2 SCOPE OF CONSOLIDATION

# 2.1 Accounting principles related to consolidation

The Group's consolidated financial statements include the accounts of Compagnie de Saint-Gobain and of all companies controlled by the Group, as well as those of jointly controlled companies and companies over which the Group exercises significant influence.

#### 2.1.1 Consolidation methods

## a) Full consolidation

Companies over which the Group exercises exclusive control, either directly or indirectly, are fully consolidated.

## b) Joint arrangements

Joint arrangements that meet the definition of joint ventures are accounted for by the equity method. Balance sheet and income statement items relating to joint arrangements that meet the definition of joint operations are consolidated line-by-line based on the amount actually contributed by the Group.

# c) Equity accounting

Companies over which the Group directly or indirectly exercises significant influence are accounted for by the equity method

The Group's share of the income of equity-accounted companies is shown on two separate lines of the income statement. The income of equity-accounted companies whose main business activity is in keeping with the Group's core operational business is presented in business income under "Share in net income of core business equity-accounted companies" while the income of other equity-accounted companies is shown under "Share in net income of non-core business equity-accounted companies" in pre-tax income.

## 2.1.2 Business combinations

# a) Step acquisitions and partial disposals

When the Group acquires control of an entity in which it already holds an equity interest, the transaction is treated as a step acquisition (an acquisition in stages), as follows: (i) as a disposal of the previously-held interest, with recognition of any resulting gain or loss in the consolidated financial statements, and (ii) as an acquisition of all of the shares, with

recognition of the corresponding goodwill on the entire interest (previous and new acquisitions).

When the Group disposes of a portion of an equity interest leading to the loss of control (but retains a minority interest), the transaction is also treated as both a disposal and an acquisition, as follows: (i) as a disposal of the entire interest, with recognition of any resulting gain or loss in the consolidated financial statements, and (ii) as an acquisition of a minority interest, measured at fair value.

## b) Potential voting rights and share purchase commitments

Potential voting rights conferred by call options on minority interests are taken into account in determining whether the Group exclusively controls an entity only when the Group has control.

When calculating its percentage interest in controlled companies, the Group considers the impact of cross put and call options on minority interests in the companies concerned. This approach gives rise to the recognition in the financial statements of an investment-related liability, included within other provisions and non-current liabilities, corresponding to the present value of the estimated exercise price of the put option, with a corresponding reduction in minority interests and equity attributable to equity holders of the parent. Any subsequent changes in the fair value of the liability are recognized by adjusting equity.

## c) Minority interests

Under IFRS 10, minority interests (referred to as "non-controlling interests" in IFRS 3R) are considered as a shareholder category (single economic entity approach). As a result, changes in minority interests with no loss of control continue to be recorded in the statement of changes in equity and have no impact on the income statement or balance sheet, except for changes in cash and cash equivalents.

# 2.1.3 Non-current assets and liabilities held for sale – Discontinued operations

Assets and liabilities that are immediately available for sale and for which a sale is highly probable are classified as non-current assets and liabilities held for sale. When several assets are held for sale in a single transaction, they are accounted for as a disposal group, which also includes any liabilities directly associated with those assets. The assets or

disposal groups held for sale are measured at the lower of carrying amount and fair value less costs to sell. Depreciation ceases when non-current assets are classified as held for sale. Non-current assets and liabilities held for sale are presented separately on two lines of the consolidated balance sheet, and income and expenses continue to be recognized in the consolidated income statement on a line-by-line basis. At the end of each reporting period, the value of the assets and liabilities held for sale is reviewed to determine whether any provision adjustments should be recorded due to a change in their fair value less costs to sell.

An operation is classified as discontinued when it represents a separate major line of business for the Group, and when the criteria for classification as an asset held for sale have been met, or when the Group has sold the asset. Discontinued operations are reported on a single line in the Group's income statement. This line shows the after-tax net income from discontinued operations until the date of disposal and the gains or losses net of taxes realized on the disposals of these operations. In addition, cash flows generated by the discontinued operations are reported, by type of operation, on a separate line in the consolidated statement of cash flows for the relevant periods.

# 2.1.4 Intragroup transactions

All intragroup balances and transactions are eliminated in consolidation

# 2.1.5 Translation of the financial statements of foreign companies

The consolidated financial statements are presented in euros, which is Compagnie de Saint-Gobain's functional and presentation currency.

Assets and liabilities of subsidiaries outside the Eurozone are translated into euros at the closing exchange rate, while income and expense items are translated using the average exchange rate for the period, except in the case of significant exchange rate volatility.

The Group's share of any translation gains or losses is included in equity under "Cumulative translation adjustments" until the assets or liabilities and all foreign operations to which they relate are sold or liquidated. In this case, these translation differences are either taken to the income statement, if the transaction results in a loss of control, or recognized directly in the statement of changes in equity, if the change in minority interests does not result in a loss of control.

## 2.1.6 Foreign currency transactions

Expenses and income from operations in currencies other than the Company's functional currency are translated at the exchange rates prevailing at the transaction date. Assets and liabilities denominated in foreign currencies are translated at the closing rate and any exchange differences are recorded in the income statement. However, exchange differences relating to loans and borrowings between consolidated Group companies are recorded in equity net of tax under "Cumulative translation adjustments", as they are in substance an integral part of the net investment in a foreign subsidiary.

# 2.2 Changes in Group structure

Significant changes in the Group's structure during 2016 and 2015 are presented below and a list of the main consolidated companies at December 31, 2016 is provided in Note 13 "Principal consolidated companies".

# 2.2.1 Transactions carried out in 2016

In 2016, Saint-Gobain pursued active management of the scope of its business activities, adhering closely to the Group's strategy. Various transactions were carried out with a view to strengthening the Group's profile in high value-added businesses and promising markets.

Further, Saint-Gobain is continuing its plan to acquire a controlling interest in Sika, a leading construction chemicals company. The plan consists of the acquisition by Saint-Gobain, for 2.83 billion Swiss francs (an amount fully hedged in euros), of Schenker Winkler Holding AG (SWH) which, at December 31, 2016, held 16.97% of Sika's share capital and 52.92% of its voting rights. After the acquisition, the Saint-Gobain Group will be able to incorporate Sika into its financial statements by global consolidation, with a positive impact on net income from year one.

Completion of this deal is subject to clearance from the competent anti-trust authorities, which were all obtained on December 2, 2015. Further, on August 27, 2015, the Swiss Federal Administrative Court confirmed in last resort the validity of the opt-out clause provided in Sika's bylaws exempting Saint-Gobain from launching a mandatory takeover bid following the acquisition of the SWH shares.

Saint-Gobain and its Board of Directors took note of the ruling handed down by the Cantonal Court of Zug on October 28, 2016, which rejected SWH's demand for cancellation of the resolutions of the Annual General Meeting of Sika on April 14, 2015 for which SWH voting rights had been restricted, and SWH's appeal to the Zug Supreme Court against this decision. Saint-Gobain had anticipated these decisions by extending the term of the purchase agreement relating to the disposal of SWH shares with the Burkard family, from March 2016 to June 30, 2017. As of this date, Saint-Gobain will have the option to extend the agreement until December 31, 2018.

## 2.2.2 Transactions carried out in 2015

## a) Sale of the Packaging Sector

Following the announcement made on June 8, 2015, Saint-Gobain Group sold the Packaging Sector on October 29, 2015 to funds managed by affiliates of Apollo Global Management, LLC and BPI France, which currently hold 90% and 10%, respectively, of the share capital. The sale was made based on an enterprise value of €2,945 million.

As a result, and in accordance with IFRS 5, "Non-current Assets Held for Sale and Discontinued Operations", net income from discontinued operations included the net income of the Packaging Sector until the date of sale and the disposal gains in respect of the Packaging Sector in 2015.

The consolidated income statement for the Packaging Sector was as follows:

(in € millions)	2015 <sup>(1)</sup>
Net sales	1,998
Cost of sales	(1,605)
General expenses including research	(116)
Share in net income of core business equity-accounted companies	0
Operating income	277
Other business income (2)	812
Other business expense	(16)
BUSINESS INCOME	1,073
Borrowing costs, gross	(17)
Income from cash and cash equivalents	2
Borrowing costs, net	(15)
Other financial income and expense	(8)
NET FINANCIAL EXPENSE	(23)
Share in net income of non-core business equity-accounted companies	0
Income taxes	(121)
NET INCOME FROM DISCONTINUED OPERATIONS	929
GROUP SHARE OF NET INCOME FROM DISCONTINUED OPERATIONS	921
Minority interests in net income from discontinued operations	8

<sup>(1)</sup> The 2015 reporting period was closed as of the date of sale of the Packaging Sector, i.e., October 29, 2015.

## b) Other changes in Group structure

In addition to the sale of the Packaging Sector, in 2015 Saint-Gobain Group continued to actively manage its portfolio of businesses, fully in line with the Group's strategy. In particular, the Group signed an agreement to sell its Norandex distribution business in the United States to ABC Supply Co Inc, the country's leading distributor of roofing and siding products.

Various acquisitions were completed in order to strengthen the Group's profile in high added-value businesses and growing markets.

<sup>(2)</sup> Including the €811 million pre-tax gain on disposal of the Packaging Sector in 2015.

## 2.3 Changes in the number of consolidated companies

At December 31, 2016, the number of consolidated companies was as follows:

	France	Outside France	Total
Fully consolidated companies			
AT JANUARY 1, 2016	149	606	755
Newly consolidated companies	8	38	46
Merged companies	(13)	(18)	(31)
Deconsolidated companies	(3)	(25)	(28)
Change in consolidation method		2	2
AT DECEMBER 31, 2016	141	603	744
Equity-accounted companies and joint arrangements			
AT JANUARY 1, 2016	3	93	96
Newly consolidated companies	1	6	7
Merged companies			0
Deconsolidated companies		(6)	(6)
Change in consolidation method		(2)	(2)
AT DECEMBER 31, 2016	4	91	95
TOTAL AT JANUARY 1, 2016	152	699	851
TOTAL AT DECEMBER 31, 2016	145	694	839

## 2.4 Off-balance sheet commitments related to companies within the scope of consolidation

As of December 31, 2016, commitments for irrevocable purchases included the commitment on the equity interests of the Sika Group for the amount of €2,398 million.

# NOTE 3 INFORMATION CONCERNING THE GROUP'S OPERATING ACTIVITIES

#### 3.1 Income statement items

## 3.1.1 Revenue recognition

Revenue generated by the sale of goods or services is recognized net of rebates, discounts and sales taxes (i) when the risks and rewards of ownership have been transferred to the customer, or (ii) when the service has been rendered, or (iii) by reference to the stage of completion of the services to be provided.

Construction contracts are accounted for by the Group's companies using the percentage-of-completion method, as explained below. When the outcome of a construction contract can be estimated reliably, contract revenue and costs are recognized as revenue and expenses, respectively, by reference to the stage of completion of the contract activity at the end of the reporting period. When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized only to the extent of contract costs incurred that it is probable will be recovered. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

Construction contract revenues are not material in relation to total consolidated net sales.

#### 3.1.2 Operating income

Operating income is a measure of the performance of the different sectors and has been used by the Group as its key external and internal management indicator for many years. Foreign exchange gains and losses are included in operating income, as are changes in the fair value of financial instruments that do not qualify for hedge accounting when they relate to operating items. The share of income of core business equity-accounted companies is also posted under operating income.

Discounts granted by suppliers to the Building Distribution business are included in operating income. Contractual supplier discounts are common practice in the industrial goods distribution sector. These discounts are mostly calculated by applying a contractually guaranteed rate by product type to volumes purchased. The calculation is made automatically, based on the supplier invoices. Consequently, the judgment of the management is immaterial when determining the amounts to be recognized in the income statement for these discounts. Other discounts are calculated based on a step mechanism linked to specified targets, whereby the percentage discount increases as the entity achieves the various targets over a given period. In this case, the judgment of the management is required based on historical data, past performance and future trends in order to determine the discount to be recognized in the income statement. Such judgment is exercised in a prudent manner and consistently from one period to the next.

## 3.1.3 Other business income and expense

Other business income and expense mainly include movements in provisions for claims and litigation and environmental matters, disposal gains and losses, asset impairment, restructuring costs incurred upon the disposal or discontinuation of operations and the costs of workforce reduction measures.

Other business income and expense can be analyzed as follows:

(in € millions)	2016	2015
Restructuring costs (a)	(144)	(179)
Provisions and expenses relating to claims and litigation (b)	(134)	(125)
Other (c)	(34)	(40)
NON-OPERATING INCOME AND EXPENSE	(312)	(344)
Impairment of assets (d)	(200)	(929)
Other business expense (e)	(63)	(118)
IMPAIRMENT OF ASSETS AND OTHER BUSINESS EXPENSE	(263)	(1,047)
GAINS ON DISPOSALS OF PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS	61	49
OTHER BUSINESS INCOME AND EXPENSE AND IMPAIRMENT OF ASSETS	(202)	(998)
OTHER BUSINESS INCOME AND EXPENSE	(514)	(1,342)

- (a) Restructuring costs in 2016 mainly consist of retirement benefits totaling €76 million (€106 million in 2015).
- (b) In both 2016 and 2015, movements in provisions and expenses relating to litigation as detailed and explained in Note 7 "Other current and non-current liabilities and provisions, contingent liabilities and litigation" chiefly concerned asbestos-related litigation.
- (c) In 2016, the "Other" line as detailed and explained in Note 7 "Other current and non-current liabilities and provisions, contingent liabilities and litigation" mainly relates to environmental litigation costs.
- (d) Impairment losses on assets in 2016 include €13 million on goodwill (€157 million in 2015), €176 million on property, plant and equipment and intangible assets (€720 million in 2015), and €11 million on financial assets, current assets and acquisition fees incurred in connection with business combinations (€52 million in 2015).
- (e) Other business expense in both 2016 and 2015 relates primarily to capital losses on assets divested or scrapped.

#### 3.1.4 Business income

Business income includes all income and expenses other than financial income and expense, the Group's share in net income of non-core business equity-accounted companies, and income taxes.

Business income is detailed by type below:

(in € millions)	2016	2015
NET SALES	39,093	39,623
Personnel expenses:		
Salaries and payroll taxes	(7,819)	(7,746)
Share-based payments (a)	(30)	(21)
Pensions and employee benefit obligations (a)	(197)	(180)
Depreciation and amortization	(1,180)	(1,208)
Share in net income of core business equity-accounted companies	31	43
Other (b)	(27,080)	(27,875)
OPERATING INCOME	2,818	2,636
Other business income	61	49
Other business expense	(575)	(1,391)
OTHER BUSINESS INCOME AND EXPENSE	(514)	(1,342)
BUSINESS INCOME	2,304	1,294

- (a) Share-based payments (IFRS 2 expense) and details of changes in employee benefit expense are detailed in Note 4 "Employees, personnel expenses and employee benefit obligations".
- (b) The "Other" operating income line relates to cost of sales, supplier discounts and selling expenses for the Building Distribution Sector, and to transport costs, raw materials costs, and other production costs for the other sectors. This item also includes research and development costs recorded under operating expenses, amounting to €440 million in 2016 (€435 million in 2015).

## Segment information

In accordance with IFRS 8, segment information reflects the Group's internal organization as presented to management. The Group has chosen to present segment information by sector and business in line with its internal reporting. There were no changes in the presentation of segment information in 2016 compared with prior years.

Segment assets and liabilities include net property, plant and equipment, working capital, goodwill and net other intangible assets, after deducting deferred taxes on brands and land.

Capital expenditure corresponds to acquisitions of property, plant and equipment and does not include the cost of acquiring non-current assets under finance leases.

Segment information is presented by sector and by business as follows:

- ◆ Innovative Materials (IM) Sector:
  - Flat Glass,
  - ◆ High-Performance Materials (HPM);
- ◆ Construction Products (CP) Sector:
  - Interior Solutions: Insulation and Gypsum,
  - Exterior Solutions: Industrial Mortars, Pipe and Exterior Products;
- Building Distribution Sector.

Management uses several different internal indicators to measure operational performance and to make resource allocation decisions. These indicators are based on the data used to prepare the consolidated financial statements and meet financial reporting requirements. Intragroup ("internal") sales are generally carried out on the same terms as sales to external customers and are eliminated in consolidation. The "Other" column includes holding companies and certain corporate support functions (tax, cash management, purchasing, etc.).

Segment information for 2016 and 2015 by sector and by business is as follows:

#### 2016

		Innovative	Matorials			Construction	on Products		Building Distribution	Other*	Total
(in € millions)	Flat Glass	High-	Intra- segment eliminations	Total	Interior Solutions	Exterior Solutions	Intra- segment eliminations	Total	Distribution	Other	Total
External sales	5,338	4,385		9,723	5,978	5,126		11,104	18,245	21	39,093
Internal sales	26	122	(14)	134	605	297	(85)	817	3	(954)	0
Net sales	5,364	4,507	(14)	9,857	6,583	5,423	(85)	11,921	18,248	(933)	39,093
Operating income/(loss)	490	616		1,106	675	431		1,106	616	(10)	2,818
Business income/(loss)	426	475		901	555	386		941	552	(90)	2,304
Share in net income/(loss) of equity-accounted companies	17	2		19	12	3		15	1	1	36
Depreciation and amortization	272	161		433	307	154		461	254	32	1,180
Impairment of assets	19	75		94	88	3		91	4		189
EBITDA	762	777		1,539	982	585		1,567	870	22	3,998
Capital expenditure	375	198		573	337	178		515	245	37	1,370
Cash flow from operations				1,031				899	519	300	2,749
Goodwill, net	240	1,679		1,919	3,631	2,293		5,924	2,826	0	10,669
Non-amortizable brands	0	0		0	749	90		839	1,305	0	2,144
Total segment assets and liabilities				7,553				12,225	7,501	659	27,938

<sup>&</sup>quot;Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions.

## 2015

		Innovativ	e Materials			Constructi	on Products		Building Distribution	Other*	Total
(in € millions)	Flat Glass	High- Performance Materials	Intra- segment eliminations	Total	Interior Solutions	Exterior Solutions	Intra- segment eliminations	Total			
External sales	5,185	4,388		9,573	5,905	5,289		11,194	18,845	11	39,623
Internal sales	32	114	(16)	130	580	310	(72)	818	4	(952)	0
Net sales	5,217	4,502	(16)	9,703	6,485	5,599	(72)	12,012	18,849	(941)	39,623
Operating income/(loss)	413	602		1,015	576	446		1,022	603	(4)	2,636
Business income/(loss)	217	479		696	448	314		762	(46)	(118)	1,294
Share in net income/(loss) of equity-accounted companies	30	2		32	7	4		11	0	0	43
Depreciation and amortization	288	154		442	320	151		471	265	30	1,208
Impairment of assets	149	51		200	97	88		185	492	0	877
EBITDA	701	756		1,457	896	597		1,493	868	26	3,844
Capital expenditure	311	218		529	312	216		528	231	58	1,346
Cash flow from operations				931				790	629	212	2,562
Goodwill, net	209	1,597		1,806	3,741	2,216		5,957	2,920	0	10,683
Non-amortizable brands	0	0		0	814	90		904	1,381	0	2,285
Total segment assets and liabilities				7,301				12,292	7,595	315	27,503

<sup>\* &</sup>quot;Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions.

## 3.3 Information by geographic area

Segment information for 2016 and 2015 by geographic area is as follows:

## 2016

(in € millions)	France	Other Western European countries	North America	Emerging countries and Asia	Internal sales	Total
Net sales	10,225	17,292	5,198	8,281	(1,903)	39,093
Operating income/(loss)	301	1,072	544	901		2,818
Business income/(loss)	252	980	249	823		2,304
EBITDA	587	1,438	717	1,256		3,998
Capital expenditure	262	387	203	518		1,370
Cash flow from operations	316	1,060	412	961		2,749

## 2015

(in € millions)	France	Other Western European countries	North America	Emerging countries and Asia	Internal sales	Total
Net sales	10,326	17,414	5,366	8,375	(1,858)	39,623
Operating income/(loss)	297	984	490	865		2,636
Business income/(loss)	(317)	752	159	700		1,294
EBITDA	595	1,361	665	1,223		3,844
Capital expenditure	269	335	282	460		1,346
Cash flow from operations	382	941	412	827		2,562

#### 3.4 Performance indicators

#### **3.4.1 EBITDA**

EBITDA corresponds to operating income plus depreciation and amortization of property, plant and equipment and intangible assets.

EBITDA amounted to €3,998 million in 2016 (€3,844 million in 2015), calculated as follows:

(in € millions)	2016	2015
Operating income	2,818	2,636
Depreciation/amortization of property, plant and equipment and intangible assets	1,180	1,208
EBITDA	3,998	3,844

#### 3.4.2 Return on capital employed

Return on capital employed (ROCE) corresponds to annualized operating income adjusted for changes in the scope of consolidation, expressed as a percentage of total assets at year-end. Total assets include net property, plant and equipment, working capital, net goodwill and other intangible assets, but exclude deferred tax assets arising on non-amortizable brands and land.

### 3.4.3 Recurring net income

Recurring net income corresponds to income after tax and minority interests but before disposal gains or losses, asset impairment, material non-recurring provisions and the related tax and minority interests.

Recurring net income from continuing operations totaled €1,398 million in 2016 (€1,165 million in 2015). Based on the weighted average number of shares outstanding at December 31 (554,624,285 shares in 2016 and 562,001,188 shares in 2015), recurring earnings per share amounted to €2.52 in 2016 and €2.07 in 2015.

The difference between net income and recurring net income corresponds to the following items:

(in € millions)	2016	2015
GROUP SHARE OF NET INCOME FROM CONTINUING OPERATIONS	1,311	374
Less:		
Gains and losses on disposals of assets	(2)	(70)
Impairment of assets and acquisition fees incurred in connection with business combinations	(201)	(928)
Changes in provision for anti-trust litigation and other non-recurring provisions	(4)	(34)
Impact of minority interests	(1)	0
Tax on disposal gains and losses, asset impairment and non-recurring charges to provisions	121	241
GROUP SHARE OF RECURRING NET INCOME FROM CONTINUING OPERATIONS	1,398	1,165

### 3.4.4 Cash flow from operations

Cash flow from operations corresponds to net cash generated from operating activities before the impact of changes in working capital requirements, changes in current taxes and changes in provisions for pensions and other employee benefit obligations as well as for other liabilities and charges and deferred taxes. Cash flow from operations is adjusted for the effect of material non-recurring provision charges.

Cash flow from operations before tax on disposal gains and losses and non-recurring provisions corresponds to cash flow from operations less the tax effect of asset disposals, asset impairment and non-recurring provisions.

Cash flow from continuing operations totaled €2,749 million in 2016 (€2,562 million in 2015) and cash flow from operations excluding income tax on disposal gains and losses and non-recurring provisions from continuing operations amounted to €2,628 million in 2016 (€2,321 million in 2015). These amounts are calculated as follows:

(in € millions)	2016	2015
GROUP SHARE OF NET INCOME FROM CONTINUING OPERATIONS	1,311	374
Minority interests in net income	41	43
Share in net income of equity-accounted companies, net of dividends received	(20)	(29)
Amortization and impairment of assets	1,369	2,085
Gains and losses on disposals of assets	2	70
Changes in provision for anti-trust litigation and other non-recurring provisions	4	34
Unrealized gains and losses arising from changes in fair value and share-based payments	42	(15)
CASH FLOW FROM OPERATIONS OF CONTINUING OPERATIONS	2,749	2,562
Tax on disposal gains and losses, asset impairment and non-recurring charges to provisions	(121)	(241)
CASH FLOW FROM OPERATIONS BEFORE TAX ON DISPOSAL GAINS AND LOSSES AND NON-RECURRING PROVISIONS OF CONTINUING OPERATIONS	2,628	2,321

#### 3.5 Working capital

#### 3.5.1 Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of inventories includes purchase costs (net of supplier discounts), processing costs and other costs incurred in bringing the inventories to their present location and condition. Cost is generally determined using the weighted-average cost method, and in some cases the First-In-First-Out (FIFO) method. Inventory costs may also include the transfer from equity of any gains/losses on qualifying cash flow hedges of foreign currency purchases of raw materials. Net realizable value is the selling price in the ordinary course of business, less estimated completion and selling costs. No account is taken in the inventory valuation process of the impact of below-normal capacity utilization rates.

At December 31, 2016 and 2015, inventories were as follows:

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
Gross value		
Raw materials	1,327	1,282
Work in progress	318	284
Finished goods	4,678	4,610
GROSS INVENTORIES	6,323	6,176
Provision for impairment		
Raw materials	(143)	(149)
Work in progress	(11)	(13)
Finished goods	(294)	(299)
TOTAL PROVISION FOR IMPAIRMENT	(448)	(461)
NET VALUE	5,875	5,715

The net value of inventories was €5,875 million at December 31, 2016 compared with €5,715 million at December 31, 2015.

Impairment losses on inventories recorded in the 2016 income statement totaled €176 million (€208 million in 2015). Reversals of impairment losses on inventories amounted to €152 million in 2016 (€125 million in 2015).

#### 3.5.2 Operating and non-operating receivables and payables

Trade accounts receivable and payable and other receivables and payables are stated at their carrying amount which approximates their fair value as they generally have maturities of less than three months. Provisions for impairment are booked to cover the risk of total or partial non-recovery.

The Group deems that its exposure to concentrations of credit risk is limited due to its diversified business line-up, broad customer base and global presence. Past-due trade receivables are regularly monitored and analyzed, and provisions are set aside when appropriate.

For trade receivables transferred under securitization programs, the contracts concerned are analyzed and if substantially all the risks associated with the receivables are not transferred in substance to the financing institutions, they remain on the balance sheet and a corresponding liability is recognized in short-term debt (further information is provided in Note 8.3.8).

#### a) Trade and other accounts receivable

Trade and other accounts receivable can be analyzed as follows:

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
Gross value	5,361	5,201
Provision for impairment	(426)	(450)
TRADE ACCOUNTS RECEIVABLE	4,935	4,751
Discounts and advances to suppliers	567	504
Prepaid payroll taxes	24	16
Other prepaid and recoverable taxes (other than income tax)	348	323
Miscellaneous operating receivables	248	252
Other non-operating receivables and provisions	339	326
Provision for impairment of other operating receivables	(11)	(16)
OTHER RECEIVABLES	1,515	1,405

Change in impairment provisions for trade accounts receivable in 2016 primarily reflect €84 million in additions (€99 million in 2015) and €98 million in reversals (€103 million in 2015), resulting from recoveries as well as write-offs. Bad debt write-offs are also reported under this caption for €69 million (€69 million in 2015).

Net past-due trade receivables amounted to €904 million at December 31, 2016 and €902 million at December 31, 2015. including €187 million over three months past due (€177 million at December 31, 2015).

## b) Trade and other accounts payable

Trade and other accounts payable and accrued expenses can be analyzed as follows:

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
TRADE ACCOUNTS PAYABLE	5,805	5,716
Customer deposits	1,056	927
Payables to suppliers of non-current assets	277	250
Grants received	88	97
Accrued personnel expenses	1,178	1,107
Accrued taxes other than on income	416	394
Other operating payables	521	566
Other non-operating payables	100	107
OTHER PAYABLES	3,636	3,448

## 3.5.3 Changes in working capital requirement

Changes in working capital requirement can be analyzed as follows:

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
INVENTORIES, NET	5,875	5,715
TRADE ACCOUNTS RECEIVABLE, NET	4,935	4,751
Other operating receivables	1,176	1,079
Other non-operating receivables	339	326
OTHER RECEIVABLES	1,515	1,405
CURRENT TAX RECEIVABLES	445	296
TRADE ACCOUNTS PAYABLE	5,805	5,716
Other operating payables	3,171	2,994
Other non-operating payables	465	454
OTHER PAYABLES	3,636	3,448
CURRENT TAX LIABILITIES	148	150
Operating working capital requirements	3,010	2,835
Non-operating working capital requirements (including current tax receivables and liabilities)	171	18
WORKING CAPITAL REQUIREMENTS	3,181	2,853

## 3.6 Off-balance sheet commitments related to operating activities

### 3.6.1 Obligations under finance leases

Non-current assets acquired under finance leases are recognized as an asset and a liability in the balance sheet (see Note 5.4 for further information).

Future payment commitments under finance leases are as

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
Future minimum lease payments		
Due within 1 year	17	17
Due in 1 to 5 years	40	44
Due beyond 5 years	12	8
TOTAL FUTURE MINIMUM LEASE PAYMENTS	69	69
Less finance charge	(10)	(7)
PRESENT VALUE OF FUTURE MINIMUM LEASE PAYMENTS	59	62

At December 31, 2016, future finance lease payment commitments represented €56 million under equipment and machinery leases and  $\ensuremath{\mathfrak{C}}$ 13 million under land and buildings leases.

## 3.6.2 Obligations under operating leases

The Group leases equipment, vehicles and office, manufacturing and warehouse space under various non-cancelable operating leases. Lease terms generally range from one to nine years. The liability for total future minimum payments over the lease terms is discounted. The leases contain rollover options for varying periods of time and some include clauses covering the payment of real estate taxes and insurance. In most cases, management expects that these leases will be rolled over or replaced by other leases in the normal course of business.

In 2016, rental expenses amounted to €844 million, including €563 million for land and buildings, and revenue from subleases represented €17 million. Net rental expense was €827 million.

Payments due under non-cancelable operating leases are as follows:

	Total 2016	Payments due by period		Total 2015	
(in € millions)		Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	
Rental expense	3,185	714	1,534	937	3,215
Subletting revenue	(76)	(16)	(30)	(30)	(77)
TOTAL	3,109	698	1,504	907	3,138

## 3.6.3 Non-cancelable purchase commitments

Non-cancelable purchase commitments include contractual commitments to purchase raw materials and services along with firm orders for property, plant and equipment and intangible assets.

	Total 2016	Payments due by period			Total 2015
(in € millions)		Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	
Property, plant and equipment and intangible assets	49	47	2	0	46
Commodities and energy	1,080	338	545	197	1,321
Services	184	82	82	20	262
TOTAL	1,313	467	629	217	1,629

#### 3.6.4 Guarantee commitments

In some cases, the Group grants seller's warranties to the buyers of divested businesses. A provision is set aside whenever a risk is identified and the related cost can be estimated reliably.

The Group also receives guarantees, amounting €93 million at December 31, 2016 (€99 million December 31, 2015).

#### 3.6.5 Commercial commitments

	Total 2016	Commitment amounts by period		Total 2015	
(in € millions)		Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	
Security for borrowings	41	17	15	9	44
Other commitments given	214	83	97	34	158
TOTAL	255	100	112	43	202

Guarantees given to the Group in respect of receivables amounted to €105 million at December 31, 2016 (€106 million at December 31, 2015).

At December 31, 2016, pledged assets amounted to €343 million (€674 million at December 31, 2015). The year-on-year decrease in this item mainly reflects a decrease in pledges of financial assets in the United Kingdom.

#### 3.6.6 Other commitments

A provision for greenhouse gas emissions allowances is recorded in the consolidated financial statements to cover any shortage between the Group's emissions and the allowances granted.

Greenhouse gas emissions allowances allocated to the Group's companies in 2016 represented approximately 3.6 million metric tons of CO<sub>2</sub>. The new 2017 allowances will be added to the residual inventory of prior allocations and will cover the level of greenhouse gas emissions for the year. As a result, no provision has been recorded in this respect in the Group's financial statements.

#### NOTE 4 EMPLOYEES, PERSONNEL EXPENSES AND EMPLOYEE BENEFIT **OBLIGATIONS**

## **Employees of fully consolidated** companies

	2016	2015*
Managerial-grade employees	27,677	26,936
Administrative employees	74,202	75,266
Other employees	70,184	71,042
TOTAL AVERAGE NUMBER OF EMPLOYEES	172,063	173,244

Data adjusted for suspended contracts.

The total number of Group employees for fully consolidated companies was 172,696 at December 31, 2016 and 171,958 at December 31, 2015, adjusted for suspended contracts.

#### 4.2 Management compensation

Direct and indirect compensation and benefits paid to members of the Board of Directors and the Group's senior management were as follows in 2016 and 2015:

(in € millions)	2016	2015
Attendance fees	1.1	1.1
Direct and indirect compensation (gross)		
Fixed portion	8.9	9.7
Variable portion	4.4	4.5
Estimated cost of pensions and other employee benefit obligations (IAS 19)	2.5	2.6
Share-based payment expense (IFRS 2)	8.5	6.4
Termination, retirement and other benefits	0.0	1.5
TOTAL	25.4	25.8

Total compensation and benefits paid in 2016 to Saint-Gobain management by the French and foreign companies in the Group (excluding any long-term cash-settled compensation) amounted to €13.3 million (€15.7 million in 2015), including €4.4 million in gross variable compensation (€4.5 million in 2015) and nil in termination, retirement or other benefits (€1.5 million in 2015).

Provisions for pensions and other post-employment benefits (defined benefit obligations [DBO] in respect of length-of-service awards and pensions) accruing to Group management totaled €47.0 million at December 31, 2016 (€55.8 million at December 31, 2015).

## 4.3 Provisions for pensions and other employee benefits

#### 4.3.1 Description of defined benefit plans

After retirement, the Group's former employees are eligible for pension benefits in accordance with the applicable laws and regulations in the respective countries in which the Group operates. There are also additional pension obligations in certain Group companies, both in France and in other countries.

The Group's obligation for the payment of pensions and length-of-service awards is determined at the end of the reporting period by independent actuaries using the projected unit credit method, taking into account changes in salaries until retirement and the economic conditions in each country. These obligations may be financed by pension funds, with a provision recognized in the balance sheet for the unfunded portion.

When plan assets exceed the defined benefit obligation, the excess is recognized in other non-current assets under "net pension assets". These assets are capped at the level of future economic benefits they provide. Changes in the asset ceiling are recognized in equity.

Actuarial gains and losses result from changes in actuarial assumptions, experience adjustments and the difference between the funds' actual rates of return and the discount rates applied. They are recognized against equity as and when they arise.

The interest cost of these obligations and the return on the related plan assets are measured by the Group using the discount rate applied to estimate the obligation at the beginning of the period, and are recognized as financial income or expense.

The Group's main defined benefit plans are as follows:

In France, employees receive length-of-service awards on retirement based on years of service and the calculation methods prescribed in the applicable collective bargaining agreements.

In addition to length-of-service awards, there are three defined benefit plans, all of which are final salary plans. These plans were closed to new entrants by the companies concerned between 1969 and 1997. Effective March 1, 2012, a defined benefit plan complying with Article L. 137-11 of France's Social Security Code (Code de la sécurité sociale) was set up by Compagnie de Saint-Gobain.

In Germany, retirement plans provide pensions and death and disability benefits for employees. These plans have been closed to new entrants since 1996.

In the Netherlands, ceilings have been introduced for defined benefit supplementary pension plans, above which they are converted into defined contribution plans.

In the United Kingdom, retirement plans provide pensions as well as death and permanent disability benefits. These defined benefit plans - which are based on employees' average salaries over their final years of employment - have been closed to new entrants since 2001.

In the United States and Canada, the Group's defined benefit plans are final salary plans. Since January 1, 2001, new employees have been offered a defined contribution plan.

In the United States and Spain, retired employees receive benefits other than pensions, mainly concerning healthcare. The Group's obligation under these plans is determined using the actuarial method and is covered by a provision recorded in the balance sheet.

Provisions for other long-term employee benefits cover all other employee benefits. These benefits primarily include long-service awards in France, jubilee awards in Germany, deferred compensation, provisions for social security benefits in the United States, and termination benefits in different countries. The related defined benefit obligation is generally calculated on an actuarial basis using the same rules as for pension obligations. Actuarial gains and losses relating to these benefits are recognized immediately in income statement.

## 4.3.2 Actuarial assumptions used to measure defined benefit obligations and plan assets

## 4.3.2.1 Rate assumptions

Assumptions related to mortality, employee turnover and future salary increases take into account the economic conditions specific to each country or Group company.

Discount rates were set by zone or country, based on observed bond yields at December 31, 2016.

The rate assumptions used in 2016 for the Group's main plans were as follows:

(in %)	France	Eurozone	United Kingdom	United States
Discount rate	1.80%	1.80%	2.60%	4.10%
		1.40% to		
Salary increases	2.50%	2.40%	2.00%*	3.00%
		1.40% to		
Inflation rate	1.50%	1.55%	2.35%	2.50%

<sup>\*</sup> A cap applies to the reference salaries used to calculate benefit entitlements.

The rate assumptions used in 2015 for the Group's main plans were as follows:

(in %)	France	Eurozone	United Kingdom	United States
Discount rate	2.40%	2.40%	3.80%	4.25%
Salary increases	2.50%	1.50% to 2.60%	2.00%*	3.00%
Inflation rate	1.70%	1.50% to 1.90%	2.05%	2.50%

<sup>\*</sup> A cap applies to the reference salaries used to calculate benefit entitlements.

#### 4.3.2.2 Sensitivity of assumptions

A 0.5-point decrease (increase) in the discount rate would lead to an increase (decrease) in defined benefit obligations of around €250 million for the United States plans, €240 million for the Eurozone plans and €510 million for the UK plans. A 0.5-point increase in the inflation rate would lead to an overall increase in defined benefit obligations of around €670 million

The same assumptions concerning mortality, employee turnover and interest rates are used to determine the Group's defined benefit obligations for other long-term employee benefits. In the United States, retirees' healthcare costs are projected to rise by 7.36% or 7.85% per year, depending on the age of the beneficiary (a 1-point increase in this rate would lead to an increase of around €55 million in the related projected benefit obligation).

#### 4.3.3 Change in pension and other post-employment benefit obligations

#### 4.3.3.1 Net book value of provisions

Provisions for pensions and other employee benefit obligations consist of the following:

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
Pension commitments	2,673	2,919
Length-of-service awards	355	333
Post-employment healthcare benefits	435	451
TOTAL PROVISIONS FOR PENSIONS AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	3,463	3,703
Healthcare benefits	27	28
Long-term disability benefits	20	19
Other long-term benefits	105	99

Provisions for all other long-term benefits totaled €152 million at December 31, 2016 (€146 million at December 31, 2015).

The following table shows obligations under pension and other post-employment benefit plans and the related plan assets:

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
Provisions for pensions and other post-employment benefit obligations - liabilities	3,463	3,703
Pension plan surpluses - assets	(41)	(63)
NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	3,422	3,640

## 4.3.3.2 Analysis of obligations

At December 31, 2016, pension obligations and provisions for other post-employment benefit obligations break down by major geographic region as follows:

<b>Dec. 31, 2016</b> (in € millions)	France	Eurozone	<b>United Kingdom</b>	<b>United States</b>	Rest of the World	Net total
Average duration (in years)	16	16	19	13	15	16
Defined benefit obligations - funded plans	563	1,781	5,278	2,975	937	11,534
Defined benefit obligations - unfunded plans	402	126		402	200	1,130
Fair value of plan assets	(256)	(829)	(4,814)	(2,519)	(828)	(9,246)
DEFICIT/(SURPLUS)	709	1,078	464	858	309	3,418
Asset ceiling					4	4
NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	709	1,078	464	858	313	3,422



At December 31, 2015, pension obligations and provisions for other post-employment benefit obligations by major geographic region were as follows:

<b>Dec. 31, 2015</b> (in € millions)	France	Eurozone	United Kingdom	United States	Rest of the World	Net total
Average duration (in years)	16	16	19	14	14	16
Defined benefit obligations - funded plans	540	1,724	4,775	2,829	841	10,709
Defined benefit obligations - unfunded plans	361	113		422	165	1,061
Fair value of plan assets	(270)	(803)	(4,410)	(1,902)	(751)	(8,136)
DEFICIT/(SURPLUS)	631	1,034	365	1,349	255	3,634
Asset ceiling			1		5	6
NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	631	1,034	366	1,349	260	3,640

## 4.3.3.3 Changes in pension and other post-employment benefit obligations

Changes in pension and other post-employment benefit obligations are as follows:

(in € millions)	Pension obligations	Fair value of plan assets	Asset ceiling	Net pension and other post-employment benefit obligations
AT JANUARY 1, 2015	11,796	(8,299)	8	3,505
Movements during the year				
Service cost	211			211
Interest cost/return on plan assets as per calculations	390	(296)		94
Employee contributions and plan administration costs		(1)		(1)
Past service cost	(2)			(2)
Plan curtailments/settlements	(237)	195		(42)
Pension contributions		(116)		(116)
Benefit payments	(498)	411		(87)
Actuarial gains and losses and asset ceiling	(359)	390	(1)	30
Currency translation adjustments	633	(497)	(1)	135
Changes in Packaging Sector	(1)	21		20
Changes in Group structure and reclassifications	(163)	56		(107)
TOTAL MOVEMENTS	(26)	163	(2)	135
AT DECEMBER 31, 2015	11,770	(8,136)	6	3,640
Movements during the year				
Service cost	189			189
Interest cost/return on plan assets as per calculations	382	(278)		104
Employee contributions and plan administration costs		(1)		(1)
Past service cost	(12)			(12)
Plan curtailments/settlements	(53)	51		(2)
Pension contributions		(732)		(732)
Benefit payments	(491)	399		(92)
Actuarial gains and losses and asset ceiling	1,474	(1,106)	(2)	366
Currency translation adjustments	(599)	558		(41)
Changes in Group structure and reclassifications	4	(1)		3
TOTAL MOVEMENTS	894	(1,110)	(2)	(218)

#### 4.3.3.4 Actuarial gains and losses

The €366 million actuarial gain breaks down as €1,474 million arising on pension obligations owing to changes in actuarial assumptions and experience adjustments, €1,106 million corresponding to the increase in plan assets and €2 million relating to a decrease in the asset ceiling.

#### 4.3.3.5 Plan assets

Plan assets have been progressively built up by contributions, primarily in the United States, the United Kingdom and Germany. Contributions paid by the Group into these plans in 2016 totaled €732 million (€116 million in 2015), including a one-off contribution of USD 640 million (€578 million) paid in the United States in September 2016.

Actual returns on equity and bond markets generated an increase of €1,384 million in plan assets, compared with a decrease of €94 million in 2015. This actual return is €1,106 million higher (including €1,016 million arising in the United Kingdom) than the estimated return of €278 million calculated using the discount rate.

A 0.5-point increase or decrease in the actual return on plan assets would have an impact of approximately €46 million on

Plan assets are mainly composed of equities (27%) and bonds (55%), with the remaining 18% invested in other asset classes.

Projected contributions to pension plans for 2017 are estimated at around €130 million.

#### 4.3.3.6 Employee benefit expense

The cost of the Group's pension and other post-employment benefit plans (excluding other employee benefits) is as follows:

(in € millions)	2016	2015
Service cost	189	211
Interest cost	382	390
Return on plan assets	(278)	(296)
Past service cost, plan curtailments and settlements	(14)	(44)
Employee contributions and plan administration costs	(1)	(1)
PENSIONS, LENGTH-OF-SERVICE AWARDS AND OTHER POST-EMPLOYMENT BENEFITS	278	260

#### 4.3.4 Defined contribution plans

Contributions to defined contribution plans are expensed as incurred.

Contributions to defined contribution plans for 2016 represented an estimated €628 million (€600 million in 2015), including €418 million for government-sponsored basic pension schemes (€399 million in 2015), €131 million for government-sponsored supplementary pension schemes, mainly in France (€129 million in 2015), and €79 million for corporate-sponsored supplementary pension (€72 million in 2015).

## 4.4 Share-based payments

#### 4.4.1 Group Savings Plan

The Group Savings Plan (Plan Épargne Groupe) is an employee stock purchase plan open to all Group employees in France and most other countries where the Group is present. Eligible employees must have completed a minimum of three months' service in the Group. Eligible employees are able to invest in Saint-Gobain shares at a preferential subscription price. These shares are held either directly or through the employee saving plan's mutual funds, depending on local legislation, and are subject to a mandatory five- or ten-year lock-up, except following the occurrence of certain events. The Board of Directors delegates authorization for setting the subscription price to the Chief Executive Officer of Compagnie de Saint-Gobain. It corresponds to the average of the opening prices for the Saint-Gobain share on Euronext Paris over the 20 trading days preceding the date of the decision, subject to a 20% discount, in accordance with applicable laws, the Shareholders' Meeting resolutions and the deliberations of the Board of Directors.

The compensation cost recorded in accordance with IFRS 2 is measured by reference to the fair value of a discount offered on restricted stock (i.e., stock subject to a lock-up). The cost of the lock-up for the employee is defined as the cost of a two-step strategy that involves first selling the restricted stock forward five or ten years and then purchasing the same number of shares on the spot market and financing the purchase with debt. The borrowing cost is estimated at the rate that would be charged by a bank to an individual with an average risk profile for a general-purpose, five- or ten-year consumer loan repayable at maturity. The cost of the plans is recognized in full at the end of the subscription period.

In 2016, 4,653,810 new shares with a par value of €4 were issued to employees under the PEG at an average subscription price of €29.42 (4,449,939 shares at an average subscription price of €32.44 in 2015), representing a share capital increase of €136 million (€144 million in 2015), net of transaction fees.

The cost recorded in the income statement amounted to nil in 2016 and 2015, net of the lock-up cost of €26 million (€24 million in 2015).

The following table shows the main features of the standard plans, the amounts invested in the plans and the valuation assumptions applied in 2016 and 2015:

	2016	2015
Plan characteristics		
Date of Shareholders' Meeting	June 4, 2015 (17th Resolution)	June 6, 2013 (16th Resolution)
Date of the Chief Executive Officer's decision fixing the subscription price	March 21	March 23
Plan duration (in years)	5 or 10	5 or 10
Reference price (in €)	36.77	40.54
Subscription price (in €)	29.42	32.44
Discount (in %)	20.00%	20.00%
Total discount on the date of the Chief Executive Officer's decision (in %) (a)	21.94%	20.02%
Employee investments (in € millions)	136.9	144.4
Total number of shares subscribed	4,653,810	4,449,939
Valuation assumptions		
Interest rate applicable to employees*	5.00%	5.40%
5-year risk-free interest rate	-O.15%	0.05%
Repo rate	0.50%	0.46%
Lock-up discount (in %) (b)	22.92%	23.42%
Total cost to the Group (in %) (a-b)	-0.98%	-3.40%

A 0.5-point decline in borrowing costs for the employee would have no impact on the 2016 share-based payment expense as calculated in accordance with IFRS 2.

#### 4.4.2 Stock option plans

Compagnie de Saint-Gobain has stock option plans available to certain employees.

The Board of Directors grants options allowing beneficiaries to obtain Saint-Gobain shares at a price set, at no discount, by reference to the average of the opening prices for the Saint-Gobain share over the 20 trading days preceding the date of the decision by the Board of Directors.

For all of the plans, options may only be exercised after four years vesting period. During this period, none of the options received may be exercised. Options must be exercised within 10 years of the grant date. Except in specified circumstances, grantees forfeit these options if they leave the Group.

Among the plans outstanding at December 31, 2016, plans 2007 to 2012 offer subscription options. For plans launched between 2013 and 2016, the Board of Directors has decided that it would determine the type of option (subscription or purchase) at the latest on the day before the start of the exercise period, with any options exercised prior to such decision considered as subscription options.

Up to 2008, options were subject to a performance condition for certain grantees only. A performance condition applies for all grantees in plans awarded since 2009.

For options granted under the 2016 plan, the value used to calculate the 30% contribution sociale tax due by grantees employed by French companies in the Group is €4.21 per option granted.

The following table presents changes in the number of outstanding options:

	€4 par value shares	Average exercise price (in €)
OPTIONS OUTSTANDING AT DECEMBER 31, 2014	16,182,839	46.04
Options granted	224,950	39.47
Options exercised	(801,840)	35.21
Options forfeited	(4,004,092)	40.18
OPTIONS OUTSTANDING AT DECEMBER 31, 2015	11,601,857	48.69
Options granted	280,000	40.43
Options exercised	(450,082)	27.50
Options forfeited*	(4,509,448)	51.40
OPTIONS OUTSTANDING AT DECEMBER 31, 2016	6,922,327	47.97

Including 4.306.454 options under the 2006 stock option plan that had not been exercised upon expiry of the plan on November 15, 2016, and 202,994 options under the 2012 stock option plan which lapsed because the related performance condition was only partly met.

The cost of stock option plans is calculated using the Black & Scholes option pricing model.

The following inputs were used:

 volatility assumptions that take into account the historical volatility of the share price over a rolling 10-year period, as well as implied volatility from traded share options. Periods of extreme share price volatility are disregarded;

- assumptions relating to the average holding period of options, based on observed behavior of option holders;
- expected dividends, as estimated on the basis of historical dividend information dating back to 1988;
- a risk-free interest rate corresponding to the yield on long-term government bonds;
- the effect of any stock market performance conditions, which is taken into account in the initial measurement of IFRS 2 share-based payment expense.

The cost calculated using this method is recognized in the income statement over the vesting period of the options, which is four years.

Stock option expense recorded in the income statement amounted to €1 million in both 2016 and 2015. The fair value of options granted in 2016 amounted to €1 million.

The table below summarizes information about stock options outstanding at December 31, 2016, after taking into account partial fulfillment of the performance criteria attached to certain plans:

	Ex	ercisable options	S	Non-exercisable	Non-exercisable options Total o		l options outstanding	
Grant date	Exercise price (in €)	Number of options	Weighted average contractual life (in months)	Exercise price (in €)	Number of options	Number of options	Type of options	
2007	64.72	3,403,171	11			3,403,171	Subscription	
2008	25.88	1,702,822	23			1,702,822	Subscription	
2009	36.34	809,868	35			809,868	Subscription	
2010	35.19	0	47			0	Subscription	
2011	31.22	0	59			0	Subscription	
2012	27.71	29,716	71			29,716	Subscription	
2013			83	38.80	237,250	237,250	Subscription or purchase*	
2014			95	34.13	234,550	234,550	Subscription or purchase*	
2015			107	39.47	224,950	224,950	Subscription or purchase*	
2016			119	40.43	280,000	280,000	Subscription or purchase*	
TOTAL		5,945,577			976,750	6,922,327		

<sup>\* 2013, 2014, 2015</sup> and 2016 plans: see above.

For subscription options, the sum received by the Company when options are exercised is recorded in "Capital stock" for the portion representing the par value of the shares, with the balance - net of directly attributable transaction costs - recorded under "Additional paid-in capital".

At December 31, 2016, 5,945,577 stock options were exercisable (at an average exercise price of  $\leqslant$ 49.55) and 976,750 options (with an average exercise price of  $\leqslant$ 38.30) had not yet vested.

## 4.4.3 Performance shares and performance unit grants

The Group set up a worldwide share grant plan in 2009 whereby each Group employee was awarded seven shares. This plan ended in the first half of 2014. Since 2009, performance share plans have also been set up for certain categories of employees. These plans are subject to eligibility criteria based on the grantee's period of service (service conditions) with the Group as well as performance criteria (performance conditions), which are described below. The IFRS 2 share-based payment expense takes into account these criteria as well as the lock-up feature. It is determined after deducting the present value of forfeited dividends on the performance shares and are recognized over the vesting period, which ranges from two to four years depending on the country.

Since 2012, performance unit plans have been set up for certain employees in France. These plans are also subject to service and performance conditions. The IFRS 2 share-based payment expense therefore takes into account these factors, as well as the fact that the units are cash-settled. IFRS 2 stipulates that for cash-settled share-based payment transactions, the granted instruments are initially measured at fair value at the grant date, then remeasured at the end of each reporting period, with the expense adjusted accordingly pro rata to the rights that have vested at the reporting date. The expense is recognized over the vesting period of the rights.

## a) Performance share plans

Various performance share plans have been set up by Saint-Gobain since 2009.

Four performance plans were outstanding at December 31, 2016. The plans approved by the Board of Directors in 2013, 2014 and 2015 solely concern certain managerial-grade employees and senior managers of the Group outside France. The plan approved by the Board of Directors on November 24, 2016 concerns managerial-grade employees and senior managers of the Group within and outside France.

All plans are subject to service and performance conditions. The vesting period for the plans is four years and the shares will be delivered the day after the end of the vesting period.

The table below shows changes in the number of performance share rights:

	Number of rights
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2014	2,102,291
Performance share rights granted in November 2015	500,910
Shares issued/delivered	(237,810)
Lapsed and canceled rights	(13,510)
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2015	2,351,881
Performance share rights granted in November 2016	1,231,320
Shares issued/delivered*	(583,220)
Lapsed and canceled rights	(196,856)
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2016	2,803,125

Including 217,115 new shares delivered under the 2011 plan, 365,555 existing shares delivered under the 2012 plan and 550 existing shares delivered in advance under the 2013 and 2014 plans.

The fair value of the performance shares corresponds to the Saint-Gobain share price on the grant date less the value of dividends not payable on the shares during the vesting period and, as for the Group Savings Plan, minus the discount on restricted stock (i.e., stock subject to a 4-year lock-up), which has been estimated at around 30% of the share price. The share-based payment expense is recognized over the two-or four-year vesting period of the performance shares.

The expense recorded in the income statement in 2016 in respect of these plans amounted to  $\le$ 10 million ( $\le$ 8 million in 2015).

The following table shows the expected dates when shares under the four performance share plans outstanding at December 31, 2016 will be issued/delivered (except in the case of early release following the grantee's death or disability), along with the service and performance conditions remaining to be fulfilled:

Grant date	Number of rights at December 31, 2016*	End of vesting and lock-up period	Type of shares
November 21, 2013	541,105	November 21, 2017	existing
November 20, 2014	529,790	November 20, 2018	existing
November 26, 2015	500,910	November 26, 2019	existing
November 24, 2016	1,231,320	November 24, 2020	existing
TOTAL	2,803,125		

<sup>\*</sup> Subject to fulfillment of the service and performance conditions applicable to each plan.

## b) Performance unit plans

Performance unit plans subject to service and performance conditions were set up every year between 2012 and 2015 for certain management-grade employees and senior managers of the Group in France. These plans do not give rise to the delivery of shares but entitle grantees to receive cash compensation deferred over the long term (exercise period between four and ten years after the grant date), the amount of which will be determined by reference to the Company's share price.

No long-term payment plan in the form of performance units was set up in 2016, since all beneficiaries received rights to performance shares (see above).

En 2016, 345,431 performance units became exercisable under the 2012 plan and 190,969 performance units under that plan lapsed, including 180,038 because the related performance condition was only partly met.

The table below shows historical data for the performance unit plans in the process of vesting at December 31, 2016:

Grant date	Number of performance units granted at inception of plan	Exercised early	Number of performance units at December 31, 2016*
November 21, 2013	588,535	17,750	570,785
November 20, 2014	598,400	1,350	597,050
November 26, 2015	556,340		556,340
TOTAL	1,743,275	19,100	1,724,175

<sup>\*</sup> Subject to fulfillment of the service and performance conditions applicable to each plan.

The expense recorded in the income statement in respect of these plans in 2016 amounted to €20 million (€14 million in 2015).

## NOTE 5 PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

#### 5.1 Goodwill

When an entity is acquired by the Group, its identifiable assets and assumed liabilities are recognized at their fair value within a twelve-month measurement period and retroactively at the acquisition date.

The final acquisition price ("consideration transferred" in IFRS 3R), including, as appropriate, the estimated fair value of any earn-out payments or other deferred consideration ("contingent consideration" in IFRS 3R), is determined in the twelve months following the acquisition. Under IFRS 3R, any adjustments to the acquisition price beyond this twelve-month period are recorded in the income statement. All costs directly attributable to the acquisition, i.e., costs that the acquirer incurs to effect a business combination, such as professional fees paid to investment banks, attorneys, auditors, independent appraisers and other consultants, are no longer capitalized as part of the cost of the business combination. They are therefore expensed as incurred and are no longer included in the cost of acquisition.

In addition, goodwill is recognized only at the date that control is achieved. Any subsequent increase in ownership interest (without change of control) is recorded as a change in equity without adjusting goodwill.

Goodwill is recorded in the consolidated balance sheet as the difference between (i) the acquisition-date fair value plus the amount of any minority interests in the acquisition - measured either at fair value (full goodwill method) or at the proportionate interest in the fair value of the net identifiable assets acquired (partial goodwill method) - and (ii) the net amount of assets and liabilities acquired at their fair value at the acquisition date. The Group generally applies the partial goodwill method and the amount of goodwill calculated under the full goodwill method is not therefore material.

Any excess of the cost of an acquisition over the fair value of the Group's share of the assets and liabilities of the acquired entity is recorded as goodwill. Any negative difference between the cost of the acquisition and the fair value of the net assets and liabilities acquired is recognized in the income statement during the year of acquisition.

Changes in goodwill in 2016 and 2015 are detailed below:

(in € millions)	2016	2015
At January 1		
Gross value	12,180	11,899
Accumulated impairment	(1,497)	(1,437)
NET VALUE	10,683	10,462
Movements during the year		
Impairment	(13)	(157)
Translation adjustments	(189)	320
Changes in Packaging Sector	0	(1)
Changes in Group structure	188	59
TOTAL MOVEMENTS	(14)	221
At December 31		
Gross value	12,160	12,180
Accumulated impairment	(1,491)	(1,497)
NET VALUE	10,669	10,683

In 2016, changes in Group structure related mainly to newly consolidated companies for €189 million (€174 million in 2015), partially offset by companies deconsolidated for €1 million (€115 million in 2015). Impairment tests performed in 2016 led to the recognition of goodwill impairment, primarily on the Interior Solutions business. Currency translation differences arising in 2016 primarily reflect the impact of fluctuations in the pound sterling, US dollar, and Brazilian real.

In 2015, changes in goodwill were primarily due to translation adjustments arising on fluctuations in the US dollar, pound sterling and Brazilian real, and by impairment losses booked against the Flat Glass business in the United States and the Insulation business in Russia.

The net value of goodwill by sector and by business at December 31, 2016 and 2015 can be analyzed as follows:

(in € millions)	2016	2015
Flat Glass	240	209
High-Performance Materials	1,679	1,597
Construction Products	5,924	5,957
Building Distribution	2,826	2,920
TOTAL	10,669	10,683

Goodwill is essentially allocated to the Construction Products Sector, and chiefly relates to Gypsum (€3,435 million at December 31, 2016) and Industrial Mortars (€1,979 million at December 31, 2016), and to the Building Distribution Sector, primarily in the United Kingdom, France and Scandinavia.



## 5.2 Other intangible assets

Other intangible assets primarily include patents, brands, software and development costs. They are measured at historical cost less accumulated amortization and impairment.

Acquired retail brands and certain manufacturing brands are treated as intangible assets with indefinite useful lives as they have a strong national and/or international reputation. These brands are not amortized but are tested systematically for impairment on an annual basis. Other brands are amortized over their useful lives, not exceeding 40 years.

Costs incurred to develop software in-house - primarily configuration, programming and testing costs - are recognized as intangible assets. Patents and purchased computer software are amortized over their estimated useful lives, not exceeding 20 years for patents and three to five years for software.

Research costs are expensed as incurred. Development costs meeting the recognition criteria under IAS 38 are included in intangible assets and amortized over their estimated useful lives (not exceeding five years) from the date when the products to which they relate are first marketed.

Changes in other intangible assets during 2016 and 2015 are analyzed below:

(in € millions)	Non Patents	-amortizable brands	Software	Development costs	Other	Total
At January 1, 2015						
Gross value	149	2,821	969	121	365	4,425
Accumulated amortization and impairment	(125)	(146)	(795)	(81)	(193)	(1,340)
NET	24	2,675	174	40	172	3,085
Movements during the year						
Acquisitions	0	0	89	8	32	129
Disposals	0	0	(1)	0	(4)	(5)
Translation adjustments	2	70	0	1	4	77
Amortization and impairment	(4)	(451)	(65)	(12)	(16)	(548)
Changes in Packaging Sector	0	0	1	0	0	1
Changes in Group structure and other	2	(9)	(4)	(3)	23	9
TOTAL MOVEMENTS	0	(390)	20	(6)	39	(337)
At December 31, 2015						
Gross value	162	2,872	1,000	131	425	4,590
Accumulated amortization and impairment	(138)	(587)	(806)	(97)	(214)	(1,842)
NET	24	2,285	194	34	211	2,748
Movements during the year						
Acquisitions	5	0	91	17	38	151
Disposals	0	0	(12)	0	(1)	(13)
Translation adjustments	1	(140)	3	1	0	(135)
Amortization and impairment	(4)	0	(68)	(13)	(12)	(97)
Changes in Group structure and other	0	(1)	12	(3)	0	8
TOTAL MOVEMENTS	2	(141)	26	2	25	(86)
At December 31, 2016						
Gross value	165	2,731	1,066	147	451	4,560
Accumulated amortization and impairment	(139)	(587)	(846)	(111)	(215)	(1,898)
NET	26	2,144	220	36	236	2,662

Impairment of non-amortizable brands in 2015 was charged against the Lapeyre brand due to difficulties in the French housing market.

The breakdown of non-amortizable brands by sector is provided in the segment information tables in Note 3 "Information concerning the Group's operating activities".

## 5.3 Property, plant and equipment

Land, buildings and equipment are carried at historical cost less accumulated depreciation and impairment.

Cost may also include incidental expenses directly attributable to the acquisition, as well as the impact of transfers from equity of any gains/losses on qualifying cash flow hedges of property, plant and equipment purchases.

Expenses incurred in exploring and evaluating mineral resources are included in property, plant and equipment when it is probable that associated future economic benefits will flow to the Group. They include mainly the costs of topographical or geological studies, drilling costs, sampling costs and all costs incurred in assessing the technical feasibility and commercial viability of extracting the mineral resource.

Material borrowing costs incurred for the construction and acquisition of property, plant and equipment are included in the cost of the related asset if they are significant.

Property, plant and equipment are considered as having no residual value, as they chiefly consist of industrial assets that are intended to be used until the end of their useful lives.

Property, plant and equipment other than land are depreciated using the components approach on a straight-line basis over the following estimated useful lives, which are regularly reviewed:

Major factories and offices	30-40 years
Other buildings	15-25 years
<ul> <li>Production machinery and equipment</li> </ul>	5-16 years
◆ Vehicles	3-5 years
<ul> <li>Furniture, fixtures, office and computer equipment</li> </ul>	4-16 years

Gypsum quarries are depreciated over their estimated useful lives, based on the quantity of gypsum extracted during the year compared with extraction capacity.

Provisions for site restoration are recognized as components of assets whenever the Group has a legal or constructive obligation to restore a site in accordance with contractually determined conditions or in the event of a sudden deterioration in site conditions. These provisions are reviewed periodically and may be discounted over the expected useful lives of the assets concerned. The component is depreciated over the same useful life as that used for mines and quarries.

Government grants for purchases of property, plant and equipment are recorded under "Other payables" and taken to the income statement over the estimated useful lives of the relevant assets.

Changes in property, plant and equipment in 2016 and 2015 are analyzed below:

Accumulated depreciation and impairment         (490)         (5,050)         (15,561)         (51)         (21,552)           NET         1,986         3,756         5,852         1,063         12,65           Movements during the year         Acquisitions         27         69         273         977         1,34           Disposals         (21)         (26)         (17)         (14)         (78           Translation adjustments         32         24         (1)         4         58           Depreciation and impairment         (42)         (316)         (1,021)         (1)         (4,380)           Transfers         261         649         (910)         (3,380)           Changes in Packaging Sector         (1)         (4)         56         (29)         2           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,039)           TOTAL MOVEMENTS         (26)         (167)         (823)         (54)         (1,070)           At December 31, 2015         2         (20         (167)         (823)         (54)         (1,070)           Accumulated depreciation and impairment         (533)         (4,911)         (14,520)	(in € millions)	Land and quarries	Buildings	Machinery and equipment	Assets under construction	Total
Accumulated depreciation and impairment         (490)         (5,550)         (15,561)         (51)         (21,552)           NET         1,986         3,756         5,852         1,063         12,65           Movements during the year         Acquisitions         27         69         273         977         1,34           Disposals         (21)         (26)         (17)         (14)         (78           Translation adjustments         32         24         (1)         4         5           Depreciation and impairment         (42)         (316)         (1,021)         (1)         (1,380)           Changes in Packaging Sector         (1)         (4)         56         (29)         2           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,030)           TOTAL MOVEMENTS         (26)         (167)         (823)         (54)         (1,070)           At December 31, 2015         3,500         19,549         1,064         3,600           Movements during the year         2,493         8,500         19,549         1,064         3,600           NET         1,960         3,589         5,029         1,009         1,058 </td <td>At January 1, 2015</td> <td></td> <td></td> <td></td> <td></td> <td></td>	At January 1, 2015					
NET         1,986         3,756         5,852         1,063         12,65           Movements during the year         Acquisitions         27         69         273         977         1,34           Disposals         (21)         (26)         (17)         (14)         78           Translation adjustments         32         24         (1)         4         55           Depreciation and impairment         (42)         (316)         (1021)         (1)         (1,380           Transfers         261         649         (910)         6           Changes in Packaging Sector         (1)         (4)         56         (29)         2           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,039           TOTAL MOVEMENTS         (26)         (167)         (823)         (54)         (1,070           At December 31, 2015         3500         19,549         1,064         31,600           Accumulated depreciation and impairment         (533)         (4,91)         (14,520)         (55)         (20,019           NET         1,960         3,589         5,029         1,009         1,58           Movements during the year	Gross value	2,476	8,806	21,413	1,114	33,809
Movements during the year         Acquisitions         27         69         273         977         1,34           Disposals         (21)         (26)         (17)         (14)         (78           Translation adjustments         32         24         (1)         4         5           Depreciation and impairment         (42)         (316)         (1021)         (1)         (1,380)           Transfers         261         649         (910)         (6           Changes in Packaging Sector         (1)         (4)         56         (29)         2           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,030)           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,030)           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,070)           At December 31, 2015         (26)         (167)         (823)         (54)         (1,070)           At December 31, 2015         (29)         (2,93)         8,500         19,549         1,064         31,600           Accumulated depreciation and impairment         (533)         (4,911) <t< td=""><td>Accumulated depreciation and impairment</td><td>(490)</td><td>(5,050)</td><td>(15,561)</td><td>(51)</td><td>(21,152)</td></t<>	Accumulated depreciation and impairment	(490)	(5,050)	(15,561)	(51)	(21,152)
Acquisitions         27         69         273         977         1,34           Disposals         (21)         (26)         (17)         (14)         (78           Translation adjustments         32         24         (1)         4         5           Depreciation and impairment         (42)         (316)         (1,021)         (1)         (1,380)           Transfers         261         649         (910)         0           Changes in Packaging Sector         (1)         (4)         56         (29)         2           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,030)           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,030)           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,030)           At December 31, 2015         (8)         (167)         (823)         (54)         (1,000)           Accumulated depreciation and impairment         (533)         (4,911)         (14,520)         (55)         (20,019)           NET         1,960         3,589         5,029         1,009         11,58	NET	1,986	3,756	5,852	1,063	12,657
Disposals   (2 )   (26)   (17)   (14)   (78)	Movements during the year					
Translation adjustments         32         24         (1)         4         5           Depreciation and impairment         (42)         (316)         (1,021)         (1)         (1,380)           Transfers         261         649         (910)         (20) <td>Acquisitions</td> <td>27</td> <td>69</td> <td>273</td> <td>977</td> <td>1,346</td>	Acquisitions	27	69	273	977	1,346
Depreciation and impairment   (42)   (316)   (1,021)   (1)   (1,380)	Disposals	(21)	(26)	(17)	(14)	(78)
Transfers         261         649         (910)         Consist of Consistency           Changes in Packaging Sector         (1)         (4)         56         (29)         2           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,070)           TOTAL MOVEMENTS         (26)         (167)         (823)         (54)         (1,070)           At December 31, 2015         Cross value         2,493         8,500         19,549         1,064         31,600           Accumulated depreciation and impairment         (533)         (4,911)         (14,520)         (55)         (20,019)           NET         1,960         3,589         5,029         1,009         11,58           Movements during the year         Acquisitions         50         63         329         928         1,370           Disposals         (41)         (18)         (19)         (7)         (85           Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         0	Translation adjustments	32	24	(1)	4	59
Changes in Packaging Sector         (1)         (4)         56         (29)         2           Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,030)           TOTAL MOVEMENTS         (26)         (167)         (823)         (54)         (1,070)           At December 31, 2015         Gross value         2,493         8,500         19,549         1,064         3,600           Accumulated depreciation and impairment         (533)         (4,911)         (14,520)         (55)         (20,019)           NET         1,960         3,589         5,029         1,009         11,58           Movements during the year         Acquisitions         50         63         3.29         928         1,370           Disposals         (41)         (18)         (19)         (77)         (85           Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         0           Changes in Group structure and other         23         (23)         28<	Depreciation and impairment	(42)	(316)	(1,021)	(1)	(1,380)
Changes in Group structure and other         (21)         (175)         (762)         (81)         (1,039)           TOTAL MOVEMENTS         (26)         (167)         (823)         (54)         (1,070)           At December 31, 2015           Gross value         2,493         8,500         19,549         1,064         31,600           Accumulated depreciation and impairment         (533)         (4,911)         (14,520)         (55)         (20,019)           NET         1,960         3,589         5,029         1,009         11,58           Movements during the year         Acquisitions         50         63         329         928         1,370           Disposals         (41)         (18)         (19)         (7)         (85           Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         0           Changes in Group structure and other         23         (23)         28         0         2           TOTAL MOVEMENTS         (10)         (50)         119         8	Transfers		261	649	(910)	0
TOTAL MOVEMENTS         (26)         (167)         (823)         (54)         (1,070)           At December 31, 2015           Gross value         2,493         8,500         19,549         1,064         31,600           Accumulated depreciation and impairment         (533)         (4,911)         (14,520)         (55)         (20,019)           NET         1,960         3,589         5,029         1,009         11,58           Movements during the year         8         4         1,060         3,589         5,029         1,009         11,58           Acquisitions         50         63         329         928         1,374           Disposals         (41)         (18)         (19)         (7)         (85           Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         0         2           Changes in Group structure and other         23         (23)         28         0         2           TOTAL MOVEMENTS         (10)         (50)         119 <t< td=""><td>Changes in Packaging Sector</td><td>(1)</td><td>(4)</td><td>56</td><td>(29)</td><td>22</td></t<>	Changes in Packaging Sector	(1)	(4)	56	(29)	22
At December 31, 2015  Gross value 2,493 8,500 19,549 1,064 31,600  Accumulated depreciation and impairment (533) (4,911) (14,520) (55) (20,019)  NET 1,960 3,589 5,029 1,009 11,58  Movements during the year  Acquisitions 50 63 329 928 1,377  Disposals (41) (18) (19) (7) (85  Translation adjustments (7) (7) 30 (3) 1  Depreciation and impairment (35) (264) (958) (2) (1,259)  Transfers 199 709 (908) (2)  Changes in Group structure and other 23 (23) 28 0 22  TOTAL MOVEMENTS (10) (50) 119 8 66  At December 31, 2016  Gross value 2,510 8,607 19,744 1,067 31,927  Accumulated depreciation and impairment (560) (5,068) (14,596) (50) (20,274)	Changes in Group structure and other	(21)	(175)	(762)	(81)	(1,039)
Gross value         2,493         8,500         19,549         1,064         31,600           Accumulated depreciation and impairment         (533)         (4,911)         (14,520)         (55)         (20,019)           NET         1,960         3,589         5,029         1,009         11,58           Movements during the year         4 <th< td=""><td>TOTAL MOVEMENTS</td><td>(26)</td><td>(167)</td><td>(823)</td><td>(54)</td><td>(1,070)</td></th<>	TOTAL MOVEMENTS	(26)	(167)	(823)	(54)	(1,070)
Accumulated depreciation and impairment         (533)         (4,911)         (14,520)         (55)         (20,019)           NET         1,960         3,589         5,029         1,009         11,58           Movements during the year         30         63         329         928         1,370           Acquisitions         50         63         329         928         1,370           Disposals         (41)         (18)         (19)         (7)         (85           Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         (908	At December 31, 2015					
NET         1,960         3,589         5,029         1,009         11,58           Movements during the year         4         50         63         329         928         1,370           Acquisitions         50         63         329         928         1,370           Disposals         (41)         (18)         (19)         (7)         (85           Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         0           Changes in Group structure and other         23         (23)         28         0         2           TOTAL MOVEMENTS         (10)         (50)         119         8         6           At December 31, 2016         6         8,607         19,744         1,067         31,92           Accumulated depreciation and impairment         (560)         (5,068)         (14,596)         (50)         (20,274	Gross value	2,493	8,500	19,549	1,064	31,606
Movements during the year         50         63         329         928         1,376           Disposals         (41)         (18)         (19)         (7)         (85           Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         0           Changes in Group structure and other         23         (23)         28         0         2           TOTAL MOVEMENTS         (10)         (50)         119         8         6           At December 31, 2016           Gross value         2,510         8,607         19,744         1,067         31,92           Accumulated depreciation and impairment         (560)         (5,068)         (14,596)         (50)         (20,274)	Accumulated depreciation and impairment	(533)	(4,911)	(14,520)	(55)	(20,019)
Acquisitions         50         63         329         928         1,376           Disposals         (41)         (18)         (19)         (7)         (85           Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)	NET	1,960	3,589	5,029	1,009	11,587
Disposals         (41)         (18)         (19)         (7)         (85)           Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         0           Changes in Group structure and other         23         (23)         28         0         20           TOTAL MOVEMENTS         (10)         (50)         119         8         6           At December 31, 2016           Gross value         2,510         8,607         19,744         1,067         31,920           Accumulated depreciation and impairment         (560)         (5,068)         (14,596)         (50)         (20,274)	Movements during the year					
Translation adjustments         (7)         (7)         30         (3)         1           Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         (908	Acquisitions	50	63	329	928	1,370
Depreciation and impairment         (35)         (264)         (958)         (2)         (1,259)           Transfers         199         709         (908)         6           Changes in Group structure and other         23         (23)         28         0         2           TOTAL MOVEMENTS         (10)         (50)         119         8         6           At December 31, 2016           Gross value         2,510         8,607         19,744         1,067         31,92           Accumulated depreciation and impairment         (560)         (5,068)         (14,596)         (50)         (20,274)	Disposals	(41)	(18)	(19)	(7)	(85)
Transfers         199         709         (908)         0           Changes in Group structure and other         23         (23)         28         0         20           TOTAL MOVEMENTS         (10)         (50)         119         8         6           At December 31, 2016         6         6         6         7         19,744         1,067         31,920           Accumulated depreciation and impairment         (560)         (5,068)         (14,596)         (50)         (20,274)	Translation adjustments	(7)	(7)	30	(3)	13
Changes in Group structure and other         23         (23)         28         0         22           TOTAL MOVEMENTS         (10)         (50)         119         8         6           At December 31, 2016           Gross value         2,510         8,607         19,744         1,067         31,92           Accumulated depreciation and impairment         (560)         (5,068)         (14,596)         (50)         (20,274)	Depreciation and impairment	(35)	(264)	(958)	(2)	(1,259)
TOTAL MOVEMENTS         (10)         (50)         119         8         6           At December 31, 2016           Gross value         2,510         8,607         19,744         1,067         31,92           Accumulated depreciation and impairment         (560)         (5,068)         (14,596)         (50)         (20,274)	Transfers		199	709	(908)	0
At December 31, 2016         Gross value       2,510       8,607       19,744       1,067       31,920         Accumulated depreciation and impairment       (560)       (5,068)       (14,596)       (50)       (20,274)	Changes in Group structure and other	23	(23)	28	0	28
Gross value         2,510         8,607         19,744         1,067         31,920           Accumulated depreciation and impairment         (560)         (5,068)         (14,596)         (50)         (20,274)	TOTAL MOVEMENTS	(10)	(50)	119	8	67
Accumulated depreciation and impairment (560) (5,068) (14,596) (50) (20,274	At December 31, 2016					
	Gross value	2,510	8,607	19,744	1,067	31,928
NET 1,950 3,539 5,148 1,017 11,65	Accumulated depreciation and impairment	(560)	(5,068)	(14,596)	(50)	(20,274)
	NET	1,950	3,539	5,148	1,017	11,654

## 5.4 Finance leases and operating leases

Assets held under finance leases that transfer to the Group substantially all of the risks and rewards of ownership are recognized as property, plant and equipment (land, buildings and equipment). They are recorded at the inception of the lease term at the lower of the fair value of the leased assets and the present value of the minimum lease payments.

Property, plant and equipment acquired under finance leases are depreciated on a straight-line basis over the shorter of the estimated useful life of the asset - determined using the same criteria as for assets owned by the Group - or the lease term.

The corresponding liability is shown in the balance sheet net of related interest.

Rental payments under operating leases are expensed as incurred.

In 2016, other movements in property, plant and equipment included assets acquired under finance leases for an amount of €21 million (€17 million at December 31, 2015). These finance leases are not included in the cash flow statement, in accordance with IAS 7. At December 31, 2016, total property, plant and equipment acquired under finance leases amounted to €71 million (€67 million at December 31, 2015).

## 5.5 Impairment review

## 5.5.1 Impairment of property, plant and equipment, intangible assets and goodwill

Property, plant and equipment, goodwill and other intangible assets are tested for impairment on a regular basis. These tests consist of comparing the asset's carrying amount to its recoverable amount. The recoverable amount is the higher of the asset's fair value less costs to sell and its value in use, calculated by reference to the net present value of the future cash flows expected to be derived from the asset.

For property, plant and equipment and amortizable intangible assets, an impairment test is performed whenever revenues from the asset decline or the asset generates operating losses due to either internal or external factors, and no material improvement is forecast in the annual budget or the relevant business plan.

For goodwill and other intangible assets (including brands with indefinite useful lives), an impairment test is performed at least annually based on the business plan. Goodwill is reviewed systematically and exhaustively at the level of each cash-generating unit (CGU). The Group's reporting segments are its business sectors, which may each include several CGUs. A CGU is a reporting sub-segment, generally defined as a core business of the segment in a given geographic area. It typically reflects the level at which the Group organizes its businesses and analyzes its results for internal reporting purposes. The number of CGUs decreased from 31 at December 31, 2015 to 30 at December 31, 2016 following the aggregation of two CGUs in European Flat Glass to reflect the shared cash generation of these two businesses following a management reorganization.

The method used for these impairment tests is consistent with that employed by the Group for the valuation of companies acquired in business combinations or acquisitions of equity interests. The carrying amount of the CGUs is compared to their value in use, corresponding to the net present value of future cash flows excluding interest but including tax. Cash flows for the last year of the business plan are rolled forward over the following two years. For impairment tests of goodwill, normative cash flows (corresponding to cash flows at the mid-point in the business cycle) are then projected to perpetuity using a low annual growth rate (generally 1.5%, except for emerging markets or businesses with a high organic growth potential where a 2% rate is used). Growth data are supported by external data issued by prominent organizations. The discount rate applied

to these cash flows corresponds to the Group's average cost of capital (7.25% in 2016 and 2015) plus a country risk premium where appropriate depending on the geographic area concerned. The discount rates applied in 2016 for the main operating regions were 7.25% for the Eurozone and North America, 8.25% for Eastern Europe and emerging Asia-Pacific and 8.75% for South America, Russia and the Middle East.

The recoverable amount calculated using a post-tax discount rate gives the same result as a pre-tax rate applied to pre-tax cash flows

#### 5.5.2 CGU impairment tests

When the annual impairment test reveals that the recoverable amount of an asset is less than its carrying amount, an impairment loss is recorded.

Impairment losses on goodwill can never be reversed through income. For property, plant and equipment and other intangible assets, an impairment loss recognized in prior periods may be reversed, taking into account depreciation/amortization adjustments, if there is an indication that the impairment no longer exists and that the recoverable amount of the asset concerned exceeds its carrying amount.

During the impairment tests, different assumptions measuring the method's sensitivity are systematically tested using the following inputs:

- 0.5-point increase or decrease in the discount rate applied to cash flows;
- 0.5-point increase or decrease in the annual average rate of growth in cash flows projected to perpetuity;
- 1-point decrease in the operating income rate for industrial activities and 0.5-point decrease for distribution activities.

At December 31, 2016, a 0.5-point increase in the discount rate for all CGUs would lead to approximately €121 million in additional intangible asset impairment, while the impact of a 0.5-point decrease in the average annual cash flow growth rate, projected to perpetuity across all the CGUs, would result in additional intangible asset impairment of around €83 million.

The impact of a 1-point decrease in the operating income rate for all industrial CGUs would have generated additional intangible asset impairment of roughly  $\[mathbb{e}\]$ 171 million, while a 0.5-point decrease in the rate for distribution activities would have generated additional impairment of  $\[mathbb{e}\]$ 48 million.

	Impact or						
(in € millions)	0.5% increase in the discount rate	0.5% decrease in the growth rate	1-point decrease in the operating profit rate	0.5 point decrease in the operating profit rate			
Flat Glass	(2)	0	(6)				
High-Performance Materials							
Construction Products	(85)	(56)	(165)				
Building Distribution	(34)	(27)		(48)			
TOTAL	(121)	(83)	(171)	(48)			

The breakdown of asset impairment by sector for 2016 and 2015 is provided in the segment information tables in Note 3 "Information concerning the Group's operating activities".

#### NOTE 6 INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES AND OTHER NON-CURRENT ASSETS

## Changes in investments in equity-accounted companies

Changes in investments in equity-accounted companies in 2016 and 2015 can be analyzed as follows:

(in € millions)	2016	2015
At January 1		
Equity in associates and joint ventures	308	355
Goodwill	11	31
INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES	319	386
Movements during the year		
Group share in net income of equity-accounted companies	36	43
Dividends paid	(16)	(14)
Translation adjustments	7	(31)
Transfers, share issues and other movements	3	(1)
Changes in Packaging Sector	0	(2)
Changes in Group structure and acquisitions	27	(62)
TOTAL MOVEMENTS	57	(67)
At December 31		
Equity in associates and joint ventures	364	308
Goodwill	12	11
INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES	376	319

The principal financial aggregates of equity-accounted companies are as follows:

		2016			2015	
(in € millions)	Associates	Joint ventures	Total	Associates	Joint ventures	Total
Net sales	710	673	1,383	713	729	1,442
Net income	26	54	80	17	87	104
Shareholders' equity	580	401	981	486	368	854
Total assets and liabilities	984	604	1,588	796	531	1,327

## **Transactions with equity-accounted** companies - related-parties

The consolidated financial statements include transactions conducted by the Group in the normal course of its businesses with equity-accounted companies and joint ventures. These transactions are carried out on an arm's length basis.

The assets and liabilities of equity-accounted companies at December 31 are as follows:

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
Financial receivables	1	1
Inventories	0	0
Short-term receivables	8	17
Cash and cash equivalents	0	0
Provisions for asset impairment	0	0
Short-term debt	2	2
Cash advances	0	0

Purchases and sales with equity-accounted companies are as follows:

(in € millions)	2016	2015
Purchases	2	2
Sales	43	54

## 6.3 Transactions with key shareholders

Some subsidiaries of the Saint-Gobain Group, particularly in the Building Distribution Sector, carry out commercial transactions with subsidiaries of the Wendel Group. These transactions are carried out on an arm's-length basis.

## 6.4 Other non-current assets

Investments classified as "available-for-sale" are carried at fair value. Unrealized gains and losses on these investments are recognized in equity, unless the investments have suffered a material or other-than-temporary decline in value, in which case an impairment loss is recorded in the income statement.

Changes in other non-current assets in 2016 and 2015 are analyzed below:

(in € millions)	Available-for-sale and other securities	Loans, deposits and surety	Pension plan surpluses	Total
At January 1, 2015				
Gross value	66	462	137	665
Provision for impairment	(14)	(5)		(19)
NET VALUE	52	457	137	646
Movements during the year				
Increases/(decreases)	24	64	(79)	9
Provisions for impairment	(2)	0		(2)
Translation adjustments	(3)	(10)	8	(5)
Transfers and other movements	1	2		3
Changes in Packaging Sector	0	46	(3)	43
Changes in Group structure	(10)	(49)		(59)
TOTAL MOVEMENTS	10	53	(74)	(11)
At December 31, 2015				
Gross value	76	519	63	658
Provision for impairment	(14)	(9)		(23)
NET VALUE	62	510	63	635
Movements during the year				
Increases/(decreases)	109	(6)	(15)	88
Provisions for impairment	(1)	1		0
Translation adjustments	1	10	(7)	4
Transfers and other movements	(1)	6		5
Changes in Group structure	(22)			(22)
TOTAL MOVEMENTS	86	11	(22)	75
At December 31, 2016				
Gross value	163	526	41	730
Provision for impairment	(15)	(5)		(20)
NET VALUE	148	521	41	710

Increases/(decreases) in available-for-sale securities and other securities primarily relate to acquisitions/(disposals) of securities in the period that will be consolidated/(deconsolidated) in the following period.

#### OTHER CURRENT AND NON-CURRENT LIABILITIES AND NOTE 7 PROVISIONS, CONTINGENT LIABILITIES AND LITIGATION

A provision is booked when (i) the Group has a present legal or constructive obligation towards a third party as a result of a past event, (ii) it is probable that an outflow of resources will be required to settle the obligation, and (iii) the amount of the obligation can be estimated reliably.

If the amount or due date of the obligation cannot be estimated with sufficient reliability, it is classified as a contingent liability and reported as an off-balance sheet commitment.

Provisions for other material liabilities and charges whose timing can be estimated reliably are discounted to present value.



## 7.1 Provisions for other liabilities

The table below provides a breakdown by type along with details of changes in other provisions and current and non-current liabilities:

(in € millions)	Provisions for claims and litigation	Provisions for environ- mental risks	Provisions for restruc- turing costs	Provisions for personnel expenses	Provisions for customer warranties	Provisions for other contin- gencies	Total provisions for other liabilities	Invest- ment- related liabilities	Total
At January 1, 2015			14	САРОПОСС					
Current portion	95	32	76	32	119	50	404	5	409
Non-current portion	418	131	98	44	140	257	1,088	137	1,225
TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES	513	163	174	76	259	307	1,492	142	1,634
Movements during the year									
Additions	132	20	75	39	74	119	459		459
Reversals	(6)	(5)	(22)	(12)	(36)	(48)	(129)		(129)
Utilizations	(99)	(11)	(81)	(12)	(62)	(58)	(323)		(323)
Changes in Group structure		(8)	(4)	(2)	(5)	(8)	(27)		(27)
Changes in Packaging Secto	or (1)	0	(3)	(1)	0	2	(3)		(3)
Other (reclassifications and translation adjustments)	56	4	0	(5)	25	(7)	73	46	119
TOTAL MOVEMENTS	82	0	(35)	7	(4)	0	50	46	96
At December 31, 2015									
Current portion	127	39	67	27	130	60	450	4	454
Non-current portion	468	124	72	56	125	247	1,092	184	1,276
TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES	595	163	139	83	255	307	1,542	188	1,730
Movements during the year									
Additions	144	15	49	43	70	60	381		381
Reversals	(8)	(4)	(17)	(14)	(26)	(65)	(134)		(134)
Utilizations	(150)	(12)	(70)	(11)	(65)	(33)	(341)		(341)
Changes in Group structure							0		0
Other (reclassifications and translation adjustments)	19	(4)	(2)	4	(1)	12	28	14	42
TOTAL MOVEMENTS	5	(5)	(40)	22	(22)	(26)	(66)	14	(52)
At December 31, 2016									
Current portion	125	36	52	29	122	60	424	12	436
Non-current portion	475	122	47	76	111	221	1,052	190	1,242
TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES	600	158	99	105	233	281	1,476	202	1,678

#### 7.1.1 Provisions for claims and litigation

At December 31, 2016 and 2015, provisions for claims and litigation mainly covered asbestos-related lawsuits filed against the Group. These provisions are described in further detail in Note 7.2 "Contingent liabilities and litigation".

#### 7.1.2 Provisions for environmental risks

These provisions cover costs relating to environmental protection measures, as well as site rehabilitation and clean-up costs.

#### 7.1.3 Provisions for restructuring costs

Provisions for restructuring costs amounted to €99 million at December 31, 2016 (€139 million at December 31, 2015), including net additions of €32 million during the year. The provisions primarily concern Benelux (€33 million), Germany (€21 million), the United Kingdom (€12 million), and France (€10 million).

#### 7.1.4 Provisions for personnel expenses

These provisions primarily cover indemnities due to employees that are unrelated to the Group's reorganization plans.

#### 7.1.5 Provisions for customer warranties

These provisions cover the Group's commitments under warranties granted to customers mainly in the United States. They are determined on a statistical basis using a range of criteria and take into account contractual warranty payments made in prior years in the business and region concerned. In addition, specific provisions may be set aside for identified risks

#### 7.1.6 Provisions for other contingencies

At December 31, 2016, provisions for other contingencies amounted to  $\[ \in \]$  million ( $\[ \in \]$  307 million at December 31, 2015) and mainly concerned Germany ( $\[ \in \]$  8 million), the United States ( $\[ \in \]$  60 million), France ( $\[ \in \]$  40 million) and Brazil ( $\[ \in \]$  41 million).

## 7.1.7 Investment-related liabilities

Investment-related liabilities correspond to commitments to purchase minority interests, liabilities relating to the acquisition of shares in Group companies, and minority shareholder puts.

In 2016, changes in investment-related liabilities primarily concerned minority shareholder puts.

## 7.2 Contingent liabilities and litigation

### 7.2.1 Asbestos-related litigation

The situation regarding ongoing asbestos-related litigation is described below.

## 7.2.1.1 Asbestos-related litigation in France

#### a) Inexcusable fault lawsuits

In France, further individual lawsuits were filed in 2016 by former employees (or persons claiming through them) of

Everite and Saint-Gobain PAM which in the past had carried out fiber-cement operations for asbestos-related occupational diseases they have or had. As at December 31, 2016, a total of 805 such lawsuits had been issued against the two companies since 1996 with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of December 31, 2016, 761 of these 805 lawsuits had been completed in terms of both liability and quantum. In all these cases, the employers were held liable on the grounds of "inexcusable fault".

Compensation paid by Everite and Saint-Gobain PAM in settlement of these lawsuits totaled approximately €1.7 million.

Concerning the 44 lawsuits outstanding against Everite and Saint-Gobain PAM at December 31, 2016, the merits of three have been decided but the compensation awards have not yet been made, pending Appeal Court rulings. A further four of these 44 lawsuits have been completed in terms of both liability and quantum, but liability for the payment of compensation has not yet been assigned.

Out of the 37 remaining lawsuits, at December 31, 2016 the procedures relating to the merits of 33 cases were at different stages, with four in the process of being investigated by the French Social Security authorities and 29 pending before the Social Security courts. The last four actions have been canceled but the plaintiffs may request their restoration at any time within a two-year period.

In addition, as of December 31, 2016, 221 similar suits had been filed since the outset of the litigation by current or former employees of thirteen other French companies of the Group (excluding suits against companies that are no longer part of the Group), in particular by current or former employees who used equipment containing asbestos to protect themselves against heat from furnaces.

As of December 31, 2016, 164 lawsuits had been completed. In 89 of these cases, the employer was held liable for "inexcusable fault".

The compensation definitively paid by these companies totaled approximately  $\ensuremath{\mathfrak{C}}2.5$  million.

With regard to the 57 suits outstanding at December 31, 2016, two cases were still at the investigation stage by the French Social Security authorities, 41 were being investigated - including 25 pending before the Social Security courts and 16 before the Appeal Courts. In addition, seven suits had been completed in terms of liability but are still pending with regard to the quantum or liability for paying the compensation, of which one was pending before the French Social Security court and five before the Appeal Courts. The seven remaining suits have been canceled but the plaintiffs may request their restoration at any time within a two-year period.

#### b) Anxiety claims

Eight of the Group's French companies, including six that operate or have operated facilities classified as containing asbestos, are subject of damages claims that are different from those described above.

"Facilities classified as containing asbestos" are defined as industrials facilities, that have been closed or are still operating, which previously manufactured materials containing asbestos or used protection and insulation equipment containing asbestos and are included by ministerial decree on the official list of facilities whose current or former employees are entitled to the early-retirement benefits paid to asbestos workers (ACAATA).

At December 31, 2016, a total of 822 suits had been brought by current or former employees claiming compensation for various damages suffered as a result of their alleged exposure to asbestos. None of these plaintiffs were suffering from an asbestos-related disease and some of them were not receiving the ACAATA benefit. Of these 822 suits, 585 have been terminated. Three plaintiffs had their claims dismissed, while for the 582 others who were recognized as having been exposed to an asbestos risk, the total amount of compensation is €7.6 million at December 31, 2016. Of the remaining 237 suits, 97 are pending before the competent Appeal Courts, eight before the competent labor tribunals ("bureau de jugements des Conseils de prud'hommes"), five are pending before the Court of Cassation and 110 have been canceled but the plaintiffs may request their restoration at any time during a period of two years. Finally, six suits have been dismissed by the competent labor tribunals and 11 plaintiffs have withdrawn the action they initiated.

It should be clarified that the figures above do not take into account suits filed against companies that are no longer part of the Group.

## 7.2.1.2 Asbestos-related litigation in the United States

In the United States, several companies that once manufactured products containing asbestos such as asbestos-cement pipes, roofing products, specialized insulation or gaskets, are facing legal action from persons other than their employees or former employees. These claims for compensatory - and in some cases punitive - damages are based on alleged exposure to these products, although in many instances the claimants cannot demonstrate any specific exposure to one or more products, or any specific illness or physical disability. The vast majority of these claims are made simultaneously against many other non-Group entities which have been manufacturers, distributors, installers or users of products containing asbestos.

#### a) Developments in 2016

About 3,200 new claims were filed against CertainTeed in 2016, stable compared to 2015 and 4,000 in 2014. Over the last few years, the number of new claims has remained relatively stable.

Almost all of the claims against CertainTeed are settled out of court or dismissed. Approximately 3,700 of the pending claims were resolved in 2016, compared to 4,600 in 2015 and 6,500 in 2014. Taking into account the 35,600 outstanding

claims at the end of 2015 and the new claims having arisen during the year, as well as claims settled, around 35,100 claims were outstanding at December 31, 2016. A large number of these pending claims were filed more than five years ago by individuals without any significant asbestos-related impairment, and it is likely that many of these claims will ultimately be dismissed.

#### b) Impact on the Group's financial statements

The Group recorded a USD 100 million charge in 2016 to cover future developments in relation to claims. This amount is stable compared to the amount recorded in 2015 and 2014. At December 31, 2016, the Group provision for asbestos-related claims against CertainTeed in the United States amount to USD 562 million, (USD 581 million at December 31, 2015 and USD 571 million at December 31, 2014).

#### c) Cash-flow impact

Compensation paid in respect of these claims against CertainTeed, including claims settled prior to 2016 but only paid out in 2016, and those fully resolved and paid in 2016, and compensation paid (net of insurance) in 2016 by other Group businesses in connection with asbestos-related litigation, amounted to USD 97 million, compared to USD 65 million in 2015 and USD 68 million in 2014.

#### 7.2.1.3 Situation in Brazil

In Brazil, former employees of Group companies suffering from asbestos-related occupational illness linked to asbestos are offered, depending on the case, solely financial compensation, or otherwise lifetime medical assistance combined with financial compensation; only a small number of former employee litigants or their legal successors were outstanding at December 31, 2016, and they do not present a material risk for the subsidiaries concerned.

#### 7.2.2 Anti-trust law and related proceedings

# 7.2.2.1 Investigation by the Swiss Antitrust Commission in the sanitary products wholesale

In November 2011, the Swiss Antitrust Commission (Commission Suisse de la concurrence) opened an investigation for anti-competitive practices in the sanitary products wholesale sector. In May 2014, the Commission Secretariat issued a notification of complaints against Sanitas Troesch and against other wholesalers in the sector alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine decided against all the companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.5 million. Sanitas Troesch appealed this decision on May 2, 2016. Sanitas Troesch continues to firmly refute the claims made; however a provision for litigation was recognized at December 31, 2015 for an amount equivalent to the fine (unchanged at December 31, 2016).

#### 7.2.2.2 Investigation by the French Competition Authority in the building insulation products sector

On August 6, 2014, Saint-Gobain Isover and Compagnie de Saint-Gobain (as the parent company of Saint-Gobain Group) received a notice of complaints from the French Competition Authority (Autorité de la Concurrence française). The only complaint made was of having exchanged allegedly strategic and confidential information, between 2002 and 2007, relating to a certification request lodged by Actis before the Versailles Commercial Court for one of its products, and in relation to a dispute between Actis and the mineral wool manufacturers' association (FILMM), of which Saint-Gobain Isover was a member.

Saint-Gobain Isover and Compagnie de Saint-Gobain are challenging this complaint. The hearing was held on May 11, 2016. The Competition Authority's final ruling has been postponed to a date not yet known.

In the civil law area, in March 2013 Actis served a civil liability writ on Saint-Gobain Isover, the Centre Scientifique et Technique du Bâtiment, and the FILMM before the Paris Civil Court (Tribunal de Grande Instance) for the adverse consequences of facts forming the subject of the investigation by the Competition Authority. In an order dated December 16, 2014, the pre-trial judge declared a stay of proceedings while waiting for the decision from the Competition Authority.

#### 7.2.2.3 Investigation by the Anti-trust Division of the United States Department of Justice in the United States drywall industry

In July 2015, the Anti-trust division of the United States Department of Justice opened a criminal investigation into potential anti-competitive practices, specifically a price agreement, in the United States drywall industry. This investigation followed complaints filed in late 2012 in the form of class actions in the civil courts against eight drywall manufacturers in the sector, including CertainTeed, by some of their customers.

On the basis of testimony and documents submitted in the civil proceedings, CertainTeed and its attorneys have not identified any element that might create liability for CertainTeed, and as a result filed a motion for summary judgment in May 2015 in order to end the civil proceedings. This application was accepted on February 18, 2016 by the competent court. An appeal against this decision is still possible.

## 7.2.3 Environmental related litigation

#### 7.2.3.1 PFOA matters in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of U.S. Environmental Protection Agency (EPA) or state health advisories have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics (SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluorethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained traces of PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in the Hoosick Falls and North Bennington areas, and installed carbon filtration systems on the municipal water supply in Hoosick Falls. In addition, it has voluntarily committed to fund water line extensions in certain communities in the Merrimack area. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation and clean-up obligations at these sites has not yet been established. Responsibility, if any, is expected to be shared with other parties as regards in particular the Hoosick Falls' site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL.

On 31 December 2016, the Company established a provision in the amount of USD 23 million in connection with defense and various costs.

### 7.2.4 Other proceedings and disputes

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities. Apart from the proceedings and litigation described above, to the best of the Company's knowledge no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or which has had, in the last twelve months, a significant impact on the financial or profit position of the Company and/or Group.



## NOTE 8 FINANCING AND FINANCIAL INSTRUMENTS

#### 8.1 Risk factors: financial risks

#### 8.1.1 Liquidity risk

#### a) Liquidity risk on financing

In a crisis environment, the Group might be unable to raise the financing or refinancing needed to cover its investment plans on the credit or capital markets, or to obtain such financing or refinancing on acceptable terms.

The Group's overall exposure to liquidity risk on its net debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain, the Group's parent company. Except in special cases, the subsidiaries enter into short- or long-term financing arrangements with Compagnie de Saint-Gobain or with the National Delegations' cash pools.

The Group's policy is to ensure that the Group's financing will be rolled over at maturity and to optimize borrowing costs. Long-term debt therefore systematically represents a high percentage of overall debt. At the same time, the maturity schedules of long-term debt are set in such a way that replacement capital market issues are spread over time.

The Group's main source of long-term financing is bonds, which are generally issued under the Medium Term Notes program. Saint-Gobain also uses perpetual bonds, participating securities, a long-term securitization program, bank borrowings and lease financing.

Short-term debt is composed of borrowings under Negotiable European Commercial Paper (NEU CP), and occasionally Euro Commercial Paper and US Commercial Paper, but also includes receivables securitization programs and bank financing. Financial assets comprise marketable securities and cash and cash equivalents.

Compagnie de Saint-Gobain's liquidity position is secured by confirmed syndicated lines of credit.

A breakdown of long- and short-term debt by type and maturity is provided in Note 8.3, which also details the main characteristics of the Group's financing programs and confirmed credit lines.

Saint-Gobain's long-term debt issues have been rated BBB with a stable outlook by Standard & Poor's since December 9, 2014

Saint-Gobain's long-term debt issues have been rated Baa2 with a stable outlook by Moody's since December 9, 2014.

There is no guarantee that the Company will be in a position to maintain its credit risk ratings at current levels. Any deterioration in the Group's credit risk rating could limit its capacity to raise funds and could lead to higher rates of interest on future borrowings.

#### b) Liquidity risk on investments

Short-term investments consist of bank deposits and mutual fund units. To reduce liquidity and volatility risk, whenever possible, the Group invests in money market and/or bond funds.

#### 8.1.2 Market risks

#### a) Interest rate risks

The Group's overall exposure to interest rate risk on consolidated debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain. Where subsidiaries use derivatives to hedge interest rate risks, their counterparty is generally Compagnie de Saint-Gobain, the Group's parent company.

The Group's policy is aimed at fixing the cost of its medium-term debt against interest rate risk and optimizing borrowing costs. According to Group policy, the derivative financial instruments used to hedge these risks can include interest rate swaps, cross-currency swaps, options - including caps, floors and swaptions - and forward rate agreements.

The table below shows the sensitivity at December 31, 2016 of pre-tax income and pre-tax equity to fluctuations in the interest rate on the Group's net debt after hedging:

(in € millions)	Impact on pre-tax income	Impact on pre-tax equity
Interest rate increase of 50 basis points	12	1
Interest rate decrease of 50 basis points	(12)	(1)

Note 8.4 to the consolidated financial statements provides a breakdown of interest rate risk hedging instruments and of gross debt by rate type (fixed or variable) after hedging.

#### b) Foreign exchange risk

The currency hedging policies described below could be insufficient to protect the Group against unexpected or sharper than expected fluctuations in exchange rates resulting from economic and financial market conditions.

Foreign exchange risks are managed by hedging virtually all transactions entered into by Group entities in currencies other than the functional currency of the particular entity. Compagnie de Saint-Gobain and its subsidiaries may use forward contracts and options to hedge exposures arising from current and forecast transactions.

The subsidiaries set up contracts generally through the Group's parent company, Compagnie de Saint-Gobain, which then carries out the corresponding forex hedging transaction, or through the National Delegations' cash pools. Failing this, contracts are taken out with one of the subsidiary's banks.

Most forward contracts have short maturities of around three months. However, forward contracts taken out to hedge firm orders may have longer terms.

The Group monitors its exposure to foreign exchange risk using a monthly reporting system that captures the foreign exchange positions taken by its subsidiaries. At December 31, 2016, 98% of the Group's foreign exchange exposure eligible for hedging was hedged.

The residual net foreign exchange exposure of subsidiaries for the currencies presented below was as follows at December 31, 2016:

(in millions of euro equivalent)	Long	Short
EUR	1	6
USD	7	9
Other currencies	0	6
TOTAL	8	21

The table below shows the sensitivity at December 31, 2016 of the Group's pre-tax income to a 10% increase in the exchange rates of the following currencies to which the subsidiaries are exposed after hedging:

Currency of exposure (in millions of euros)	Impact on pre-tax income
EUR	(0.5)
USD	(0.2)
Other currencies	(0.6)
TOTAL	(1.3)

Assuming that all other variables remained unchanged, a 10% fall in the exchange rates for these currencies at December 31, 2016 would have the opposite impact.

Note 8.4 provides a breakdown of foreign exchange risk hedging instruments.

#### c) Energy and commodity risk

The Group is exposed to changes in the price of the energy it consumes and the raw materials used in its activities. Its energy and commodity hedging programs may be insufficient to protect the Group against significant or unforeseen price swings that could result from the prevailing financial and economic environment.

The Group may limit its exposure to energy price fluctuations by using swaps and options to hedge part of its fuel oil, natural gas and electricity purchases. The swaps and options are mainly contracted in the functional currency of the entities concerned. Hedges of fuel oil, gas and electricity purchases are managed by a steering committee comprising members of the Group Finance Department, the Group Purchasing Department and the relevant Delegations.

Hedges of energy purchases (excluding fixed-price purchases negotiated directly with suppliers by the Purchasing Department) are generally arranged by the Group Treasury and Financing Department (or with the Delegations' treasury departments) in accordance with instructions received from the Purchasing Department.

From time to time, the Group may enter into contracts to hedge purchases of certain commodities, in accordance with the same principles as those outlined above for energy

Note 8.4 provides a breakdown of instruments used to hedge energy and commodity risks.

## 8.1.3 Saint-Gobain share price risk

The Group is exposed to changes in the Saint-Gobain share price as a result of its performance units long-term incentive plan. To reduce its exposure to fluctuations in the share price, the Group uses hedging instruments such as equity swaps.

As a result, if the price of the Saint-Gobain share changes, any changes in the expense recorded in the income statement will be fully offset by the hedges in place.

Note 8.4 provides a breakdown of these share price risk hedging instruments.

## 8.1.4 Financial counterparty credit risk

The Group is exposed to the risk of default by the financial institutions that manage its cash or other financial instruments, since such default could lead to losses for the

The Group limits its exposure to risk of default by its counterparties by dealing solely with reputable financial institutions and regularly monitoring their credit ratings. However, the credit quality of a financial counterparty can change rapidly, and a high credit rating cannot eliminate the risk of a rapid deterioration of its financial position. As a result, the Group's policy in relation to the selection and monitoring of its counterparties is unable to entirely eliminate exposure to a risk of default.

To limit the Group's exposure to credit risk, the Treasury and Financing Department deals primarily with counterparties with a long-term rating of A- or above from Standard & Poor's or A3 or above from Moody's. Concentrations of credit risk are also closely monitored to ensure that they remain at reasonable levels, taking into account the relative CDS (Credit Default Swap) level of each counterparty.

## 8.2 Net financial expense

Net financial expense includes borrowing and other financing costs, income from cash and cash equivalents, interest cost for pension and other post-employment benefit obligations, net of the return on plan assets, and other financial income and expense such as exchange gains and losses and bank charges.

(in € millions)	2016	2015
Borrowing costs, gross	(376)	(444)
Income from cash and cash equivalents	27	25
BORROWING COSTS, NET	(349)	(419)
Interest cost - pension and other post-employment benefit obligations	(387)	(393)
Return on plan assets	278	297
INTEREST COST - PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS, NET	(109)	(96)
Other financial expense	(111)	(131)
Other financial income	28	17
OTHER FINANCIAL INCOME AND EXPENSE	(83)	(114)
NET FINANCIAL EXPENSE	(541)	(629)

#### 8.3 Net debt

#### 8.3.1 Long- and short-term debt

#### a) Long-term debt

Long-term debt includes bonds, perpetual bonds, participating securities, long-term securitizations and all other types of long-term financial liabilities, including finance lease liabilities and the fair value of interest rate hedging derivatives.

Under IAS 32, the distinction between financial liabilities and equity is based on the substance of the contracts concerned rather than their legal form. As a result, participating securities are classified as debt.

At the end of the reporting period, long-term debt (excluding interest rate derivatives) is measured at amortized cost. Premiums and issuance costs are amortized using the effective interest method.

#### b) Short-term debt

Short-term debt includes the current portion of long-term debt described above, short-term financing programs such as commercial paper, short-term securitizations, bank overdrafts and other short-term bank borrowings, the fair value of derivatives related to debt, and accrued interest on borrowings.

Short-term debt, excluding derivatives related to debt, is measured at amortized cost at the end of the reporting period. Premiums and issuance costs are amortized using the effective interest rate method.

## c) Cash and cash equivalents

Cash and cash equivalents mainly consist of bank accounts and marketable securities that are short-term (i.e., generally with maturities of less than three months), highly liquid investments readily convertible into known amounts of cash and subject to an insignificant risk of changes in value.

Marketable securities are measured at fair value through profit or loss.

Long- and short-term debt consists of the following:

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
Bond issues	6,089	6,663
Perpetual bonds and participating securities	203	203
Long-term securitization	350	200
Other long-term financial liabilities	317	264
LONG-TERM DEBT (EXCLUDING CURRENT PORTION)	6,959	7,330
CURRENT PORTION OF LONG-TERM DEBT	1,835	2,231
Short-term financing programs (NEU CP, US CP, Euro CP)	0	0
Short-term securitizations	173	178
Bank overdrafts and other short-term financial liabilities	415	438
SHORT-TERM DEBT AND BANK OVERDRAFTS	588	616
TOTAL GROSS DEBT	9,382	10,177
Cash at banks	(1,529)	(1,232)
Mutual funds and other marketable securities	(2,209)	(4,148)
CASH AND CASH EQUIVALENTS	(3,738)	(5,380)
TOTAL NET DEBT	5,644	4,797

The fair value of gross long-term debt (including the current portion) managed by Compagnie de Saint-Gobain amounted to €8.6 billion at December 31, 2016, for a carrying amount of €7.8 billion. The fair value of bonds corresponds to the market price on the last day of the year. For other borrowings, fair value is considered as equal to the amount repayable.

#### 8.3.2 Debt repayment schedule

Debt at December 31, 2016 can be analyzed by maturity as follows:

(in € millions)	Currency	Within 1 year	1 to 5 years	Beyond 5 years	Total
Bond issues	EUR	1,450	3,412	1,956	6,818
	GBP	0	0	639	639
	JPY	40	0	0	40
	NOK	0	82	0	82
Perpetual bonds and participating securities	EUR	0	0	203	203
Long-term securitization	EUR	150	350		500
Other long-term financial liabilities	All currencies	58	124	193	375
Accrued interest on long-term debt	All currencies	137			137
TOTAL LONG-TERM DEBT		1,835	3,968	2,991	8,794
TOTAL SHORT-TERM DEBT	All currencies	588			588
TOTAL GROSS DEBT		2,423	3,968	2,991	9,382

At December 31, 2016, future interest payments on gross long-term debt (including the current portion) managed by Compagnie de Saint-Gobain fall due as follows:

(in € millions)	Within 1 year	1 to 5 years	Beyond 5 years	Total
Future interest payments on gross long-term debt	235	630	609	1,474

Interest on perpetual bonds and on participating securities is calculated up to 2049.



#### 8.3.3 Bonds

On May 31, 2016, Compagnie de Saint-Gobain redeemed a €700 million 4,875% bond at maturity.

On September 14, 2016, Compagnie de Saint-Gobain redeemed a €500 million private placement at maturity. The bond had paid a variable coupon consisting of 3-month Euribor +0.27%.

On September 27, 2016, Compagnie de Saint-Gobain took advantage of good conditions in the debt market to lower its average borrowing costs, issuing €1 billion worth of 0% bonds maturing on March 27, 2020.

On December 15, 2016, Compagnie de Saint-Gobain redeemed a GBP 300 million 5,625% bond at maturity.

#### 8.3.4 Perpetual bonds

In 1985, Compagnie de Saint-Gobain issued 25,000 perpetual bonds with a face value of ECU 5,000 (€5,000 today).

Up to December 31, 2016, 18,496 perpetual bonds had been bought back and canceled, and 6,504 perpetual bonds were outstanding, representing a total face value of €33 million.

The bonds bear interest at a variable rate (average of interbank rates offered by the five reference banks for six-month euro deposits). The amount paid out per bond in

The bonds are not redeemable and interest on the bonds is classified as a component of finance costs.

### 8.3.5 Participating securities

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities with a face value of FRF 1,000. Their face value is now €152.45, following their translation into euros in 1999.

A certain number of participating securities have been bought back over the years. At December 31, 2016, 606,883 securities were still outstanding with an aggregate face value of €92.5 million.

Interest on the securities ranges from 75% to 125% of the average corporate bond yield (TMO), based on the Group's consolidated income. The amount paid out per security in 2016 was €2.05.

In April 1984, 194,633 non-voting participating securities were issued with a face value of ECU 1,000 (€1,000 today).

A certain number of securities have been bought back over the years. At December 31, 2016, 77,516 securities were still outstanding with an aggregate face value of €77.5 million.

Interest comprises (i) a fixed portion of 7.5% paid per year applicable to 60% of the nominal amount of the security, and (ii) a variable portion applicable to the remaining 40% of the nominal amount of the participating security, which is linked to consolidated net income of the previous year and to the reference six-month Libor EUR rate +7/8%. The amount paid per security in 2016 was €63.38, paid in two installments (€30.83 and €32.55).

These participating securities are not redeemable and the interest paid on them is reported under borrowing costs.

#### 8.3.6 Financing programs

The Group has a number of medium- and long-term financing programs (Medium-Term Notes) and short-term financing programs (Commercial Paper).

At December 31, 2016, issuance under these programs was as follows:

(in € millions)	Authorized drawings	Authorized limits at Dec. 31, 2016	Balance outstanding at Dec. 31, 2016	Balance outstanding at Dec. 31, 2015
Medium Term Notes		15,000	7,777	7,719
NEU CP	up to 12 months	3,000	0	0
US Commercial Paper	up to 12 months	949*	0	0
Euro Commercial Paper	up to 12 months	949*	0	0

Equivalent of USD 1,000 million based on the exchange rate at December 31, 2016.

In accordance with market practices, Negotiable European Commercial Paper (NEU CP), US Commercial Paper and Euro Commercial Paper are generally issued with maturities of one to six months. They are treated as variable-rate debt since they are rolled over at frequent intervals.

## 8.3.7 Syndicated lines of credit

Compagnie de Saint-Gobain has various syndicated lines of credit that are intended to provide a secure source of financing for the Group (including as additional backing for its NEU CP, US Commercial Paper and Euro Commercial Paper

♦ an initial €1.5 billion syndicated line of credit expiring in December 2017 that was obtained in December 2012. This

facility was renegotiated in December 2013 and rolled over until December 2018;

♦ a second €2.5 billion syndicated line of credit expiring in December 2018 with two one-year rollover options that was contracted in December 2013. Following exercise of the two extension options in December 2014 and December 2015, this syndicated facility was extended for a further two years, and now falls due in December 2020.

Based on the Group's current credit rating for long-term debt issues, the two facilities are not subject to any hard covenants.

Neither of these two lines of credit had been drawn down at December 31, 2016.

#### 8.3.8 Receivables securitization programs

The Group has set up two receivables securitization programs, one through its French subsidiary GIE Point.P Finances, and the other through its US subsidiary, Saint-Gobain Receivables Corporation.

The French program was renewed on November 10, 2016 for a maximum amount of €500 million (€600 million previously). At December 31. 2016. it amounted to €500 million (€578 million at December 31, 2015). Based on past seasonal fluctuations in receivables included in the program and on the contract's features, €350 million of this amount was classified as non-current and the balance as current.

The US program was renewed on October 21, 2015 for a maximum amount of USD 350 million. Its euro-equivalent value at December 31, 2016 was €173 million (€178 million at December 31, 2015).

#### 8.3.9 Collateral

At December 31, 2016, €14 million of Group debt was secured by various non-current assets (real estate and securities).

#### 8.4. Financial instruments

The Group uses interest rate, foreign exchange and commodity derivatives to hedge its exposure to changes in interest rates, exchange rates and commodity prices that may arise in the normal course of business.

In accordance with IAS 32 and IAS 39, all such instruments are recognized in the balance sheet and measured at fair value, irrespective of whether or not they are part of a hedging relationship that qualifies for hedge accounting under IAS 39.

Changes in the fair value of both derivatives that are designated and qualified as fair value hedges and derivatives that do not qualify for hedge accounting during the period are taken to the income statement (in business income and expense for operational foreign exchange derivatives and commodity derivatives not qualifying for hedge accounting, and in net financial income and expense for all other derivatives). However, in the case of derivatives that qualify as cash flow hedges, the effective portion of the gain or loss arising from changes in fair value is recognized directly in equity, and only the ineffective portion is recognized in the income statement.

#### a) Fair value hedges

Fair value hedge accounting is applied by the Group mainly for derivative instruments which swap fixed rates against variable rates (fixed-for-floating interest rate swaps). These derivatives hedge fixed-rate debts exposed to a fair value risk. In accordance with hedge accounting principles, debt included in a designated fair value hedging relationship is remeasured at fair value and to the extent of the risk hedged. As the loss or gain on the underlying hedged item offsets the effective portion of the gain or loss on the fair value hedge, the income statement is only impacted by the ineffective portion of the hedge.

#### b) Cash flow hedges

Cash flow hedge accounting is applied by the Group mainly for derivative instruments which fix the cost of future investments (financial assets or property, plant and equipment) and the price of future purchases, mostly gas and fuel oil (commodity swaps) or foreign currencies (foreign exchange forwards). Transactions hedged by these instruments are qualified as highly probable. The application of cash flow hedge accounting allows the Group to defer the impact on the income statement of the effective portion of changes in the fair value of these derivatives by recording them in a hedging reserve in equity. This reserve is reclassified to the income statement when the hedged transaction occurs and the hedged item itself affects income. In the same way as for fair value hedges, cash flow hedging limits the Group's exposure to changes in the fair value of these derivatives to the ineffective portion of the hedge.

#### c) Derivatives that do not qualify for hedge accounting

Changes in the fair value of derivatives that do not qualify for hedge accounting are recognized in the income statement. Instruments concerned are primarily foreign exchange swaps and foreign exchange forwards.

#### d) Fair value of financial instruments

The fair value of financial assets and financial liabilities corresponds to their quoted price on an active market (if any): this represents level 1 in the fair value hierarchy defined in IFRS 7 and IFRS 13. The fair value of instruments not quoted in an active market, such as derivatives or financial assets and liabilities, is determined by reference to commonly used valuation techniques such as the fair value of another recent and similar transaction, or discounted cash flow analysis based on observable market inputs. This represents level 2 in the fair value hierarchy defined in IFRS 7 and IFRS 13.

The fair value of short-term financial assets and liabilities is considered as being the same as their carrying amount due to their short maturities.

The following table presents a breakdown of the principal derivatives used by the Group:

		Fair v	alue		N	Nominal amount by maturity			
(in € millions)	Derivatives recorded in assets	Derivatives recorded in liabilities	Dec. 31, 2016	Dec. 31, 2015	Within 1 year	1 to 5 years	Beyond 5 years	Dec. 31, 2016	
FAIR VALUE HEDGES			0	0				0	
Cash flow hedges									
Currency	238	(7)	231	227	2,934	31	0	2,965	
Interest rate	0	(70)	(70)	(13)	0	0	387	387	
Energy and commodities	5	0	5	(9)	15	2	0	17	
Other risks	13	0	13	6	12	69	0	81	
CASH FLOW HEDGES - TOTAL	256	(77)	179	211	2,961	102	387	3,450	
Derivatives not qualifying for hedge accounting mainly contracted by Compagnie de Saint-Gobain									
Currency	5	(10)	(5)	3	1,463	12	0	1,475	
Interest rate	0	0	0	22	0	0	0	0	
Energy and commodities	0	0	0	0	0	0	0	0	
DERIVATIVES NOT QUALIFYING FOR HEDGE ACCOUNTING - TOTAL	5	(10)	(5)	25	1,463	12	0	1,475	
TOTAL	261	(87)	174	236	4,424	114	387	4,925	

#### 8.4.1. Currency instruments

#### **Currency swaps**

The Group uses currency swaps mainly to convert euro-denominated funds into foreign currencies for cash management purposes.

#### Forward foreign exchange contracts and currency options

Forward foreign exchange contracts and currency options are used to hedge foreign currency transactions, particularly commercial transactions (purchases and sales) and investments.

#### 8.4.2. Interest rate instruments

## Interest rate swaps

The Group uses interest rate swaps to convert part of its fixed (variable) rate bank debt and bond debt to variable (fixed) rates.

## **Cross-currency swaps**

The Group uses cross-currency swaps to convert foreign currency debt (euro debt) into euro debt (foreign currency debt)

## 8.4.3. Energy and commodity instruments

#### **Energy and commodity swaps**

Energy and commodity swaps are used to hedge the risk of changes in the price of certain purchases used in the Group subsidiaries' operating activities, particularly energy (fuel oil, natural gas and electricity) purchases.

#### 8.4.4. Other risks

#### **Equity derivatives**

Equity derivatives are used to hedge the risk of changes in the Saint-Gobain share price in connection with the performance units long-term incentive plan.

#### 8.4.5. Credit value adjustments to derivative instruments

Credit value adjustments to derivative instruments are calculated in accordance with IFRS 13 based on historical probabilities of default derived from calculations performed by a leading rating agency and on the estimated loss given default. At December 31, 2016, credit value adjustments were not material

#### 8.4.6. Impact on equity of financial instruments qualifying for cash flow hedge accounting

At December 31, 2016, the cash flow hedging reserve carried in equity in accordance with IFRS had a credit balance of €191 million, consisting mainly of:

- ♦ a credit balance of €232 million corresponding to the change in the fair value of the currency swaps qualified as cash flow hedges for the acquisition of a controlling interest in Sika:
- ♦ a debit balance of €36 million in relation to cross-currency swaps designated as cash flow hedges that are used to convert a bond issue into euros.

The ineffective portion of cash flow hedging derivatives is not

At December 31, 2016, the cash flow hedge relating to the acquisition of a controlling interest in Sika was valued at €232 million based on a spot exchange rate of €1 for CHF 1,074. An increase of 10% in this exchange rate would result in a decrease of €240 million in equity. A 10% fall in the exchange rate would have the opposite impact.

#### 8.4.7. Impact on income of financial instruments not qualifying for hedge accounting

The fair value of derivatives classified as financial assets and liabilities at fair value through profit or loss represented a €5 million loss at December 31, 2016 (€25 million gain at December 31, 2015).

#### 8.4.8. Embedded derivatives

The Saint-Gobain Group regularly analyzes its contracts in order to separately identify financial instruments classified as embedded derivatives under IFRS.

At December 31, 2016, no embedded derivatives deemed to be material at Group level were identified.

#### 8.4.9. Group debt structure

The weighted average interest rate on total gross debt under IFRS and after hedging (interest rate swaps, currency swaps and cross-currency swaps) was 3.4% at December 31, 2016, compared with 3.9% at December 31, 2015.

The average internal rate of return for the main component of long-term debt before hedging (bonds) was 3.9% at December 31, 2016, compared with 4.4% at December 31,

The table below presents the breakdown by interest rate (fixed or variable) of the Group's gross debt at December 31, 2016, taking into account interest rate, currency and cross-currency swaps.

	Gross debt after hedging							
(in € millions)	Variable rate	Fixed rate	Total					
EUR	1,347	7,220	8,567					
Other currencies	80	518	598					
TOTAL	1,427	7,738	9,165					
(in %)	16%	84%	100%					
Accrued interest and other financial liabilities			217					
TOTAL GROSS DEBT			9,382					

#### 8.5. Financial assets and liabilities

Financial assets and liabilities are classified as follows in accordance with IFRS 7:

## At December 31, 2016

(in € millions)			cial instrum at fair value			Other fina	ncial inst	ruments		fair valu	l instrum e accord RS 7 hiera	ing to	
Balance sheet headings and classes of instrument	Notes	Financial instru- ments through profit or loss	Qualifying deriva- tives	Assets and liabilities measured at fair value (fair value option)	Total financial instru- ments measured at fair value	Available- for-sale financial assets	Loans and recei- vables	Liabilities at amortized cost	Total financial instru- ments	Level 1 inputs	Level 2 inputs	Level 3 inputs	Total financial instru- ments measured at fair value
Trade and other accounts receivable	(3)				0		6,193		6,193				0
Loans, deposits and surety	(6)				0		521		521				0
Available-for-sale and other securities	(6)				0	148			148				0
Derivatives recorded in assets	ł	5	256		261				261		261		261
Cash and cash equivalents				3,738	3,738				3,738	2,209	1,529		3,738
TOTAL ASSETS		5	256	3,738	3,999	148	6,714	0	10,861	2,209	1,790	0	3,999
Trade and other accounts payable	(3)				0			(9,433)	(9,433)				0
Long- and short-term debt					0			(9,307)	(9,307)				0
Derivatives recorded in liabilities	d	(10)	(77)		(87)				(87)		(87)		(87)
TOTAL LIABILITIES		(10)	(77)	0	(87)	0	0	(18,740)	(18,827)	0	(87)	0	(87)
TOTAL		(5)	179	3,738	3,912	148	6,714	(18,740)	(7,966)	2,209	1,703	0	3,912

## At December 31, 2015

(in € millions)		Financial instruments at fair value				Other financial instruments				l instrum ie accord RS 7 hier	ling to		
Balance sheet headings and classes of instrument	Notes	Financial instru- ments through profit or loss	Qualifying deriva- tives	value (fair value	Total financial instru- ments measured at fair value	Available- for-sale financial assets	Loans and recei- vables	Liabilities at amortized cost	Total financial instru- ments	Level 1 inputs	Level 2 inputs	Level 3 inputs	Total financial instru- ments measured at fair value
Trade and other accounts receivable	(3)				0		5,910		5,910				0
Loans, deposits and surety	(6)				0		510		510				0
Available-for-sale and other securities	(6)				0	62			62				0
Derivatives recorded in assets		35	238		273				273		273		273
Cash and cash equivalents				5,380	5,380				5,380	4,148	1,232		5,380
TOTAL ASSETS		35	238	5,380	5,653	62	6,420	0	12,135	4,148	1,505	0	5,653
Trade and other accounts payable	(3)				0			(9,142)	(9,142)				0
Long- and short-term debt					0			(10,189)	(10,189)				0
Derivatives recorded in liabilities		(10)	(27)		(37)				(37)		(37)		(37)
TOTAL LIABILITIES		(10)	(27)	0	(37)	0	0	(19,331)	(19,368)	0	(37)	0	(37)
TOTAL		25	211	5,380	5,616	62	6,420	(19,331)	(7,233)	4,148	1,468	0	5,616

IFRS 13 ranks the inputs used to determine fair value:

- ♦ level 1: inputs resulting from quoted prices on an active market for identical instruments;
- ♦ level 2: inputs other than Level 1 inputs that can be observed directly or indirectly;
- level 3: all other non-observable inputs.

#### SHAREHOLDERS' EQUITY AND EARNINGS PER SHARE NOTE 9

## 9.1. Equity

## 9.1.1. Capital stock

At December 31, 2016, Compagnie de Saint-Gobain's capital stock comprised 555,280,358 shares of common stock with a par value of €4 each (560,943,439 shares at December 31, 2015). At December 31, 2016, capital stock comprised a single share class

## 9.1.2. Additional paid-in capital and legal reserve

This item includes capital contributions in excess of the par value of capital stock as well as the legal reserve, which corresponds to a cumulative portion of the yearly net income of Compagnie de Saint-Gobain.

#### 9.1.3. Retained earnings and consolidated net income for the year

Retained earnings and consolidated net income for the year correspond to the Group's share in the undistributed earnings of all consolidated companies.

## 9.1.4. Treasury stock

Treasury stock is measured at cost and recorded as a deduction from equity. Gains and losses on disposals of treasury stock are recognized directly in equity and have no impact on net income for the period.

Forward purchases of treasury stock are treated in the same way. When a fixed number of shares is purchased forward at a fixed price, this amount is recorded in "Other liabilities" against a deduction from equity under "Retained earnings and net income for the year".

Saint-Gobain shares held or controlled by Compagnie de Saint-Gobain and Saint-Gobain Corporation are shown as a deduction from equity under "Treasury stock" at acquisition

The liquidity agreement signed with Exane BNP Paribas on November 16, 2007 and implemented on December 3, 2007 for a period up to December 31, 2007 has been automatically renewed since that date.

At December 31, 2016, 1,891,955 shares were held in treasury (2,335,918 shares at December 31, 2015). In 2016, the Group acquired 12,246,156 shares (15,050,261 shares in 2015) directly on the market and sold 1,706,031 shares (1,223,943 shares in 2015). Lastly, 10,984,088 shares were canceled in 2016 (13,000,000 shares in 2015).

For the purposes of a compensation plan set up in January 2008 for certain employees in the United States,

Basic and diluted earnings per share are as follows:

Compagnie de Saint-Gobain shares are held by a trust administered by Wachovia Bank, National Association. In the consolidated financial statements, these shares are treated as being controlled by Saint-Gobain Corporation.

## 9.2. Earnings per share

Basic earnings per share are calculated by dividing net income by the weighted average number of shares of the Group outstanding during the period.

Diluted earnings per share are calculated by adjusting earnings per share and the average number of shares outstanding for the effects of all potential dilutive common shares, such as stock options and performance shares.

	2016		2015		
	Basic	Diluted	Basic	Diluted	
Income (in € millions)					
Group share of net income from continuing operations	1,311	1,311	374	374	
Group share of net income from discontinued operations	0	0	921	921	
GROUP SHARE OF NET INCOME	1,311	1,311	1,295	1,295	
Number of shares					
Weighted average number of shares in issue	554,624,285		562,001,188		
Weighted average number of shares assuming full dilution		557,163,247	557,163,247 564,780		
Earnings per share (in €)					
Earnings per share from continuing operations, Group share	2.36	2.35	0.66	0.66	
Earnings per share from discontinued operations, Group share	0.00	0.00	1.64	1.63	
EARNINGS PER SHARE, GROUP SHARE	2.36	2.35	2.30	2.29	

The weighted average number of shares assuming full dilution is calculated based on the weighted average number of shares outstanding, assuming conversion of all dilutive instruments. The Group's dilutive instruments include stock options and performance share grants corresponding to a weighted average of 694,913 and 1,844,049 shares, respectively, at December 31, 2016.

#### **NOTE 10 TAXES**

### 10.1. Income taxes

Current income tax is the estimated amount of tax payable in respect of income for a given period, calculated by reference to the tax rates that have been enacted or substantively enacted at the end of the reporting period, plus any adjustments to current taxes recorded in previous financial periods.

The pre-tax income of consolidated companies is as follows:

(in € millions)	2016	2015
Net income	1,352	1,346
Less:		
Share in net income of equity-accounted companies	36	43
Net income from discontinued operations	0	929
Income taxes	(416)	(248)
PRE-TAX INCOME OF CONSOLIDATED COMPANIES	1,732	622

Income tax expense breaks down as follows:

(in € millions)	2016	2015
CURRENT TAXES	(325)	(457)
France	(45)	(40)
Outside France	(280)	(417)
DEFERRED TAXES	(91)	209
France	86	219
Outside France	(177)	(10)
TOTAL INCOME TAX EXPENSE	(416)	(248)

Theoretical tax expense was reconciled with current tax expense using a tax rate of 34.43% in 2016 and 2015, and can be analyzed as follows:

(in € millions)	2016	2015
Theoretical tax expense at French tax rate	(596)	(214)
Impact of different tax rates	161	116
Asset impairment, capital gains and losses and anti-trust provision	(8)	(125)
Deferred tax assets not recognized	(75)	(31)
Liability method	67	6
Research tax credit, tax credit for competitiveness and employment (CICE) and value-added contribution for businesses (CVAE)	5	6
Costs related to dividends	(5)	(1)
Other taxes and provision writebacks	35	(5)
TOTAL INCOME TAX EXPENSE	(416)	(248)

Changes in deferred tax rates led the Group to recognize an income tax gain of €67 million in 2016 (€6 million gain in 2015). The main contributors to this item were France and the United Kingdom.

The impact of the different tax rates applicable outside France explains the contribution of countries with low tax rates. The main contributing countries are the United Kingdom, Czech Republic, Switzerland, Sweden and Poland.

## 10.2. Deferred tax

Deferred taxes are recorded using the balance sheet method for temporary differences between the carrying amount of assets and liabilities and their tax basis. Deferred tax assets and liabilities are measured at the tax rates expected to apply to the period when the asset is realized or the liability settled, based on the tax laws that have been enacted or substantively enacted at the end of the reporting period.

No deferred tax liability is recognized in respect of undistributed earnings of subsidiaries that are not intended to be distributed.

For investments in subsidiaries, deferred tax is recognized on the difference between the consolidated carrying amount of the investments and their tax basis when it is probable that the temporary difference will reverse in the foreseeable future

Deferred taxes are recognized as income or expense in the income statement, unless they relate to items that are recognized directly in equity, in which case the deferred tax is also recognized in equity.

In the balance sheet, changes in the net deferred tax liability break down as follows:

(in € millions)	Net deferred tax asset/(liability)
AT JANUARY 1, 2015	714
Deferred tax (expense)/benefit	202
Changes in deferred taxes relating to actuarial gains and losses (IAS 19)	(18)
Liability method on actuarial gains and losses	(33)
Translation adjustments	52
Impact of changes in scope of consolidation and other	(46)
AT DECEMBER 31, 2015	871
Deferred tax (expense)/benefit	(91)
Changes in deferred taxes relating to actuarial gains and losses (IAS 19)	76
Liability method on actuarial gains and losses	(51)
Translation adjustments	29
Impact of changes in scope of consolidation and other	(9)
AT DECEMBER 31, 2016	825

The table below shows the main deferred tax components:

(in € millions)	Dec. 31, 2016	Dec. 31, 2015
Pensions	846	1,011
Brands	(474)	(552)
Depreciation and amortization, accelerated capital allowances and tax-driven provisions	(887)	(916)
Tax loss carry-forwards	765	780
Other	575	548
NET DEFERRED TAX	825	871
Of which:		
Deferred tax assets	1,188	1,337
Deferred tax liabilities	(363)	(466)

Deferred taxes are offset at the level of each tax entity, i.e., by tax group where applicable (mainly in France, the United Kingdom, Spain, Germany, the United States and the Netherlands).

Deferred tax assets of €1,188 million were recognized at December 31, 2016 (€1,337 million at December 31, 2015), primarily in the United States (€533 million) and in Germany (€219 million). Deferred tax liabilities recognized at December 31, 2016 amounted to €363 million (€466 million at December 31, 2015), including €88 million in the United Kingdom, €54 million in India, €43 million in Switzerland, and

 ${\in}42$  million in Brazil. Deferred tax liabilities recognized in other countries represented considerably smaller amounts.

#### 10.3. Tax loss carry-forwards

Deferred tax assets are recognized only if it is considered probable that there will be sufficient future taxable income against which the temporary difference can be utilized. They are reviewed at the end of each reporting period and written down to the extent that it is no longer probable that there will be sufficient taxable income against which the temporary difference can be utilized. In determining whether to recognize deferred tax assets for tax loss carry-forwards, the Group applies a range of criteria that take into account the probable recovery period based on business plan projections and the strategy for the long-term recovery of tax losses applied in each country.

The Group recognized deferred income tax assets on loss carry-forwards for a net amount of €765 million at December 31, 2016, against €780 million at December 31, 2015. This principally relates to the United States, for which the recovery period is shorter than the maximum utilization period of 20 years, and to France, Germany and Spain, where tax consolidation ensures that deferred tax can be recovered. In these countries, tax loss carry-forwards may have indefinite expiry dates. However, after analyzing each situation, the Group may decide to not recognize the deferred tax assets.

At December 31, 2016, deferred tax assets whose recovery is not considered probable totaled €393 million (€427 million at December 31, 2015) and a provision had been accrued for the full amount. Unrecognized deferred tax assets chiefly relate to China, Germany, the United States, Belgium and Spain.

#### NOTE 11 SUBSEQUENT EVENTS

None.

#### NOTE 12 FEES PAID TO THE STATUTORY AUDITORS

Total fees paid to the Statutory Auditors and recognized in the income statement in 2016 and 2015 are detailed in the "Additional information and cross-reference tables" section of the Registration Document.

#### PRINCIPAL CONSOLIDATED COMPANIES NOTE 13

The table below shows the Group's principal consolidated companies, typically those with annual sales of over €100 million.

#### **Innovative Materials Sector**

			Dec. 31, 2016		
Flat Glass	Country	Consolidation method	Percentage held directly and indirectly		
Saint-Gobain Sekurit Deutschland GmbH & CO Kg, Herzogenrath*	Germany	Full consolidation	99.99%		
Saint-Gobain Glass Deutschland GmbH, Stolberg*	Germany	Full consolidation	99.99%		
Saint-Gobain Deutsche Glas GmbH, Stolberg*	Germany	Full consolidation	99.99%		
Flachglas Torgau GmbH, Torgau*	Germany	Full consolidation	99.99%		
Saint-Gobain Weisswasser GmbH, Aachen*	Germany	Full consolidation	99.99%		
Glasverarbeitungs-Gesellschaft Bremen mbH, Bremen*	Germany	Full consolidation	99.99%		
Saint-Gobain Glassolutions Nord GmbH, Lübeck*	Germany	Full consolidation	99.99%		
Saint-Gobain Glassolutions Süd GmbH, Tuttlingen*	Germany	Full consolidation	99.99%		
Glas-Funke GmbH, Kall*	Germany	Full consolidation	99.99%		
Glasverarbeitungs-Gesellschaft Deggendorf mbH, Deggendorf*	Germany	Full consolidation	99.99%		
Vetrotech Saint-Gobain Kinon GmbH, Aachen*	Germany	Full consolidation	99.99%		
Saint-Gobain Autoglas GmbH, Herzogenrath*	Germany	Full consolidation	99.99%		
Saint-Gobain Sekurit Deutschland Beteiligungen GmbH, Herzogenrath*	Germany	Full consolidation	99.99%		
FABA Autoglas Technik GmbH & Co. Betriebs-KG, Berlin*	Germany	Full consolidation	99.99%		
Freeglass GmbH & Co. KG, Schwaikheim*	Germany	Full consolidation	99.99%		
Saint-Gobain Autover Deutschland GmbH, Kerpen*	Germany	Full consolidation	99.99%		
Freudenberger Autoglas GmbH, München*	Germany	Full consolidation	99.99%		
Saint-Gobain Construction Products Belgium	Belgium	Full consolidation	100.00%		
Cebrace Cristal Plano Ltda	Brazil	Full consolidation	50.00%		
Saint-Gobain Do Brasil Ltda	Brazil	Full consolidation	100.00%		
SG Hanglas Sekurit (Shanghaï) Co., Ltd	China	Full consolidation	90.24%		
Hankuk Glass Industries Inc.	South Korea	Full consolidation	80.47%		
Hankuk Sekurit Limited	South Korea	Full consolidation	90.13%		
Saint-Gobain Cristaleria S.L	Spain	Full consolidation	99.83%		
Saint-Gobain Glass France	France	Full consolidation	100.00%		
Saint-Gobain Sekurit France	France	Full consolidation	100.00%		
Saint-Gobain India Private Limited	India	Full consolidation	99.14%		
Saint-Gobain Glass Italia S.p.a	Italy	Full consolidation	100.00%		
Saint-Gobain Mexico	Mexico	Full consolidation	99.83%		
Saint-Gobain Polska Sp Zoo	Poland	Full consolidation	99.11%		
Saint-Gobain Innovative Materials Polska Sp Zoo	Poland	Full consolidation	98.61%		
Saint-Gobain Sekurit CZ, Spol S.R.O	Czech Republic	Full consolidation	100.00%		
Saint-Gobain Glass (United Kingdom) Limited	United Kingdom	Full consolidation	100.00%		
Vetrotech Saint-Gobain International	Switzerland	Full consolidation	100.00%		

		De	oc. 31, 2016
High Performance Materials	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Abrasives GmbH, Wesseling*	Germany	Full consolidation	100.00%
Saint-Gobain Diamantwerkzeuge GmbH, Norderstedt*	Germany	Full consolidation	100.00%
Supercut Europe GmbH, Herzogenrath*	Germany	Full consolidation	100.00%
Ernst Winter & Sohn Norderstedt GmbH & Co. KG, Norderstedt*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics Isofluor GmbH, Neuss*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics MG Silikon GmbH, Lindau*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics Pampus GmbH, Willich*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics L+S GmbH, Wertheim*	Germany	Full consolidation	100.00%
Saint-Gobain Do Brasil Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Canada, Inc.	Canada	Full consolidation	100.00%
Saint-Gobain Abrasives, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Ceramics & Plastics, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Performance Plastics Corporation	United States	Full consolidation	100.00%
Saint-Gobain Adfors America, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Abrasifs	France	Full consolidation	99.98%
Société Européenne des Produits Réfractaires - SEPR	France	Full consolidation	100.00%
Grindwell Norton Ltd	India	Full consolidation	51.59%
Saint-Gobain K.K.	Japan	Full consolidation	100.00%
Saint-Gobain America S.A De C.V	Mexico	Full consolidation	99.83%
Saint-Gobain Abrasives BV	Netherlands	Full consolidation	100.00%
Saint-Gobain HPM Polska Sp Zoo	Poland	Full consolidation	100.00%
Saint-Gobain Adfors CZ S.R.O.	Czech Republic	Full consolidation	100.00%

## **Construction Products Sector**

		Dec. 31, 2016		
Interior Solutions	Country	Consolidation method	Percentage held directly and indirectly	
Saint-Gobain Construction Products South Africa Ltd	South Africa	Full consolidation	100.00%	
Saint-Gobain Rigips GmbH	Germany	Full consolidation	100.00%	
Saint-Gobain Isover G+H Aktiengesellschaft	Germany	Full consolidation	99.91%	
Saint-Gobain Construction Products Belgium	Belgium	Full consolidation	100.00%	
CertainTeed Gypsum Canada, Inc.	Canada	Full consolidation	100.00%	
Saint-Gobain Placo Iberica	Spain	Full consolidation	99.83%	
CertainTeed Corporation	United States	Full consolidation	100.00%	
CertainTeed Gypsum & Ceillings USA, Inc.	United States	Full consolidation	100.00%	
CertainTeed Ceilings Corporation	United States	Full consolidation	100.00%	
SG Rakennustuotteet	Finland	Full consolidation	100.00%	
Placoplatre SA	France	Full consolidation	99.75%	
Saint-Gobain Isover	France	Full consolidation	100.00%	
Saint-Gobain India Private Limited	India	Full consolidation	99.14%	
Saint-Gobain PPC Italia S.p.a	Italy	Full consolidation	100.00%	
Mag-Isover K.K.	Japan	Full consolidation	99.98%	
Saint-Gobain Construction Products Nederland BV	Netherlands	Full consolidation	100.00%	
Saint-Gobain Construction Products Polska Sp Zoo	Poland	Full consolidation	100.00%	
Saint-Gobain Construction Products CZ AS	Czech Republic	Full consolidation	100.00%	
Saint-Gobain Construction Products United Kingdom Ltd	United Kingdom	Full consolidation	100.00%	
Saint-Gobain Ecophon AB	Sweden	Full consolidation	100.00%	
Saint-Gobain Sweden AB	Sweden	Full consolidation	100.00%	
Izocam Ticaret VE Sanayi A.S.	Turkey	Full consolidation	47.53%	
Vinh Tuong Industrial Corporation	Vietnam	Full consolidation	98.12%	

		Dec. 31, 2016		
Exterior Solutions	Country	Consolidation method	Percentage held directly and indirectly	
Saint-Gobain Weber GmbH	Germany	Full consolidation	100.00%	
Saint-Gobain PAM Deutschland GmbH	Germany	Full consolidation	100.00%	
Saint-Gobain Argentina S.A	Argentina	Full consolidation	100.00%	
Saint-Gobain Do Brasil Ltda	Brazil	Full consolidation	100.00%	
Saint-Gobain Canalização Ltda	Brazil	Full consolidation	100.00%	
Saint-Gobain (Xuzhou) Pipe Co., Ltd	China	Full consolidation	100.00%	
Saint-Gobain (Xuzhou) Pipelines Co., Ltd	China	Full consolidation	100.00%	
Saint-Gobain Pipelines Co., Ltd	China	Full consolidation	100.00%	
CertainTeed Corporation	United States	Full consolidation	100.00%	
SG Rakennustuotteet	Finland	Full consolidation	100.00%	
Saint-Gobain Weber	France	Full consolidation	100.00%	
Saint-Gobain PAM	France	Full consolidation	100.00%	
Saint-Gobain Construction Products United Kingdom Ltd	United Kingdom	Full consolidation	100.00%	
Saint-Gobain Sweden AB	Sweden	Full consolidation	100.00%	
Saint-Gobain Weber AG	Switzerland	Full consolidation	100.00%	

## **Building Distribution Sector**

		De	ec. 31, 2016
	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Building Distribution Deutschland GmbH, Offenbach/Main*	Germany	Full consolidation	100.00%
Fliesen Discount GmbH, Berlin*	Germany	Full consolidation	100.00%
Chr. Balzer GmbH & Co KG, Marburg*	Germany	Full consolidation	67.34%
Balzer & Nassauer GmbH & Co KG, Herborn*	Germany	Full consolidation	67.34%
Saint-Gobain Distribuição Brasil Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Distribution Denmark	Denmark	Full consolidation	100.00%
Saint-Gobain Distribucion Construccion, S.L	Spain	Full consolidation	99.83%
Distribution Sanitaire Chauffage	France	Full consolidation	100.00%
Lapeyre	France	Full consolidation	100.00%
Saint-Gobain Distribution Bâtiment France	France	Full consolidation	100.00%
Optimera As	Norway	Full consolidation	100.00%
Saint-Gobain Distribution The Netherlands B.V	Netherlands	Full consolidation	100.00%
Saint-Gobain Building Distribution Ltd	United Kingdom	Full consolidation	100.00%
Saint-Gobain Distribution Nordic Ab	Sweden	Full consolidation	100.00%
Sanitas Troesch Ag	Switzerland	Full consolidation	100.00%

Subsidiary or consolidated subgroups in Germany in the legal form of limited liability companies or partnerships using the exemption requirements according to § 264 Section 3, § 264b and § 291 of the German Commercial Code that refrain the entities and subgroups from disclosingtheir annual and subgroup financial statements as well as from preparing and disclosing their notes and local management report (entity or subgroup exceeding or not €100 million of annual sales).

# 2. Statutory Auditors' report on the consolidated financial statements

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking users. The Statutory Auditors' report includes information specifically required by French law in such reports, whether modified or not. This information is presented below the audit opinion on the consolidated financial statements and includes an explanatory paragraph discussing the Auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the consolidated financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions, or disclosures.

This report also includes information relating to the specific verification of information given in the Group's management report.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

#### Year ended December 31, 2016

To the Shareholders, Compagnie de Saint-Gobain S.A.

Les Miroirs 18, avenue d'Alsace 92400 Courbevoie

In compliance with the assignment entrusted to us by your Annual General Meeting, we hereby report to you, for the year ended December 31, 2016, on:

- the audit of the accompanying consolidated financial statements of Compagnie de Saint-Gobain;
- the justification of our assessments;
- the specific verification required by law.

These consolidated financial statements have been approved by the Board of Directors. Our role is to express an opinion on these consolidated financial statements based on our audit.

#### I - Opinion on the consolidated financial statements

We conducted our audit in accordance with professional standards applicable in France; those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit involves performing procedures, using sampling techniques or other methods of selection, to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group at December 31, 2016 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

#### II - Justification of our assessments

In accordance with the requirements of Article L.823-9 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we bring to your attention the following matters:

#### Measurement of property, plant and equipment and intangible assets

The Group regularly carries out impairment tests on its property, plant and equipment, goodwill and other intangible assets, and also assesses whether there is any indication of impairment of property, plant and equipment and amortizable intangible assets, based on the methods described in Note 5.5 to the consolidated financial statements "Impairment review". We examined the methods applied in implementing these tests and the estimates and assumptions used, and we verified that the information disclosed in Note 5.5 to the consolidated financial statements is appropriate.

#### **Employee benefits**

The methods applied for assessing employee benefits are set out in Note 4.3 to the consolidated financial statements "Provisions for pensions and other employee benefits". These benefit obligations were reviewed by independent actuaries. Our work consisted of assessing the data and assumptions used, examining, on a test basis, the calculations performed and verifying that the information disclosed in Note 4.3 to the consolidated financial statements is appropriate.

#### **Provisions**

As specified in Note 7 to the consolidated financial statements "Other current and non-current liabilities and provisions, contingent liabilities and litigation", the Group books provisions to cover risks. The nature of these provisions recorded is described in Note 7.1 to the consolidated financial statements. Based on the information available at the time of our audit, we ensured that the methods and data used to determine provisions as well as the disclosures regarding said provisions provided in Note 7 to the consolidated financial statements are appropriate.

These assessments were made as part of our audit of the consolidated financial statements taken as a whole, and therefore contributed to the opinion we formed which is expressed in the first part of this report.

#### **III - Specific verification**

As required by law, we have also verified in accordance with professional standards applicable in France the information presented in the Group's management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

Neuilly-sur-Seine and Paris La Défense, February 23, 2017 The Statutory Auditors

KPMG Audit
PricewaterhouseCoopers Audit
Department of KPMG S.A.

Édouard Sattler Cécile Saint-Martin Jean-Paul Thill Bertrand Pruvost

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## **COMPAGNIE DE SAINT-GOBAIN** ANNUAL FINANCIAL STATEMENTS (PARENT COMPANY)

## Compagnie de Saint-Gobain annual financial statements (parent company) **3.**

## **INCOME STATEMENT**

(in EUR thousand)	2016	2015
Operating revenue		
Royalties and license fees	104,332	102,619
Other services	71,430	73,385
NET REVENUE	175,762	176,004
Write-backs of depreciation, amortization, impairment and provisions	2,777	10,219
Expense transfers	5,199	24,908
Other operating income	925	482
TOTAL I	184,663	211,613
Operating expenses		
Other purchases and external charges	(113,147)	(143,283)
Taxes other than on income	(6,668)	(7,099)
Wages and salaries	(50,952)	(48,691)
Payroll taxes	(18,033)	(17,549)
Depreciation, amortization, impairment and provisions	(26,825)	(10,170)
Other operating expenses	(2,473)	(2,425)
TOTAL II	(218,099)	(229,217)
OPERATING LOSS (NOTE 2)	(33,436)	(17,605)
Share in profits/Losses of joint ventures		
PROFITS TOTAL III		
LOSSES TOTAL IV		
Financial income		
Income from investments in subsidiaries and affiliates	915,743	736,458
Income from loans and other investments	363,011	430,260
Income from other non-current investment securities	11	14
Other interest income	6,088	6,417
Write-backs of impairment and provisions, expense transfers	11	
Foreign exchange gains	7,946	6,035
Net income from sales of marketable securities	1,325	2,499
TOTAL V	1,294,135	1,181,683
Financial expense		
Amortization, impairment and provisions	(20,218)	(20,080)
Interest expense	(328,498)	(387,819)
Foreign exchange losses		
Net losses on sales of marketable securities	(12)	(13)
TOTAL VI	(348,728)	(407,912)
NET FINANCIAL INCOME (NOTE 3)	945,407	773,771
INCOME BEFORE TAX AND EXCEPTIONAL ITEMS	911,971	756,166

128,412

1,535,117

(486,379)

1,048,738

147,122

1,756,414

(685,560)

1,070,854



(in thousand EUR)	2016	2015
Exceptional income		
On revenue transactions	9,330	873
On capital transactions	2	348,435
Write-backs of depreciation, amortization, impairment and provisions	46,987	13,811
TOTAL VII	56,319	363,119
Exceptional expense		
On revenue transactions	(16,045)	(336)
On capital transactions	(436)	(157,332)
Depreciation, amortization, impairment and provisions	(31,483)	(37,886)
TOTAL VIII	(47,964)	(195,553)
NET EXCEPTIONAL INCOME/(EXPENSE) (NOTE 4)	8,355	167,566

TOTAL IX

INCOME TAXES (NOTE 5)

TOTAL INCOME

NET INCOME

TOTAL EXPENSES

3. Compagnie de Saint-Gobain annual financial statements (parent company)

## **BALANCE SHEET**

#### **Assets**

		2016		2015
(in EUR thousand)	Gross	Depreciation, amortization and impairment	Net	
NON-CURRENT ASSETS				
Intangible fixed assets (note 6)				
Goodwill (1)	567	(567)	-	-
Other intangible assets	49,284	(39,275)	10,009	9,170
Intangible assets in progress	2,114		2,114	2,899
Property, plant and equipment (note 7)				
Land	51		51	51
Buildings	1,400	(610)	790	855
Other	9,136	(5,397)	3,739	3,389
Assets under construction	2,451		2,451	685
Financial investments (2) (note 8)				
Investments in subsidiaries and affiliates	13,065,760	(30,068)	13,035,692	13,035,666
Loans and advances to subsidiaries and affiliates	12,557,738		12,557,738	11,498,119
Other investment securities	135	(102)	33	21,887
Loans	360,142		360,142	1,601,633
Other financial investments	1,152		1,152	1,053
TOTALI	26,049,930	(76,019)	25,973,911	26,175,408
CURRENT ASSETS (NOTE 9)				
Other receivables (3)	2,164,749		2,164,749	1,497,367
Marketable securities	1,982,377		1,982,377	3,969,204
Cash and cash equivalents	721,205		721,205	478,822
Accruals				
Prepayments (3)	836	-	836	1,646
TOTAL II	4,869,166	-	4,869,166	5,947,039
Deferred charges TOTAL III	62,521	-	62,521	80,715
Translation losses TOTAL IV	-	-	-	-
TOTAL ASSETS	30,981,617	(76,019)	30,905,598	32,203,162
(1) including leasehold rights			-	-
(2) of which due within one year			3,270,916	3,434,901
(3) of which due beyond one year			372	214

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#### Liabilities

(in EUR thousand)	2016	2015
SHAREHOLDERS' EQUITY (NOTE 10)		
Capital stock	2,221,12	1 2,243,774
Additional paid-in capital	5,867,533	6,116,418
Revaluation reserve	45,023	45,023
Other reserves:		
Legal reserve (1)	222,112	224,377
Untaxed reserves	2,617,758	2,617,758
Other reserves	301,428	301,428
Unappropriated retained earnings	5,093,766	4,703,496
Net income for the year	1,048,738	1,070,854
Untaxed provisions (NOTE 12)	3,24	3,247
тот	AL I 17,420,726	17,326,374
OTHER EQUITY (NOTE 11)		
Non-voting participating securities TOTAL	I BIS 170,03!	170,035
PROVISIONS (NOTE 12)		
Provisions for contingencies	85,119	114,109
Provisions for charges	211,402	180,015
тотл	AL II 296,52	1 294,124
DEBT AND PAYABLES (2) (NOTE 13)		
Bonds	7,800,066	8,531,126
Bank borrowings (3)	63,70	7 33,770
Other borrowings	4,828,91	5,494,465
Tax and social charges payable	40,014	86,425
Other payables	285,272	266,616
Accruals		
Deferred income	340	226
TOTA	AL III 13,018,316	14,412,628
Translation gains TOTA	L IV	0
TOTAL LIABILITIES	30,905,598	32,203,162
(1) of which long-term capital gains reserve	14,225	14,225
(2) of which due beyond one year	6,265,379	6,771,638
of which due within one year	6,752,93	7,640,991
(3) of which short-term bank loans and overdrafts	63,70	33,770

3. Compagnie de Saint-Gobain annual financial statements (parent company)

## STATEMENT OF CASH FLOWS

(in EUR thousand)	2016	2015
NET INCOME	1,048,738	1,070,854
Depreciation and amortization	24,054	23,134
Changes in provisions	4,699	17,781
Gains and losses on disposals of assets, net	52	(216,383)
CASH FLOW FROM OPERATIONS	1,077,543	895,386
(Increase) decrease in other receivables	(667,382)	26,455
(Increase) decrease in deferred charges and prepaid expenses	(1,215)	6,461
Increase (decrease) in taxes and social charges payable	(46,412)	14,506
Increase (decrease) in other payables	18,770	222,164
NET CHANGE IN WORKING CAPITAL	(696,239)	269,586
NET CASH FROM OPERATING ACTIVITIES	381,304	1,164,972
Acquisition of intangible assets	(2,575)	(2,149)
Acquisition of property, plant and equipment	(3,420)	(2,195)
Acquisition of investments in subsidiaries and affiliates and other investment securities	(15)	(1)
Acquisition of treasury stock	(416,955)	(545,287)
Proceeds from disposals of property, plant and equipment and intangible assets	4	348,435
(Increase) decrease in loans and advances to subsidiaries and affiliates	(1,059,619)	471,834
(Increase) decrease in long-term loans	1,241,491	69,742
(Increase) decrease in other financial investments	(99)	(372)
NET CASH FROM/(USED IN) INVESTING ACTIVITIES	(241,188)	340,007
Issue of capital stock	148,540	411,567
Dividend paid	(680,584)	(695,017)
Increase (decrease) in provisions for contingencies and charges	(2,310)	9,259
Increase (decrease) in short- and long-term debt	(647,130)	(443,529)
Increase (decrease) in bank overdrafts and other short-term debt	(719,542)	1,100,019
Decrease (increase) in marketable securities	2,003,293	(1,976,863)
Increase (decrease) in translation adjustments		(10)
NET CASH FROM/(USED IN) FINANCING ACTIVITIES	102,267	(1,594,574)
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	242,383	(89,595)
Cash and cash equivalents at January 1	478,822	568,417
Cash and cash equivalents at December 31	721,205	478,822
Analysis of cash and cash equivalents at December 31		
Cash at bank	721,205	478,822
Cash on hand	0	0
Total	721,205	478,822

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## NOTES TO THE 2016 ANNUAL FINANCIAL STATEMENTS

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The financial statements cover the twelve-month period from January 1 to December 31, 2016.

The following notes form an integral part of the annual financial statements.

These financial statements were approved by the Board of Directors on February 23, 2017.

#### **ACCOUNTING PRINCIPLES AND METHODS** NOTE 1

The financial statements of Compagnie de Saint-Gobain have been drawn up in accordance with the French Chart of Accounts, French law, and accounting principles generally accepted in France.

The financial statements include the accounts of Compagnie de Saint-Gobain's German branch.

#### Intangible assets

Purchased goodwill that is not legally protected is amortized over 25 years. Other intangible assets, consisting of computer software, are measured at acquisition cost and amortized over periods of three, five or ten years.

#### Property, plant and equipment

Property, plant and equipment are stated at cost (purchase price plus incidental expenses), except for assets acquired prior to December 31, 1976, which have been revalued.

They are depreciated over their estimated useful lives using the straight-line or declining-balance method. The most commonly used useful lives are as follows:

◆ Buildings	40 to 50 years	Straight-line
◆ Improvements and additions	12 years	Straight-line
◆ Fixtures and fittings	5 to 12 years	Straight-line
◆ Office furniture	10 years	Straight-line
◆ Office equipment	5 years	Straight-line
◆ Vehicles	4 years	Straight-line
◆ Computer equipment	3 years	Straight-line or declining balance

#### Investments in subsidiaries and affiliates. other investment securities

On initial recognition, investments in subsidiaries and affiliates are stated at cost excluding any incidental expenses. They are then periodically measured at fair value, in particular when an inventory is done. Fair value is estimated based on various criteria, including the Company's equity in the underlying net assets and the proportion of consolidated net assets. Specific impairment tests may be performed on a case-by-case basis to determine the net present value of future cash flows, excluding interest expense but after tax, based on business plans (or long-term budget projections).

When the fair value of the investments falls below their cost, a provision is set aside for impairment. No unrealized capital gain is recorded if fair value exceeds cost, and unrealized capital gains and losses are not offset.

#### **Receivables**

Receivables are stated at nominal value. A provision is set aside for impairment when inventory value is less than book

#### Marketable securities

Marketable securities mainly include units in money market funds (OPCVM and FCP) and are stated at acquisition cost or at market value at year end, if the latter is lower than the acquisition cost.

This item also includes treasury shares held by the company other than those classified as investment securities.

These securities are valued in accordance with the first in/first out (FIFO) method.

#### Foreign currency transactions

Income and expenses in foreign currencies are recorded at the euro exchange rate prevailing on the transaction date. Receivables, payables and bank balances in foreign currencies are converted at the year-end exchange rate, along with the related hedging instruments, and differences arising on translation are recorded under "Translation gains or losses." Provisions are booked for any exceptional unrealized translation losses that are not hedged.

#### **Risk management/Financial instruments**

Liquidity risk is managed with the main objective of ensuring the timely renewal of its financings at an optimal cost. Long-term debt therefore systematically represents a high proportion of overall debt. Similarly, the long-term debt maturity schedule is set so that the financing raised through the markets when the debt is renewed is spread over several vears.

Currency, interest rate, and commodity (energy and raw materials) price risks resulting from the Group's international activities are hedged by Compagnie de Saint-Gobain, mainly on behalf of subsidiaries. In addition, on its own behalf and for its subsidiaries, Compagnie de Saint-Gobain hedges the risk of fluctuations in the Saint-Gobain share price that could affect the cost of performance unit plans.

Currency risks are hedged mainly by fixed-term forward purchase and sale contracts and currency options. Currency receivables and payables hedged by forward purchase and sale contracts are recorded in the balance sheet at the hedging rate.

The portion of the unrealized gain or loss on currency options qualifying for hedge accounting that represents the extrinsic (time) value is taken to income, and the portion that represents the intrinsic value is recorded in the balance sheet. Only unrealized losses on currency options that do not qualify for hedge accounting are recognized in the income statement.

The Company uses mainly interest rate swaps and cross-currency swaps to hedge its exposure to fluctuations in interest rates.

Financial income and expenses on interest rate swaps and cross-currency swaps are recognized in the income statement on a symmetrical basis against income and expenses on the hedged items.

The portion of the unrealized gain or loss on interest rate options qualifying for hedge accounting that represents the extrinsic (time) value is taken to income, and the portion that represents the intrinsic value is recorded in the balance sheet. Interest rate options that do not qualify for hedge accounting are recognized in the income statement at market value.

The commodity price risks (energy and raw materials) of subsidiaries are hedged by the Company, mainly using energy and raw materials swaps. Financial income and expenses on these swaps are recognized in the income statement on a symmetrical basis against the income and expenses on the hedged items.

The risk of fluctuations in the Saint-Gobain share price that could affect the cost of performance unit plans is hedged using cash-settled equity swaps, which qualify for hedge accounting.

#### Tax consolidation agreements

Compagnie de Saint-Gobain was previously assessed for income tax on its worldwide taxable income as provided for under Article 209 *quinquies* of the French Tax Code. The last period covered by this agreement was 2004-2006. The Company chose not to renew this agreement for the accounting period starting January 1, 2007.

A tax provision is recorded in Compagnie de Saint-Gobain's accounts for taxes that may be payable in future periods following the non-renewal of this agreement. Movements in this provision are recorded under exceptional income or expense. Most of this provision has been written back in 2016 following a favourable ruling by the French Conseil d'État, which rejected on September 21, 2016, an appeal from the tax administration

As a result, since January 1, 2007 only the tax consolidation regime provided for in Articles 223 A *et seq.* of the French Tax Code has remained in effect.

The tax consolidation agreements between Compagnie de Saint-Gobain and its subsidiaries provide for tax neutrality for consolidated subsidiaries. In their relationship with Compagnie de Saint-Gobain, the consolidating parent company, the subsidiaries discharge their taxes as if they had been taxed on a stand-alone basis. When a loss-making subsidiary leaves the Group, they are not, in principle, entitled to any payments for losses transferred to the consolidating parent company during the consolidation period.

#### NOTE 2 OPERATING INCOME

Operating income declined by €15.8 million in 2016 (loss of €33.4 million versus an operating loss of €17.6 million in 2015). This was mainly due to the increase of actuarial losses on

pension and other post-employment benefit obligations compared with the amounts recorded in 2015.

#### NOTE 3 NET FINANCIAL INCOME

Net financial income increased by €171.6 million, from €773.8 million in 2015 to €945.4 million, largely reflecting:

- a €179.3 million increase in income from investments in subsidiaries and affiliates (dividends received from subsidiaries and 2016 profit transferred from the subsidiaries of the German branch);
- a €9.4 million decrease in income from loans and investments net of interest expense incurred;
- a net of provisions accruals and reversals unchanged compared with 2015 (net expense of €20.2 million in 2016 versus €20.1 million in 2015);
- ♦ A foreign exchange gain increase of €1.9 million.

#### NOTE 4 EXCEPTIONAL INCOME AND EXPENSE

The Company reported a net exceptional income of €8.4 million primarily due to a €31 million tax provision reversal following a ruling handed down in our favour by the French Conseil d'État on September 21, 2016, in connection

with a dispute with the tax administration following our exit from the worldwide tax consolidation regime. This provision reversal was partially offset by the booking of provisions for performance share and performance unit Group Plans.

#### NOTE 5 **INCOME TAXES**

The Company recorded an income taxes profit of €128.4 million, corresponding primarily to:

- ♦ a tax profit valued at €107.3 million under the 2016 tax consolidation regime (France), with the taxable income of Compagnie de Saint-Gobain on a stand-alone basis totaling €50 million;
- ♦ a net tax profit of €21.1 million for the German branch.

The French tax group generated a tax loss in 2016. The Group also has unused tax loss carry-forwards. At December 31, 2016, unused tax loss carry-forwards represented €620.2 million.

Compagnie de Saint-Gobain's permanent establishment, which is the Group's leading entity under the Organschaft local consolidation regime, reported a tax credit in 2016. At December 31, 2016, future tax savings corresponding to the branch's unused tax loss carry-forwards amounted to €63 million.

In both cases, these future tax savings have been recorded in the consolidated financial statements, but not in the parent company financial statements.

#### **INTANGIBLE ASSETS** NOTE 6

_		Intangible	assets			Amort	ization		_
(in EUR thousand)	Gross at January 1, 2016	Additions	Disposals	Gross at December 31, 2016	Accumulated at January 1, 2016	Increases	Decreases	Accumulated at December 31, 2016	Net at December 31, 2016
Purchased goodwill	567			567	567			567	0
Other intangible assets	46,015	3,360	(91)	49,284	36,845	2,470	(40)	39,275	10,009
Intangible assets in progress	2,899	1,907	(2,692)	2,114	0			0	2,114
	49,481	5,267	(2,783)	51,965	37,412	2,470	(40)	39,842	12,123

#### PROPERTY, PLANT AND EQUIPMENT NOTE 7

	Pro	perty Plant a	nd Equipme	nt	Amortization			_	
(in EUR thousand)	Gross at January 1, 2016	Additions	Disposals	Gross at December 31, 2016		Increases	Decreases	Accumulated at December 31, 2016	Net at December 31, 2016
Land	51			51	0			0	51
Buildings	1,400			1,400	545	65		610	790
Other	8,143	1,654	(661)	9,136	4,754	1,299	(656)	5,397	3,739
Assets under construction	685	1,851	(85)	2,451	0			0	2,451
Prepayments	0			0	0			0	0
	10,279	3,505	(746)	13,038	5,299	1,364	(656)	6,007	7,031

#### NOTE 8 FINANCIAL INVESTMENTS

_		Financial inv	estments	
(in EUR thousand)	Gross at January 1, 2016	Additions	Disposals	Gross at December 31, 2016
Investments in subsidiaries and affiliates	13,065,745	15		13,065,760
Loans and advances to subsidiaries and affiliates	11,498,119	13,485,322	(12,425,703)	12,557,738
Other investment securities	21,988	400,490	(422,343)	135
Loans	1,601,633	1,975,807	(3,217,298)	360,142
Other financial investments	1,053	657	(558)	1,152
	26,188,538	15,862,291	(16,065,902)	25,984,927

#### Changes in investments in subsidiaries and affiliates

(in EUR thousand)	Additions	Disposals
Purchase of Saint-Gobain Cristaleria shares	15	
TOTAL	15	0

## Analysis of loans, receivables and other financial investments by maturity

		Due		
(in EUR thousand)	Gross	Within 1 year	Beyond 1 year	
Loans and advances to subsidiaries and affiliates	12,557,738	2,911,424	9,646,314	
Loans	360,142	359,492	650	
Other financial investments	1,152	0	1,152	
TOTAL	12,919,032	3,270,916	9,648,116	

## **Changes in other investment securities**

(in EUR thousand)	Additions	Disposals
Treasury stock for cancellation	400,490	
Cancellation of treasury stock		(422,343)
TOTAL	400,490	(422,343)

#### Changes in treasury stock classified as financial investments

		(in EURO thousand)	
	No. of shares held	Gross value	Net value
AT DECEMBER 31, 2014	0	0	0
Shares purchased in 2015	13,563,858	533,523	533,523
Shares cancelled in 2015	(13,000,000)	(511,670)	(511,670)
AT DECEMBER 31, 2015	563,858	21,853	21,853
Shares purchased in 2016	10,420,230	400,490	400,490
Shares cancelled in 2016	(10,984,088)	(422,343)	(422,343)
AT DECEMBER 31, 2016	0	0	0

3. Compagnie de Saint-Gobain annual financial statements (parent company)

During 2016, Compagnie de Saint-Gobain bought back 10,920,230 treasury shares with a par value of €4 each, for a total of  $\ensuremath{\notin} 417 \ \text{million}$  ( $\ensuremath{\notin} 43.7 \ \text{million}$  aggregate par value) of which 10 million shares were bought back on May 3, 2016, as part of an accelerated bookbuilding process completed by Wendel.

Of these 10,920,230 treasury shares:

♦ 10,420,230 shares have been allocated as shares for cancellation, for an amount of €400,5 million, of which €41.7 million par value;

♦ the balance of 500,000 shares, for an amount of €16,5 million, of which €2 million par value, has been allocated to marketable securities held for the coverage of performance share plans and other allocation to employees.

10,984,088 shares were cancelled on May 30, 2016.

In 2015 and in 2016, no treasury shares were remitted as part of existing purchase stock option plans.

At December 31, 2016, Compagnie de Saint-Gobain held 1,230,716 treasury shares, all allocated to the coverage of performance share plans and other allocation to employees (see Note 9 "Marketable securities").

#### NOTE 9 **CURRENT ASSETS**

#### Maturities of receivables reported under "Current assets"

		Due	Due		
(in EUR thousand)	Gross	Within 1 year	Beyond 1 year		
Other receivables	2,164,749	2,164,377	372		
Prepayments	836	836	0		
TOTAL	2,165,585	2,165,213	372		
Provision for doubtful receivables	-	-	-		

#### Analysis of "Other receivables"

(in EUR thousand)	2016	2015
Current account advances to subsidiaries	1,886,234	1,204,402
Mark-to-market adjustments to swaps and options (1)	233,402	256,211
Accounts receivable - Group	27,492	21,796
Income tax prepayments	11,626	7,518
Accounts receivable - External companies	1,348	957
Accruals for income and credit notes receivable - Group	1,280	1,201
Tax receivables	1,277	2,791
Prepayments to suppliers	788	247
Withholding taxes	0	95
Other	1,302	2,149
TOTAL	2,164,749	1,497,367

<sup>(1)</sup> All mark-to-market adjustments to swaps and options that represent debit entries are recorded as assets on the balance sheet under "Other receivables" and those representing credit entries are recorded as liabilities on the balance sheet under "Other payables"

#### Marketable securities

Marketable securities amounted to €1,982 million at December 31, 2016.

They consist mainly of €1,934 million worth of units in money market funds, representing the investment of funds held by the cash pool managed by the Company on behalf of the Group to yield a return on temporary cash surpluses.

The securities also include 1,230,716 treasury shares held to cover employee share-based payment plans.

Finally, marketable securities include those held under a liquidity agreement the Company entered into on November 16, 2007 with Exane BNP Paribas. This agreement complies with the code of ethics issued by the Association française des marches financiers (AMAFI), which is recognized by the Autorité des marchés financiers (AMF). It came into effect on December 3, 2007 for an initial period ending on December 31, 2007, since when it has been automatically renewable.

Under this liquidity agreement, at December 31, 2016 the Company held:

- ♦ €5.3 million worth of units in a euro-denominated money market fund; and
- 0 treasury share.

In 2016, 1,325,926 shares were purchased under this agreement (2015: 1,177,023 shares) and 1,339,926 shares were sold (2015: 1,223,023 shares).

#### **Deferred charges**

(in EUR thousand)	2016	2015
Bond issuance costs	55,271	69,664
Syndicated credit facility arrangement fees	7,250	11,051
DEFERRED CHARGES	62,521	80,715

In 2016, new debt issuance costs recorded under "Deferred charges" totaled  $\ensuremath{\in} 6.3$  million and amortization for the year amounted to €24.5 million.

The corresponding refinancing transactions are presented in Note 13.

#### NOTE 10 SHAREHOLDERS' EQUITY

#### 10.1 Changes in capital stock

Par value at December 31, 2015: 4 euros Par value at December 31, 2016: 4 euros	Number of shares	Amount (in EUR thousand)
CAPITAL STOCK AT JANUARY 1, 2016	560,943,439	2,243,774
Shares issued under performance share plans on March 31, 2016	187,818	751
Shares issued upon exercise of stock options on March 31, 2016	16,790	67
Shares issued under performance share plans on April 7, 2016	29,211	117
Shares issued under the Group Savings Plan on May 17, 2016	4,653,810	18,615
Shares cancelled on May 30, 2016	(10,984,088)	(43,936)
Shares issued under performance share plans on December 31, 2016	86	0
Shares issued upon exercise of stock options on December 31, 2016	433,292	1,733
CAPITAL STOCK AT DECEMBER 31, 2016	555,280,358	2,221,121

At December 31, 2016, capital stock amounted to €2,221,121 thousand, represented by 555,280,358 shares of common stock with a par value of €4 each.

#### 10.2 Statement of changes in shareholders' equity

(in EUR thousand)	Amount
SHAREHOLDERS' EQUITY AT 12/31/2015 BEFORE APPROPRIATION OF 2015 NET INCOME:	17,326,374
Shares issued upon exercise of stock options on March 31, 2016	435
Shares issued under the Group Savings Plan on May 17, 2016	136,161
Shares cancelled on May 30, 2016	(422,343)
Payment of the 2015 dividend	(680,584)
Shares issued upon exercise of stock options on December 31, 2016	11,945
Net income for 2016	1,048,738
SHAREHOLDERS' EQUITY AT 12/31/2016 BEFORE APPROPRIATION OF 2016 NET INCOME:	17,420,726

#### 10.3 Significant events

The principal events that contributed to changes in capital stock and shareholders' equity were as follows:

- ♦ the May 2016 increase in capital stock through the subscription of 4,653,810 shares under the Group Savings Plan at a price of €29.42. The issue proceeds amounted to €136,915 thousand (€136,161 thousand after deducting the issue costs, net of tax, from the premium);
- the capital reduction of May 30, 2016 through the cancellation of 10,984,088 shares for a gross and net amount of €422,343 thousand, of which 10 million shares bought back on May 3, 2016 by Compagnie de Saint-Gobain to Wendel as part of Wendel's accelerated
- bookbuilding process concerning 30 million shares (representing approximately 5.3% of the share capital);
- finally, in March and December, were respectively issued 16,790 shares at an average price of €25.88, and 433,292 shares at an average price of €27.57, upon exercise of stock options. Gross as well as net issue proceeds amounted to €12,380 thousand.

These various transactions had the effect of decreasing capital stock by €22,653 thousand, the legal reserve by €2,265 thousand and additional paid-in capital by €248.885 thousand.

Changes in unappropriated retained earnings during the year were as follows.

#### Changes pursuant to 3rd resolution of the AGM of June 2, 2016 (appropriation of income)

(in EUR thousand)	
AT DECEMBER 31, 2015 (BEFORE APPROPRIATION OF 2015 NET INCOME)	4,703,496
Net income for 2015	1,070,854
Less: final dividend taking into account the actual number of treasury shares held	(680,584)
AT DECEMBER 31, 2016 (BEFORE APPROPRIATION OF 2016 NET INCOME)	5,093,766

#### 10.4 Stock option plans

Compagnie de Saint-Gobain has stock option plans available to certain employees.

The Board of Directors grants options allowing beneficiaries to obtain Saint-Gobain shares at a price set, at no discount, by reference to the average of the opening prices for the Saint-Gobain share over the 20 stock market trading days preceding the date of the decision by the Board of Directors.

For all of the plans, options may only be exercised after four years vesting period. During this period, none of the options received may be exercised. Options must be exercised within ten years of the grant date. Except in specified circumstances, grantees forfeit these options if they leave the

Among the plans outstanding at December 31, 2016, plans 2007 to 2012 offer subscription options. For plans launched

between 2013 and 2016, the Board of Directors has decided that it would determine the type of option (subscription or purchase) at the latest on the day before the start of the exercise period, with any options exercised prior to such decision considered as subscription options.

Up to 2008, options were subject to a performance condition for certain grantees only. A performance condition applies for all grantees in plans awarded since 2009.

For options granted under the 2016 plan, the value used to calculate the 30% contribution sociale tax due for grantees employed by French companies in the Group is €4.21 per option granted.

Changes in the number of outstanding options are as follows:

	€4 par value shares	Average exercise price (in EUR)
OPTIONS OUTSTANDING AT DECEMBER 31, 2014	16,182,839	46.04
Options granted	224,950	39.47
Options exercised	(801,840)	35.21
Options forfeited	(4,004,092)	40.18
Options outstanding at December 31, 2015	11,601,857	48.69
Options granted	280,000	40.43
Options exercised	(450,082)	27.50
Options forfeited *	(4,509,448)	51.40
OPTIONS OUTSTANDING AT DECEMBER 31, 2016	6,922,327	47.97

Including 4,306,454 options under the 2006 stock option plan that had not been exercised upon expiry of the plan and 202,994 options granted under the 2012 stock option plan which lapsed because the related performance condition was only partly met.

The table below summarizes information about stock options outstanding at December 31, 2016, after taking into account partial fulfillment of the performance criteria attached to certain plans:

	Exercisable options		Options not yet e	Options not yet exercisable		Total options outstanding	
	Exercise price (in EUR)	Number of options	Weighted avg. residual life (in months)	Exercise price (in EUR)	Number of options	Number of options	Type of options
2007	64.72	3,403,171	11	-	-	3,403,171	Subscription
2008	25.88	1,702,822	23	-	-	1,702,822	Subscription
2009	36.34	809,868	35	-	-	809,868	Subscription
2010	35.19	-	47	-	-	-	Subscription
2011	31.22	-	59	-	-	-	Subscription
2012	27.71	29,716	71	-	-	29,716	Subscription
2013	-	-	83	38.80	237,250	237,250	see 10.4 above
2014	-	-	95	34.13	234,550	234,550	see 10.4 above
2015	-	-	107	39.47	224,950	224,950	see 10.4 above
2016	-	-	119	40.43	280,000	280,000	see 10.4 above
TOTAL	-	5,945,577	-	-	976,750	6,922,327	_

At December 31, 2016, 5,945,577 stock options were exercisable at an average exercise price of €49.55, and 976,750 options at an average exercise price of €38.30 had not yet vested.

#### 10.5 Performance share plans

Various performance share plans have been set up by Saint-Gobain since 2009.

Four performance share plans were outstanding at December 31, 2016. The plans approved by the Board of Directors in 2013, 2014 and 2015, solely concern certain managerial-grade employees and senior managers of the Group outside France. The plan approved by the Board of Directors on November 24, 2016 concerns managerial-grade employees and senior managers of the Group within and outside France.

All plans are subject to service and performance conditions. The vesting period is 4 years for all plans, and the shares will be delivered the day after the end of this vesting period.

The change in the total number of performance share rights is as follows:

	Number of rights
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2014	2,102,291
<ul> <li>performance share rights granted in November 2015</li> </ul>	500,910
♦ shares issued/delivered	(237,810)
◆ lapsed and cancelled rights	(13,510)
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2015	2,351,881
<ul> <li>performance share rights granted in November 2016</li> </ul>	1,231,320
◆ shares issued/delivered	(583,220)
♦ lapsed and cancelled rights	(196,856)
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2016	2,803,125

Including 217,115 new shares delivered under the 2011 plan, 365,555 existing shares delivered under the 2012 plan and 550 existing shares delivered in advance under the 2013 and 2014 plans.

The following table shows the expected dates when shares under the four performance share plans outstanding at December 31, 2016 will be issued/delivered, except in the case of early release following the grantee's death or disability, along with the service and performance conditions remaining to be fulfilled:

	Number of rights			Delivery date				<del></del>			
Grant date	granted at inception of Plan	Early deliveries	Outstanding rights at 12/31/2016 *	11/21/2017	11/20/2018	11/26/2019	11/24/2020	Type of shares			
11/21/2013	541,655	550	541,105	541,105				existing			
11/20/2014	530,240	450	529,790		529,790			existing			
11/26/2015	500,910		500,910			500,910		existing			
11/24/2016	1,231,320		1,231,320				1,231,320	existing			
TOTAL	2,804,125	1,000	2,803,125	541,105	529,790	500,910	1,231,320				

Subject to fulfillment of the service and performance conditions applicable to each plan.

#### 10.6 Performance unit plans

Performance unit plans subject to service and performance conditions were set up every year between 2012 and 2015, for certain management-grade employees and senior managers of the Group in France. These plans do not give rise to the delivery of shares, but entitle grantees to receive cash compensation deferred over the long term (exercise period between four and ten years after the grant date), the amount of which will be determined by reference to the Company's share price.

No long term payment plan in the form of performance units was set up in 2016, since all beneficiaries received rights to performance shares (see above).

In 2016, 345,431 units became exercisable under the 2012 plan, and 190,969 units under that plan lapsed, including 180,038 because the related performance conditions was only partly met.

The following table shows historical data of performance unit plans in the process of vesting at December 31, 2016.

Grant date	Number of performance units granted at inception of plan	Exercised early	Performance units outstanding at 12/31/2016 *
11/21/2013	588,535	17,750	570,785
11/20/2014	598,400	1,350	597,050
11/26/2015	556,340		556,340
TOTAL	1,743,275	19,100	1,724,175

<sup>\*</sup> Subject to fulfillment of the service and performance conditions applicable to each plan.

### 10.7 Compagnie de Saint-Gobain Group Savings Plan (PEG)

The Group Savings Plan ("PEG") is an employee stock purchase plan open to all Group employees in France and most other countries where the Group is present. Eligible employees must have completed a minimum of three months' service with the Group. Eligible employees are able to invest in Saint-Gobain shares at a preferential subscription price. These shares are held either directly or through the employee saving plan's mutual funds, depending on local legislation, and are subject to a mandatory five or ten years lock-up, except following the occurrence of certain events. The Board of Directors delegates

authorization for setting the subscription price to the Chief Executive Officer of Compagnie de Saint-Gobain. It corresponds to the average of the opening prices for the Saint-Gobain share on Euronext Paris over the 20 trading days preceding the date of the decision, subject to a 20% discount, in accordance with applicable laws, the Shareholders' Meeting resolutions and the deliberations of the Board of Directors.

In 2016, 4,653,810 new shares with a par value of €4 were issued to employees under the PEG at an average subscription price of €29.42 (4,449,939 shares at an average price of €32.44 in 2015), representing a share capital increase of €136 million (€144 million in 2015).

#### 10.8 Potential number of shares

At the Annual General Meeting of June 4, 2015, shareholders authorized the Board of Directors of Compagnie de Saint-Gobain to:

- issue, on one or several occasions, up to 112,500,000 new shares or stock warrants, with preferential subscription rights for existing shareholders of Compagnie de Saint-Gobain and debt securities without preferential subscription rights for existing shareholders but with a compulsory priority period for subscription for such shareholders (12th to 16th resolutions/26-month authorization commencing June 4, 2015);
- issue, on one or several occasions, up to 11,250,000 new shares to members of the Group Savings Plan (17th resolution, to be deducted from the ceiling of 112,500,000 shares referred to above/26-month authorization commencing June 4, 2015). In 2016, the Board of Directors made partial use of this authorization by issuing 4,653,810 shares under the 2016 Group Savings Plan.

At the Annual General Meeting of June 2, 2016, shareholders authorized the Board of Directors of Compagnie de Saint-Gobain to:

• grant stock options exercisable for new or existing shares, subject to performance conditions, representing up to 1.5% of the share capital on the day the AGM was held, with a sub-limit of 10% of this limit for corporate Directors of Compagnie de Saint-Gobain, i.e., 8,322,705 options,

- including a maximum of 832,270 options for corporate Directors (13th resolution/38-month authorization commencing June 2, 2016). In 2016, the Board of Directors made partial use of this authorization on November 24, 2016, by granting 280,000 options (including 58,000 for corporate Directors) (see section 10.4);
- ♦ grant free performance existing shares, subject to performance conditions, representing up to 1,2% of the share capital on the day the AGM was held, with a sub-limit of 10% of this limit for corporate Directors of Compagnie de Saint-Gobain, i.e. 6,658,164 performance shares, including a maximum of 665,816 performance shares for (14th resolution/38-month corporate Directors authorization commencing June 2, 2016). The limit of 1.2% and sub-limit of 10% are being set off against the limits specified under the 13th resolution of the Annual General Meeting referred to above regarding stock options. In 2016, the Board of Directors made partial use of this authorization on November 24, 2016, by granting 1,231,320 performance shares (including 67,000 for corporate Directors) (see section 10.5).

If all outstanding stock options were to be exercised with the issue of new shares, this would potentially have the effect of increasing the number of shares outstanding to 562,202,685 shares. In addition, if the authorizations described above were to be used in full by the Board of Directors, this would potentially have the effect of increasing the number of shares outstanding to 676,860,260 shares.

#### NOTE 11 OTHER EQUITY

#### Non-voting participating securities

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities with a face value of FRF 1,000. Their face value is now €152.45, following their conversion to euros in 1999.

A certain number of these securities have been bought back over the years. At December 31, 2016, 606,883 were outstanding with an aggregate face value of €92.5 million.

Interest on the securities ranges from 75% to 125% of the average corporate bond rate (TMO), based on the Group's consolidated income. Interest paid in 2016 amounted to  $\ensuremath{\mathfrak{C}}2.05$  per security.

In April 1984, 194,633 non-voting participating securities were issued with a face value of ECU 1,000 now  $\leqslant$ 1,000.

A certain number of those securities have been repurchased over the years. At December 31, 2016, 77,516 were outstanding with an aggregate face value of €77.5 million.

Interest on these securities comprises (i) a fixed portion of 7.5% per year applicable to 60% of the nominal amount of the security, and (ii) a variable portion applicable to the remaining 40% of the nominal amount of the security, which is linked to consolidated net income of the previous year and to the Libor EUR 6 month reference rate +7/8%. The amount paid per security in 2016 totaled 63.38, paid in two instalment (30.83 + 32.55).

None of these securities are redeemable and the remuneration paid to investors is qualified as interest expense.

#### NOTE 12 **PROVISIONS**

(in EUR thousand)	At January 1, 2016	Charge for the year	Write-backs of utilized provisions	Write-backs of surplus provisions	Other (transfers)	At December 31, 2016
Untaxed provisions						
Reinvested capital gains	3,247					3,247
Other	0					0
	3,247	0	0	0	0	3,247
Provisions for contingencies						
Provisions for taxes	111,583	3,045		(30,956)	(250)	83,422
Provisions for stock option plan costs	0					0
Provisions for other contingencies	2,526	391	(195)	0	(1,025)	1,697
	114,109	3,436	(195)	(30,956)	(1,275)	85,119
Provisions for charges						
Provisions for pensions and other post-employment benefit obligations (1)	112,830	22,996	(2,775)		(974)	132,077
Provisions for performance share and performance unit plan costs	65,621	27,847	(14,834)			78,634
Provisions for other charges	1,564	196	(1,001)		(68)	691
	180,015	51,039	(18,610)	0	(1,042)	211,402
Provisions for impairment						
Investments in subsidiaries and affiliates	30,079			(11)		30,068
Other investment securities	102					102
Doubtful receivables	0					0
Marketable securities	0					0
	30,181	0	0	(11)	0	30,170
Impact on operating income		22,990	(2,776)		(974)	
Impact on net financial income				(11)		
Impact on exceptional items		31,485	(16,029)	(30,956)	(1,343)	

<sup>(1)</sup> The Company's obligations with respect to supplementary pension plans and other post-employment benefits are measured using the actuarial method of projected unit credits based on end-of-career salaries and employees' vested rights at the measurement date.

Actuarial gains and losses arising in the year under defined-benefit retirement plans are recognized immediately and in full in the income statement.

The discount rate used was 1.80% in 2016, and 2.40% in 2015.

#### NOTE 13 **DEBT AND PAYABLES**

Total debt and payables (€13,018 million) recorded a net decrease of €1,394 million, which is largely explained by the reduction of €731 million in bond debt, and of €666 million in other borrowings.

### **Analysis of debt and payables**

		Due		
(in EUR thousand)	Gross	Within 1 year	Beyond 1 year	
Bonds (1)	7,800,066	1,619,115	6,180,951	
Bank Borrowings (1) and (2)	63,707	63,707		
Other borrowings (1) and (3)	4,828,917	4,744,689	84,228	
SUB-TOTAL DEBT	12,692,690	6,427,511	6,265,179	
Tax and social charges payable	40,014	40,014		
Other payables (3)	285,272	285,072	200	
Deferred income	340	340		
TOTAL DEBT AND PAYABLES (4)	13,018,316	6,752,937	6,265,379	
(1) New debt for the year	1,000,000			
Debt repaid during the year	1,608,747			
(2) of which:				
◆ debt with original maturity of up to two years	63,707			
◆ debt with original maturity of more than two years				
(3) of which:				
◆ shareholders' loans	NIL			
◆ new loans from subsidiaries	88,752			
◆ loans from subsidiaries repaid during the year *	749,631			
(4) Debt due beyond five years	2,732,636			

Including net variation of current accounts with Group entities.

#### Long- and short-term debt

(in EUR thousand)		2016	2015
1. Medium- and long-term debt			
Long-term portion			
Due between January 1 and December 31:			
2017			1,488,148
2018		832,542	828,101
2019		950,000	950,000
2020		1,000,000	
2021		750,000	750,000
2022 and beyond		2,615,888	2,722,869
No fixed maturity		116,748	32,520
TOTAL LONG- AND MEDIUM-TERM DEBT EXCLUDING SHORT-TERM PORTION:		6,265,178	6,771,638
SHORT-TERM PORTION:		1,619,116	1,759,786
	TOTAL	7,884,294	8,531,424
2. Short-term debt			
Borrowings from Group entities		4,741,839	5,491,052
Bank overdrafts and other short-term borrowings		63,707	33,770
Other		2,850	3,116
	TOTAL	4,808,396	5,527,938
TOTAL LONG- AND SHORT-TERM DEBT		12,692,690	14,059,362

Long-term debt can be analyzed as follows by currency:

(in EUR thousand)	2016	2015
Euro	7,110,306	7,246,724
Pound sterling	648,034	1,165,723
Norwegian krone	85,075	80,491
Yen	40,879	38,486
TOTAL	7,884,294	8,531,424

Note that the amortization of expenses in respect of borrowing placements is prorated over the life of the borrowings in question. This is shown on the "Deferred charges" line on the balance sheet (see Note 9, deferred charges).

#### 13.1 Perpetual bonds

In 1985, Compagnie de Saint-Gobain issued 25,000 perpetual bonds each with a face value of Ecu 5,000, now €5,000.

As at December 31, 2016, 18,496 perpetual bonds had been bought back and cancelled, and 6,504 perpetual bonds were outstanding, representing a total face value of €33 million.

The bonds bear interests at a variable rate (average of interbank rates offered by five reference banks for euro six-month deposits). The amount paid per security in 2016

The bonds are not redeemable and interest on them is classified as a component of finance costs.

#### 13.2 Main changes in bond debt in 2016

On May 31, 2016, Compagnie de Saint-Gobain redeemed a €700 million 4.875% bond at maturity.

On September 14, 2016, Compagnie de Saint-Gobain redeemed a €500 million private placement at maturity. The bond had paid a variable coupon consisting of 3-month Euribor +0.27%.

On September 27, 2016, Compagnie de Saint-Gobain took advantage of good conditions in the debt market to lower its average borrowing costs, issuing €1 billion worth of 0% bonds maturing on March 27, 2020.

On December 15, 2016, Compagnie de Saint-Gobain redeemed a £300 million 5.625% bond at maturity.

#### 13.3 Financing programs

The Group has a number of medium- and long-term financing programs (Medium-Term Notes) and short-term financing programs (Commercial Paper).

At December 31, 2016, issuance under these programs was as follows:

(in EUR million)	Maturities	Authorized program at 12/31/2016	Outstanding issues at 12/31/2016	Outstanding issues at 12/31/2015
Medium Term Notes		15,000	7,777	7,719
NEU CP	Up to 12 months	3,000	0	0
US Commercial Paper	Up to 12 months	949 *	0	0
Euro Commercial paper	Up to 12 months	949 *	0	0

Equivalent to USD 1,000 million based on the exchange rate at December 31, 2016.

In accordance with market practices, Negotiable European Commercial paper (NEU CP), US Commercial Paper and Euro-Commercial Paper are generally issued with maturities of one to six months. They are treated as variable-rate debt because they are rolled over at frequent intervals.

#### Syndicated lines of credit

Compagnie de Saint-Gobain has various syndicated lines of credit that are intended to provide a secure source of financing for the Group (including as additional backing for its short term financing programs Negotiable European Commercial paper, NEU CP, US Commercial Paper and Euro-Commercial Paper). They include:

- ♦ an initial €1.5 billion syndicated line of credit expiring in December 2017 which was obtained in December 2012. This facility was renegotiated in December 2013 and rolled over until December 2018;
- ♦ a second €2.5 billion syndicated line of credit expiring in December 2018, with two one-year rollover options, which was obtained in December 2013. Following the exercise of the two rollover options, in December 2014 and in December 2015, this syndicated line of credit was extended by two additional years, bringing its maturity to December 2020.

Based on Saint-Gobain Group's current credit rating for long-term debt issues, the two facilities are not subject to any hard covenant.

Neither of these lines of credit was drawn down at December 31, 2016.

#### **RELATED PARTY TRANSACTIONS** NOTE 14

#### 14.1 Transactions with related companies

	Net amount concerning	related companies			
(in EUR thousand)	(1) subsidiaries	(2) other related companies	Other companies	Net balance sheet amount at 12/31/2016	
Balance sheet items					
Investments in subsidiaries and affiliates	13,035,692			13,035,692	
Loans and advances to subsidiaries and affiliates	12,557,738			12,557,738	
Other investment securities		33		33	
Loans	286,961		73,181	360,142	
Other receivables	1,915,461		249,288	2,164,749	
Marketable securities	43,133		1,939,244	1,982,377	
Cash and cash equivalents			721,205	721,205	
Bonds			7,800,066	7,800,066	
Bank borrowings			63,707	63,707	
Other borrowings	4,824,180	1,935	2,802	4,828,917	
Tax and social charges payable			40,014	40,014	
Other payables	242,550	460	42,262	285,272	
Income statement items					
Income from investments in subsidiaries and affiliates	915,743			915,743	
Income from loans and other investments	363,004		7	363,011	
Other interest income			6,088	6,088	
Interest expense	6,280		322,218	328,498	

<sup>(1)</sup> Fully consolidated companies.

#### 14.2 Transactions with other related parties

Following the decision, made by Wendel, to sell 30 million Saint-Gobain shares (representing approximately 5.3% of the share capital) through an accelerated bookbuilding process, Saint-Gobain took the decision to participate in the private placement in order to decrease the number of outstanding shares, in line with its objectives. The Board of Directors thus decided, during its April 28, 2016 meeting, to authorize the Chairman and Chief Executive Officer to proceed with the purchase of 10 million of its own shares (representing

approximately 1.8% of its share capital) within the frame of its share buyback program authorized by Saint-Gobain's shareholders at the AGM of June 4, 2015 (11th resolution).

This buyback was made at the placement price on May 3, 2016, for an amount of €385 million, and the shares acquired were cancelled on May 30, 2016.

There are no other material transactions with other related parties.

<sup>(2)</sup> Companies that are not fully consolidated.

## **NOTE 15** INVESTMENT PORTFOLIO

	Country	Net book value	% interest	Number of shares
SPAFI	France	5,768,287	100.00	251,014,613
Partidis	France	2,065,919	100.00	58,597,751
Saint-Gobain Matériaux de Construction	France	2,123,712	100.00	112,145,608
Vertec	France	891,512	100.00	11,790,698
Saint-Gobain Benelux	Belgium	812,344	100.00	3,296,475
Saint-Gobain do Brasil	Brazil	220,001	55.31	78,404,824
Saint-Gobain Cristaleria	Spain	211,235	16.35	3,660,116
Saint-Gobain Building Distribution Deutschland	Germany	194,609	100.00	100,000,000
Saint-Gobain Innovative Materials	Belgium	132,080	15.00	1,667,698
Saint-Gobain Isover G+H AG	Germany	153,815	99.91	3,197,111
Saint-Gobain PPL Isofluor GmbH	Germany	153,764	100.00	23,008,200
Saint-Gobain Glass Deutschland GmbH	Germany	86,660	60.00	119,999,970
Saint-Gobain Autoglas GmbH	Germany	72,833	60.00	120,000,000
Saint-Gobain Diamant Werkzeuge GmbH	Germany	61,151	100.00	20,000,000
SEPR	France	53,310	25.73	407,600
Saint-Gobain PAM	France	30,733	8.10	360,255
SCI Île-de-France	France	3,428	94.00	22,560
Miscellaneous French companies		-	-	-
Miscellaneous foreign companies		299	-	-
INVESTMENTS IN SUBSIDIARIES AND AFFILIATES		13,035,692		
Cie de Saint-Gobain (treasury stock)	France	-	-	-
Cie de Saint-Gobain (treasury stock held for cancellation)	France	-	-	-
Miscellaneous French companies		33	-	-
OTHER INVESTMENT SECURITIES		33		
TOTAL		13,035,725		

## NOTE 16 INFORMATION ABOUT DIRECT INVESTMENTS IN SUBSIDIARIES AND AFFILIATES WITH A CARRYING AMOUNT REPRESENTING

**OVER 1% OF THE COMPANY'S CAPITAL STOCK** 

held advances Dividends granted by Guarantees received by the Company in 2016 the given by the **COMPANIES** 2016 net Company Gross Net Company (in EUR 2016 net (in thousand euros: Capital (in EUR (in EUI (in EUF (in EUR thousand) <sup>(1)</sup> income EUR k or local currency) stock Reserves % interest sales (loss) 1 - SUBSIDIARIES At least 50%-owned by the Company SPAFI EUR k EUR k EUR k EUR k 18, avenue d'Alsace 92400 Courbevoie 3,012,175 4,308,182 100,00 5,768,287 5,768,287 99 214,025 273,606 **Partidis** EUR k EUR k EUR k EUR k 18. avenue d'Alsace 92400 Courbevoie 893,616 89,362 100.00 2,065,919 2,065,919 1,385,000 4,164 73,121 S.G. Matériaux de Construction EUR k EUR k EUR k EUR k 18, avenue d'Alsace 92400 Courbevoie 476,619 (92,494) 100.00 2,123,712 2,123,712 4.545.000 29,307 20,554 EUR k EUR k EUR k EUR k 18. avenue d'Alsace 92400 Courbevoie 188,651 100.00 921,816 891,512 891,512 (14,909)490,493 EUR k EUR k EUR k EUR k Bouleverd de la Plaine 5 B 1050 Bruxelles 812,345 189,481 100.00 812,345 812,345 7,897 Saint-Gobain Building **Distrib Deutsch** EUR k EUR k EUR k EUR k Hafeninsel 9 D-63067, Offenbach/Main 100,000 94,600 100.00 194,609 194,609 1,466,410 8,770 8,770 S. G. Isover G+H AG 1 Burgermeister-EUR k EUR k EUR k EUR k Grünzweig Strasse D-67059 Ludwigshafen 82.000 11,426 99.91 153.815 153.815 352,244 10,932 10,932 S. G. PPL Isofluor Ziegeleistrasse EUR k EUR k EUR k EUR k 2/Kreitzwea D-41472, Neuss 23,008 139,936 100.00 153,764 153,764 9,347 73,421 73,421 S. G. Glass **Deutschland GmbH** EUR k EUR k EUR k EUR k Nikolausstrasse 1 D-52222, Stolberg 102,258 32,899 60.00 87,197 86,660 398,478 39,860 33,191 S G Do Brasil 482, avenida Santa Marina Agua Branca BRL k BRL k BRL k BRL k 05036-903 São Paulo-SP (Brésil) 1,417,564 828,054 55.31 220,001 220,001 3,135,564 36,293 Saint-Gobain Autoglas GmbH EUR k EUR k EUR k Glasstrasse 1 D-52134, Herzogenrath 102,258 19,130 60.00 72,833 72,833 34,690 34,690 Saint-Gobain Diamant Werkzeuge GmbH EUR k EUR k EUR k EUR k Schuetzenwall 13-17 D-22844, Norderstedt 10,226 50,925 100.00 61,151 61,151 47,826 (9,428)(9,428)

				Book value he		Loans and advances				Dividends
COMPANIES (in thousand euros: EUR k or local currency)	Capital stock	Reserves	% interest	<b>Gross</b> (in EUR thousand)	<b>Net</b> (in EUR thousand)	granted by the Company (in EUR thousand)	Guarantees given by the Company (in EUR thousand)	2016 net sales	2016 net income (loss)	(in EUR
2 - AFFILIATES										
10%- to 50%-owned by the Company										
S. G. Cristaleria										
132, Principe de Vergara 28002 Madrid	EUR k 134,512	EUR k 903,452	16.35	211,235	211,235	320,000		EUR k 358,548	EUR k 31,690	
Saint-Gobain Innovative Materials										
6. avenue Einstein	EUR k	EUR k						EUR k	EUR k	
1300 Wavre Belgium	390,566	(60,192)	15.00	160,880	132,080			180,481	14,047	-
SEPR	ELIB	EUDI						ELID I	ELIDI	
18, avenue d'Alsace 92400 Courbevoie	EUR k 63,361	EUR k 8,315	25.73	53,310	53,310	10,000		EUR k 142,093	EUR k (1,476)	
Other companies										
Subsidiaries (over 50%-owned)										
Total French companies				3,428	3,428					82
Total foreign companies				382	299					(14)
Affiliates (10%- to 50%-owned)										
Total French companies										
Total foreign companies										
OTHER INVESTMENTS				31,515	30,765	790,000				
TREASURY STOCK										
TREASURY STOCK HELD FOR CANCELLATION										
TOTAL				13,065,895	13,035,725	7,050,000				915,743

<sup>(1)</sup> The amount shown for subsidiaries of the German branch corresponds to 2016 profit or loss transferred under the tax consolidation system.

## NOTE 17 OFF-BALANCE SHEET COMMITMENTS

#### Off-balance sheet commitments given on behalf of consolidated companies

Off-balance sheet commitments given on behalf of consolidated companies	Date	Counterparty	<b>2016 amount</b> (in EUR thousand)	<b>2015 amount</b> (in EUR thousand)
Commitment related to the project of acquisition of Schenker Winkler Holding AG (1)	2017	Schenker Winkler Holding AG shareholders	2,397,984	2,383,009
Guarantee issued in connection with the planned lease of the new Saint-Gobain headquarter following its completion	04/06/2020	SCI Iris La Défense	77,507	25,836
Guarantee given on behalf of Saint-Gobain Isover (electricity purchases)	12/31/2025	Exeltium	22,270	25,410
Guarantee issued in connection with disputes between members of the tax group and the French tax authorities	indefinite	Tax authorities	10,466	10,466
Guarantee given to French companies whose employees have received performance units	multiple	multiple	5,640	2,416
Commitment given to employees of the Company who have received performance units	multiple	multiple	3,282	1,883
Commitments towards other members of economic interest groupings (GIE)	indefinite	GIE counterparts	3,752	4,060
Rent guarantee (Les Miroirs headquarters building)	06/30/2023	Miroirs A & B	3,000	3,000
Commitment towards the Saint-Gobain Initiatives foundation	multiple	SG Initiatives counterparts	2,000	
Commitment to employees of the German companies in the Group (early retirement plan)	06/30/2017	Sparkasse Aachen	1,250	1,597
Other commitments given	multiple	multiple	86	96

<sup>(1)</sup> On December 5, 2014, Compagnie de Saint-Gobain signed an agreement to purchase the company Schenker-Winkler Holding AG, which holds, as of December 31, 2016, 16.97% of the share capital and 52.92% of the voting rights of the company SIKA. On December 22, 2014, Compagnie de Saint-Gobain signed an agreement to transfer to its direct subsidiary SPAFI the benefits and obligations of the agreement mentioned above. In March 2016, the terms of the purchase agreement were extended to June 30, 2017. As of this date, Saint-Gobain will have the option to extend the agreement until December 31, 2018. The payment of the purchase price, which amounts to 2.83 billion Swiss francs, fully hedged for an equivalent amount of €2.40 billion, is guaranteed by Compagnie de Saint-Gobain.

#### Financing-related off-balance sheet commitments

Financing-related off-balance sheet commitments given	Date	Counterparty	<b>2016 amount</b> (in EUR thousand)	<b>2015 amount</b> (in EUR thousand)
Liquidity agreement guarantee	January 2017	Exane	219	601
Euro equivalent of forward currency sale contracts	multiple	multiple	1,398,837	1,352,725
Euro equivalent of forward currencies payable under currency swaps	multiple	multiple	6,331,401	7,393,640
Equity swaps acquired as hedges of performance units	multiple	multiple		707

Financing-related off-balance sheet commitments received	Date	Counterparty	<b>2016 amount</b> (in EUR thousand)	<b>2015 amount</b> (in EUR thousand)
Liquidity agreement guarantee	January 2017	Exane	219	601
Euro equivalent of forward foreign currency purchase contracts	multiple	multiple	1,398,593	1,352,352
Euro equivalent of foreign currencies receivable under currency swaps	multiple	multiple	6,356,447	7,388,543
2013/2020 undrawn line of credit	12/17/2020	multiple	2,539,000	2,539,000
2012/2018 undrawn line of credit	12/07/2018	multiple	1,461,000	1,461,000
Equity swaps acquired as hedges of performance units	multiple	multiple	12,602	7,068

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<sup>(2)</sup> Within the frame of the off-plan lease, Compagnie de Saint-Gobain benefits jointly with SCI Iris La Defense from a full completion bank guarantee given by the property developer.

3. Compagnie de Saint-Gobain annual financial statements (parent company)

Financing-related off-balance sheet commitments given and received	Date Counterpar	2016 amount ty (in EUR thousand)	2015 amount (in EUR thousand)
Interest-rate swaps Fixed-rate borrower/Fixed-rate lender	multiple multip	ole 291,995	340,623
Interest-rate swaps Variable-rate borrower/Fixed-rate lender	multiple multip	ole 95,000	95,000
Commodity swaps Fixed-price buyer/Variable-price seller	multiple multip	ble 1,065	8,662
Commodity swaps Variable-price buyer/Fixed-price seller	multiple multip	ole 1,065	8,662

## Operations-related off-balance sheet commitments: None.

As part of tax litigations which are duly provided for in the balance sheet, the tax administration has been granted liens on assets in its favor in the amount of €16,273 thousand, and delivered a notice confirming that these amounts were contended. In exchange for a stay of payment for part of these litigations, Compagnie de Saint-Gobain has obtained tax bonds from its banks in the amount of €10,466 thousand.

Given the favourable outcome of some of these litigations for the Group, these amounts will be reduced during 2017

In some cases, Compagnie de Saint-Gobain, or other Group Companies may grant seller's warranties to the buyers of divested businesses. A provision is recognized whenever a risk is identified and the related cost can be estimated reliably

#### NOTE 18 INFORMATION ON FEES PAID TO THE STATUTORY AUDITORS

Total fees (excluding VAT) paid and payable to the auditors for 2016, as reflected in the income statement, may be broken down as follows:

- ◆ statutory audit fees of €1.6 million;
- fees for audit-related advice and services of €0.3 million.

#### **NOTE 19** INFORMATION ON EMPLOYEES

#### **Number of employees**

Paris Head Office (Les Miroirs, La Défense)	2016	2015
Managers	159	164
Supervisors	36	37
Administrative staff	10	8
TOTAL	205	209
of which, employees under fixed-term contracts	5	5

German branch (Aachen)	2016	2015
Managers	78	79
Supervisors	131	121
Administrative staff	1	1
TOTAL	210	201
of which, employees under fixed-term contracts	11	7

### **Management compensation**

Total compensation and benefits paid in 2016 to Saint-Gobain management by the French and foreign companies in the Group (excluding any long-term cash-settled compensation) amounted to €13.3 million (€15.7 million in 2015), including €4.4 million in gross variable compensation (€4.5 million in 2015) and nil in termination, retirement or other benefits (€1.5 million in 2015).

Provisions for pensions and other post-employment benefits (defined-benefit obligations (DBO) in respect of length-of-service awards and pensions) accruing to Group management totaled €47.0 million at December 31, 2016 (€55.8 million December 31, 2015).

Attendance fees paid to members of the Board of Directors for 2016 totaled €1.1 million, the same as in previous year.



#### **NOTE 20** LITIGATION

The lawsuits described below involve Group subsidiaries and the related costs and provisions are recorded in the accounts of the subsidiaries concerned.

#### 20.1 Asbestos-related litigation

#### Asbestos-related litigation in France

#### Inexcusable fault lawsuits

In France, further individual lawsuits were filed in 2016 by former employees (or persons claiming through them) of Everite and Saint-Gobain PAM which in the past had carried out fiber-cement operations for asbestos-related occupational diseases they have or had. As at December 31, 2016, a total of 805 such lawsuits had been issued against the two companies since 1996 with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of December 31, 2016, 761 of these 805 lawsuits had been completed in terms of both liability and quantum. In all these cases, the employers were held liable on the grounds of "inexcusable fault".

Compensation paid by Everite and Saint-Gobain PAM in settlement of these lawsuits totaled approximately €1.7 million.

Concerning the 44 lawsuits outstanding against Everite and Saint-Gobain PAM at December 31, 2016, the merits of three have been decided but the compensation awards have not yet been made, pending Appeal Court rulings. A further four of these 44 lawsuits have been completed in terms of both liability and quantum, but liability for the payment of compensation has not yet been assigned.

Out of the 37 remaining lawsuits, at December 31, 2016 the procedures relating to the merits of 33 cases were at different stages, with four in the process of being investigated by the French Social Security authorities and 29 pending before the Social Security courts. The last four actions have been cancelled but the plaintiffs may request their restoration at any time within a two-year period.

In addition, as of December 31, 2016, 221 similar suits had been filed since the outset of the litigation by current or former employees of thirteen other French companies of the Group (excluding suits against companies that are no longer part of the Group), in particular by current or former employees who used equipment containing asbestos to protect themselves against heat from furnaces.

As of December 31, 2016, 164 lawsuits had been completed. In 89 of these cases, the employer was held liable for "inexcusable fault".

The compensation definitively paid by these companies totaled approximately  $\ensuremath{\mathfrak{C}} 2.5$  million.

With regard to the 57 suits outstanding at December 31, 2016, two cases were still at the investigation stage by the French Social Security authorities, 41 were being investigated – including 25 pending before the Social Security courts and 16 before the Appeal Courts. In addition, 7 suits had been

completed in terms of liability but are still pending with regard to the quantum or liability for paying the compensation, of which 1 was pending before the French Social Security court and 5 before the Appeal Courts. The 7 remaining suits have been cancelled but the plaintiffs may request their restoration at any time within a two-year period.

#### **Anxiety claims**

Eight of the Group's French companies, including six that operate or have operated facilities classified as containing asbestos, are subject of damages claims that are different from those described above.

"Facilities classified as containing asbestos" are defined as industrials facilities, that have been closed or are still operating, which previously manufactured materials containing asbestos or used protection and insulation equipment containing asbestos and are included by ministerial decree on the official list of facilities whose current or former employees are entitled to the early-retirement benefits paid to asbestos workers (ACAATA).

At December 31, 2016, a total of 822 suits had been brought by current or former employees claiming compensation for various damages suffered as a result of their alleged exposure to asbestos. None of these plaintiffs were suffering from an asbestos-related disease and some of them were not receiving the ACAATA benefit. Of these 822 suits, 585 have been terminated. Three plaintiffs had their claims dismissed, while for the 582 others who were recognized as having been exposed to an asbestos risk, the total amount of compensation is €7.6 million at December 31, 2016. Of the remaining 237 suits, 97 are pending before the competent Appeal Courts, 8 before the competent labor tribunals (bureau de jugements des Conseils de prud'hommes), five are pending before the Court of Cassation and 110 have been cancelled but the plaintiffs may request their restoration at any time during a period of two years. Finally, 6 suits have been dismissed by the competent labor tribunals and 11 plaintiffs have withdrawn the action they initiated.

It should be clarified that the figures above do not take into account suits filed against companies that are no longer part of the Group.

#### Asbestos-related litigation in the United States

In the United States, several companies that once manufactured products containing asbestos such as asbestos-cement pipes, roofing products, specialized insulation or gaskets, are facing legal action from persons other than their employees or former employees. These claims for compensatory – and in some cases punitive – damages are based on alleged exposure to these products, although in many instances the claimants cannot demonstrate any specific exposure to one or more products, or any specific illness or physical disability. The vast majority of these claims are made simultaneously against many other non-Group entities which have been manufacturers, distributors, installers or users of products containing asbestos.

#### **Developments in 2016**

About 3,200 new claims were filed against CertainTeed in 2016, stable compared to 2015 and 4,000 in 2014. Over the last few years, the number of new claims has remained relatively stable.

Almost all of the claims against CertainTeed are settled out of court or dismissed. Approximately 3,700 of the pending claims were resolved in 2016, compared to 4,600 in 2015 and 6,500 in 2014. Taking into account the 35,600 outstanding claims at the end of 2015 and the new claims having arisen during the year, as well as claims settled, around 35,100 claims were outstanding at December 31, 2016. A large number of these pending claims were filed more than five years ago by individuals without any significant asbestos-related impairment, and it is likely that many of these claims will ultimately be dismissed.

#### Impact on the Group's financial statements

The Group recorded a USD 100 million charge in 2016 to cover future developments in relation to claims. This amount is stable compared to the amount recorded in 2015 and 2014. At December 31, 2016, the Group provision for asbestos-related claims against CertainTeed in the United States amount to USD 562 million, (USD 581 million at December 31, 2015 and USD 571 million at December 31, 2014).

#### **Cash-flow impact**

Compensation paid in respect of these claims against CertainTeed, including claims settled prior to 2016 but only paid out in 2016, and those fully resolved and paid in 2016, and compensation paid (net of insurance) in 2016 by other Group businesses in connection with asbestos-related litigation, amounted to USD 97 million, compared to USD 65 million in 2015 and USD 68 million in 2014.

#### Situation in Brazil

In Brazil, former employees of Group companies suffering from asbestos-related occupational illness linked to asbestos are offered, depending on the case, solely financial compensation, or otherwise lifetime medical assistance combined with financial compensation; only a small number of former employee litigants or their legal successors were outstanding at December 31, 2016, and they do not present a material risk for the subsidiaries concerned.

#### 20.2 Anti-trust law and related proceedings

#### **Investigation by the Swiss Antitrust Commission** in the sanitary products wholesale

In November 2011, the Swiss Antitrust Commission (Commission Suisse de la Concurrence) opened an investigation for anti-competitive practices in the sanitary products wholesale sector. In May 2014, the Commission Secretariat issued a notification of complaints against Sanitas Troesch and against other wholesalers in the sector alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine decided against all the companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.5 million. Sanitas Troesch appelead this decision on May 2, 2016. Sanitas Troesch continues to firmly refute the claims made; however a provision for litigation was recognized at December 31, 2015 for an amount equivalent to the fine (unchanged at December 31, 2016).

## Investigation by the French Competition Authority in the Building Insulation Products

On August 6, 2014, Saint-Gobain Isover and Compagnie de Saint-Gobain (as the parent company of Saint-Gobain Group) received a notice of complaints from the French Competition Authority (Autorité de la Concurrence Française). The only complaint made was of having exchanged allegedly strategic and confidential information, between 2002 and 2007, relating to a certification request lodged by Actis before the Versailles Commercial Court for one of its products, and in relation to a dispute between Actis and the mineral wool manufacturers' association (FILMM), of which Saint-Gobain Isover was a member.

Saint-Gobain Isover and Compagnie de Saint-Gobain are challenging this complaint. The hearing was held on May 11, 2016. The Competition Authority's final ruling has been postponed to a date not yet known.

In the civil law area, in March 2013 Actis served a civil liability writ on Saint-Gobain Isover, the Centre Scientifique et Technique du Bâtiment, and the FILMM before the Paris Civil Court (*Tribunal de Grande Instance*) for the adverse consequences of facts forming the subject of the investigation by the Competition Authority. In an order dated December 16, 2014, the pre-trial judge declared a stay of proceedings while waiting for the decision from the Competition Authority.

#### Investigation by the Anti-trust Division of the United States Department of Justice in the United States drywall industry

In July 2015, the Anti-trust division of the United States Department of Justice opened a criminal investigation into potential anti-competitive practices, specifically a price agreement, in the United States drywall industry. This investigation followed complaints filed in late 2012 in the form of class actions in the civil courts against eight drywall manufacturers in the sector, including CertainTeed, by some of their customers.

On the basis of testimony and documents submitted in the civil proceedings. CertainTeed and its attorneys have not identified any element that might create liability for CertainTeed, and as a result filed a motion for summary judgment in May 2015 in order to end the civil proceedings. This application was accepted on February 18, 2016 by the competent court. An appeal against this decision is still possible.

#### 20.3 Environmental related litigation

#### PFOA matters in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of U.S. Environmental Protection Agency (EPA) or state health advisories have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics (SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluorethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained traces of PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in the Hoosick Falls and North Bennington areas, and installed carbon filtration systems on the municipal water supply in Hoosick Falls. In addition, it has voluntarily committed to fund water line extensions in certain communities in the Merrimack area. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation and clean-up obligations at these sites has not yet been established. Responsibility, if any,

is expected to be shared with other parties as regards in particular the Hoosick Falls' site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL.

On December 31, 2016, the Company established a provision in the amount of USD 23 million in connection with defense and various costs.

#### 20.4 Other proceedings and disputes

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities. Apart from the proceedings and litigation described above, to the best of the Company's knowledge no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or which has had, in the last twelve months, a significant impact on the financial or profit position of the Company and/or Group.

#### NOTE 21 SUBSEQUENT EVENTS

No material events have occurred since the balance sheet date.

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# 4. Statutory Auditors' report on the parent company financial statements

This is a free translation into English of the Statutory Auditors' report on the financial statements issued in French and is provided solely for the convenience of English speaking users. The Statutory Auditors' report includes information specifically required by French law in such reports, whether modified or not. This information is presented below the audit opinion on the financial statements and includes an explanatory paragraph discussing the Auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions, or disclosures.

This report also includes information relating to the specific verification of information given in the management report and in the documents addressed to shareholders.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditin standards applicable in France

Year ended December 31, 2016

# To the Shareholders of Compagnie de Saint-Gobain S.A.

Les Miroirs 18 avenue d'Alsace 92400 Courbevoie

In compliance with the assignment entrusted to us by your Annual General Meeting, we hereby report to you, for the year ended December 31, 2016, on:

- the audit of the accompanying financial statements of Compagnie de Saint-Gobain;
- the justification of our assessments;
- the specific verifications and information required by law.

These financial statements have been approved by the Board of Directors. Our role is to express an opinion on these financial statements based on our audit.

#### I - Opinion on the financial statements

We conducted our audit in accordance with professional standards applicable in France; those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit involves performing procedures, using sampling techniques or other methods of selection, to obtain audit evidence about the amounts and disclosures in the financial statements. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company at December 31, 2016 and of the results of its operations for the year then ended in accordance with French accounting principles.

#### II - Justification of our assessments

In accordance with the requirements of Article L.823-9 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we bring to your attention the following matter:

As described in Note 1 to the financial statements on accounting principles and methods (Investments in subsidiaries and affiliates, other investment securities and other financial investments), the Company carries out impairment tests on a yearly basis for its financial investments and investments in subsidiaries and affiliates. Based on the information available at the time of our audit, we assessed the approach used by the Company and ensured that the estimates made by the Company at December 31, 2016 were reasonable.

These assessments were made as part of our audit of the financial statements, taken as a whole, and therefore contributed to the opinion we formed which is expressed in the first part of this report.

#### III - Specific verifications and information

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by French law.

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors, and in the documents addressed to the shareholders with respect to the financial position and the financial statements.

Concerning the information given in accordance with the requirements of Article L.225-102-1 of the French Commercial Code (Code de commerce) relating to remuneration and benefits received by the directors and any other commitments made in their favour, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your company from companies controlling your company or controlled by it. Based on this work, we attest to the accuracy and fair presentation of this information.

In accordance with French law, we have verified that the required information concerning the identity of the shareholders or holders of the voting rights has been properly disclosed in the management report.

Neuilly-sur-Seine and Paris La Défense, February 23, 2017 The Statutory Auditors

> **KPMG** Audit PricewaterhouseCoopers Audit Department of KPMG S.A.

Édouard Sattler Jean-Paul Thill Cécile Saint-Martin Bertrand Pruvost

# 5. Management report Compagnie de Saint-Gobain annual financial statements

Compagnie de Saint-Gobain's corporate net income totaled €1,048.7 million in 2016 (2015: €1,070.9 million). This income consisted largely of financial income from subsidiaries and shareholdings (dividends and income transfers from subsidiaries of the German branch) totaling €915.7 million in 2016 (2015: €736.5 million).

Shareholders' equity before allocation of income for the year totaled €17,421 million at December 31, 2016 (December 31, 2015: €17,326 million).

#### 5.1 Significant events during the year

#### 5.1.1 Transactions involving shareholders' equity

The main changes in shareholders' equity included:

- an increase in shareholders' equity on May 17, 2016 of €136.2 million, through the subscription of 4,653,810 shares at a price of
  €29.42 under the Group Savings Plan;
- a capital reduction of €422.3 million on May 30, 2016 through the cancellation of 10,984,088 shares, of which 10 million shares bought back on May 3, 2016 by Compagnie de Saint-Gobain to Wendel as part of Wendel's accelerated bookbuilding process concerning 30 million shares (representing approximately 5.3% of the share capital);
- ♦ the payment on June 8, 2016, of the 2015 company dividend of €680.6 million.

#### 5.1.2 Acquisition plans

Saint-Gobain is continuing its plan to acquire a controlling interest in the Swiss company Sika

To this effect, Compagnie de Saint-Gobain signed on December 5, 2014, an agreement to acquire the company Schenker Winkler Holding AG (SWH), which holds 16.97% of the share capital and 52.92% of the voting rights of the company SIKA as of December 31, 2016. On December 22, 2014, Compagnie de Saint-Gobain signed an agreement with its direct subsidiary SPAFI transferring to the latter the benefits and obligations of the contract mentioned above. The payment of the purchase price, which amounts to SFr 2.83 billion (which is fully hedged in euros), is guaranteed by Compagnie de Saint-Gobain.

Completion of this deal is subject to clearance from the competent anti-trust authorities, which were all obtained on December 2, 2015. Further, on August 27, 2015, the Swiss Federal Administrative Court confirmed in last resort the validity of the opt-out clause provided in Sika's bylaws exempting Saint-Gobain from launching a mandatory takeover bid following the acquisition of the SWH shares.

Saint-Gobain and its Board of Directors took note of the ruling handed down by the Cantonal Court of Zug on October 28, 2016, which rejected SWH's demand for cancellation of the resolutions of the Annual General Meeting of Sika on April 14, 2015 for which SWH voting rights had been restricted, and SWH's appeal to the Zug Supreme Court against this decision. Saint-Gobain had anticipated these decisions by extending the term of the purchase agreement relating to the disposal of SWH shares with the Burkard family, from March 2016 to June 30, 2017. As of this date, Saint-Gobain will have the option to extend the agreement until December 31, 2018.

With the support of its Board of Directors, Saint-Gobain is determined to successfully complete its plan to acquire a controlling stake in Sika, as an industrial plan that will create value for all stakeholders. Pending the decision of the Zug Supreme Court, which is expected in 2017, Saint-Gobain is confident that the Swiss justice system will restore SWH's ownership rights on appeal.

#### **5.1.3** Future Saint-Gobain headquarters

In April 2015, Compagnie de Saint-Gobain signed with the Company "SCI Iris La Défense" an off-plan lease regarding the occupation of its future head-quarters. All conditions precedent have been lifted in April 2016, and demolition and construction work have started, with a completion due in 2019.

#### 5.1.4 Financing activities

On May 31, 2016, Compagnie de Saint-Gobain redeemed a €700 million 4.875% bond at maturity.

On September 14, 2016, Compagnie de Saint-Gobain redeemed a €500 million private placement at maturity. The bond had paid a variable coupon consisting of 3-month Euribor +0.27%.

On September 27, 2016, Compagnie de Saint-Gobain took advantage of good conditions in the debt market to lower its average borrowing costs, issuing €1 billion worth of 0% bonds maturing on March 27, 2020.

On December 15, 2016, Compagnie de Saint-Gobain redeemed a £300 million 5.625% bond at maturity.

#### 5.2 Other required information

#### Maturity date of debt to suppliers

Pursuant to Article D.441-4, the breakdown of its debt to suppliers by maturity date, at the close of the last two fiscal years, is the following:

(in EUR thousand)	2016	2015
Total trade payables	8,500	8,764
◆ Of which, past due	54	271
◆ Of which, not yet due	8,446	8,493
• O to 60 days	8,446	8,487
♦ beyond 60 days		6

Compagnie de Saint-Gobain settles its debts by their given due dates. The only invoices not settled by their due dates are those subject to litigation and classified as awaiting decision, and invoices that were received late.

#### 5.2.2 Branch of the company

Compagnie de Saint-Gobain has a German branch.

# Financial summary over the past five years

(in EUR thousand)	2016	2015	2014	2013	2012
1 - Capital stock at year-end					
Share capital	2,221,121	2,243,774	2,247,582	2,220,707	2,124,503
Number of common shares outstanding	555,280,358	560,943,439	561,895,566	555,176,790	531,125,642
2 - Results of operations					
Net sales	175,762	176,004	166,988	176,945	175,675
Income before tax, depreciation, amortization and provisions	952,078	967,838	1,045,415	775,752	630,125
Income tax	128,412	147,122	165,867	201,647	135,663
Income after tax, depreciation, amortization and provisions (Net income)	1,048,738	1,070,854	1,129,366	915,758	761,733
Dividends	(1) 698,092	(2) 680,584	(3) 695,017	<sup>(4)</sup> 684,560	(5) 654,065
3 - Earnings per share (in EUR)					
Income before tax, depreciation, amortization and provisions	1.71	1.73	1.86	1.40	1.19
Income after tax, depreciation, amortization and provisions (Net income)	1.89	1.91	2.01	1.65	1.43
Net dividend per share	1.26	1.24	1.24	1.24	1.24
4 - Employee information (6)					
Average number of employees during the year	205	209	210	222	231
Total payroll for the year	33,059	32,165	28,431	29,350	28,122
Total benefits for the year	15,572	14,573	12,911	13,781	22,892

<sup>(1)</sup> Estimated amount based on 555,281,510 shares entitled to 2016 dividend, at January 31, 2017 less 1,240,216 treasury shares held at January 31, 2017.

<sup>(2)</sup> Based on 549,959,351 shares entitled to 2015 dividend less 1,101,621 treasury shares held on the ex-dividend date.

<sup>(3)</sup> Based on 561,895,566 shares entitled to 2014 dividend less 1,397,640 treasury shares held on the ex-dividend date.

<sup>(4)</sup> Based on 555,176,790 shares entitled to 2013 dividend less 3,112,210 treasury shares held on the ex-dividend date.

<sup>(5)</sup> Based on 531,125,642 shares entitled to 2012 dividend less 3,653,495 treasury shares held on the ex-dividend date.

<sup>(6)</sup> Employee numbers only include staff at the company's head office and exclude the German branch.



# 7. Statutory auditors' special report on related party agreements and undertakings

(Annual General Meeting for the approval of the financial statements for the year ended December, 31 2016)

This is a free translation into English of the Statutory Auditors' special report on related party agreements and undertakings issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

#### Compagnie de Saint-Gobain SA

Les Miroirs 18 avenue d'Alsace 92400 Courbevoie

To the Shareholders,

In our capacity as Statutory Auditors of Compagnie de Saint-Gobain, we hereby report to you on related party agreements and undertakings.

It is our responsibility to report to you, based on the information provided to us, on the main terms, conditions of agreements and undertakings, and the reasons put forward for their benefit to the Company that have been disclosed to us or that we may have identified as part of our engagement, without commenting on their relevance or substance or identifying any undisclosed agreements or undertakings. Under the provisions of article R.225-31 of the French Commercial Code (code de commerce), it is your responsibility to assess whether the agreements and undertakings are appropriate and should be approved.

Where applicable, it is also our responsibility to provide you with the information required by article R.225-31 of the French Commercial Code in relation to the implementation during the year of agreements and undertakings already approved by the Annual General Meeting.

We performed the procedures that we deemed necessary in accordance with professional standards applicable in France to such engagements. These procedures consisted in verifying that the information given to us is consistent with the underlying documents.

# AGREEMENTS AND UNDERTAKINGS TO BE SUBMITTED FOR THE APPROVAL OF THE ANNUAL GENERAL MEETING

#### Agreements and undertakings authorized during the year

In accordance with article L.225-40 of the French Commercial Code, we have been informed of the following agreements and undertakings that were subject to the prior approval of your Board of Directors.

# Buyback of 10 million of its own shares by Saint-Gobain, as part of the accelerated bookbuilding carried out by Wendel, with the objective of being cancelled

#### **Nature**

Wendel decided, through an accelerated bookbuilding process, to sell a total of 30 million Saint-Gobain shares (representing approximately 5.3 % of the share capital). Your Board of Directors decided to participate to this transaction in order to reduce the number of Saint-Gobain shares outstanding, in accordance with its objectives. Therefore, the Board of Directors authorized the Chairman and Chief Executive Officer at its meeting of April 28, 2016, to buy back 10 million Saint-Gobain shares (representing approximately 1.8 % of the share capital). This transaction was carried out as part of the existing share buyback program authorized by the Annual General Meeting of June 4, 2015 (11th resolution).

This buyback, carried out at the placement price, was executed on May 3, 2016 at a price of 385 million euros. The shares so repurchased were cancelled on May 30, 2016.

#### **Person concerned**

Wendel, shareholder with an interest of over 10%'s voting rights in Compagnie de Saint-Gobain.

Frédéric Lemoine, Director of Compagnie de Saint-Gobain and Chairman of the Management Board of Wendel.

Bernard Gautier, Director of Compagnie de Saint-Gobain and member of the Management Board of Wendel.

Gilles Schnepp, Director of Compagnie de Saint-Gobain appointed in accordance with the agreement between Saint-Gobain and Wendel (see thereafter).

#### Agreements and undertakings previously approved by the annual general meeting

#### Agreements and undertakings approved in previous years

#### a) which were implemented during the year

Pursuant to article R.225-30 of the French Commercial Code, we were informed that the following agreements and undertakings, approved in previous years by the Annual General Meeting, were implemented during the year.

Nature and date of approval by the Annual General Meeting	Person(s)/entity(ies) concerned	Implementation in the year ended December 31, 2016
Agreements with Wendel, a shareholder of Compagnie de Saint-Gobain	Wendel, shareholder with an interest of over 10% in Compagnie de Saint-Gobain.	These agreements, which were entered into on May 26, 2011 for a ten-year term, and which set out
Approved by the Annual General Meeting of: June 7, 2012	Directors: Frédéric Lemoine, Chairman of the Management Board of Wendel and Bernard Gautier, member of the Management Board	the principles and objectives of the long-term cooperation between Wendel and Saint-Gobain, have not given rise to any payment and mainly concern
(Statutory Auditors' special report of March 9, 2012)	of Wendel	corporate governance, voting rights and changes in Wendel's interest in the capital of the Company.
Group health and personal risk insurance contract for employees and corporate officers	Chairman and Chief Executive Officer:	On the recommendation of the Nomination, Remuneration and Governance Committee, at its
for employees and corporate officers	Pierre-André de Chalendar	meeting on March 20, 2014, the Board of Directors
Approved by the Annual General Meeting of: June 5, 2014		decided that Pierre-André de Chalendar would continue to benefit in full from the Group health and
(Statutory Auditors' special report of March 24, 2014)		personal risk insurance contracts entered into with GAN and Mutuelle Malakoff Médéric respectively.
		Payment of €7,274, made by the Company for Pierre André de Chalendar's insurance coverage in respect of 2016.

#### b) which were not implemented during the year

Furthermore, we were informed that the following agreements and undertakings, already approved by an Annual General Meeting in previous years, remained in force but were not implemented during the year.

Undertakings given to Pierre-André de Chalendar concerning the compensation and benefits potentially due, in certain cases, on the termination of his duties as Chairman and Chief Executive Officer

◆ Nature and date of approval by the Annual General Meeting

On recommendation of the Nomination, Remuneration and Governance Committee, at its meeting of March 20, 2014, the Board of Directors authorized the renewal of benefits payable to Pierre-André de Chalendar on the termination of his duties as Chairman and Chief Executive Officer ("compensation for termination of office") of Compagnie Saint-Gobain (the "Company"). The terms and conditions of this compensation for termination of office are as follows:

- 1. The compensation for termination of office will be paid in the event of the forced termination of Pierre-André de Chalendar's duties as Chairman and Chief Executive Officer, irrespective of the form of termination, resulting from a change in control or strategy, if and only if:
- a. he is removed from office or his appointment as Chairman and Chief Executive Officer is not renewed, other than at his own initiative or as a result of gross or willful misconduct (by reference to case law relating to employment matters) or serious misconduct not related to his duties as Chief Executive Officer (in accordance with the case law definition), or
- **b.** he is forced to resign within the twelve months following:
  - the date of approval by the shareholders of a merger or demerger affecting the Company, or
  - ◆ the date on which a third party or group of third parties acquires control of the Company (in accordance with article L.233-3 of the French Commercial Code), or
  - the announcement by the Company's management bodies of a significant shift in the Group's strategy leading to a major change in its business.
- 2. No compensation for termination of office will be due if Pierre-André de Chalendar leaves the Company (i) at his own initiative in circumstances other than those described in 1. above, or (ii) in one of the circumstances described in 1. above, if he would have been eligible to retire during the following twelve months and to receive a pension under the SGPM supplementary benefit plan for engineers and managers.

- 3. The amount of the compensation for termination of office will be equal to no more than twice the amount of Pierre-André de Chalendar's total gross annual compensation as Chairman and Chief Executive Officer, defined as the sum of the fixed portion of the annual compensation of the Chairman and Chief Executive Officer received as of the date of termination of his duties, and the average annual variable bonus of the Chairman and Chief Executive Officer received or receivable in respect of his last three years in office (this total gross annual compensation is defined hereinafter as the "Reference Compensation"). In any case, the sum of the compensation for termination of office and of the non-compete agreement compensation (defined hereinafter) will not exceed two times the amount of the Reference Compensation.
- 4. Payment of the compensation for termination of office will be subject to fulfilment of a performance condition evidenced by the Board of Directors' decision to award him an average bonus for the last three full years ended before the termination of his duties as Chairman and Chief Executive Officer at least equal to one half of the average maximum bonus.
  - Payment of the compensation for termination of office will be dependent on the Board of Directors' acknowledgement, under the conditions set out by the legislation in force, of the fulfilment of this performance condition as of the date his duties are terminated.

On the recommendation of the Nomination, Remuneration and Governance Committee, at its meeting on March 20, 2014, the Board of Directors authorized the renewal of a firm and irrevocable non-compete agreement between Pierre-André de Chalendar and the Company for a period of one year from the date on which his functions as Chairman and Chief Executive Officer are terminated in circumstances qualifying him for the compensation for termination of office. In consideration for this undertaking, Pierre-André de Chalendar will receive a compensation ("non-compete agreement compensation") equal to the Reference Compensation, it being specified that the amount of the compensation for termination of office due to Pierre-André de Chalendar will, if necessary, be reduced so that the sum of the non-compete agreement compensation and the compensation for termination of office amount will not exceed two times the Reference Compensation.

On the recommendation of the Nomination, Remuneration and Governance Committee, at its meeting on March 20, 2014, the Board of Directors decided that, in the event of termination of his duties as Chairman and Chief Executive Officer under circumstances qualifying him for the compensation for termination of office, it reserves the right, on the proposal of the Nomination, Remuneration and Governance Committee, to choose whether or not to maintain all or some of Pierre-André de Chalendar's rights to Saint-Gobain stock options, performance shares and performance units granted to him as of the date of termination that have not been delivered as of this date or for which the exercise period has not expired, as the case may be, provided that, where applicable, the performance condition(s) set out in the plans concerned have been fulfilled.

#### Approved by the Annual General Meeting of: June 5, 2014

(Statutory Auditors' special report of March 24, 2014)

Person concerned

Pierre-André de Chalendar - Chairman and Chief Executive Officer

#### Pension plan for Pierre-André de Chalendar in his capacity as non-salaried executive corporate officer

◆ Nature and date of approval by the Annual General Meeting

On the recommendation of the Nomination, Remuneration and Governance Committee, at its meeting on March 20, 2014, the Board of Directors decided, in accordance with article 17 of the rules and regulations of the SGPM supplementary pension plan for engineers and managers, that Pierre-André de Chalendar would continue to benefit in full from the provisions of said rules and regulations under the same conditions as those applicable to all members of the pension plan.

#### Approved by the Annual General Meeting of: June 5, 2014

(Statutory Auditors' special report of March 24, 2014)

♦ Person concerned

Pierre-André de Chalendar - Chairman and Chief Executive Officer

Neuilly-sur-Seine and Paris La Défense, February 23, 2017

The Statutory Auditors

KPMG Audit

PricewaterhouseCoopers Audit

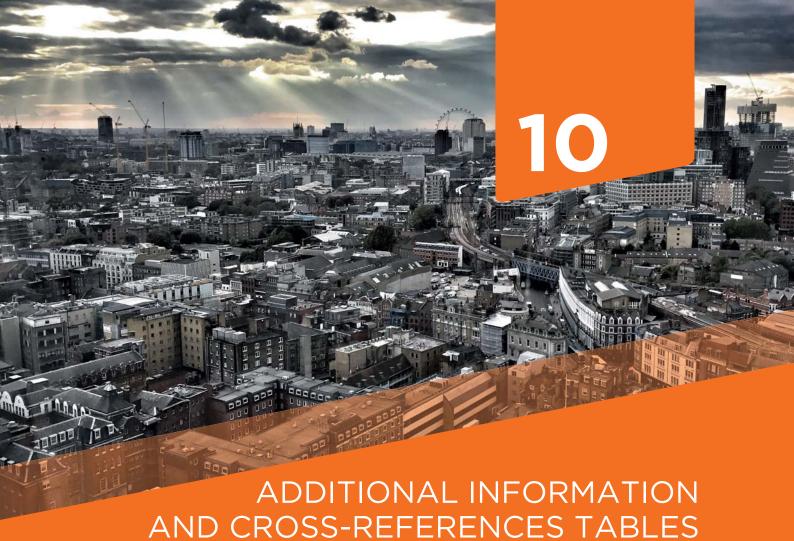
Department of KPMG SA

Edouard Sattler

Cécile Saint-Martin

Jean-Paul Thill

Bertrand Pruvost



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## 1. Additional information

# 1.1 PRINCIPAL STATUTORY PROVISIONS AND INTERNAL RULES OF THE BOARD OF DIRECTORS

#### 1.1.1 Principal statutory provisions

The main provisions of Saint-Gobain Compagnie's bylaws are summarized below.

A complete version of the bylaws may be consulted on the Company's website (www.saint-gobain.com). A copy may also be obtained upon request from the Clerk of the Commercial Court of Nanterre and at the Company's headquarters.

 Corporate name, form, corporate headquarters and duration (Articles 1, 2, 4 and 5)

A French *société anonyme* governed by the provisions of Articles L.210-1 *et seq.* of the French Commercial Code, Compagnie de Saint-Gobain maintains its corporate headquarters at Les Miroirs, 18 avenue d'Alsace, 92400 Courbevoie, France (tel.: +33 (0)1 47 62 30 00). It is registered with the Trade and Companies Register of Nanterre under No. 542 039 532.

The Company was founded in 1665 and registered with the Trade and Companies Register on July 21, 1954 for a period that will expire on December 31, 2040, unless it is subject to early dissolution or extension.

Corporate purpose (Article 3)

The Company's corporate purpose is, in summary form, to conduct and manage, in France and internationally, any and all industrial, commercial, financial, securities and real estate transactions related to its manufacturing and contracting activities, through French or foreign subsidiaries or affiliates or otherwise.

♦ Fiscal year (Article 19)

Its fiscal year runs from January 1 to December 31.

◆ Share capital and disclosure thresholds (Articles 6 and 7)

At December 31, 2016, the share capital was set at  $\in$ 2,221,121,432, divided among 555,280,358 shares with a par value of  $\in$ 4 each, entirely paid in and all of the same type.

The bylaws (Article 7.4) require shareholders to disclose to the Company within five trading days any direct, indirect or joint interest representing at least 0.50% of the capital or voting rights, or any multiple of this percentage.

The same disclosure requirement applies when a direct, indirect or joint holding falls below any of these thresholds.

Failure to comply with these disclosure rules may result in the undisclosed shares exceeding this percentage being stripped of voting rights for a period of two years from the date when the non-disclosure is remedied, at the request of one or more shareholders representing at least 3% of the capital or voting rights, as recorded in the minutes of the General Meeting.

In addition, the Company may request disclosure of information about its ownership structure and ownership of its securities pursuant to the relevant laws and regulations.

♦ Share rights (Article 8)

Each share entitles the owner to ownership of corporate assets and liquidation proceeds in an equal proportion to the share capital it represents.

Whenever it is necessary to hold a certain number of shares in order to exercise a right, it is for the owners who do not possess such number to assume responsibility, as necessary, to create the corresponding grouping up to the required number of shares.

Each share entitles the holder to vote at the General Meetings under the conditions stipulated in the bylaws (see Article 18 below).

Share ownership automatically requires compliance with the Company's bylaws and the decisions taken by the General Meeting.

Company Management (Articles 9 to 12 and 14)

The Company is administered by a Board of Directors comprised of at least three members and no more than eighteen members, subject to the exceptions provided for by law in the event of a merger.

Directors are elected for a four-year term which is renewable, subject to the age limits for holding office, which is 70 for a Director and 68 for the Chairman of the Board. The Board may decide to combine the functions of Chairman of the Board and Chief Executive Officer, in which case the holder's title shall be Chairman and Chief Executive Officer. The age limit for holding office as Chairman and Chief Executive Officer is 65 (the same as for the Chief Executive Officer and Chief Operating Officers).

A Director representing employee shareholders shall be appointed at the General Meeting, upon proposal of the Board of Directors, among the members of the supervisory boards of the corporate mutual funds of the Company's Group Savings Plan. Such Director will be subject to all legal and statutory provisions applicable to Directors appointed by the General Meeting.

One or two employee Directors shall be appointed by the Group Works Council (Comité de Groupe) of the Company. If the number of Directors appointed by the General Meeting is less than or equal to twelve, one employee Director shall be appointed by the Group Works Council. If the number of Directors appointed by the General Meeting is or becomes greater than twelve, a second employee Director shall be appointed by the Group Works Council (provided that this number remains higher than twelve on the date of the appointment). If the number of Directors appointed by the General Meeting becomes less than or equal to twelve, the terms of each of the two employee Directors shall continue

up to the expiration of their term. The appointment of the employee Director or Directors by the Works Council shall occur within six months of the General Meeting. The Director representing employee shareholders, appointed by the General Meeting, is not taken into account for the purpose of determining the number of employee Directors to be appointed.

The duties of the members of the Board of Directors and the Chairman of the Board of Directors (whether or not he is Chairman and Chief Executive Officer) shall end upon completion of the Annual General Meeting called to approve the financial statements for the year during which they reach the age limit. The duties of an employee Director shall also terminate in the event of termination of his or her employment contract, on the date of the termination, subject to intra group transfer If the conditions for application of the law are not met, the term of office of the employee Director or Directors shall end upon completion of the meeting of the Board of Directors that confirms the Company's exit from the scope of application of the law.

The Board of Directors determines the Company's overall business strategy and examines any issues related to the efficient operation of business.

The Board's activities are organized and led by the Chairman of the Board.

Board meetings may be held using videoconferencing or other interactive telecommunication technology, under the conditions stated by law.

Each Director appointed by the General Meeting is required to hold at least 800 shares.

♦ General Management (Articles 13 and 15)

At the choice of the Board of Directors, the Company's General Management is assumed either by the Chairman of the Board of Directors, in this case in his capacity as Chairman and Chief Executive Officer, or by the Chief Executive Officer.

The Chief Executive Officer, chosen by the Board of Directors, whether or not from among its own members, is vested with the broadest authority to act under any circumstances in the name of the Company within the limits of the corporate purpose and subject to such powers as the law expressly attributes to General Meetings and to the Board of Directors. He represents the Company in its relations with third parties.

♦ General Meetings and voting rights (Article 18)

Any shareholder may participate in General Meetings in person or by proxy, provided that his/her/its shares have been formally recorded in the accounts, subject to the applicable legal provisions.

Where decided by the Board, shareholders may be convened to and vote at a General Meeting by any form of electronic communication. All shareholders may give proxy to another person or entity to represent them at a General Meeting, subject to the applicable legal provisions. Legal entities shareholders are represented at a General Meeting by their

legal representative or by any person designated by such legal representative.

At all General Meetings, voting rights are exercisable by the beneficial owner of the shares. Each shareholder has a number of voting rights corresponding to the number of shares held, without limitation.

However, double voting rights are allocated to fully paid-up shares registered in the name of the same holder for at least two years.

In addition, in the case of a capital increase through capitalization of reserves, profits or share premiums, registered shares allocated free of charge to a shareholder carry double voting rights from the date on which they are issued on the basis of shares already held by the shareholder carrying such entitlement.

Double voting rights are forfeited when the shares are converted to bearer form or sold. However, double voting rights are not forfeited when title is transferred by way of an inheritance or as a result of the liquidation of the marital estate or an inter vivos donation to a spouse or a relative in the direct line of succession, and the transfer is not taken into account for the purpose of calculating the two-year qualifying period.

Shareholders may vote by mail in accordance with applicable laws and regulations.

◆ Allocation and appropriation of net income (Article 20)

Each year, 5% of net income for the year less any losses carried forward from prior years, is credited to the legal reserve, until such time as the legal reserve represents 10% of the share capital. If the share capital is increased, the same transfer requirement applies until the legal reserve represents 10% of the new share capital.

Distributable income corresponds to net income for the year less any losses carried forward from prior years and less any amounts to be credited to reserves in application of the law or the Company's bylaws, plus retained earnings.

The General Meeting may appropriate this distributable income as follows:

- **1.** All or part of this amount to any contingency or special reserves or to retained earnings, based on a recommendation of the Board of Directors.
- 2. If these appropriations do not absorb the total amount of distributable income, shareholders are paid a non-cumulative first dividend equal to 5% of the paid-up par value of shares, without being entitled to claim such payment from appropriations from the distributable income of subsequent years.
- **3.** If any funds remain after paying these appropriations, they are used to pay a second dividend.

The Annual General Meeting approving the financial statements for the fiscal year may decide to offer shareholders the option of receiving all or part of the dividend (or any interim dividend) in cash or in shares.

#### 1.1.2 Internal Rules of the Board of

The Compagnie de Saint-Gobain's Internal Rules of the Board of Directors in force on February 1, 2017 describe the Board's organization and functioning. The Internal Rules were last updated by the Board of Directors on November 24, 2016, following the entry into force of the revised Market Abuse Regulations.

The provisions of the Board of Director's Internal Rules are reproduced in their entirety below, except for the provisions that concern Board Committees, which are set out in chapter 6, section 1.2.3. (b). Paragraphs shown in italics below provide commentary.

"The internal rules aim to set out the organization and functioning of Compagnie de Saint-Gobain's Board of Directors.

They are to be applied in conjunction with the rules and duties laid out in those applicable legal and regulatory provisions and the Company's bylaws which have not been reproduced below.

They implement the recommendations published by the AFEP-MEDEF corporate governance code for French listed companies.

#### I. Meetings of the Board of Directors

The Board holds at least seven scheduled meetings each year. At each year-end, an annual work program is drafted and distributed to Directors for the following year. The draft minutes of each meeting are sent to the Directors at the same time as the agenda for the next meeting. They are approved at that meeting and the final minutes are then sent with the agenda for the following meeting.

Except for meetings held to approve the annual financial statements of the Company, the annual consolidated financial statements and the annual management report, Directors who take part in a Board meeting using videoconferencing or other telecommunication technology without any break in transmission, enabling them to be identified and to participate actively in the discussion, are deemed to be present for calculation of the quorum and voting majority.

#### II. Prior and permanent information for Directors

Each time a meeting is called, Directors are provided with a selection of financial analyses and a range of press articles concerning the Saint-Gobain Group published in the period since the last Board meeting.

The text of explanations and presentations scheduled on the agenda for a meeting is sent to the Directors prior to the

The draft annual report for the Saint-Gobain Group and the draft Group and Company annual and interim financial statements are sent to the Directors prior to the meeting at which they are to be considered.

The information file handed out to the Directors at each meeting includes, among other things, an analysis of the Saint-Gobain Group's operating income and its net debt at the previous month-end, as well as details of the Saint-Gobain share performance compared with the CAC 40 and an industry

One Board meeting is held at a different Saint-Gobain Group site each year, to give the Directors an opportunity to also visit the site concerned.

Between meetings, the Directors receive copies of all press releases issued by the Company, along with any relevant information about events or transactions that are material for the Saint-Gobain Group.

Directors have the right to ask for any other documents that they consider necessary in order to make an informed contribution to the Board's discussions; the request is made to the Chairman and Chief Executive Officer, who may submit the request to the Board for a decision.

Directors may also ask to meet senior executives of the Saint-Gobain Group and to request that no executive Directors are present; in the latter case, notice shall first be given to the Chairman and Chief Executive Officer, who may submit the request to the Board for a decision.

#### III. Decisions of the Board

The Board examines all issues that fall within its remit, as specified in the applicable laws and regulations and the Company's bylaws, particularly on the following subjects:

The Board meets annually to review and approve the budget for the Saint-Gobain Group.

A meeting is held at least once a year to review and decide on the Saint-Gobain Group's overall strategy.

All capital expenditures, restructuring, disposals, acquisitions and financial investment and divestment projects each individually representing over €150 million must be submitted to the Board for prior approval, along with any material transactions that fall outside the Group's stated strategy.

For urgent matters where there is not enough time to call a Board meeting, the Chairman and Chief Executive Officer provides the Directors with all relevant information by the most efficient method in order to obtain their opinion.

The Board's practices are reviewed during at least one meeting each year and a formal assessment of its organization and practices is conducted periodically on the initiative of the Nomination, Remuneration and Governance Committee; the results of this assessment are reviewed at the next Board of Directors' meeting.

Every year, the Board also reviews each Director's situation in relation to the independence criteria set out in the AFEP-MEDEF code, based on a report prepared by the Nomination, Remuneration and Governance Committee. The results of the review are reported to shareholders in the annual report.

Non-executive Directors may meet during or after a Board meeting, without the executive Directors being present, so that they can assess the performance of the executive Directors and consider the future line-up of Saint-Gobain Group's senior management.

#### **IV. Board Committees**

Three Board Committees exclusively composed of Directors - the Audit and Risk Committee, the Nomination, Remuneration and Governance Committee, and the Strategy and Corporate Social Responsibility Committee - prepare the Board of Directors' tasks and deliberations in their respective areas.

Committee members may participate in meetings either by videoconference or telephone, enabling them to be identified ensuring their effective participation in the meetings, and shall thus be deemed present at such Committees.

For the purposes of carrying out their duties, these Committees may commission technical studies by outside experts at Compagnie de Saint-Gobain's expense, and consult Group executives after notifying the Chairman and Chief Executive Officer, who may submit the request to the Board for decision. They report to the Board on the opinions and information obtained.

The Board's internal rules also cover, among other things, the respective duties and areas of the three Board Committees. A description of these duties and areas is provided in chapter 6, section 1.2.3 in the section dedicated to each Committee.

#### V. Directors' duties

Directors have a regular access to insider information in the meaning of financial markets legislation and regulations and as such are required to comply with the laws and regulations concerning insider trading.

Periods known as "negative windows" (closed periods) are also set each year, during which Directors are prohibited from trading directly or indirectly and from derivative transactions in Compagnie de Saint-Gobain's securities.

These closed periods cover the 30 days preceding the Board meetings at which the annual and interim consolidated financial statements are reviewed, the 15 days preceding the publication of quarterly sales figures, and the day following the publication of the annual and half-year results.

The calendar of the closed periods is sent each year to the Directors by the Board Secretary. The Group's senior management, as well as employees having regular or occasional access to insider information, are also subject to these closed periods.

Directors must declare to the French Financial Markets Authority (*Autorité des marchés financiers*) any trades they have executed involving Compagnie de Saint-Gobain's securities, in compliance with applicable regulations.

Directors hold their Compagnie de Saint-Gobain shares in registered form.

Beyond the obligation of discretion provided by law, Directors are bound by a general duty of confidentiality with regard to the documents and information communicated to them before or during the meetings, as well as on the deliberations of the Board of Directors, until such time as they have been made public.

They must seek to avoid any actual or potential conflict of interest, whether direct or indirect, and if any such conflict of interest should arise, they must inform the Chairman and Chief Executive Officer and refrain from participating in discussions and votes on the concerned topics.

The Chairman and Chief Executive Officer must consult the Board before accepting any new appointment in a publicly traded company.

#### VI. Attendance fees and reimbursement of expenses

The attendance fees approved by the shareholders at the General Meeting are allocated by the Board of Directors among its members.

The Chairman and Chief Executive Officer does not receive any attendance fees.

For Directors who are elected or retire/resign from the Board during the year, the fixed fee is paid *pro rata* to the actual period served.

The fees are paid in two half-yearly installments in arrears, with any balance available from the annual amount distributed at the beginning of the following year based on variable parts allocated to each Director depending both on his/her participation to Board and Committees meetings held during the prior fiscal year.

Directors may be reimbursed upon submission the necessary supporting documents, for travel expenses, and any expenses incurred within the course of carrying out their duties as Directors of the Company.

#### VII. Other provisions

If he or she considers it necessary, each Director may receive additional training about the Saint-Gobain Group's specific characteristics, businesses and operating segments.

Those appointed to the Audit and Risk Committee may, if they consider it useful, receive training in the accounting, financial and operational specificities of the Group's activities.

Unless impeded, Directors attend General Meetings."

The internal rules of the Board of Directors will be supplemented with the following provisions relating to the Lead Independent Director, appointed by the Board of Directors on November 24, 2016 with effect at the close of the General Shareholders' Meeting of June 8, 2017 (see chapter 6, section 1.2.1).

A new Section V, "Lead Independent Director", will be inserted, with Sections V to VII thus being renumbered from VI

#### "V - Lead Independent Director

The Board of Director may appoint a Lead Independent Director among the independent Directors of the Board.

The Lead Independent Director will remain in office throughout his/her term of office as a Director. The Lead Independent Director's term of office is renewable and may be revoked at any time by the Board of Directors.

#### Responsibilities of the Lead Independent Director

The Lead Independent Director's main responsibility is to oversee the efficient running of the Company's governance bodies. As such, he/she is in charge of:

- preventing and managing conflicts of interest: the Lead Independent Director is responsible for preventing the occurrence of situations of conflicts of interest. He/She brings to the attention of the Board of Directors possible conflicts of interest that he/she is aware of concerning the Directors.
  - Under the obligation to declare conflicts of interest stipulated in the paragraph "Directors' duties" below, any Director who finds himself/herself in an actual or potential conflict of interest situation shall inform the Chairman and Chief Executive Officer and the Lead Independent Director;
- leading the assessment of the organization and operations of the Board of Directors which is periodically carried out;
- convening, chairing, organizing and reporting to the Chairman and Chief Executive Officer on the meetings of the Directors held without the presence of the executive Directors. Such sessions may be held during or at the close of a meeting of the Board of Directors and, as the case may be, such sessions may be co-chaired by the Chairman of the Nominations and Remuneration Committee in the event he/she is a different person, and for matters falling under the responsibility of the Nominations and Remuneration Committee (in particular succession plans and the executive Directors' compensation);

- being a point of contact for shareholders of Compagnie de Saint-Gobain on governance matters, and meeting with them, at the request of the Chairman and Chief Executive Officer;
- ensuring that the Directors receive the relevant information to exercise their duties under the best possible conditions, in accordance with these internal rules;
- more generally, ensuring compliance with the internal rules of the Board of Directors.

#### Powers of the Lead Independent Director

In the course of his/her duties, the Lead Independent Director shall have the right to:

- suggest to the Chairman and Chief Executive Officer the addition of points to the agenda of any meeting of the Board of Directors:
- reguest the Chairman and Chief Executive Officer to convene a meeting of the Board of Directors on a specific
- convene and chair meetings of the Board of Directors in the event of the temporary incapacity or death of the Chairman and Chief Executive Officer; and
- ♦ attend, as the case may be, the meetings of the Committees of which he/she is not a member, to the extent strictly necessary to accomplish his/her duties and upon the approval of the Chairman of the relevant Committee.

The Lead Independent Director reports to the Board of Directors on the completion of his/her mission on an annual

Section V, "Directors' duties" will be amended as follows (changes and additions are underlined):

#### "VI. "Directors' duties"

(...)

They must seek to avoid any actual or potential conflict of interest, whether direct or indirect, and if any such conflict of interest should arise, they must inform the Chairman and Chief Executive Officer and the Lead Independent Director and refrain from participating in discussions and votes on the topics concerned.

Furthermore, the Nominations, Remuneration and Governance Committee will be renamed "Nominations and Remuneration Committee" and the final paragraph describing its remit related to governance matters will be deleted (see chapter 6, section 1.2.3 b)).

#### 1.2 PUBLICLY AVAILABLE DOCUMENTS

For the lifetime of this Registration Document, the following documents (or a copy of them) relating to the Company may be consulted through the Financial Communications Department at the Company's corporate headquarters, at Les Miroirs, 18, avenue d'Alsace, 92400 Courbevoie (France), and may be viewed online at www.saint-gobain.com:

- ♦ this Registration Document, which may also be consulted on the French Financial Markets Authority (Autorité des marchés financiers) website (www.amf-france.org);
- the Company bylaws; and
- any reports, letters and other documents, historical financial information, assessments and statements prepared by an outside expert at the Company's request, a part of which is included in or referred to in this Registration Document.

#### 1.3 PERSONS RESPONSIBLE FOR THE REGISTRATION DOCUMENT

#### 1.3.1 Appointment of the person responsible for the Registration Document

Pierre-André de Chalendar, Chairman and Chief Executive Officer of Compagnie de Saint-Gobain.

#### 1.3.2 Statement by the person responsible for the Registration Document including the Annual Financial Report

I hereby declare, after having taken all reasonable care to ensure that such is the case, that the information contained in this Registration Document is, to the best of my knowledge, in accordance with the facts and contains no omission likely to affect its import.

I further declare that, to the best of my knowledge, the financial statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets, liabilities, financial position and results of the Company and of all the companies included in the consolidation scope, and that the information provided in the management report contained in this Registration Document and listed in the Cross-reference Table in chapter 10, section 3.2 provides a true and fair view of the evolution of the business, results and financial position of the Company and of all the companies included in the consolidation scope, as well as a description of the main risks and uncertainties to which they are exposed.

I obtained a completion letter from the Statutory Auditors in which they state that they have audited the information relating to the financial position and the financial statements included in this Registration Document, and that they have read this Registration Document in its entirety.

Courbevoie, March 15, 2017

Pierre-André de Chalendar Chairman and Chief Executive Officer

#### 1.4 INFORMATION ABOUT THE STATUTORY AUDITORS

#### 1.4.1 Statutory Auditors and Substitute Auditors

As at December 31, 2016, the Statutory Auditors of the Company are:

PricewaterhouseCoopers Audit <sup>(1)</sup>, 63 rue de Villiers, 92208 Neuilly-sur-Seine, France, represented by Mr. Edouard Sattler and Mrs. Cécile Saint-Martin. Its mandate was renewed on June 2, 2016 for a period of six years and expires at the 2022 Annual Shareholders' Meeting;

KPMG Audit, a Division of KPMG S.A. (1), Tour Eqho, 2 avenue Gambetta, CS 60055 - 92066 Paris La Défense (France), represented by Mr. Jean-Paul Thill and Mr. Bertrand Pruvost. Its mandate was renewed on June 7, 2012, for a period of six years and expires at the 2018 Annual Shareholders' Meeting.

The Substitute Auditors are:

Mr. Jean-Baptiste Deschryver, 63 rue de Villiers 92208 Neuilly-sur-Seine (France), appointed on June 2, 2016. His mandate will expire at the 2022 Annual Shareholders' Meeting;

Mr. Fabrice Odent, Tour Eqho, 2 avenue Gambetta, CS 60055 - 2066 Paris La Défense (France), appointed on June 7, 2012. His mandate will expire at the 2018 Annual Shareholders' Meeting.

#### 1.4.2 Statutory Auditors' fees

# FEES OF THE STATUTORY AUDITORS AND MEMBERS OF THEIR NETWORKS PAID BY THE GROUP FOR FISCAL YEAR 2016

		Pricewaterho	useCoopers		КРМС			
	201	6	2015		2016	j	2015	
(in € million)	Amount before tax	%	Amount before tax	%	Amount before tax	%	Amount before tax	%
AUDIT								
Accounts certification services								
Issuer	0.9	9%	0.8	7%	0.8	11%	0.8	8%
Fully consolidated subsidiaries	7.5	80%	9.4	81%	6.6	86%	9.1	87%
Subtotal	8.4	89%	10.2	88%	7.4	97%	9.9	95%
Services other than accounts certification								
Issuer	0.2	2%	1.2	10%	0.0	0%	0.0	0%
Fully consolidated subsidiaries	0.8	9%	0.2	2%	0.3	3%	0.5	5%
Subtotal	1.0	11%	1.4	12%	0.3	3%	0.5	5%
TOTAL	9.4	100%	11.6	100%	7.7	100%	10.4	100%

<sup>(1)</sup> Members of the Versailles branch of the French Regional Auditors' Association.

#### 1.5 INFORMATION ON SUBSIDIARIES AND SHAREHOLDINGS

#### Main subsidiaries by country and Delegation

All subsidiaries are wholly owned, unless otherwise stated. The conversion rates used are the average rates for 2016.

#### **FRANCE**

Saint-Gobain Glass France: flat glass and flat glass products. Sales: €278.7 million. Employees: 929. Subsidiaries:

- Sivaq, SGGS Menuisiers Industriels, SG Glass Solutions Paris Centre Normandie, SG Glass Solutions Grand Ouest, SG Glass Solutions Sud-Ouest, SG Glass Solutions Nord-Est, SG Glass Solutions Sud Est, Alp'Verre, Verrerie Aurys, Pierre Pradel, Vetrotech Saint-Gobain France, Vetrotech SG Atlantique, SG Glass Logistics. Construction glass products companies. Employees of the manufacturing subsidiaries: 2,348.
- Saint-Gobain Sovis: tempered glass for household appliances, optics for science and industry, radiation protection glass. Employees: 72.
- Verrerie de Saint-Just: decorative glass. Employees: 36.
- Saint-Gobain Sully: flat glass for the railroad and aircraft industries. Employees: 497.
- ♦ Saint-Gobain Glass Logistics: transport.
- Saint-Gobain Recherche (34.5% owned by SG Glass wholly owned by the Group): glass and building materials research center. Employees: 449.
- ♦ Samin: quarry operator. Employees: 87.

**Eurofloat (50%)**: flat glass and flat glass products. Employees: 218.

Saint-Gobain Sekurit France: automotive glass products. Sales: €224.8 million. Employees: 809. These figures include Société Verrière d'Encapsulation: encapsulated automotive glass. Subsidiary:

 Saint-Gobain Autover: distribution of replacement automotive glass. Sales: €35.2 million. Employees: 89.

Société Européenne des Produits Réfractaires: fused-cast refractory products used mainly for glass furnaces and various special ceramic products (pellets, grains and powders). Sales: €113.6 million. Employees: 647. Subsidiaries:

- Savoie Réfractaires: manufacture of special refractory solutions. Sales: €27.9 million. Employees: 155.
- Saint-Gobain Cristaux et Détecteurs: optical crystals and artificial monocrystals for chemical analyses. Sales: €24 million. Employees: 104.

- Saint-Gobain Matériaux Céramiques: seeded gel abrasives.
   Sales: €15.2 million. Employees: 26. Subsidiary:
   Saint-Gobain Coating Solutions. Sales: €12.8 million.
   Employees: 33.
- Centre de Recherche et d'Études Européennes (35% owned by SEPR wholly owned by the Group): ceramics research center. Employees: 197.
- ♦ Valoref S.A.: recycling.

**Saint-Gobain Performance Plastics Europe**: holding company. Subsidiaries:

- Saint-Gobain Quartz S.A.S.: manufacture of silica parts for the chemical industry, silica crucibles and reactor tubes for the semi-conductor industry, silica wool and yarn for the aerospace industry, Micaver insulating materials, piezoelectric ceramics. Sales: €14.6 million. Employees: 69.
- Saint-Gobain Performance Plastics France: manufacture and sale of high-performance plastics. Sales: €49.3 million. Employees: 359.
- Saint-Gobain Adfors France. Sales: €18.6 million. Employees: 14.

Saint-Gobain Abrasifs: production of coated abrasives, grinding wheels and super-abrasives. Sales: €137.5 million. Employees: 464.

**Saint-Gobain Isover**: production and processing of glass and stone wool insulation products. Sales: €347.8 million. Employees: 960. Subsidiaries:

- ◆ Saint-Gobain Eurocoustic: stone wool insulation products and roof tiles. Sales: €69.3 million. Employees: 191.
- Saint-Gobain Ecophon S.A.: acoustic ceilings. Sales: €5.2 million. Employees: 36.
- ◆ Plafométal: metal ceilings. Sales: €19 million. Employees:
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**Placoplatre S.A.**: production and distribution of plaster, plasterboard, insulation products and ceiling tiles. Sales: €500.6 million. Employees: 1,570.

Saint-Gobain Matériaux de Construction: holding company. Subsidiary:

◆ Saint-Gobain Weber: production of industrial mortars. Sales: €2.2 billion. Employees: 9,174. These figures include Weber and Maxit's subsidiaries in 58 countries, including countries listed below in this document.

Saint-Gobain PAM: ductile cast iron pipes and hydraulic connectors for water supply, irrigation and sewer networks; cast iron products for the building industry. Sales: €655 million. Employees: 2,309. Subsidiary:

◆ Saint-Gobain Seva: industrial equipment, molds, spinners for producing fibers for insulation, door closers. Sales: €68.7 million. Employees: 294. Partidis: holding company for building materials distribution activities.

Sales: €7.5 billion. Employees: 27,623. Subsidiaries:

- ♦ Saint-Gobain Distribution Bâtiment France: distribution of construction materials through:
  - ◆ 11 regional companies (Brittany, Central France, Eastern France, Paris (Île de France), Loire, Languedoc France, Midi-Pyrénées, Northern Normandy, Provence-Alpes-Côte d'Azur, Rhône-Alpes, Southwest France):
  - 9 national companies (DSC, DAI, Asturienne, DMBP, Outiz, PUM Plastiques, DMTP, Eurobéton, Décocéram);
  - ◆ 1987 sales outlets in France
- ♦ La Plateforme du Bâtiment: 60 Plateforme du Bâtiment outlets in France.
- ◆ Lapeyre: distribution of home improvement products under the following brands: Lapeyre and K par K: 129 sales outlets (126 in France and 3 in Switzerland).

Spafi: holding company.

Vertec: holding company.

#### **CENTRAL EUROPE**

#### Germany

Saint-Gobain Glass Deutschland GmbH: flat glass and flat glass products. Sales: €398.5 million. Employees: 1,059.

Saint-Gobain Deutsche Glas GmbH: holding company controlling various subsidiaries active in construction glass products. Sales: €247.1 million (including subsidiaries). Employees: 1,574 (including subsidiaries).

Saint-Gobain Sekurit Deutschland Beteiligungen GmbH: management company for Saint-Gobain Sekurit Deutschland KG and other shareholdings. Subsidiaries:

- ♦ Saint-Gobain Autover Deutschland GmbH, which owns Freudenberger Autoglas GmbH.
- ◆ Faba Autoglas Technik GmbH: automotive glass products.
- Freeglas GmbH & Co KG.

Saint-Gobain Sekurit Deutschland KG: production of automotive glass. Sales: €221 million. Employees: 1,218. These figures include Faba Autoglas Technik KG: production of tempered glass.

Saint-Gobain Autover Deutschland: distribution automotive replacement glass. Sales: €55.9 million. Employees: 141.

Saint-Gobain Performance Plastics Isofluor GmbH: specialist in the manufacture of fluoropolymer pipes. Sales: €9.3 million. Employees: 68. Subsidiaries:

♦ Saint-Gobain Performance Plastics Pampus GmbH: manufacture and sale of high-performance plastics for the medical and automotive industries, and sundry industrial equipment. Sales: €94.5 million. Employees: 367.

Saint-Gobain Performance Plastics Pampus GmbH. Subsidiaries:

- ◆ Saint-Gobain PPL MG Sil. Sales: €16.2 million. Employees:
- ◆ Saint-Gobain PPL L+S GmbH. Sales: €38 million. Employees: 306

Saint-Gobain IndustrieKeramik Roedental: manufacture of high-performance refractory products. Sales: €43.6 million. Employees: 374.

Saint-Gobain Ceramic Materials GmbH. Sales: €42.8 million. Employees: 46.

#### Saint-Gobain Diamantwerkzeuge GmbH. Subsidiaries:

♦ Saint-Gobain Abrasives GmbH and Supercut Europe GmbH: manufacture and marketing of industrial superabrasives and molds.

Sales for all three companies: €133.9 million. Employees for all three companies: 659.

Saint-Gobain Isover G+H AG: production and distribution of mineral fibers and foams for thermal, cooling and acoustic insulation and fireproofing. Sales: €352.2 million. Employees: 1,074. These figures include Superglass Dämmstoffe GmbH: insulating materials distribution.

Saint-Gobain Rigips GmbH: production and distribution of plaster, plasterboard, insulation products and ceiling tiles. Sales: €256.1 million. Employees: 806.

Saint-Gobain PAM Deutschland GmbH: sales of pipe systems for the building industry. Holding company. Sales: €114 million. Employees: 306. Subsidiary:

♦ Saint-Gobain HES GmbH: ductile cast iron pipes. Sales: €19 million. Employees: 26.

Saint-Gobain Building Distribution Deutschland GmbH: building materials distribution (218 sales outlets). Sales: €1.9 billion. Employees: 5,399.

Schäfer: roofing materials distribution.

Eckelt Glas GmbH: flat glass products. Sales: €39.9 million. Employees: 214.

Glas Ziegler. Sales: €19.1 million. Employees: 80.

Saint-Gobain Adfors Austria GmbH: production of paintable wall coverings. Sales: €13.2 million. Employees: 75.

Saint-Gobain Isover Austria GmbH: production and distribution of insulating materials. Sales: €27.3 million. Employees: 64.

Rigips Austria GmbH: production and distribution of plaster, plasterboard, insulation products and ceiling tiles. Sales: €63 million. Employees: 219.

#### **Belaium**

Saint-Gobain IM Belgium Benelux: flat glass storage and products, silicon carbide processing, manufacture and sale of high performance plastics, and corundum for the abrasive and refractive industries. Sales: €169.4 million. Employees: 690. Subsidiary:

◆ Saint-Gobain Glass Solutions Belgium. Sales: €60.4 million. Employees: 368.

#### Saint-Gobain Sekurit Benelux S.A. Subsidiary:

 Saint-Gobain Autover Distribution S.A. Sales: €113.1 million. Employees: 98.

Saint-Gobain Construction Products Belgium: production and distribution of plaster, plasterboard, insulation products and pipe systems. Sales: €166.9 million. Employees: 264.

#### Luxembourg

Saint-Gobain Abrasives S.A. (Luxembourg): production and sale of diamond-tipped tools, disks and drills. Asphalt cutters for the construction and civil engineering industries. Sales: €11.6 million. Employees: 79.

#### **Netherlands**

**Koninklijke Saint-Gobain Glass Nederland**: construction glass products manufacturing and distribution. Sales: €66.1 million. Employees: 294 (including subsidiaries).

**Saint-Gobain Autover International BV**: distribution of automotive replacement glass. Sales: €21.2 million. Employees: 47.

Saint-Gobain Construction Products Nederland BV: manufacture and distribution of plaster, plasterboard, insulation products, acoustic ceilings and glass veilings. Sales: €142.9 million. Employees: 386.

**Saint-Gobain Cultilène BV**: glass wool and stone wool products for hydroponic (soil-less) cultivation. Sales: €35.4 million. Employees: 58.

Saint-Gobain Distribution The Netherlands BV: building materials distribution (44 sales outlets). Sales: €453.6 million. Employees: 1,110.

Saint-Gobain Nederland Beheer BV: holding company. Subsidiary:

◆ Saint-Gobain Abrasives BV: production of fine grinding wheels and applied abrasives. Sales: €134.8 million. Employees: 246.

#### SCANDINAVIA AND BALTIC STATES

#### **Denmark**

€1 = DKK 7.44534

**Saint-Gobain Glass Nordic A/S**: glass products and distribution for the construction industry. Sales: €33.5 million. Employees: 144.

Saint-Gobain Denmark A/S: manufacture and distribution of insulation products, plasterboard and ceiling tiles. Sales: €96 million. Employees: 342.

Saint-Gobain Ecophon A/S: production of acoustic products. Sales: €8.6million. Employees: 83.

#### **Finland**

**Saint-Gobain Glass Finland Oy**: construction and automotive glass products manufacturing and distribution. Sales: €21.7 million. Employees: 139.

**Saint-Gobain Construction Products Finland**: production and distribution of plaster, insulation products and acoustic products, pipe systems and production of industrial mortars. Sales: €210.5 million. Employees: 682.

#### **Norway**

€1 = NOK 9.29319

Saint-Gobain Bockmann A/S: production of insulating insulation glass and distribution of replacement glass. Sales: €25.9 million. Employees: 132.

Saint-Gobain Ceramic Materials A/S: manufacture and sale of silicon carbide products. Sales: €48.1 million. Employees: 209.

**Gyproc A/S**: production and distribution of plaster and plasterboard. Sales: €31.7 million. Employees: 81.

Saint-Gobain Byggevarer A/S: distribution of pipe systems and industrial mortars. Sales: €92 million. Employees: 214.

#### Sweden

€1 = SEK 9.46701

Saint-Gobain Emmaboda Glas AB: glass products for the construction industry. Sales: €21.4 million. Employees: 102.

Saint-Gobain Sekurit Scandinavia AB: automotive glass products. Sales: €88 million. Employees: 244.

**Saint-Gobain Autover Direktglas AB**: distribution of automotive replacement glass. Sales: €12.8 million. Employees: 53.

Saint-Gobain Abrasives AB: abrasives. Sales: €20.7 million. Employees: 28.

**Saint-Gobain Sweden AB**: manufacture and distribution of plaster, plasterboard and insulation products. Sales: €208.1 million. Employees: 582.

**Saint-Gobain Ecophon AB**: production and distribution of acoustic ceilings. Sales: €201 million. Employees: 369.

Saint-Gobain Distribution Nordic AB: holding company for plumbing, heating and construction materials distribution activities under the Dahl and Optimera brands in Sweden, Norway, Denmark, Finland, Estonia, Latvia, Lithuania, Romania and Vietnam (466 sales outlets). Sales: €4 billion Employees: 8.238.

#### **Estonia**

Saint-Gobain Glass Eesti A/S: production of replacement windshields, construction glass products. Sales: €69.3 million. Employees: 567.

**Saint-Gobain Ehitustooted Eesti A/S**: distribution of insulation products, plasterboard and industrial mortars. Sales: €29.9 million. Employees: 58.

#### Latvia

**SIA Saint-Gobain Celtniecibas Produkti**: distribution of insulation products, plasterboard and industrial mortars. Sales: €9.7 million. Employees: 28.

#### Lithuania

**UAB Saint-Gobain Statybos Gaminiai**: distribution of insulation products, plasterboard and industrial mortars. Sales: €12.8 million. Employees: 44.

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#### POLAND, BULGARIA, ROMANIA AND TURKEY

€1 = PLN 4.36348

Saint-Gobain IM Polska Sp Zoo (Flat Glass Activity): production, processing and distribution of flat glass, and glass products for household appliances. Sales: €483.4 million. Employees: 3,091. Subsidiary:

♦ Saint-Gobain Polska Sp Zoo: construction and furniture glass products. Sales: €102 million. Employees: 965.

Saint-Gobain HPM Polska Sp Zoo: production and distribution of glass veil, high-performance plastics and abrasive grinding wheels. Sales: €124.9 million. Employees:

Saint-Gobain Construction Products Polska: production of plaster, plasterboard, insulation products, ceiling tiles, pipe systems and industrial mortars. Sales: €159.9 million. Employees: 880.

Saint-Gobain Polska (Distribution Activity): distribution of building products (59 sales outlets). Sales: €93.2 million. Employees: 643.

#### **Bulgaria**

€1 = BGL 1.95580

Saint-Gobain Construction Product Eood: production of plaster, plasterboard, insulation products and industrial mortars. Sales: €12.2 million. Employees: 90.

#### Romania

€1 = RON 4.49081

Saint-Gobain Glass Romania S.R.L.: flat glass and flat glass products. Sales: €87.9 million. Employees: 261.

Saint-Gobain Construction Products Romania S.R.L.: production and distribution of plaster, plasterboard and stone wool; distribution of pipe systems; production and distribution of industrial mortars. Sales: €67.4 million. Employees: 461.

#### **Turkey**

€1 = TRY 3.34267

Izocam Ticaret VE Sanayi A.S. (47.5%): production of glass wool and stone wool. Sales: €119.1 million. Employees: 446.

Saint-Gobain Rigips Alci: production and distribution of plaster. Sales: €44.9 million. Employees: 234.

Saint-Gobain Weber Yapi: production of industrial mortars. Sales: €62.1 million. Employees: 321.

#### CZECH REPUBLIC, SLOVAKIA, HUNGARY AND EASTERN ADRIATIC COUNTRIES

#### **Czech Republic**

€1 = CZK 27.03433

Saint-Gobain Sekurit CR Spol S.R.O.: production of laminated glass for the automotive industry. Sales: €108.7 million. Employees: 821.

Saint-Gobain Adfors CZ S.R.O. Sales: €250.7 million. Employees: 1,902.

Saint-Gobain Construction Products CZ S.R.O.: flat glass products for the building industry, production and distribution of plaster, plasterboard, insulation products, stone wool insulation materials and ceiling tiles, distributor of abrasive products. Sales: €178.5 million. Employees: 1,025.

Saint-Gobain PAM CZ S.R.O.: foundry. Sales: €20 million. Employees: 147.

#### Slovakia

Saint-Gobain Construction Products Slovakia: flat glass products for the building industry, production of plaster, plasterboard, insulation products and ceiling tiles, distribution of pipe systems, production and distribution of industrial mortars. Sales: €70.1 million. Employees: 366.

#### Hungary

€1 = HUF 311.46133

Saint-Gobain Construction Products Hungaria: distribution of replacement automotive glass, production and distribution of plaster, plasterboard, insulation products and industrial mortars. Sales: €46 million. Employees: 228.

#### RUSSIA, UKRAINE AND CIS COUNTRIES

#### Russia

€1 = RUB 74.21642

Saint-Gobain Construction Products Russia: production and distribution of insulation products, plaster, plasterboard and industrial mortars. Sales: €147.8 million. Employees: 731.

Isoroc: Sales: €24.1 million. Employees: 503

Zao Zavod Minplita. Sales: €16.9 million. Employees: 259.

#### Ukraine

€1 = UAH 28.27578

Saint-Gobain Construction Products Ukraine: distribution of insulation products, plaster and plasterboard. Sales: €6.6 million. Employees: 45.

#### **MEDITERRANEAN**

#### **Spain**

Saint-Gobain Cristaleria S.L.: flat glass and flat glass products for the construction and automotive industries. Sales: €330.2 million. Employees: 976. Subsidiaries:

- Saint-Gobain Autover: distribution of replacement automotive glass.
- ♦ Industrias del Cuarzo (Incusa): sand quarry. Sales: €16.9 million. Employees: 49.
- ◆ La Veneciana: flat glass products and mirror glass manufacturing, distribution and installation. Sales: €58.3 million. Employees: 354.

Saint-Gobain Abrasivos: production of abrasive grinding wheels. Sales: €32.1 million. Employees: 113.

**Saint-Gobain Performance Plastics España**: manufacture and sale of high-performance plastics. Sales: €5.5 million. Employees: 44.

Saint-Gobain Adfors España. Sales: €11.2 million. Employees: 70

**Saint-Gobain Placo Iberica**: production of plasterboard. Sales: €154.1 million. Employees: 486.

Saint-Gobain Transformados: mineral wool production and products for the acoustic and hydroponics markets. Sales: €20.6 million. Employees: 46.

Saint-Gobain PAM España S.A.: ductile cast iron pipes. Sales: €74.5 million. Employees: 257. Subsidiary:

◆ Saniplast: distribution of pipes and accessories. Sales: €28.3 million. Employees: 100.

Saint-Gobain Distribution Espagne: distribution of building materials for the construction market (71 outlets). Sales: €309.3 million. Employees: 1,381.

#### Italy

Saint-Gobain Glass Italia S.p.a.: flat glass and flat glass products. Sales: €110.3 million. Employees: 276.

Saint-Gobain Sekurit Italia: automotive glass products. Sales: €93.1 million. Employees: 277. Subsidiaries:

- S.G. Autover Italia S.R.L: distribution of automotive replacement glass.
- Sicurglass Sud S.R.L.: automotive glass products. Sales for both companies: €40.9 million. Employees: 217.

Saint-Gobain Euroveder Italia S.p.a.: tempered glass for household appliances. Sales: €25.2 million. Employees: 137.

**Saint-Gobain Abrasivi S.p.a.**: production of abrasive grinding wheels. Sales: €72 million. Employees: 275.

**SEPR Italia S.p.a.**: fused-cast refractory products. Sales: €27.8 million. Employees: 134.

Saint-Gobain PPC Italia S.p.a.: manufacture of insulation and sealing products (roofing materials, glass-veil siding), production of plaster, plasterboard, ceiling tiles and industrial mortars. Sales: €225.7 million. Employees: 617.

**Saint-Gobain PAM Italia S.p.a.**: ductile cast iron pipes. Sales: €49.8 million. Employees: 76.

**Vemac S.R.L.**: building materials distribution (10 outlets). Sales: €38.6 million. Employees: 137.

#### **Portugal**

**Saint-Gobain Glass Portugal Vidro Plano S.A.**: flat glass and flat glass products for construction and household appliances. Sales: €28.9 million. Employees: 23. Subsidiaries:

 Covipor-CIA Vidreira do Norte, Covilis and EVI-Produção de Energia: construction glass products. Sales: €17.2 million. Employees: 78.

Saint-Gobain Sekurit Portugal Vidro Automovel S.A.: automotive glass products. Sales: €43.8 million. Employees: 159. Subsidiary:

Saint-Gobain Autover Portugal (80%): distribution of automotive replacement glass. Sales: €11.7 million. Employees: 135.

Saint-Gobain Abrasivos Lda: distributor of abrasive products. Sales: €12.9 million. Employees: 44.

**Saint-Gobain PAM Portugal S.A.**: pipe distribution. Sales: €7 million. Employees: 15.

**Saint-Gobain Distribution Portugal**: distribution of building materials for the construction market (2 outlets). Sales: €6.3 million.

#### Greece

**Autover Hellas**: distribution of automotive replacement glass. Sales: €8.4 million. Employees: 39.

Saint-Gobain Hellas ABEE: production and distribution of plaster and distribution of pipe products. Sales: €8.8 million. Employees: 33.

#### Morocco

€1 = MAD 10.84877

Saint-Gobain Abrasifs SA (85%): distributor of abrasive products. Sales: €12.3 million. Employees: 89.

#### UNITED KINGDOM AND REPUBLIC OF IRELAND

#### **United Kingdom**

€1 = GBP 0.81896

**Saint-Gobain Glass UK Ltd**: flat glass production and products, construction glass products. Network of 19 sites throughout the United Kingdom, including 8 production facilities. Sales: €231.3 million. Employees: 1,261.

**Saint-Gobain Ceramics & Plastics Ltd**: holding company. Subsidiaries:

- Saint-Gobain Industrial Ceramics Ltd: production and sale of high-temperature insulating fiber and refractory products. Sales: €6.7 million. Employees: 47.
- ◆ Saint-Gobain Performance Plastics Corby and Saint-Gobain Performance Plastics Tygaflor Ltd: production of heat-resistant tubing and bundles for beverage-dispensing applications. Sales: €21.1 million. Employees: 50.

Rencol Tolerance Rings Ltd: Sales: €22.6 million. Employees:

Saint-Gobain Abrasives Ltd. Sales: €38.2 million. Employees: 145. Produces bonded and coated abrasives and superabrasives through various subsidiaries.

Saint-Gobain Construction Products UK: production of plasterboard, construction plaster, other specialty plasters, insulation products, acoustic products, ductile cast iron pipes and hydraulic connectors for water and sewer networks, hydraulic valves, cast iron and steel municipal castings, cast iron construction products, and industrial mortars. Sales: €973.5 million. Employees: 2,611 (including subsidiaries).

Saint-Gobain Building Distribution Ltd: holding company for building materials distribution (1,012 sales outlets in the United Kingdom and the Republic of Ireland). Sales: €3.3 billion. Employees: 12,596 (including subsidiaries).

#### Republic of Ireland

Saint-Gobain Performance Plastics Ireland: PTFE and silicon-coated fabrics, adhesive tapes. Sales: €22.8 million. Employees: 91.

Saint-Gobain Construction Products Ireland Ltd: production of plaster, plasterboard and ceiling tiles, and production and distribution of insulation products. Sales: 85.8 million. Employees: 205.

#### **SUB-SAHARAN AFRICA**

#### **South Africa**

€1 = ZAR 16.27789

Saint-Gobain Abrasives Pty Ltd: production of coated abrasives, super-abrasives and grinding wheels. Sales: €2.3 million. Employees: 7.

Saint-Gobain Construction Products South Africa Ltd: production of plaster, plasterboard and ceiling tiles, production and distribution of insulation products, production of pipes and industrial mortars. Sales: €129.3 million. Employees: 1,066.

Donn South Africa Ltd (66.7%): production of plasterboard and ceiling tiles. Sales: €9.7 million. Employees: 96.

Saint-Gobain Pipelines South Africa: manufacture of cast iron parts. Sales: €7.1 million. Employees: 169.

#### MIDDLE EAST

#### **Egypt**

€1 = EGP 11.08492

Saint-Gobain Glass Egypt (70%): flat glass and flat glass products. Employees: 291.

BPB Placo Egypt for Industrial Investments Sae: production of plaster. Employees: 406.

#### OTHER EUROPEAN COUNTRIES

#### **Switzerland**

€1 = CHF 1.09015

Vetrotech Saint-Gobain International AG: production and distribution of fireproof glass. Sales: €129.9 million. Employees: 317.

Saint-Gobain Isover S.A.: manufacture and distribution of insulation products, marketing of fiberglass reinforcements. Sales: €41.1 million. Employees: 142.

Rigips AG: production of plaster, plasterboard, insulation products and ceiling tiles. Sales: €68.9 million. Employees:

KBS AG: production and distribution of industrial mortars. Sales: €32.9 million. Employees: 32.

Sanitas Troesch AG: distribution of fitted bathrooms and kitchens (32 sales outlets). Sales: €503.6 million. Employees: 963

International Saint-Gobain: holding company.

#### **NORTH AMERICA**

#### **United States**

€1 = USD 1.10658

Saint-Gobain Corporation: holding company.

CertainTeed Corporation: insulation products and building materials, including:

- Residential roofing shingles
- Commercial roofing products
- Siding
- Roofing granules
- ♦ PVC pipe and exterior products (fencing, decking and railings)
- Industrial reinforcement products

Subsidiaries:

CertainTeed Ceilings: acoustic ceiling distribution.

Sales: €2.4 billion. Employees: 4,666.

CertainTeed Corporation sales and employees include the figures for SG Adfors America, CertainTeed Glass Materials, CertainTeed Ceilings Corporation, CertainTeed Insulation, CertainTeed Roofing, and CertainTeed Siding.

Saint-Gobain Glass Corporation: holding company. Subsidiaries:

- ♦ HCS Corporation, Vetrotech Saint-Gobain North America Inc. Total sales by the sub-group: €34.1 million. Employees:
- ♦ Sage Electrochromics Inc.: production of electrochromic glass. Employees: 271.

Saint-Gobain Autover Inc.: distribution of automotive replacement glass. Total sales by the sub-group: €12.4 million. Employees: 12.

Saint-Gobain Abrasives Inc.: production of bonded abrasives, coated abrasives and super-abrasives. Sales: €674.6 million. Employees: 2,890. These figures include its main abrasives subsidiaries in the United States, Canada, Mexico and New Zealand.

Saint-Gobain Ceramics & Plastics Inc.: produces technical ceramics, chemical process products, high-performance plastics, fused-cast refractory products, special ceramic grains and silicon carbide products (businesses conducted directly or through subsidiaries). Sales: €1.2 billion. Employees: 4,353.

**CertainTeed Gypsum & Ceilings USA Inc.**: production and distribution of plaster, plasterboard, insulation products and ceiling tiles. Sales: €594.9 million. Employees: 1,077.

#### Canada

€1 = CAD 1.46647

Saint-Gobain Adfors Canada Ltd: production and distribution of reinforcement mesh for exterior insulation systems. Sales: €21.5 million. Employees: 63.

Saint-Gobain Canada Inc.: production of abrasive grains. Sales: €15.2 million. Employees; 28.

**CertainTeed Canada:** production and distribution of insulation and acoustic products. Sales: €82.9 million. Employees: 331.

**CertainTeed Gypsum Canada Inc.**: production o plasterboard. Sales: €221.4 million. Employees: 611.

# MEXICO, COLOMBIA, ECUADOR, PERU, VENEZUELA AND CENTRAL AMERICA

#### Mexico

€1 = MXN 20 65538

Saint-Gobain Glass México: flat glass and flat glass products, production of automotive glass and tempered glass for household appliances. Sales: €363.8 million. Employees: 1,999.

Saint-Gobain America (Mexico): production and marketing of textile fiberglass, insect screens, coated abrasives and high-performance plastics. Sales: €119.3 million. Employees: 1121

**Saint-Gobain Gypsum S.A. de C.V.** Sales: €8.9 million. Employees: 98.

#### Colombia

€1 = COP 3.37809

Vidrio Andino (75.6%): flat glass and flat glass products for the construction and automotive industries. Sales: €71 million. Employees: 212.

Saint-Gobain Colombia S.A.S.: production of coated abrasives and grinding wheels. Sales: €19.6 million. Employees: 94.

**Fiberglass Colombia**: production of glass wool for the building and manufacturing industries. Sales: €22.6 million. Employees: 186.

**PAM Colombia S.A.**: water supply pipe distribution. Sales: €4.7 million. Employees: 10.

#### Venezuela

€1 = VEF 517.85172

Saint-Gobain Abrasivos CA: production of coated abrasives and grinding wheels. Sales: €3.5 million. Employees: 76.

Saint-Gobain Materiales Ceramicos CA: production of silicon carbide. Sales: €7.8 million. Employees: 134.

#### BRAZIL, ARGENTINA, CHILE

#### Brazil

€1 = BRL 3.86120

Saint-Gobain Do Brasil Ltda: construction and automotive glass and glass products, fiberglass insulation, reinforcement products, ceramic products, plastics, grains and powders, high-performance plastics, bonded and coated abrasives, refractory products, silicon carbide and tile adhesives. Sales: €806.4 million. Employees: 5,655. Subsidiary:

◆ Cebrace (50%): flat glass and flat glass products. Sales: €345.2 million. Employees: 1,181.

Placo Do Brasil (55%): production and distribution of plaster and plasterboard. Sales: €49.3 million. Employees: 204.

Saint-Gobain Canalização: manufacture of ductile cast iron pipes and connectors. Sales: €105.5 million. Employees: 1,120.

**Saint-Gobain Distribuiçao Brasil Ltda**: building materials distribution (43 sales outlets). Sales: €354.2 million. Employees: 3,350.

#### **Argentina**

€1 = ARS 16.32603

Saint-Gobain Abrasivos Argentina and Abrasivos Argentinos: production and distribution of bonded and coated abrasives and masking tape. Sales: €49.6 million. Employees: 376.

Saint-Gobain Argentina S.A.: production and distribution of plaster and plasterboard, production of fiberglass insulation and reinforcement products, automotive glass products and distribution of pipe products and industrial mortars. Sales: €152 million. Employees: 674.

#### **ASIA-PACIFIC**

#### **Australia**

€1 = AUD 1.48870

**Saint-Gobain Abrasives Australia Pty Ltd.** Sales: €60.3 million. Employees: 184.

#### China

€1 = CNY 7.34958

Saint-Gobain Hanglas Sekurit Shanghai Co. Ltd: automotive glass products. Sales: €253,2 million. Employees: 954.

Saint-Gobain Glass Co. Ltd. Sales: €15.4 million. Employees: 11.

**Qingdao Saint-Gobain Hanglas Clfg Co. Ltd.** Sales: €53.1 million. Employees: 180.

**Kunshan Yongxin Glassware Co. Ltd (60%)**. Sales: €34.1 million. Employees: 318.

**SEPR Beijing Refractories Co Ltd (87.8%)**: manufacture of fused-cast refractory products. Sales: €19.3 million. Employees: 242.

Saint-Gobain PPL Shanghaï. Sales: €94.4 million. Employees:

Saint-Gobain Abrasives Shanghai and Saint-Gobain Abrasives Suzhou: production of abrasive wheels. Sales: €105.1 million. Employees: 599.

Saint-Gobain Proppants Guanghan Ltd. Sales: €23.2 million. Employees: 133.

Saint-Gobain Ceramic Materials (Zhengzhou). Sales: €28.9 million. Employees: 202.

Saint-Gobain Zirpro Handan Co Ltd. Sales: €37.2 million. Employees: 181.

Saint-Gobain Gypsum (Changzhou): production and distribution of plaster. Sales: €41.5 million. Employees: 186.

Saint-Gobain Gypsum Materials Shanghai: production and distribution of plaster. Sales: €30.8 million. Employees: 158.

Saint-Gobain Pipelines Co. Ltd: ductile cast iron pipes. Sales: €151.2 million. Employees: 1,094.

Saint-Gobain (Xuzhou) Pipe Co. Ltd (Xuzhou General Iron and Steel Works): liquid cast iron production. Sales: €120.1 million. Employees: 1,282. Subsidiary:

◆ Xuzhou Everbright Ductile Iron Pipes Ltd. Sales: €47 million. Employees: 4.

Saint-Gobain Pipelines (Xuzhou) Co. Ltd. Sales: €194.7 million. Employees: 920.

#### South Korea

€1 = KRW 1.28455

Hankuk Glass Industries Inc. (80.5%): company listed on the Seoul (South Korea) stock exchange. Production of flat glass. Sales: €175.7 million. Employees: 324. Subsidiaries:

- Hankuk Sekurit Limited (90.1%): automotive products. Sales: €195.3 million. Employees: 351.
- ♦ Hankuk Haniso. Sales: €59.2 million. Employees: 74.

Saint-Gobain PPL Korea Co. Ltd: high-performance plastics. Sales: €32 million. Employees: 110.

#### Indonesia

€1 = IDR 14,720.64765

PT Saint-Gobain Abrasives Diamas (75%). Sales: €15.4 million. Employees: 292.

#### **Japan**

€1 = JPY 120.31464

Saint-Gobain K.K.: distribution of automotive glass, superabrasives, technical ceramics and high-performance plastics. Sales: €120.9 million. Employees: 275.

Saint-Gobain TM K.K. (60%): production of glass furnace refractory products. Sales: €39.5 million. Employees: 157.

Mag-Isover K.K.: production of glass wool. Sales: €192.6 million. Employees: 389.

#### Malaysia

€1 = MYR 4.58399

Saint-Gobain Construction Products Malaysia production and distribution of plaster. Sales: €45.9 million. Employees: 169.

#### Singapore

€1 = SGD 1.52776

Saint-Gobain (SEA) Pte Ltd. Sales: €15.4 million. Employees:

Rencol MMI Technology Pte Ltd (51%): high-performance plastics. Sales: €5 million. Employees: 19.

#### **Thailand**

€1 = THB 39.04284

Saint-Gobain Sekurit Thailand (95%): automotive glass products. Sales: €82.6 million. Employees: 464.

Saint-Gobain Abrasives Thailand Ltd. Sales: €12.3 million. Employees: 122.

Thaï Gypsum Products PLC (97.4%): production of plaster and plasterboard. Sales: €88 million. Employees: 422. Subsidiary:

Bpb Asia Ltd.

#### Vietnam

€1 = VND 24,748.91032

Saint-Gobain Construction Products Vietnam: production and distribution of plaster. Sales: €46.9 million. Employees:

Vinh Tuong Industrial Corp. (58.2%). Sales: €114.9 million. Employees: 862.

#### INDIA, SRI LANKA AND BANGLADESH

#### India

€1 = INR 74.35363

Saint-Gobain India Private (99%): flat glass and flat glass products, plaster and plasterboard products. Sales: €502.7 million. Employees: 2,207.

Saint-Gobain Sekurit India Ltd (74.9%): company listed on the Mumbai stock exchange. Automotive glass products. Sales: €17.2 million. Employees: 143.

**Grindwell Norton Ltd (51.6%)**: company listed on the Mumbai stock exchange. Production and distribution of abrasives, ceramics and high-performance plastics. Sales: €166.8 million. Employees: 1,752.

SEPR Refractories India Ltd: manufacture of fused-cast refractory products. Sales: €53.6 million. Employees: 712.

Saint-Gobain Crystals & Detectors India Ltd. Sales: €6.8 million. Employees: 126.

#### **Main addresses**

#### **COMPAGNIE DE SAINT-GOBAIN**

#### **France General Management**

#### Headquarters

Les Miroirs 18, Avenue d'Alsace 92400 Courbevoie France

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#### **Innovative Materials**

#### Flat Glass

Tel.: +33 (1) 47 62 34 00

#### **High-Performance Materials**

Tel.: +33 (1) 47 62 37 00

#### **Construction Products**

Tel.: +33 (1) 47 62 45 00

#### **Building Distribution**

Tel.: +33 (1) 47 62 53 00

#### **CENTRAL EUROPE**

#### **General Delegation**

Krefelder Straße 195 52070 Aachen Germany

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#### SCANDINAVIA AND BALTIC STATES

#### **General Delegation**

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Tel.: +45 70 300 688

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CZECH REPUBLIC, SLOVAKIA, HUNGARY

AND EASTERN ADRIATIC REGION

#### **General Delegation**

Počernická 272/96 Prague 108 03 Czech Republic Tel.: +420 296 411 758 www.saint-gobain.cz www.saint-gobain.sk www.saint-gobain.hu

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#### **MEDITERRANEAN**

#### **General Delegation**

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#### **SUB-SAHARAN AFRICA**

#### **General Delegation**

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#### MIDDLE EAST

#### **General Delegation**

Tayyar Center Bloc B, 1st floor De Gaulle Street Sin El Fil Beirut Lebanon

Tel.: +961 1 510863-4

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#### **General Delegation**

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10F, KFAS Bldg. 211. Teheran-ro Gangnam-gu Seoul 135-915 South Korea Tel.: +82 2 3706 9073 www.hanglas.co.kr

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(South-East Asia) 12F, Gypsum Metropolitan Tower 539/2, Si Ayutthaya Road Thanonphayathai, Ratchathewi Bangkok 10400 Thailand Tel.: +66 2 640 8716

#### Office in Australia

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#### INDIA, SRI LANKA AND BANGLADESH

#### **General Delegation**

Level 5. Leela Business Park Andheri Kurla Road Andheri (East) Mumbai - 400059 India Tel.: +91 (022) 40 21 21 21 www.saint-gobain.co.in

#### **NORTH AMERICA**

#### **General Delegation**

Saint-Gobain Corporation 20 Moores Road Malvern, PA 19355 United States Tel.: +1 610-893-5000 www.saint-gobain-northamerica.com

#### BRAZIL, ARGENTINA AND CHILE

#### **General Delegation**

Avenida Santa Marina, 482 Agua Branca SP 05036-903 São Paulo Brazil Tel.: +55 (11) 2246-7000 www.saint-gobain.com.br

#### MEXICO, CENTRAL AMERICA, COLOMBIA, VENEZUELA, ECUADOR AND PERU

#### **General Delegation**

Legaria 549, torre 1, piso 14, Colonia 10 de abril. Delegación Miguel Hidalgo, 11250, Ciudad de México. Mexico Tel.: + 52 (55) 52 79 16 00 www.saint-gobain.com.mx

## 2. CSR information

#### 2.1 NOTE ON METHODOLOGY

The content of the CSR chapters of this document reflects broad consultation with internal and external stakeholders.

In-house, the Sectors, Activities, General Delegations and a number of corporate departments (human resources, responsible purchasing, financial communications, responsible development, EHS, etc.) have been asked to contribute, in order to enhance the report with examples.

Externally, stakeholders are regularly consulted on general policy or various specific aspects of Saint-Gobain's social responsibility. These consultations assist in developing the Group's CSR reporting and communications.

#### 2.1.1 Reference bases

The reference bases used for social reporting, EHS reporting and for defining indicators have been prepared in accordance with the United Nations' Global Compact and the French New Economic Regulations (NRE) Act of 2001, as well as with the 2012 Grenelle II law.

In order to have a global reference framework, since 2011 these reference bases follow GRI (Global Reporting Initiative) indicators. This report was prepared using version G4.

The Saint-Gobain Group's Social Affairs Department, which is responsible for social reporting, regularly collaborates and exchanges information with leading contributors of the Human Resources Department in order to improve doctrine and reporting processes.

For EHS reporting, working groups suggest developments in the new EHS indicators, to monitor changes in international standards, and enhance feedback from the sites. These proposals are then discussed and validated at management committee level twice a year.

The data published on Saint-Gobain's CSR, following the GRI methodology, comes from three different Group reporting systems:

- the social reporting system, supported by the Enablon software for employee reporting and the annual social report, which has a partial interface with the Smart'R software;
- management and reporting system, PeopleGroup, for managerial staff;
- the EHS (Environment, Health, Safety) reporting system known as Gaïa.

#### 2.1.2 Social reporting

#### a) Basis

#### **Scope of reporting**

Social reporting had a total of 1124 reporting entities and 646 consolidated companies at end 2016.

- The system used to count the number of employees (SIS), which is updated monthly, includes the fully consolidated Group companies. It forms the basis for calculation of the consolidated total number of employees, and the distribution of employees by gender, Sector, geographic region, socio-professional category and contract type.
- The annual social report, created in 2002 to account for the Group's social performance, is based on a limited scope of reporting, representing 98,5% of the consolidated number of employees. All other social indicators are calculated on this basis.

Newly integrated companies are accounted for in accordance with their financial integration, and companies sold during the past year are not included.

#### b) Reporting tool

The quantitative social data in this report was collected using three tools: Enablon, PeopleGroup and Smart'R. The data was consolidated for the Saint-Gobain Group as a whole.

Enablon HR is the Saint-Gobain Group's social reporting tool. It supports the system for counting the number of employees and the annual social reporting campaign. Since January 2016, part of the Enablon employee data (covering 83% of the workforce at end December 2016) has been coming from the Smart'R software, which incorporates information from the payroll systems. The intention is that Smart'R will become the only reporting tool in 2017.

PeopleGroup is the Saint-Gobain Group's management tool for managers. It is structured on the basis of the individual personnel file of each Group manager. The processes for career management, annual interviews and manager compensation are also part of this system.

The Group's organizational data is updated in PeopleGroup at the start of each month, based on changes in the scope of reporting applied to the social report.

Individual management employee files are updated in two ways:

- either manually by the company HR teams;
- or by automated reporting from the local HR systems (covering over 90% of Group employees in 2016).

10

Human resources managers and their assistants have access to their scope of reporting in PeopleGroup so as to keep individual information up to date. Changes in manager positions are filed. The data needed for analysis and the publication of spreadsheets relating to the management of managers is extracted using the Microstrategy reporting tool add-on to PeopleGroup.

All indicators taken from the PeopleGroup database are identified as such in the social performance section.

The GRI-HR questionnaire is completed each year by the HR Departments of the General Delegations and Activities in France in order to collect qualitative indicators, and consult internal stakeholders when drafting the report.

#### c) Continuous improvement

The Saint-Gobain Group has taken a voluntary and progressive approach to enhancing the reliability of its social data, through:

- continuous exchanges of information with reporting contributors (800) to ensure proper understanding and application of the rules for calculating the social indicators defined in the Group's doctrine, available in French and in English;
- the choice of indicators, in the interests of stability to ensure the reliability of comparisons over time, as far as possible;
- the annual submission of a selection of social data for external assessment:
- strengthening of the controls implemented at each collection and consolidation level;
- from January 2016, a growing number of interfaces between shared service centers (SSC), Smart'R and Enablon, to ensure continuous improvement in data quality.

#### d) Data consolidation

The reporting process is organized into five stages:

- updating the Group scope of reporting. Each month, changes involving acquisitions, sales or mergers require the collection software parameters to be updated;
- collection of data in questionnaires, which is carried out by contributors at company level; certain indicators are pre-completed via an interface with Smart'R;

- validation by the person in charge of human resources management for the scope in question; depending on the country, this takes place either at the company level or at the General Delegation level;
- verification and consolidation within the Group's Social Affairs Department;
- the report allows spreadsheets to be generated as management tools for the Group's Human Resources Department.

#### e) Difficulties and restrictions

The main difficulty lies in the variety of countries in which the Group is active. The principles for calculating social *reporting* indicators are distributed each year to contributors, but the indicators are sometimes interpreted according to local contexts (national laws or practices). This is the case, for example, with the concepts of training or permanent employment contracts. To make the training data report reliable, the Group redefined the principles for these indicators in 2016. The data collected now include all training hours appropriately substantiated as such. In France, training for apprentices is no more integrated in the global *reporting*, in hours or in associated cost.

Further, data on local contexts is sometimes impossible to collect. Therefore, certain indicators are calculated over a more limited scope of reporting than the scope of the annual social reporting campaign. This scope is defined each time.

Lastly, the process of transitioning social reporting to the new Smart'R reporting tool began in January. Information on over 80% of employees is now available in the system, sourced directly *via* an interface with the payroll systems, and covering numerous countries in which the Group has a presence.

Enablon was retained for the 2016 CSR reporting campaign to ensure that reporting could be provided for Saint-Gobain's entire scope. The Smart'R employee records are used to populate the Enablon database *via* an interface, which may have created some inaccuracies in the information being relayed.

An additional validation step has been introduced to remedy such problems.

#### 2.1.3 EHS reporting

#### a) Basis

#### Scope of reporting

The EHS report covers 1489 entities corresponding to all the Group's facilities. All entities belonging to consolidated companies in which Saint-Gobain held a stake of 50% or more at balance sheet date are monitored, including, where possible, facilities that came on-stream or were acquired during the year and excluding facilities that were closed or sold.

The data is entered directly on the EHS data reporting system, called Gaïa, for all EHS entities. The various questionnaires sent, as well as their frequency, scope of reporting and content, are shown in the following table:

Questionnaire	Frequency	Scope of reporting	Content
Safety-On-Line	When needed	World, all categories of victims	Instant alert in case of accidents involving fatalities or lost time
Environment-On-Line	When needed	World, Environmental events	Instant alert in case of major or significant environmental accidents
Safety	Monthly	World, all categories of employees	Accidents, numbers of days lost, hours worked, etc.
General & Health	Annually	World (all entities except certain offices or attached sites)	Certification, audit results, monitoring of health programs, etc.
Environment	Annually	"Environmental concerned scope" sites + mines and quarries (excluding sites connected to plants) + other sites at the Sector's initiative	Output, raw materials, energy consumption, atmospheric emissions, water, waste, mitigation plan, etc.

The Safety, industrial hygiene and Safety, General and Safety-On-Line (SOL) questionnaires are designed to cover all facilities and Saint-Gobain employees. Depending on the questionnaire, they also cover temporary employees and subcontractors (Safety and Safety-On-Line questionnaires).

Safety data are reported on a monthly basis and comprise all accidents occurring during the month and their severity level. The system covers approximately 98% of the Group's employees. Full coverage is not achieved because of the maximum of two years' grace for newly acquired establishments to be included in Gaïa.

One-time reporting also allows establishments, through the *Safety-On-Line* system, to systematically report any occupational accident, with or without lost time, including fatal incidents, and to explain the circumstances.

The industrial hygiene and health questionnaire and the General questionnaire are completed annually.

The Environment questionnaire is also completed annually, by 900 sites. The consolidated data from these entities corresponds to the "Group Scope". An "environmental scope" has also been established to focus efforts on establishments having the greatest impact, and to improve data legibility and progress toward goals. The Activities have therefore also validated certain criteria (energy and water consumption, quantity of non-recovered waste, etc.) enabling clear identification and monitoring. This scope includes 558 entities.

Data for the sites concerned is presented using environmental sub-areas. Because of the wide range of Activities of the Group, not all the environmental indicators in the Gaïa EHS

data reporting system are relevant for all Activities. These indicators are therefore consolidated by "batches" and allocated to groups of entities with the same environmental impacts and ratios (indicators corresponding to the production unit, in general tons of finished products). These groups of entities are called "environmental sub-scopes", with the main ones as follows:

- the Glass sub-scope, which includes Flat Glass Activities, Saint-Gobain Adfors (Innovative Materials Sector), and the Insulation Activity (Construction Products Sector) which have a glass smelting facility (67 sites covered, across 73 entities);
- the Pipe Systems Activity sub-scope of the Construction Products Sector (concerning 20 sites out of 22 entities);
- the "Other" sub-scope covering all entities not included in the previous sub-scopes (industrial mortars, Lapeyre factories, glass conversion subsidiaries, gypsum, etc.) (concerning 471 sites out of 805 entities). This sub-scope also includes the 149 quarries.

One of the principles applied by the Group when calculating ratios is to use tons of finished products when relevant, rather than tons floated (for glass) or cast (for cast iron).

The EvE standard for environmental events management identifies and manages events that could potentially occur at the sites.

EHS financial data (expenses and capital expenditure) are tracked in the SIF, the Group's financial reporting tool, since 2013

#### b) 2010-2025 and 2014-2016 objectives

The Group has set medium-term objectives, up to 2025, based on the 2010 results. To achieve them, intermediate objectives are established for a three-year period. The baseline year for the intermediate objectives is the year prior to the period start. The current period 2014-2016 therefore uses 2013 as its base year.

Based on the results for the baseline year, every three years the Group updates the scope of "concerned sites" for which environmental results are tracked for the next three years (2011-2013/2014-2016/2017-2019/2020-2022/2023-2025).

The published results for this scope therefore have a comparable scope for the three years within the period: sites closed or sold are removed from current year and baseline year, but no acquisitions are taken into account. They are included in the subsequent period.

In addition, for the indicators tracking environmental objectives, results are published using comparable production to the baseline year. This means that 2014-2016 emissions and consumption are recalculated based on 2013 production.

Progress achieved over these five three-year periods (between 2010 and 2025) will be cumulated to assess whether the 2025 objectives will be achieved based on the 2010 results.

#### c) Data consolidation

The EHS reporting protocol is available in French and English. The EHS reporting process (both monthly and annual) involves three stages:

- ♦ data input, performed by the EHS correspondent(s) at the reporting unit concerned;
- data verification, by the EHS Directors of each Sector;
- ♦ data consolidation by the Group's EHS Department management.

#### d) Difficulties and limitations

Since the launch of the Group's reporting tools, the quality of the reports has continuously improved thanks to effective feedback and better use of the systems by the specialized teams. These factors allow the Group to prevent potential errors such as differences in units of measurement between business and countries, and difficulties in interpreting technical terms.

#### 2.2 AUDITORS' OPINION

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

Report by one of the Statutory Auditors, appointed as an independent third party, on the consolidated human resources, environmental and social information included in the management report

#### For the year ended December 31, 2016

To the Shareholders.

In our capacity as Statutory Auditor of Compagnie de Saint-Gobain, appointed as independent third party and certified by COFRAC under number 3-1060<sup>(1)</sup>, we hereby report to you our report on consolidated human resources, environmental and social information for the year ended December 31, 2016, included in the management report (hereinafter named "CSR Information"), pursuant to article L. 225-102-1 of the French Commercial Code (*Code de commerce*).

#### Company's responsibility

The Board of Directors is responsible for preparing the company's management report including the CSR Information required by article R. 225-105-1 of the French Commercial Code in accordance with the procedures used by the Company (hereinafter the "Guidelines"), summarised in the management report and available on request from the company's head office.

#### Independence and quality control

Our independence is defined by regulatory texts, the French Code of ethics (*Code de déontologie*) governing the audit profession and the requirements of article L. 822-11-3 of the French Commercial Code. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with the ethical requirements and applicable legal and regulatory requirements.

#### **Statutory Auditor's responsibility**

On the basis of our work, our responsibility is to:

- attest that the required CSR Information is included in the management report or, in the event of non-disclosure of a part or all of the CSR Information, that an explanation is provided in accordance with the third paragraph of article R. 225-105 of the French Commercial Code (Attestation regarding the completeness of CSR Information);
- express a limited assurance conclusion that the CSR Information taken as a whole is, in all material respects, fairly presented
  in accordance with the Guidelines (Conclusion on the fairness of CSR Information).

Our work involved about fifteen persons and was conducted between November 2016 and February 2017 during an 18 week period. We were assisted in our work by our CSR experts.

We performed our work in accordance with the order dated 13 May 2013 defining the conditions under which the independent third party performs its engagement and with the professional guidance issued by the French Institute of statutory auditors (*Compagnie nationale des commissaires aux comptes*) relating to this engagement and with ISAE 3000<sup>(2)</sup> concerning our conclusion on the fairness of CSR Information.

#### 1. Attestation regarding the completeness of CSR Information

#### Nature and scope of our work

On the basis of interviews with the individuals in charge of the relevant departments, we obtained an understanding of the Company's sustainability strategy regarding human resources and environmental impacts of its activities and its social commitments and, where applicable, any actions or programmes arising from them.

We compared the CSR Information presented in the management report with the list provided in article R. 225-105-1 of the French Commercial Code.

For any consolidated information that is not disclosed, we verified that explanations were provided in accordance with article R. 225-105, paragraph 3 of the French Commercial Code.

We verified that the CSR Information covers the scope of consolidation, i.e., the Company, its subsidiaries as defined by article L. 233-1 and the controlled entities as defined by article L. 233-3 of the French Commercial Code within the limitations set out in the methodological note, presented in the management report.

<sup>(1)</sup> Whose scope is available at www.cofrac.fr.

<sup>(2)</sup> ISAE 3000 - Assurance engagements other than audits or reviews of historical financial information.

#### Conclusion

Based on the work performed, we attest that the required CSR Information has been disclosed in the management report.

#### Conclusion on the fairness of CSR Information

#### Nature and scope of our work

We conducted around 10 interviews with the persons responsible for preparing the CSR Information in the departments in charge of collecting the information and, where appropriate, responsible for internal control and risk management procedures, in order to:

- 🔷 assess the suitability of the Guidelines in terms of their relevance, completeness, reliability, neutrality and understandability, and taking into account industry best practices where appropriate;
- ♦ verify the implementation of data-collection, compilation, processing and control process to reach completeness and consistency of the CSR Information and obtain an understanding of the internal control and risk management procedures used to prepare the CSR Information.

We determined the nature and scope of our tests and procedures based on the nature and importance of the CSR Information with respect to the characteristics of the Company, the human resources and environmental challenges of its activities, its sustainability strategy and industry best practices.

Regarding the CSR Information that we considered to be the most important<sup>(1)</sup>:

- ◆ at parent entity level, we referred to documentary sources and conducted interviews to corroborate the qualitative information (organisation, policies, actions), performed analytical procedures on the quantitative information and verified, using sampling techniques, the calculations and the consolidation of the data. We also verified that the information was consistent and in agreement with the other information in the management report;
- ♦ at the level of a representative sample of sites selected by us<sup>(2)</sup> on the basis of their activity, their contribution to the consolidated indicators, their location and a risk analysis, we conducted interviews to verify that procedures are properly applied, and we performed tests of details, using sampling techniques, in order to verify the calculations and reconcile the data with the supporting documents. The selected sample represents on average 22% of headcount considered as material data of social issues and between 16% and 26% of quantitative environmental data considered as material data of environmental issues.

For the remaining consolidated CSR Information, we assessed its consistency based on our understanding of the company.

We also assessed the relevance of explanations provided for any information that was not disclosed, either in whole or in part.

We believe that the sampling methods and sample sizes we have used, based on our professional judgement, are sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures. Due to the use of sampling techniques and other limitations inherent to information and internal control systems, the risk of not detecting a material misstatement in the CSR information cannot be totally eliminated.

#### Conclusion

Based on the work performed, no material misstatement has come to our attention that causes us to believe that the CSR Information, taken as a whole, is not presented fairly in accordance with the Guidelines.

Issued at Neuilly-sur-Seine, February 23, 2017 One of the Statutory Auditors

PricewaterhouseCoopers Audit

Cécile Saint-Martin Edouard Sattler Partner Partner

Sylvain Lambert Partner in charge of the Sustainable Development department

<sup>(1)</sup> Most important information are listed in Appendix of this Report.

<sup>(2) -</sup> Building Distribution Sector: 8 companies (France, Germany, Sweden).

<sup>-</sup> Innovative Materials Sector: 11 sites (Brazil, China, France, India, Poland, Romania, Thailand, United States of America), for which social indicators were verified at company level.

<sup>-</sup> Construction Products Sector: 13 sites (China, France, Germany, Norway, Poland, United States of America), of which 13 were verified at company level for social indicators.

# Annex: list of the CSR Information considered as the most important

#### **Quantitative social Information**

- Total number of employees per socio-professional category
- Male/female workforce breakdown
- Recruitments and departures of managers and non managers per gender
- Managers' promotion per gender
- ♦ Managers on inter-activity mobility assignment
- Managers on inter-profession mobility assignment
- Managers on geographic mobility assignment
- Percentage of women among the Senior executives
- Number of employees who subscribed to the Group Savings Plan
- Average number of training hours per employee and per year in nine countries (Belgium, Brazil, France, Germany, Italy, North America, Portugal, Spain, United Kingdom)
- Ratio of lost-time accidents involving Group employees and temporary workers to the number of hours worked by Group employees and temporary workers (TF1)
- Ratio of declared accidents with or without absence from work involving Group employees and temporary workers to the number of hours worked by Group employees and temporary workers (TF2)
- Number of fatal accidents of Saint-Gobain employees and temporary workers

#### **Qualitative social Information**

- Training policy
- Measures taken in favor of the employment and the insertion of handicapped people

#### Quantitative environmental Information

- Direct and indirect CO<sub>2</sub> emissions coming from energy and raw material consumptions
- ♦ NO<sub>x</sub> emissions
- ♦ SO₂ emissions
- Energy use per type of energy
- ♦ Water input (withdrawn) per type of source
- Water discharges quantities (total, into surrounding environment, into municipal wastewater collection system)
- ◆ Total amount of waste generated
- Amount of non-recovered waste
- Production (net saleable production)

#### Qualitative environmental Information

- Circular economy: actions aiming to reduce the amount of waste produced and to facilitate recycling, reuse, and other forms of waste recovery and disposal
- Climate change: main sources of greenhouse gas emissions generated by company activities, as well as by the use of the goods and services produced by the company

#### Quantitative societal Information:

- ♦ Saint-Gobain Foundation Initiatives:
  - number of projects received
  - number of projects accepted
  - number of signed sponsorship agreements
  - Funds granted for the projects
- Subcontracting and suppliers: number of suppliers audited (initial audits)

#### **Qualitative societal Information**

Territorial, economic and social impact of the company activity in terms of employment and regional development

# **Cross-reference tables**

#### 3.1 CROSS-REFERENCE TABLE FOR THE REGISTRATION DOCUMENT

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#### Incorporation by reference

Pursuant to Article 28 of European (EC) Regulation No. 809/2004 of April 29, 2004, this Registration Document incorporates the following information by reference which the reader is invited to refer to:

♦ In relation to the fiscal year ended December 31, 2015: the management report, the consolidated financial statements, the annual financial statements, and the related reports of the Statutory Auditors, which are included in the Registration Document filed with the French Financial Markets Authority (Autorité des marchés financiers) on April 4, 2016 under number D.16-0265;

◆ In relation to the fiscal year ended December 31, 2014: the management report, the consolidated financial statements, the annual financial statements, and the related reports of the Statutory Auditors, which are included in the Registration Document filed with the French Financial Markets Authority (Autorité des marchés financiers) on April 22, 2015 under number D. 15-0389.

The information included in these two Registration Documents, other than the information referred to above, is replaced or updated by the information included in this Registration Document. These two Registration Documents are available at the head offices of the Company and on its website at www.saint-gobain.com.

#### 3.2 CROSS-REFERENCE TABLE FOR THE ANNUAL FINANCIAL REPORT

For the convenience of readers of the Annual Financial Report, the following table provides an index to the main disclosures required by Article L.451-1-2 of the French Monetary and Financial Code.

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#### 3.3 CONCORDANCE TABLE FOR SOCIAL AND ENVIRONMENTAL **INFORMATION**

#### **Grenelle II performance table**

		Description	Item
		Total number of employees and distribution by sex, age and geographic region	V - 2.3; Employment and Diversity
	Employment	Hirings and layoffs	V - 2.3; Employment
		Compensation and changes in compensation	V - 2.3; Administrative and executive bodies compensation
	Work structure	Organization of work hours	V - 2.3; Employment - Work organization
		Absenteeism	V - 2.3; Health and safety
		Organization of social dialog	IV - 3.2.3
	Social relations	Outcome of collective agreements	V - 2.3; Collaborators commitmer social relations
		Occupational health and safety conditions	IV - 3.1
	Health and safety	Outcome of agreements signed with union organizations in occupational health and safety	V - 2.3 Health and safety
ocial formation		Frequency and severity of work accidents, occupational illnesses	V - 2.3; Health and safety
		Training policies implemented	IV - 3.2.4
	Training	Total number of training hours	V - 2.3; Talents development
		Measures taken to promote gender equality	IV - 3.2.2.
	Equality of treatment	Measures taken to promote the employment and integration of the disabled	IV - 3.2.2.
		Anti-discrimination policy	V - 2.3; Health and safety  IV - 3.2.4  V - 2.3; Talents development  IV - 3.2.2.  IV - 3.2.2.  IV - 1.2  IV - 1.2
		Respect for freedom of association and right to collective bargaining	IV - 1.2
	Promotion of and compliance with stipulations of ILO agreements	Elimination of job and professional discrimination	IV - 1.2
		Elimination of forced or compulsory labor	IV - 1.2.
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		Organization of the company to take into account environmental issues and certification procedures in the field of environmental protection	
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		Measures to prevent environmental and pollution risks	V - 2.3 Environmental manageme
		Amount of provisions and guarantees against environmental risks	V - 2.3 Environmental manageme
	Pollution	Measures to prevent, reduce and mitigate waste in the air, water and soil seriously affecting the environment	IV - 2.3; V - 2.3 Environment
	Foliation	Response to noise pollution and any other form of pollution specific to an activity	IV - 2.3.5
		Waste prevention and management	
Environmental		Measures to prevent, recycle reuse waste, and other form of recovery and disposal	ns IV - 2.3.1; V - 2.3 Environment
ormation		Initiative to reduce food waste:	
	Circular economy	Saint-Gobain is concerned about food waste and established a continuous dialogue with the managers of the company restaurants implemented in its sites	
		Sustainable use of natural resources	
		Water consumption and supplies as a function of local restrictions	V - 2.3.; Environment - Water
		Consumption of raw materials and measures taken to improve their effeicient use	V - 2.3.; Environment - Raw materials

		Description	Item	
		Energy consumption and measures taken to improve energy efficiency and use of renewable energies	V - 2.3.; Environment - Energy	
		Land use	IV - 2.3.4	
	Climate Change	Significant greenhouse gas emissions generated as a result of activity	IV - 2.3.2 and V - 2.3 Environment GES emissions	
		Adaptation to the consequences of climate change	IV - 2.3.6	
	Protection of biodiversity	Measures taken to preserve or develop biodiversity	IV - 2.3.4	
	Territorial, economic and social	Territorial, economic and social impact on employment and regional development	IV - 4.1.2. and V - 2.3 Local impact	
	impact of the company's activity	Territorial, economic and social impact on neighboring or local populations	IV - 4.1 and 4.2 et V - 2.3. Local impact	
	Relations with persons or	Conditions of dialog with these persons or organizations	II-1.1	
Information on corporate	organizations affected by the Company's activities, specifically integration associations, teaching establishments, environmental protection associations, consumer associations and neighboring populations	Partnership or sponsorship activities	IV - 4.2. and V -2.3. Local impact	
commitments to promote sustainable development		Response in the purchasing policy to social and environmental challenges.	IV - 2.2.2	
	Subcontracting and suppliers	Importance of subcontracting and application of social and environmental responsibility in relations with suppliers and subcontractors	V - 2.2.	
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