

# BUILDING OUR ENVIRONMENT TOGETHER



SUSTAINABLE DEVELOPMENT  
REPORT 2012



## Contents

- 01 Message from the Chairman and Chief Executive Officer
- 02 Our businesses
- 04 Saint-Gobain ranks among the world's top 100 industrial groups
- 06 Our sustainable development strategy
- 08 Our commitments
- 10 Corporate governance
- 12 Business practices
- 14 EHS policy
- 16 Dialogue with our stakeholders

## 20 THE FIVE AREAS OF SAINT-GOBAIN'S SUSTAINABLE DEVELOPMENT STRATEGY

### 22 INVENT SUSTAINABLE BUILDINGS

- 24 Sustainable buildings
- 26 Innovation
- 28 Limiting the impact of our solutions

### 32 LIMIT OUR ENVIRONMENTAL IMPACTS

- 34 Climate change
- 38 Natural resources
- 40 Environmental protection

### 42 ENCOURAGE EMPLOYEES' PROFESSIONAL GROWTH

- 44 An open Group
- 46 The foundation for our action
- 52 Four priorities to help us grow

### 56 SUPPORT LOCAL COMMUNITY DEVELOPMENT

- 58 Developing job catchment areas
- 60 The Saint-Gobain Initiatives International Corporate Foundation
- 62 Local community initiatives

### 64 TAKE ACTION ACROSS THE VALUE CHAIN

- 66 Engaging teams
- 68 Raising awareness among stakeholders
- 70 Supporting customers
- 72 Responsible purchasing

## 74 PERFORMANCE INDICATORS AND ADDITIONAL INFORMATION

- 76 Reporting methodology
- 80 Statutory Auditors' Review Report
- 82 Environment - Health - Safety (EHS)
- 86 EHS summary tables
- 88 Social performance
- 94 Business practices and respect for human rights
- 96 Key indicators
- 102 GRI table
- 108 Grenelle II table
- 110 Communication on progress - UN Global Compact

### INDICATORS

2012 indicators that have been verified by the Statutory Auditors are followed by ✓ in the text and tables (see page 80).



## MESSAGE FROM THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

“*Being the reference in our professions brings with it a certain number of duties.*”

**2**012 was a difficult year for the global economy. In this uncertain environment, the Group is more than ever committed to being a responsible business actor.

The updated Environment, Health and Safety letter of commitment that I signed in 2012 puts an equal focus on all three of its components. Our long-term objectives remain unchanged: zero work-related accidents, zero occupational illnesses, zero environmental accidents and a minimum impact on the environment from our activities. In the unstable situation facing us today, we will have to double our efforts to meet our three-year EHS objectives.

Our OPEN human resources policy (for Our People in an Empowering Network) concerns all our employees and supports the Group's development. We are taking action to make Saint-Gobain a more open company, both inside and with the world outside. Every effort is made to offer all employees a working environment that fosters personal and professional growth and satisfaction. In 2012, our human resources policy made diversity a core concern.

Being a responsible player committed to sustainable development means being supportive of our local communities. That is the purpose of the Saint-Gobain Initiatives International Corporate Foundation, whose projects, sponsored by Group employees, seek to help people in difficulty and contribute to the construction of a community of committed men and women.

Sustainable development is first and foremost a daily responsibility. Our goal to be the reference in our professions brings with it a certain number of duties. These include setting the example in our conduct and action and raising our internal and

external stakeholders' awareness of the challenges of sustainable development.

As a Global Compact signatory, we have pledged to incorporate the initiative's ten principles concerning human rights, labor, the environment and anti-corruption in our action and strategy. In the same vein, we have endorsed the Caring for Climate statement and the CEO Water Mandate.

Saint-Gobain's ambition to be the reference in sustainable habitat solutions is driven by the unique diversity of its strategically related businesses, its culture of operating excellence and its powerful potential for innovation. We are carrying out our mission with a long-term view, in line with values shaped by nearly 350 years of history. These values are set out in our Principles of Conduct and Action, which all employees are expected to embrace to be part of the Saint-Gobain Group.

Being a responsible business actor gives meaning to our daily work.

**Pierre-André de Chalendar**  
Chairman and Chief Executive Officer

# OUR BUSINESSES

Saint-Gobain is organized into four Sectors – Innovative Materials, Construction Products, Building Distribution and Packaging. Each Sector is divided into Activities. The 13 Delegations represent Saint-Gobain outside France.

## INNOVATIVE MATERIALS

 **22%** OF CONSOLIDATED NET SALES



The **Innovative Materials Sector**, which comprises the Flat Glass and High-Performance Materials Activities, accounts for almost two-thirds of Saint-Gobain's total research and development commitment. It offers a unique portfolio of materials and processes for the habitat, construction and industrial markets.

### FLAT GLASS

- **No. 1 IN EUROPE**
- **No. 2 WORLDWIDE**
- Present in **42** countries
- More than **33,000** employees

### HIGH-PERFORMANCE MATERIALS

- **No. 1 WORLDWIDE**
- Present in **42** countries
- Nearly **27,000** employees

## CONSTRUCTION PRODUCTS

 **25%** OF CONSOLIDATED NET SALES



The **Construction Products Sector** provides the Group with interior and exterior solutions for the buildings of today and tomorrow, including plaster and plasterboard products, acoustic and thermal insulation products, wall facings, roofing products and pipes.

- **No. 1 WORLDWIDE**
  - Ductile cast iron pipe
  - Plasterboard and plaster products
  - Insulation
  - Tile adhesives
- **No. 1 IN EUROPE** for wall facings
- **No. 2 IN THE UNITED STATES** for siding
- Present in **55** countries
- More than **47,000** employees

## BUILDING DISTRIBUTION

 **44%** OF CONSOLIDATED NET SALES



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

- **No. 1 IN EUROPE**
- Building materials distribution
- Plumbing, heating and sanitaryware products
- Present in **29** countries
- **67,000** employees

## VERALLIA PACKAGING

 **9%** OF CONSOLIDATED NET SALES



Verallia, Saint-Gobain's **Packaging Sector**, is a major manufacturer of bottles for wines and spirits and jars for food products. It also markets glass containers for beer, fruit juices, soft drinks, mineral water and oil.

- **No. 2 WORLDWIDE**
- Present in **14** countries
- More than **14,000** employees

# SAINT-GOBAIN

## RANKS AMONG THE WORLD'S TOP 100 INDUSTRIAL GROUPS\*

<i>in € millions</i>	2012	2011
<b>NET SALES</b>	<b>43,198</b>	<b>42,116</b>
Operating income	2,881	3,441
Net income	796	1,360
Recurring net income <sup>(1)</sup>	1,126	1,736
Recurring earnings per share (in €) <sup>(1)(2)</sup>	2.12	3.24
Net income attributable to equity holders of the parent	766	1,284
Earnings per share (in €) <sup>(2)</sup>	1.44	2.40
Total investments <sup>(3)</sup>	2,127	2,638
Consolidated equity	17,851	18,218
Net debt	8,490	8,095
Non-current assets	29,629	29,877
Working capital	4,238	3,161

(1) Excluding capital gains and losses on disposals, asset impairment charges and material non-recurring provision charges.

(2) Earnings per share are calculated based on the number of shares outstanding at December 31.

(3) Capital expenditure on plant and equipment plus investments in securities, excluding share buybacks.

### BY SECTOR

NET SALES 2012



OPERATING INCOME 2012



■ Innovative Materials   
 ■ Construction Products   
 ■ Building Distribution   
 ■ Packaging - Verallia

### BY GEOGRAPHIC AREA

NET SALES 2012



OPERATING INCOME 2012



■ France   
 ■ Other Western European countries   
 ■ North America   
 ■ Emerging countries and Asia

\* World's 59th largest industrial employer according to the FT Global 500 ranking of the world's largest companies by market capitalization.

Net sales

**€43,198**  
million

Proceeds from  
disposals (+)

**€165**  
million

Operating costs -  
Payments to suppliers (-)

**€30,095**  
million

NEARLY

**193,000**  
EMPLOYEES



OPERATIONS IN

**64** COUNTRIES

ALGERIA  
ARGENTINA  
AUSTRALIA  
AUSTRIA  
BELGIUM  
BRAZIL  
BULGARIA  
BHUTAN  
CANADA  
CHILE  
CHINA  
COLOMBIA  
CZECH REPUBLIC  
DENMARK  
EGYPT  
ESTONIA  
FINLAND  
FRANCE  
GERMANY  
GREECE  
HUNGARY  
INDIA  
INDONESIA  
ITALY  
JAPAN  
JORDAN  
KUWAIT  
LATVIA  
LEBANON  
LITHUANIA  
LUXEMBOURG  
MALAYSIA

MOROCCO  
MEXICO  
NORWAY  
NEW ZEALAND  
NETHERLANDS  
PERU  
POLAND  
PORTUGAL  
QATAR  
REPUBLIC OF IRELAND  
ROMANIA  
RUSSIA  
SAUDI ARABIA  
SERBIA  
SINGAPORE  
SLOVAKIA  
SLOVENIA  
SOUTH AFRICA  
SOUTH KOREA  
SPAIN  
SWEDEN  
SWITZERLAND  
SYRIA  
THAILAND  
TURKEY  
UKRAINE  
UNITED ARAB EMIRATES  
UNITED KINGDOM  
UNITED STATES  
VENEZUELA  
VIETNAM  
ZIMBABWE

## Breakdown of 2012 value added

Value added totaled €13,269 million in 2012. Of this, €8,431 million was redistributed to employees and €2,011 million was retained to finance future growth.

	in M€	in %
<b>VALUE ADDED</b>	<b>13,269</b>	
Wages and other compensation	8,431	63.54
Pension contributions	584	4.40
Income and other taxes	966	7.28
Dividend	701	5.28
Interest repayments	571	4.30
Investments in local communities	5.1	0.04
Retained for future growth	2,011	15.15

# OUR SUSTAINABLE DEVELOPMENT STRATEGY

Saint-Gobain's commitment to sustainable development is based on the values formalized in our Principles of Conduct and Action (see box). We expect our employees to set an example through their conduct and action, both internally and externally, as well as to limit the impact of our activities on the environment as much as possible and take outside partners and local communities into account.



↑ The Green, an eco-friendly student accommodation at the University of Bradford in the UK, was built with solutions from British Gypsum and Saint-Gobain ISOVER.

A Group Compliance Program ensures that the Principles of Conduct and Action are applied properly. A detailed review is presented to the Board of Directors of *Compagnie de Saint-Gobain* each year (see pages 12-13).

Responsible development, respectful of people and environment-friendly will ensure Saint-Gobain's sustainable growth and performance. In our actions, we take care every day to balance business imperatives with the needs of the community and the environment, in the broadest sense of the term. This is reflected in our international commitments (see opposite).

Our human resources policy is based on a tradition of respect for individuals in all their diversity, good working conditions and the development of social dialogue. We want to offer all employees the same opportunities for professional growth and share a common ambition for the Group's future.

Respect for workplace health and safety and for the environment is among our main concerns (see EHS policy pages 14-15).

Because Saint-Gobain is involved in both manufacturing and distribution, it has to take into account the environmental impacts of very different types of sites (from production facilities to sales outlets, from research laboratories to quarries), as well as of product shipping. To help sites reduce their environmental impacts, measurement tools and improvement initiatives

are defined at the Group level. These resources are designed to fight climate change, preserve natural resources and reduce waste or atmospheric emissions. More targeted measures are also defined and implemented by the businesses to meet their specific needs.

In its drive to act as a responsible business player, Saint-Gobain takes its partners into account, notably customers and suppliers. Our responsible purchasing policy is designed to help suppliers align their practices and conduct with Saint-Gobain standards.

Locally, we are involved in creating a dynamic business and social environment in our host territories. The Saint-Gobain Initiatives International Corporate Foundation, which supports habitat-related community projects sponsored by employees around the world, is an illustration of this involvement.

Our strategic objective is to be the reference in the sustainable habitat market. However, we also participate in other sectors such as the automotive manufacturing, aeronautics and glass packaging. In each of our markets, we act as a responsible business player, in line with our values. We deploy an eco-innovation policy to reduce the environmental impact of our solutions and the impacts related to their use.

In all our businesses, our teams commit to the quality and sustainability of Saint-Gobain products and solutions.



# SUSTAINABLE DEVELOPMENT GUIDELINES

With a rich history stretching back almost 350 years, Saint-Gobain has based its development on a set of values that inform its daily actions. Since 2003, these values have been spelled out in our shared Principles of Conduct and Action.



## Principles of Conduct

The values of

- professional commitment
- respect for others
- integrity
- loyalty and
- solidarity

represent a unifying force and shape the conduct of each and every member of Saint-Gobain, from senior management down to junior staff.



## Principles of Action

- Respect for the law
- Caring for the environment
- Worker health and safety and
- Employee rights

guide the actions of all corporate leaders and employees in the performance of their duties.

The Principles explicitly refer to International Labor Organization (ILO) conventions, OECD guiding principles and the OECD Anti-bribery Convention.

## OUR INTERNATIONAL COMMITMENTS

By joining the United Nations Global Compact in 2003, we confirmed our commitment to sustainable development in line with our Principles of Conduct and Action. In January 2009, the Group took its commitment to the UN Global Compact one step further by endorsing the Caring for Climate statement and the CEO Water mandate for Water Resource Protection as part of the UN's Millennium Development Goals. This commitment was deepened on December 10, 2008 – the 60th anniversary of the Universal Declaration of Human Rights – with the signature by our Chief Executive Officer of the declaration of management support for human rights, an initiative organized by the United Nations.



## SRI ratings

Saint-Gobain is rated by socially responsible investment agencies on the basis of publicly available information and declarations.

Our presence in ethical stock indexes reflects our long-term commitment and sustainable development achievements.

In 2012, Saint-Gobain was included in the STOXX® Global ESG Leaders, Vigeo Europe 120, Vigeo France 20, Aspi Eurozone and FTSE4Good sustainable development indexes and was selected to be part of the Ethibel Excellence Register.

# OUR COMMITMENTS

## THE FIVE AREAS OF SAINT-GOBAIN'S SUSTAINABLE DEVELOPMENT STRATEGY

Our sustainable development policy is built around five areas, each of which contains a number of commitments. These areas are to invent sustainable buildings, to limit environmental impacts, to encourage employees' professional growth, to support community development and to take action across the value chain.

### INVENT SUSTAINABLE BUILDINGS

We design, produce and distribute sustainable habitat solutions for the renovation and construction of residential, commercial and service-sector buildings.

Priority challenges	Indicators	Achieved in 2012	Objectives
Life Cycle Assessment (LCA)	Product ranges for which an LCA has been carried out	Methodological guide for LCAs and Environmental Product Declarations (EPDs) updated	Conduct systematic Life Cycle Assessments (LCA) for all construction and solar product lines in 2013
Eco-innovation	Training initiatives	Training module developed	Deploy the module among all concerned managers

### LIMIT ENVIRONMENTAL IMPACTS

Our teams are focused on achieving the only acceptable objective, which is zero environmental accidents and a minimum impact on the environment from our activities.

Priority challenges	Indicators	Achieved in 2012	Objectives
Environmental certification	Percentage of sites with environmental certification	75.2%	90% of concerned sites by end-2013
Climate change	Reduction in direct CO <sub>2</sub> emissions	3.3% less than in 2010	6% less in 2013 than in 2010
Management of natural resources	Reduction in water withdrawals	3.6% less than in 2010	6% less in 2013 than in 2010
Waste recycling and management	Reduction in waste produced	6.7% less than in 2010	6% less in 2013 than in 2010

## ENCOURAGE EMPLOYEES' PROFESSIONAL GROWTH

Saint-Gobain's human resources policies are designed to support the Group's development in a working environment that fosters personal and professional growth for all employees.

Priority challenges	Indicators	Achieved in 2012	Objectives
<b>Safety</b>	Reduction in the incident frequency rate Frequency rates: • Lost time accidents (LTAR) • Total recordable accidents (TRAR) These indicators concern employees and temporary staff	<ul style="list-style-type: none"> <li>• Overall LTAR: 2.8✓</li> <li>• Building Distribution LTAR = 4.3✓</li> <li>• Industrial TRAR = 5.2✓</li> </ul>	In 2013: <ul style="list-style-type: none"> <li>• Overall LTAR of less than 2.6</li> <li>• Building Distribution LTAR of less than 4.1</li> <li>• TRAR of less than 4.8 for the Industrial Sectors</li> </ul>
<b>Health</b>	Health policy	Policy developed	Deploy the health policy as from 2013
<b>Diversity</b>	Actively promote by increasing the women's presence in executive positions	<ul style="list-style-type: none"> <li>• Framework agreement on diversity signed in France</li> <li>• Women In Network (WIN) launched in France</li> </ul>	<ul style="list-style-type: none"> <li>• Systematically present women candidates for job openings and succession plans</li> <li>• Train managers to recognize and dispel gender stereotypes</li> </ul>
<b>Career mobility</b>	Develop professional mobility between the Group's different Activities and Functions	<ul style="list-style-type: none"> <li>• Mobility Committees deployed</li> <li>• "Open Job", job site brought online</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance mobility initiatives targeted towards non-managerial staff in France, with support from Saint-Gobain Développement</li> </ul>

## SUPPORT COMMUNITY DEVELOPMENT

We implement initiatives to promote the social and economic development of our job catchment areas, as well as community outreach programs.

Priority challenges	Indicators	Achieved in 2012	Objectives
<b>Supporting local economic development</b>	Number of days of technical support in France	188 days	10% increase per year
<b>Supporting general interest projects</b>	Number of sponsorship agreements signed by the Saint-Gobain Initiatives International Corporate Foundation	11 sponsorship agreements	10 to 15 sponsorship agreements per year on average

## TAKE ACTION ACROSS THE VALUE CHAIN

Saint-Gobain's size and global scope give it a special responsibility in raising our stakeholders' awareness to the challenges of sustainable development and in promoting exemplary practices.

Priority challenges	Indicators	Achieved in 2012	Objectives
<b>Raising awareness among stakeholders</b>	Promotion of sustainable construction	Partner to the European network of the World Green Building Council	Develop our active participation in professional associations involved in sustainable development
<b>Responsible purchasing</b>	Number of audited suppliers	69 initial audits	70 to 80 initial audits in 2013
<b>Promoting responsible business practices</b>	Number of managers trained in the Principles of Conduct and Action	100% of managers reached through online training	Deploy a train-the-trainer program

The measures we are taking in each of these areas are described in the body of this report. Summary tables at the end of the report provide details on the indicators tracked in compliance with France's NRE Act and the Global Reporting Initiative (GRI), as well as on our progress with regard to the Global Compact's ten principles.

# CORPORATE GOVERNANCE



## SUSTAINABLE DEVELOPMENT: A CROSS-FUNCTIONAL ORGANIZATION

Saint-Gobain's Chairman and Chief Executive Officer sets the strategic objectives in sustainable development. The Corporate Secretary is responsible for leading this policy with support first and foremost from the Responsible Development, Human Resources and Environment and Health and Safety Departments.

These three departments notably interact with Purchasing, Marketing and R&D to

ensure that the Group's sustainable development objectives and policies are applied at the operating level. Lastly, the Corporate Communications Department helps familiarize all employees with the challenges of sustainable development and makes the Group's policy and initiatives known to stakeholders and the general public. The Investor Relations Department handles communication with financial analysts, investors and shareholders.

Certain subsidiaries have set up sustainable development steering committees to apply their specific objectives aligned with the Group's strategy, establish roadmaps and track progress on environmental and social issues.

# BOARD OF DIRECTORS

(As of April 1, 2013)

## Pierre-André de CHALENDAR

Chairman and Chief Executive Officer of Compagnie de Saint-Gobain

## Isabelle BOUILLOT

Chairman of China Equity Links

## Gerhard CROMME

Chairman of the Supervisory Board of Siemens AG

## Jean-Martin FOLZ

Chairman of the Board of Directors of Eutelsat Communications

## Bernard GAUTIER

Member of the Management Board of Wendel

## Anne-Marie IDRAC

Consultant

## Sylvia JAY

Chairman of L'Oréal UK & Ireland

## Frédéric LEMOINE

Chairman of the Management Board of Wendel

## Gérard MESTRALLET

Chairman and Chief Executive Officer of GDF Suez

## Michel PÉBEREAU

Honorary Chairman of BNP Paribas

## Jacques PESTRE

Senior Vice-President of Point.P, Chairman of the Supervisory Board of the Saint-Gobain PEG France corporate mutual fund

## Olivia QIU

Global Head of Strategic Industries, Alcatel-Lucent

## Denis RANQUE

Chairman of the Board of Directors of EADS

## Gilles SCHNEPP

Chairman and Chief Executive Officer of Legrand

## Jean-Dominique SENARD

Chief Executive Officer of Michelin

## Jean-Cyril SPINETTA

Chairman and Chief Executive Officer of Air France-KLM

Board secretary:

## Antoine VIGNIAL,

Corporate Secretary, Senior Vice-President in charge of Sustainable Development

At the Annual General Meeting of June 6, 2013, shareholders will be asked to elect as Directors Philippe Varin, Chairman of the Managing Board of PSA Peugeot Citroën; Agnès Lemarchand, Executive Chairman of Steetley Dolomite Ltd.; and Pamela Knapp, member of the Management Board and CFO of GFK SE; and to re-elect as Directors Jean-Martin Folz and Gilles Schnepf.

Compagnie de Saint-Gobain complies with the principles outlined in the corporate governance code issued by Association Française des Entreprises Privées (AFEP) and Mouvement des Entreprises de France (MEDEF).



For full details, see the 2012 registration document at [www.saint-gobain.com](http://www.saint-gobain.com)

## SUSTAINABLE HABITAT MISSION

An internal sustainable habitat mission was set up in late 2010 to support the Group's strategy. Led by members of Senior Management and comprising representatives from R&D, Environment, Health and Safety (EHS) and Marketing, this multidisciplinary team is working on three key tasks based on life cycle assessment (see pages 30-31). These include:

- proposing a policy for **managing and recycling worksite waste** in each business to identify effective ways of handling end-of-life products and packaging during construction, renovation and demolition projects;
- drawing up recommendations for **building standards and environmental labels** so that our customers can be fully informed and make fact-based decisions;
- developing an **eco-innovation policy** to ensure that everyone involved in the innovation chain takes into account the impact of our solutions across their whole life-cycle, so that this impact can be reduced from the development stage onwards.



# BUSINESS PRACTICES

In 2009, the Board of Directors approved the launch of a Group Compliance Program to ensure that the Principles of Conduct and Action and their related obligations are applied properly in all Activities worldwide.



## FOCUS

### THE COMPLIANCE NETWORK

A detailed review of the Compliance Program's implementation is presented each year to the Board of Directors of *Compagnie de Saint-Gobain*. Implementation is carried out through a compliance network made up of 80 corporate and line executives that is coordinated by the Corporate Secretary. The network includes:

- 25 compliance correspondents;
- a Compliance Committee in each General Delegation;
- a Group Compliance Committee, composed of top executives from the Sectors and from *Compagnie de Saint-Gobain*.

### THE GROUP COMPLIANCE PROGRAM

It consists of four main components:

- responsible development.
- the Competition Law plan;
- internal audit and internal control;
- a compliance alerts system.

#### Responsible development

The Responsible Development Department ensures that the Principles of Conduct and Action are distributed to all employees and that everyone understands them. Training courses organized during Saint-Gobain Management School sessions help raise awareness among Group managers, as does the Adhere on-line training program.

In 2012, two new programs were added to support the Group's compliance policy, which is a direct application of the Principles of Conduct and Action:

- an anti-corruption program that includes new initiatives and also aims at spreading good practices already implemented in certain subsidiaries, to prevent international business transaction risks. This program covers both active and passive corruption;

- an economic sanctions and embargos compliance program, to ensure that the Group's international trade does not infringe on international regulations.

Both programs include training and tools to help employees identify and reduce risks. Deployment began in 2012 and will continue throughout 2013.

#### Competition Law Plan

Everyone in the Saint-Gobain corporate community is expected to comply at all times with good competition practices. General Management regularly reminds team members of the Group's zero tolerance policy.

The Competition Law Plan, launched in 2007, is designed to ensure compliance and comprises three parts:

- training, with the online Comply training program for all managers, available in 21 languages, backed by more in-depth seminars led by specialized lawyers and Group legal experts for the most directly concerned managers;
- unannounced competition audits performed by specialized lawyers;

- a Competition Law Compliance guide, available in 18 languages and distributed to some 35,000 Saint-Gobain employees worldwide.

**Internal audit and internal control**

The internal control system is designed to ensure that units effectively manage their principal risks, comply with laws and regulations and apply the strategy and guidelines set by General Management. Internal control also verifies that processes operate properly, that financial information is reliable, that property, plant and equipment and intangible assets are safeguarded and that fraud is detected and eradicated.

As part of the Group Compliance Program, the Internal Audit and Internal Control Department has designed and deployed a compliance statement that all general managers must sign each year.

A detailed description of the Group's internal audit and internal control system is provided in the Annual Report (pages 102-103).

**Compliance alerts system**

The Group's compliance alerts system has been deployed in virtually all of its host countries, in line with local administrative constraints and legislation.

In each country an intranet link enables employees to send an e-mail to the regional compliance correspondent, who is responsible for collecting and processing the messages and for ensuring that the identities of the authors and the persons concerned remain confidential. This optional system provides a way to report serious violations of applicable laws, internal rules and procedures, or the Principles of Conduct and Action. All reports must be submitted in good faith. Anonymous reports are not accepted.

In addition to this system, employees in North America, the United Kingdom and India continue to have access to local hotlines. The alerts received via hotlines are also processed in a way that ensures that the identities of the callers and the persons concerned remain confidential.

**HUMAN RIGHTS**

The first two principles of the United Nations Global Compact urge businesses to “support and respect the protection of internationally proclaimed human rights” (Principle 1) and “make sure that they are not complicit in human rights abuses” (Principle 2).

Our Principles of Conduct and Action are more specific. The principle concerning employee rights states that “Group companies [...] must refrain from any form of recourse to forced labor, compulsory labor, or child labor – whether directly or indirectly or through sub-contractors when the latter are working

on a Group site.” Saint-Gobain refers to the applicable Conventions of the International Labor Organization for the definition of these concepts. The principle also states that Group companies “must refrain from any form of discrimination with respect to their employees, whether in the recruitment process, at hiring, or during or at the end of the employment relationship.”

A specific reporting process has been gradually deployed to measure the results of our efforts and to signal the Group's determination to apply and enforce its fundamental values in the front lines.



# EHS POLICY

Our Environmental, Health and Safety (EHS) policy flows from our Principles of Conduct and Action (see page 7).

At Saint-Gobain, we are committed to reducing our impact on the environment (see pages 28-29 and 32-41). We also deploy measures to prevent occupational health and safety risks as effectively as possible for employees, temporary staff and subcontractors present at Group sites (see pages 46-49).



## AN EFFICIENT MANAGEMENT METHOD

Health/safety and the environment are two of the eight pillars of our World Class Manufacturing (WCM) program to achieve operational excellence. A health/safety training module was deployed in 2012. WCM is a comprehensive management system intended to improve company performance. The structured method has proven effective in the areas of safety, quality and productivity. Over 90% of our manufacturing sites will have adopted the WCM method by 2015.

### Rigorous EHS standards and recommendations

Saint-Gobain has drawn up various standards and recommendations to support the implementation of EHS principles. These standards and recommendations were developed in response to specific EHS concerns. The standards are compulsory, and describe the minimum requirements with which sites must ultimately comply, regardless of country or local legislation (see pages 38-41, 46-49 and 82-87).

### A coordinated network of expertise

Our EHS structure is built around a network of correspondents in the Group's Sectors, Delegations and sites. This organizational structure enables the EHS function to remain close to business operations, respond to specific local circumstances and ensure overall consistency. Within each Sector, one or more employees are appointed to propose an EHS policy tailored to the specific nature of the Sector's operations and to oversee its implementation. Similarly, within each Delegation, a representative coordinates Group and Activity EHS initiatives at the local level and ensures compliance with local regulations and Group standards. These EHS representatives work in turn with correspondents at the various companies and facilities. In liaison with the central EHS Department,

these professionals form a network responsible for supporting operations managers in developing and implementing EHS policies.

### Audits

Our audit system is based on the EHS and self-diagnostic audits initiated by the EHS department and a self-assessment questionnaire introduced by the Internal Audit and Internal Control Department. The EHS audits address environment, health and safety issues and are the most thorough EHS assessments. These audits are performed by experienced, specially-trained in-house auditors. They are crucial to obtaining a reliable assessment of the EHS management system and give rise to practical recommendations. The audits are designed to give site directors an objective view of their situation and EHS management system, and to provide suggested action plans for improvement.

On average, each industrial Activity site is audited once every three years. In 2012, 252 audits were performed.

The Building Distribution Sector has its own tailored audit. Known as ESPR for Environment, Safety and Prevention of Risks, the audit also includes a section on equipment safety and business interruption risk. The majority of ESPR auditors belong to the Building Distribution Sector. In 2012, 214 ESPR audits were carried out within the Group.



### Close cooperation with research and development centers

The research and development teams cooperate with the EHS department to integrate EHS concerns into product and process innovation and to address new EHS issues that arise. An EHS checklist is used to verify specifications on raw materials, manufacturing processes, product use and end-of-life treatment.

To ensure that R&D specifications take health and environmental concerns into

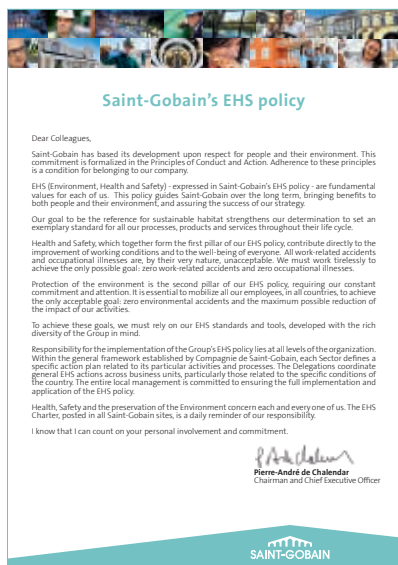
account, the R&D tracking process includes an EHS validation procedure.

In the field of nanomaterials, for instance, a code of conduct has been drawn up by both teams to identify mandatory handling procedures and to ensure that potentially hazardous ultra-fine particles are used solely at three authorized sites equipped with specific installations to protect employees.

## EHS OBJECTIVES

In implementing EHS policy, senior management sets Group-wide objectives in the areas of health, safety and the environment. Applied in each Activity and Delegation, these objectives are used by the units as a reference in drawing up their annual EHS policy. The objectives are set for three-year periods (currently 2011-2013). Since 2004, the Group has used a centralized EHS reporting system called Gaïa.

## A WIDELY CIRCULATED POLICY



The Group's EHS policy is widely circulated through a charter posted at all sites and a letter of commitment from the Chairman and Chief Executive Officer to all employees, available in 46 languages. The letter, which was updated in 2012, describes our approach and defines the objectives and requirements to be met by all employees. It puts the environment, health and safety on equal footing, setting as its objectives **zero work related accidents, zero occupational illnesses, zero environmental accidents and a minimum impact on the environment from our activities**. The letter's commitments take EHS challenges into account at all stages of the product and service lifecycle.

### Safety

Achieve a lost-time accident rate (LTAR) of less than 4.1 for the Building Distribution Sector at the end of 2013; a total recordable accident rate (TRAR) of under 4.8 for the Industrial Sectors; and an overall lost-time accident rate of less than 2.6 for the Group. These indicators include temporary employees.

### Health and industrial hygiene

Deploy the new SAFHEAR risk analysis software introduced in 2011 to identify exposure risks and define and implement preventive measures across the Group.

### Environment

Pursue efforts to reduce the environmental impact of our sites. We are deploying new cross-functional policies, notably for water and life cycle assessments.

Total environmental expenditure:

€144.0<sub>m</sub>

Percentage of training hours devoted to EHS: 25.4%

# DIALOGUE WITH OUR STAKEHOLDERS

Saint-Gobain interacts with a very large number of stakeholders. In each of our Activities and host regions, and for all existing or potential impacts, teams at both the corporate and local levels listen closely to stakeholders' concerns and organize effective dialogue.



The Group organizes relations with each stakeholder, by identifying appropriate information channels and, when necessary, selecting a suitable framework and venue at the appropriate level of our organization (headquarters, Activities, sites) in applica-

tion of the **subsidiarity principle**. This system reflects the Group's matrix organization, global scope, diverse business portfolio and decentralized management, which gives the operating units a great deal of autonomy in conducting their activities.

Each business therefore has a specific responsibility to listen to stakeholders, establish effective dialogue and take action on sustainable development issues.



Stakeholders	Information channels	Opportunities for dialogue	Page
<b>Customers</b>	<ul style="list-style-type: none"> <li>• Group publications</li> <li>• Group company websites</li> <li>• Professional forums and trade shows</li> <li>• Training courses</li> <li>• Magazines (such as Point.P's "Camets de Chantiers")</li> <li>• The publication of numerous guides on energy efficiency and the environment</li> </ul>	<ul style="list-style-type: none"> <li>• Conventions</li> <li>• Training sessions</li> <li>• Distribution networks</li> <li>• Trade shows</li> </ul>	p 18-19 p 70-71
<b>Users</b>	<ul style="list-style-type: none"> <li>• Group company websites</li> <li>• Recommendations charter designed to promote insulation in existing buildings</li> <li>• Presentations to schoolchildren</li> <li>• Participation in associations or user groups</li> </ul>	<ul style="list-style-type: none"> <li>• Trade shows</li> <li>• Showrooms</li> <li>• Partnerships with community representatives through associations or groups like <i>Effinergie, Isolons la Terre, Casa que Ahorra</i> and <i>Spaar het klimaat</i></li> </ul>	p 68-71
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>• Suppliers' charter</li> <li>• Responsible procurement clauses</li> <li>• Supplier self-assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Supplier/customer agreements (Saint-Gobain Distribution)</li> <li>• Audits and action plans</li> </ul>	p 18-19
<b>Employees</b>	<ul style="list-style-type: none"> <li>• Internal communication media</li> <li>• Meetings with Group executives</li> </ul>	<ul style="list-style-type: none"> <li>• Events</li> <li>• Meetings</li> <li>• Surveys</li> </ul>	p 72-73
<b>Employee representatives</b>	<ul style="list-style-type: none"> <li>• Representative bodies</li> </ul>	<ul style="list-style-type: none"> <li>• Labor union agenda</li> <li>• European social dialogue</li> <li>• Group works council</li> </ul>	p 18, 51
<b>Employee shareholders</b>	<ul style="list-style-type: none"> <li>• Group publications</li> <li>• Intranet</li> <li>• PEG Group Savings Plan brochure</li> <li>• Dedicated website</li> </ul>	<ul style="list-style-type: none"> <li>• Saint-Gobain employees' club</li> <li>• Representative on the Board of Directors</li> </ul>	p 54
<b>Individual shareholders</b>	<ul style="list-style-type: none"> <li>• Group publications</li> <li>• Website</li> <li>• Letter to Shareholders</li> <li>• Shareholder's handbook</li> <li>• Regional brochure</li> </ul>	<ul style="list-style-type: none"> <li>• Regional meetings</li> <li>• Investors' fair</li> <li>• Site visits</li> <li>• Stock market primers</li> <li>• Shareholders' Club</li> </ul>	p 18
<b>Institutional shareholders</b>	<ul style="list-style-type: none"> <li>• Group publications</li> <li>• Website</li> </ul>	<ul style="list-style-type: none"> <li>• Presentations to analysts</li> <li>• Meetings with investors</li> </ul>	p 18
<b>SRI rating agencies</b>	<ul style="list-style-type: none"> <li>• Group publications</li> <li>• Website</li> <li>• Media</li> <li>• Public declarations</li> <li>• Position statements, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Meetings</li> <li>• Evaluation processes</li> </ul>	p 18
<b>Research centers, universities, etc.</b>	<ul style="list-style-type: none"> <li>• Gay-Lussac days</li> <li>• Participation in university training courses</li> <li>• School forums</li> <li>• Sponsoring</li> </ul>	<ul style="list-style-type: none"> <li>• Academic chairs</li> <li>• Partnerships</li> <li>• Scholarships</li> <li>• Thesis placements</li> <li>• Internships</li> <li>• Student contests</li> </ul>	p 18, 51
<b>Professional associations</b>	<ul style="list-style-type: none"> <li>• Participation in working groups</li> <li>• Development of technical standards</li> <li>• Green Building Councils</li> </ul>	<ul style="list-style-type: none"> <li>• Commissions</li> <li>• Various committees</li> </ul>	p 68-69
<b>NGOs and other associations</b>	<ul style="list-style-type: none"> <li>• Group publications</li> <li>• Meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in surveys</li> <li>• Cooperation on development and training projects</li> <li>• Partnerships</li> <li>• Sponsoring in areas related to the environment or access to energy efficiency solutions</li> <li>• Support for job opportunities</li> </ul>	p 68-69
<b>Regional bodies</b>	<ul style="list-style-type: none"> <li>• Regular meetings with elected officials and civil servants</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in economic development programs</li> <li>• Relations with chambers of commerce</li> </ul>	p 68-69
<b>Institutions</b>	<ul style="list-style-type: none"> <li>• Experimental work in partnership with public organizations and elected officials, and sustainable development information sheets on topics like energy efficiency distributed through city halls</li> </ul>	<ul style="list-style-type: none"> <li>• Dialogue on the environmental and social impact of habitat solutions</li> </ul>	p 68-69
<b>Media</b>	<ul style="list-style-type: none"> <li>• Group publications</li> <li>• Website</li> <li>• Public declarations</li> <li>• Position statements, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Meetings</li> <li>• Press trips, etc.</li> </ul>	

# DIALOGUE WITH OUR STAKEHOLDERS



## Dialogue with our employees

Social dialogue (see page 51) is essential at Saint-Gobain, as the numerous agreements signed with employee representatives attest.

In each business, most of the social dialogue process takes place at the company or facility level, where it can deliver an appropriate response to local concerns and issues. Team managers lead social dialogue on a day-to-day basis, in a process that relies on employee involvement, discussions with employee representatives and active communication.

At the corporate level, senior management is deeply involved in the European Social Dialogue Convention, a body of 70 labor union representatives from 27 European countries who meet to discuss strategy and cross-border issues with the Group's executive management.

A number of regular events enable managers to talk directly with Senior Management. The *Carrefours Saint-Gobain* forums, for example, offer 200 to 300 managers an opportunity to gain greater insight into our strategic vision so they can cascade it down to their teams. At the forums, the Chairman and Chief Executive Officer and senior executives talk about our strategic challenges, priorities and objectives, and then answer questions from participants. Mini *Carrefours* for a smaller number of managers are also organized in the Delegations.

## Dialogue with our customers

The Group's member companies, businesses and Sectors conduct the dialogue process with customers on a daily basis. At the corporate level, Habitat Committees maintain a regular dialogue with specifiers.

## Dialogue with our suppliers

As part of the responsible purchasing policy (see pages 72-73), Saint-Gobain has set up resources and procedures to monitor suppliers more effectively and improve dialogue on the basis of mutual commitments and fact-based evaluations.

## Dialogue with our shareholders, investors and the financial community

We regularly provide analysts, institutional investors and individual shareholders with information on our results, strategy and major achievements. This information is presented in the registration document and letters to shareholders, on our website, at roadshows and during meetings with shareholders, shareholder fairs and other events.



**TESTIMONIAL**

**Monica von Schmalensee.**  
CEO WHITE ARKITEKTER Architectural practice



“What we are creating today is not for us, but for the future and for our children.”

“As an architect in Scandinavia, I would say that sustainability is really part of our DNA. We know that we need to act to fight climate change and we know that our industry is a major energy consumer. I think that there is a huge opportunity in this, because everyone wants to live in sustainable housing. What we are creating today is not for us, but for the future and for our children. We want buildings to be certified. The size of the Saint-Gobain Group gives it very great responsibilities in this field.”

**TESTIMONIAL**

**Noel Morrin**  
Senior VP Sustainability SKANSKA Construction & Development



“It is necessary to think about innovation right from the beginning of a project.”

“SKANSKA AB is a major Swedish construction company. We are one of the largest in this field. We can see a growing demand for green buildings and green infrastructure. We therefore need partners like Saint-Gobain who can supply us with the materials and technologies we need to allow us to create sustainable buildings and sustainable infrastructure. We cannot do it on our own. We think that it is necessary to think about innovation right from the beginning of a project, to consider the materials, the technologies and the solutions that are available and optimize everything in the design stage. Afterwards, it is too late and too expensive.”

**TESTIMONIAL**

**William Bardosh**  
president, TerraVerdae Bioworks



“Collaboration with a major stakeholder in sustainable materials was highly appealing to us.”

TerraVerdae Bioworks, a Canadian company focused on renewable biopolymers derived from non-food-based waste sources as an alternative to petroleum derived plastics, has concluded a co-development agreement with Saint-Gobain Performance Plastics. “Collaboration with a major stakeholder in sustainable materials that is active in the industrial materials markets was highly appealing to us. NOVA<sup>1</sup> opened the door to Saint-Gobain for us. Today, we are optimizing and scaling our process, and supplying test materials to Saint-Gobain for evaluation. The Group is providing us with valuable feedback that is helping us further optimize our process as we move on to the industrial phase.”

<sup>1</sup> The Saint-Gobain department responsible for creating partnerships between innovative start-ups and Group Activities (see page 27).

**TESTIMONIAL**

**Pascal Bandelier**  
General Manager of Novacarb, a company that supplies sodium carbonate to Saint-Gobain's glass Activities



“We are happy to see that Saint-Gobain is ready to open up more to the outside world.”

“We expect a group like Saint-Gobain to look at us as a member of the same industry and to support our business. We are happy to see that Saint-Gobain is ready to open up more to the outside world and forge R&D partnerships with other companies upstream in process improvement projects.”

**TESTIMONIAL**

**Olivia Pessinot**  
Junior Manager of the World Class Manufacturing (WCM)<sup>1</sup> program in the Innovative Materials Sector



“The values of respect for people and respect for the environment also weighed in my decision.”

“I came to Saint-Gobain for an internship that focused on implementing the Group's water policy. This mission gave me the opportunity to get a feel for both the big picture and the more operational aspects as the program was applied across several sites. When the internship was over, I was offered a more hands-on position, in line with my background and professional aspirations. Saint-Gobain's strategic positioning and values of respect for people and respect for the environment also weighed in my decision.”

<sup>1</sup> Saint-Gobain's operational excellence program (see pages 14-15).





# THE FIVE AREAS OF SAINT-GOBAIN'S SUSTAINABLE DEVELOPMENT STRATEGY

**Our sustainable development policy  
is built around five areas:**

- Invent sustainable buildings
- Limit our environmental impacts
- Encourage employees' professional growth
- Support community development
- Take action across the value chain.

# INVENT SUSTAINABLE BUILDINGS





**Saint-Gobain designs, manufactures and distributes building materials** for professional customers to build and renovate buildings that are energy efficient, comfortable, healthy and esthetically superior, while at the same time protecting natural resources. Innovation is an integral part of the Group's sustainable habitat strategy.

# TEAM 2012



ITALY

## Habitat Lab

The Saint-Gobain brands in Italy have pooled their expertise and technology to build the country's new training center. Habitat Lab complies with Saint-Gobain's Multi-Comfort criteria (see pages 24-25), and combines living comfort with energy performance, while also minimizing the building's environmental impact. Inaugurated in Corsico, Milan province, in October 2012, the training center was awarded CARE:4<sup>®1</sup>, LEED<sup>2</sup> and A+ certifications for its energy performance. Habitat Lab already generates more energy than it consumes.

From left to right:

**Bruno Rossetti,**  
Strategic and  
Communication Director  
(Construction Products  
Sector, Italy)

**Gianluca Cavalloni,**  
Advocacy Manager

**Ruggero Ricci Mingani,**  
Technical Promotion  
Coordinator

<sup>1</sup> The CARE:4<sup>®</sup> (Company Actions for the Reduction of Energy by 4) program aims to divide by four the energy consumption and greenhouse gas emissions of all Saint-Gobain tertiary buildings by 2040 (see page 37).

<sup>2</sup> LEED (Leadership in Energy and Environmental Design) is a high environmental quality building standard created by the US Green Building Council.

# SUSTAINABLE BUILDINGS

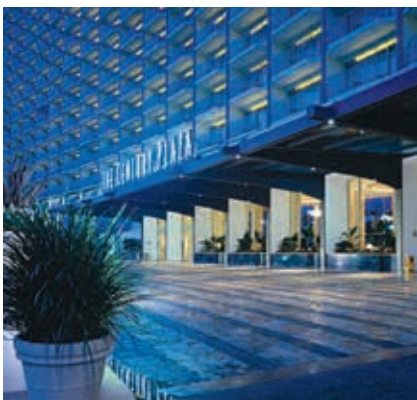
The habitat and construction industry, Saint-Gobain's main market, is shaped by major sustainable development challenges. Never before has there been such a huge need for healthy, comfortable and energy-efficient buildings.



UNITED STATES

## Promoting energy efficiency

In the area of energy efficiency, Saint-Gobain has made building renovation a special focus. In 2012, Solar Gard®, a new Saint-Gobain company, received the Blue Sky Leadership award from the Industrial Environmental Association (IEA) for its solar control window films developed in the United States and its company-wide environmental initiatives. The award recognizes innovative projects to reduce air pollution and global warming.



Solar Gard® windows equip the Hyatt Regency Century Plaza hotel in Los Angeles, California (USA).



Stepped-up efforts to build new buildings and renovate old ones are required to address the trends of accelerated urbanization in fast-growth economies and aging constructions in mature countries. At the same time, it has become urgent to limit energy consumption and raw materials use in the face of global warming and dwindling natural resources. The building industry alone accounts for nearly 40% of energy consumption and 38% of greenhouse gas emissions in industrialized nations<sup>3</sup>. No significant progress can be made without massive action in this area. To meet these challenges, we offer solutions to make residential buildings, offices, hospitals, daycare centers, schools and other service-sector buildings comfortable, energy efficient, healthy and attractive while preserving natural resources. The building projects carried out under our Multi-Comfort Program (see box) demonstrate that it is possible to build or renovate these types of buildings with currently available materials and technologies. With its lineup of insulation solutions, Saint-Gobain helps save energy and reduce greenhouse gas emissions. A properly insulated building consumes four or five times

less energy for heating (or air-conditioning) than a non-insulated home.

Windows also play a critical role in a building's energy performance. A 2009 study<sup>4</sup> suggests that replacing every window in the European Union with advanced, low-emissivity double glazing would cut CO<sub>2</sub> emissions by up to 90 million metric tons annually—equivalent to one third of the European Union's building greenhouse gas emissions target.

The world's leading producer of coated glass, Saint-Gobain has increased its window glazing's energy performance by a factor of six in the past 20 years through a major research and development commitment.

We make every effort to anticipate and understand user needs around the world, taking into account each region's markets, techniques, materials, cultural specificities and local practices.

<sup>3</sup> The building industry also has a considerable impact on water use (accounting for 12% of drinking water consumption) and waste (producing 40% of solid waste in volume). Source: "Building Design and Construction: Forging Resource Efficiency and Sustainable Development", United Nations Environment Program-Sustainable Buildings and Climate Initiatives (UNEP-SBCI).

<sup>4</sup> Study conducted in 2009 by TNO, a Dutch scientific research organization, for the Glass for Europe association.

**↑ FOCUS**

**MULTI-COMFORT PROGRAM**

To demonstrate the effectiveness of our solutions and further stimulate research and innovation, several Group Activities have joined forces to promote the Multi-Comfort concept in 15 countries. With Multi-Comfort, Saint-Gobain is proposing a new way of making buildings, with a shared framework of reference that accounts for each country's specific features while anticipating new regulations.

Designed to minimize a building's environmental impacts, the Multi-Comfort scorecard focuses on five types of comfort: thermal comfort, acoustic comfort, visual comfort (with optimized use of natural light), air quality and modular comfort (for an easily upgradeable building).



**162** square meters of living space

**61** kWh of primary energy produced per square meter per year

**39** kWh of primary energy consumed per square meter per year



**Pilot project**

The Saint-Gobain Multi-Comfort Home in Beaucouzé, France, built using Saint-Gobain solutions, exceeds France's energy efficiency requirements for 2020. In March 2012, the low-consumption energy-producing home was selected to be a High Environmental Quality (HQE<sup>5</sup>) pilot project, meeting the criteria for energy and environmental performance, as well as for air quality and accessibility.

<sup>5</sup> HQE\* is an approach primarily used in France to improve the environmental quality of new and existing buildings.



**Healthy, inexpensive and comfortable** habitat solutions



Saint-Gobain participated in the construction of a 40-unit low-cost housing development as part of the Brazilian government's *Minha Casa Minha Vida* (My House, My Life) low-income housing program. Located in Ponta Grossa in Paraná State, the homes are equipped with new high-performance drywall systems from Brasilit, ISOVER and Placo®.



**“** This project ties in perfectly with Saint-Gobain's sustainable habitat strategy. It is economically viable and puts environmental aspects front and center. On a social level, we are providing the country's most underprivileged communities with quality, comfortable housing with good thermal and acoustic insulation. **”**

**Paulo Perez**  
Habitat Marketing Manager for Brazil

# INNOVATION

Research and innovation are at the center of Saint-Gobain's habitat solutions strategy and sustainable development policy. The Group's strategic evolution, combined with the gradual transformation of the habitat and construction markets, has created a dynamic of openness.

€479 million  
of R&D

More than  
400 patents filed  
in 2012

3,700 people

## DYNAMIC R&D

Initiatives to develop the Group's innovation culture are clearly producing results: for the second year in a row, Saint-Gobain ranked among Thomson Reuters' Top 100 Global Innovator Companies.

In 2012, R&D spending totaled €479 million and 3,700 team members worked on more than 850 research projects. Saint-Gobain has seven major cross-functional research centers that serve all the Activities (see map). The seventh was inaugurated in Chennai, India in 2012. We also have a dozen research centers dedicated to specific Activities and around 100 development units worldwide.

These substantial investments and the research teams' hard work have resulted in a constantly growing number of patents. In 2012, Saint-Gobain filed more than 400 patents, compared with 260 a year in the 2004-2006 period.

## ATTENTIVENESS TO CUSTOMER NEEDS

R&D and Marketing have been coming closer together for many years. Teams work together at the corporate level, as well as in the Activities and country organizations. This new system makes it easier to devise specific responses to market expectations, anticipate emerging needs and shorten time to market. Cross-business Habitat

Committees, now present in 33 countries, foster dialogue among teams involved in innovation processes. In the area of habitat solutions, we are enhancing our research teams' skills with a focus on our large cross-business programs concerning acoustics, energy efficiency, thermal comfort, indoor air quality and fire resistance. These programs tie in directly with our marketing teams' priority avenues and notably our Multi-Comfort program (see pages 24-25).

## PARTNERSHIPS AND CO-DEVELOPMENT

Saint-Gobain's outward-looking strategy, notably as concerns innovation, has led it to develop and diversify its partnerships. To keep up with eco-system complexity and ever-faster technological change, the Group needs to work more with external partners to extend its expertise. For this reason, we have forged partnerships with universities, research institutes, other manufacturers and innovative start-ups.

In October 2012, Saint-Gobain signed a new cooperation agreement with Japan's National Institute for Materials Science (NIMS). This partnership was deployed within the framework of the Saint-Gobain University Network, which brings together all the academic and scientific institutions that have a special relationship with Saint-Gobain.



DomoLab, the first habitat solutions innovation center, was inaugurated in late 2011 in Aubervilliers, France.

# 12

**research centers**  
and around  
100 development units  
worldwide



Northboro  
**UNITED STATES**



Shanghai  
**CHINA**

Aubervilliers  
Chantereine  
Cavaillon  
**FRANCE**

Herzogenrath  
**GERMANY**

Chennai  
**INDIA**



**↑ FOCUS**

**NEW CENTER IN INDIA**

Saint-Gobain opened a new research center in Chennai, India in December 2012 and signed an agreement with the Indian Institute of Technology Madras (Chennai) Research Park, an internationally ranked institute of higher education. The center will collaborate with local universities and outside partners to devise sustainable habitat solutions. It will also liaise with other Saint-Gobain research centers worldwide to speed business growth in the region.

# 7

**cross-functional**  
R&D centers



## NOVA : looking for new talent

The NOVA innovation competition, held every other year, recognized three US companies in 2012 whose innovations are aligned with Saint-Gobain's strategy. The first, Heliotrope, has developed an emerging technology that could lead to a new generation of electrochromic glass. The second, PlanGrid, offers a collaborative platform for managing construction site information on tablet computers, with the fastest PDF reader in the world. The third, SmarterShade, has developed a daylight and heating control platform that enables a new or existing window to go from clear to dark thanks to a sliding film in the double glazing.

NOVA is responsible for identifying start-ups with innovations that represent a strategic interest for our businesses and for developing win-win partnerships between these start-ups and Saint-Gobain Activities.

NOVA has signed nearly 60 partnership agreements with start-ups worldwide since it was created in 2006, more than half of them referred by Saint-Gobain employees.



Final "speed dating" round for NOVA contestants at the GreenBuild conference in San Francisco.



The three winning companies (from left to right: PlanGrid, Heliotrope, and SmarterShade).

# LIMITING THE IMPACT OF OUR SOLUTIONS

For years, Saint-Gobain's Activities have been working to reduce their solutions' environmental and use-related impacts. This has led to a number of innovative products.



## FORMALIZING THE APPROACH THROUGH OUR ECO-INNOVATION POLICY

Saint-Gobain is committed to bringing differentiating value to its customers by developing and distributing innovative solutions that help reduce the environmental impact of buildings and infrastructure across their entire life cycle. This is the objective of our eco-innovation policy.

A product is considered to be eco-innovative if it contributes to reducing the operational use of resources (particularly energy and water) in buildings and infrastructure and/or if it has a reduced environmental impact across its life cycle, from raw

materials extraction to the end-of-life phase. Our eco-innovation policy applies to all Group Activities, whether they offer solutions for the habitat and construction markets or not. The industrial Activities are in charge of developing and promoting eco-innovative products and systems, while the Building Distribution Sector is in charge of raising awareness and training professional craftsmen and users.

Team training and appropriate tools are key success factors in ensuring that our eco-innovation policy is effectively deployed.

### ↑ FOCUS

#### ECO-INNOVATION TRAINING

The Sustainable Habitat Mission introduced an awareness-raising training course in 2012 to instill a culture of eco-innovation throughout the Group. The Liaison Committee composed of the Group's 40 top executives was trained and a broader campaign among management is currently being rolled out.

Starting in 2013, more in-depth training for teams involved in the development process will be introduced. Pilot projects were carried out in 2012 at Saint-Gobain Weber and Saint-Gobain Glass to test the modules that will be used in this training.



### TESTIMONIAL

“Today, my team is already working on projects aimed at reducing the environmental impact of products. What's important for us is to have an overall vision of environmental challenges, so we don't just fix one part of the problem.

The eco-innovation training course we went through helped us understand how much the development of low environmental impact products fits into the Group's strategy. We also acquired a shared vocabulary that we now use with our colleagues in other functions and that will make it easier for us to work together.

I was also involved in a pilot project to test eco-innovation tools in use. These tools should help us define the objectives of eco-innovative projects more effectively and identify priority areas for reducing our products' environmental impact.”

**Alix Arnaud**  
R&D Group Leader, head of the Green Chemistry Program



**↑ FOCUS**

**PIPE WITH THE RIGHT THICKNESS**

In 2012, Saint-Gobain PAM's research center in Maudières, France, developed a new process for measuring the thickness of ductile cast iron pipes using ultrasonic sensors. The process determines the thickness of small diameter pipe throughout the entire length, automatically and at a fast line speed. By controlling pipe thickness, Saint-Gobain PAM is able to reduce the amount of raw materials used and the energy expended in production and shipping so that user needs are met even more effectively and in compliance with applicable standards.



**The Carbon Calculator**

In the United States, CertainTeed's teams have developed a calculator in partnership with Sustainable Solutions Corporation that measures the amount of CO<sub>2</sub> emitted and saved by Saint-Gobain products in North American buildings. The balance tips heavily on the savings side, with close to three billion pounds of CO<sub>2</sub> saved each year. The Carbon Calculator was presented at Greenbuild 2012 in San Francisco, the world's largest sustainable construction show.



**New generation tiling adhesives**

In 2012, Saint-Gobain Weber launched a new tile adhesive range in Spain called weber.col confort. This lighter product, now packaged in 15 kg bags, offers the same coverage as a traditional adhesive in a 25 kg format and is just as effective. As a result, the amount of adhesive used per square meter is significantly reduced, as are shipping costs, CO<sub>2</sub> emissions, product waste and related packaging. This innovation has lightened the environmental footprint and improved tile layers' working conditions across the product life cycle.



**Heat-reflective windshield**

Saint-Gobain Sekurit has launched a heat-reflective windshield designed to make cars more comfortable, less fuel-consuming and more environmentally-friendly. The new product, known as SGS CoolCoat, is made of a reflective glass that helps cut down on the need for air conditioning. The invisible multi-layer coating acts like a mirror on the sun's infra-red rays: the amount of heat penetrating the car interior is reduced to 40%, compared with 65% for a standard tinted windshield.



# LIMITING THE IMPACT OF OUR SOLUTIONS

## 2013 Objective

Conduct systematic Life Cycle Assessments (LCAs) for all construction and solar product lines.



### MEASURING IMPACTS WITH LIFE CYCLE ASSESSMENTS (LCAS)

We have chosen to use Life Cycle Assessment (LCA) as our main tool for measuring the environmental footprint of our products and solutions.

Life Cycle Assessment is the reference method for measuring all of a product's impacts on the environment (energy consumption, greenhouse gas emissions, water use, waste generation, etc.) across its whole life cycle, from raw materials extraction to the end-of-life phase.

A common standard based on EN 15 804 and ISO 21 930 gives the Group's experts a shared framework for carrying out LCAs. LCA results are used internally to gain a better understanding of where a given product's environmental impacts are situated. They are also used to identify priority avenues for improvement.

### SHARING OUR RESULTS WITH ENVIRONMENTAL PRODUCT DECLARATIONS (EPDS)

We produce Environmental Product Declarations (EPDs) to share the results of our Life Cycle Assessments with external partners, architects, builders and craftsmen. These standardized documents, which are verified by an independent third party before they are made public, present a product's environmental profile along with other product information and the calculation methodology used.

Customers can use the LCA results in evaluating a building's overall environmental performance. EPDs can be entered directly into building LCA tools that integrate the environmental impacts of all the products, systems and equipment installed in a building.

EPDs are used afterwards by customers who want to have their buildings certified. Most building industry environmental labels, including LEED, BREEAM<sup>6</sup>, DGNB<sup>7</sup> and HQE, grant credits if the prime contractor provides LCA results for the products used in a building.

#### ↑ FOCUS

#### VERIFIED EPD

Saint-Gobain has developed a pictogram to be used on products with a verified Environmental Product Declaration and in Group and subsidiary communication on Life Cycle Assessments.



<sup>6</sup> BREEAM is a British label for green buildings.  
<sup>7</sup> DGNB is a German label for green buildings.





## WASTE RECYCLING

Gyproc Italy has developed a recycling service called Gy.eco\* for plaster-based waste from construction and demolition sites.

Plasterboard waste is collected and then transported to one of three recovery centers for processing. The secondary raw material is certified and used, for example, as an additive in the cement industry.

Similar initiatives exist in France and Germany. In France, 40,596 metric tons of waste were recovered through the plaster waste collection and recycling channel set up by Placoplatre. In the United Kingdom, British Gypsum recycled 30,000 metric tons of recovered plasterboard to make new products.

\* The European Commission supported the Gy.eco project through its LIFE+ program.



## ↑ FOCUS

### ENVIRONMENTAL LABELS FOR BUILDINGS

Using Saint-Gobain products and solutions helps builders obtain environmental labels, notably in the categories of materials, energy efficiency and health. Several Group Activities have published guidebooks to give their customers a better understanding of how Saint-Gobain materials contribute to their approaches and to provide them with the necessary documents to request points towards certification.

Saint-Gobain ISOVER France, for example, has published a brochure on the role its mineral wools can play in meeting France's HQE standard. Similarly, Saint-Gobain Glass has issued several brochures for the LEED, BREEAM and DGNB labels. Saint-Gobain Weber Norway provides customers with a website that presents its various ranges' contribution towards BREEAM NOR<sup>8</sup> certification. Lastly, CertainTeed has developed two online platforms—EcoDocs™ and CertaSpec™—for customers interested in obtaining LEED certification.

## Transparent glassmakers

Saint-Gobain Glass and Glassolutions, the first glassmakers worldwide to conduct Life Cycle Assessments for their products, have decided to publicize their approach internally and externally. Press conferences have been held in several countries to present the two companies' commitment to the environment and to LCA-based Environmental Product Declarations.

In addition, websites describing Saint-Gobain Glass's environmental approach have been brought on line in the Nordic Countries, France and the Netherlands.

Lastly, verified EPDs are available on the Internet at <http://epd.saint-gobain-glass.com> for Saint-Gobain Glass and <http://epd.glassolutions.eu> for Glassolutions.



<sup>8</sup> BREEAM NOR is the Norwegian rating system for sustainable buildings.

# LIMIT OUR ENVIRONMENTAL IMPACTS



**Protecting the environment in our operations** requires our constant commitment and unflagging attention. Our teams are focused on achieving the only acceptable objective, which is zero environmental accidents and a minimum impact on the environment from our activities. In particular, we are focusing on carefully managing and reducing our consumption of natural resources, reducing polluting emissions, using fewer raw materials, generating less production waste, using less energy and scaling back our water withdrawals and discharges.

# TEAM 2012



UNITED KINGDOM

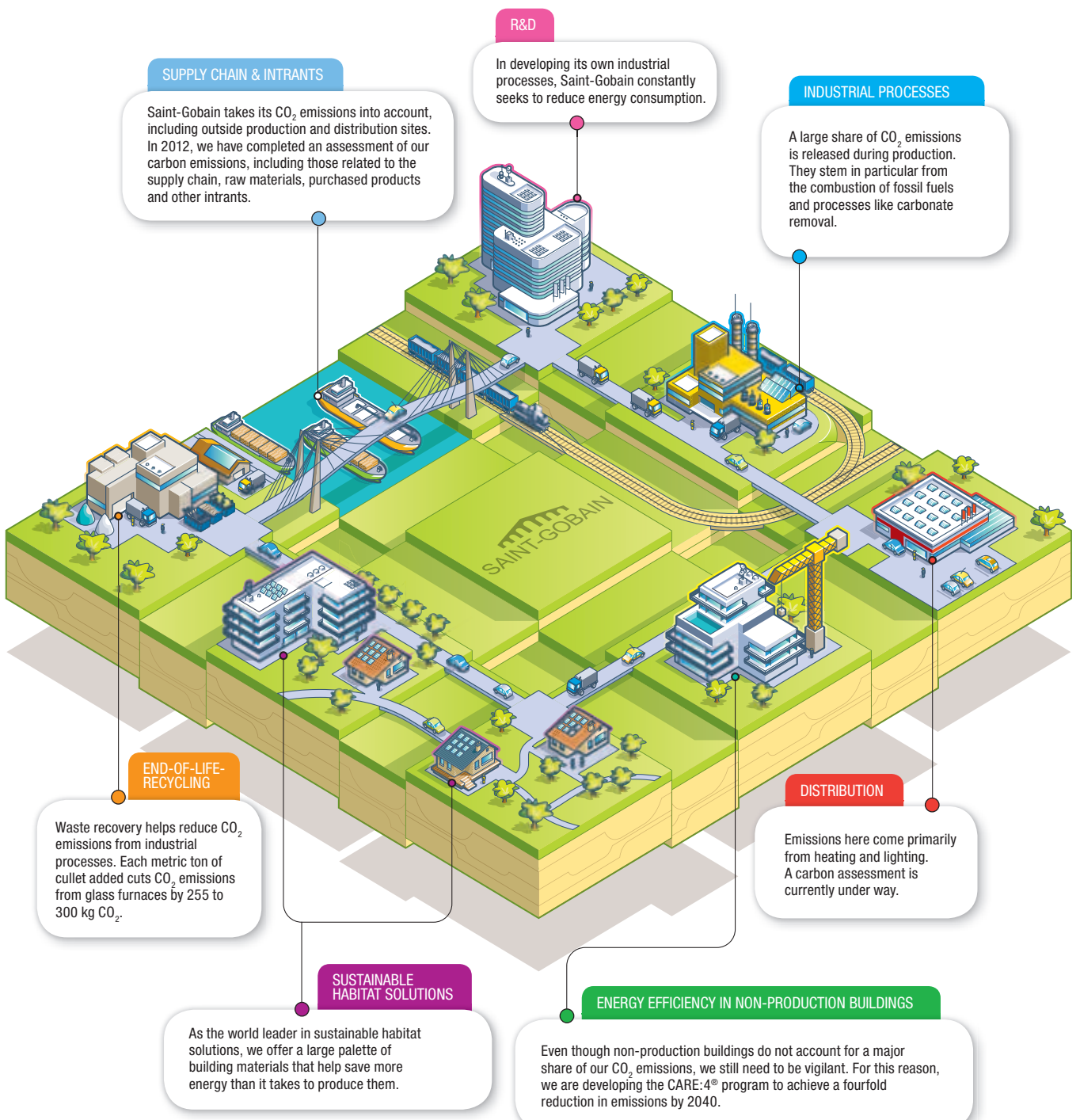
## PRESERVING WATER RESOURCES

Glassolutions UK won a Green Award during the UK, Ireland and South Africa Delegation's annual EHS Awards. Glassolutions UK has reduced its water withdrawals by 33% since 2011, exceeding its initial target of 15%. Some sites even reported decreases of up to 75%. To achieve this result, the company trained employees and invested in new equipment. These investments also improved productivity by cutting down on maintenance needs and mechanical wear and tear. Reducing water withdrawals is part of Glassolutions UK's EHS policy. All of the company's sites have obtained ISO 14001 certification, which sets internationally recognized requirements for environmental management systems.

From left to right:  
**Barry Mayes**,  
*Technical Manager*  
**Simon Saffin**,  
*Environmental Manager*  
**Peter Hindle**  
*MBE (Member of the British Empire),  
 General Delegate for the UK, Ireland and South Africa*

# CLIMATE CHANGE

The issues of climate change and energy use are among the biggest challenges our planet will face in the decades ahead. It's up to us to integrate these challenges in our strategy and in the way we manage our sites and buildings on a daily basis.



## UNDERSTANDING OUR CO<sub>2</sub> EMISSIONS

Producing and distributing products and services generates greenhouse gasses all along the value chain (see diagram). To gain a better understanding of our emissions, we launched the Saint-Gobain Carbon Assessment in 2011, as CO<sub>2</sub> is the main greenhouse gas emitted by our activities (a review of our greenhouse gas emissions shows that emissions of gasses other than CO<sub>2</sub> are negligible). Thirty-one Saint-Gobain companies in France, representing 75% of the Group's total workforce, completed the assessment in 2012, taking into account emissions from energy use, processes, shipping, commuting and business travel and raw materials purchasing. On the basis of this assessment, action plans will be deployed in 2013 to reduce greenhouse gas emissions from our operations across the value chain. The assessment tool and analysis method used in France are currently being translated for use throughout the Group, both in France and internationally.

## COMMUNICATING IN A TRANSPARENT MANNER

We have participated in the Carbon Disclosure Project (CDP) since 2003. The benchmark CDP questionnaire encourages businesses to provide information on their approach to climate change in a transparent manner. In 2012, Saint-Gobain was included in the Carbon Disclosure Leadership Index for the third year in a row. Each year, this index lists the most transparent companies among the world's 500 largest corporations on the basis of their disclosure scores.

## REDUCING OUR ENERGY CONSUMPTION

### Energy efficiency

Energy efficiency is a key component in our sites' environmental and financial performance. We are making advances in this area by optimizing existing equipment. This means improving combustion processes, making refractories more effective, recovering heat from furnaces and driers and replacing end of

## 2012 Results

**In 2012, concerned sites<sup>9</sup> emitted 11.1 million metric tons of CO<sub>2</sub> based on 2010 output, for a reduction of 3.3% in relation to 2010.**

life equipment. In addition, we are developing energy management systems and energy audits at our sites. The deployment of World Class Manufacturing (WCM), a comprehensive management system designed to improve company performance by eliminating losses, is also driving progress.

A substantial part of the Group's research and development is devoted to enhancing production processes with the goal of reducing atmospheric emissions. Since 2000, the amount of energy used by our flat glass furnaces has decreased by 10% for equivalent cullet<sup>10</sup> input.

### Recycling

The use of secondary raw materials in our processes considerably reduces our energy bill. For the moment, this practice is primarily held

## 2013 Objective

**Reduce direct CO<sub>2</sub> emissions by 6% by end-2013 based on 2010 performance for concerned sites.**

back by technical constraints and the availability of quality materials in a tight market.

To give an example of the role recycling can play, for each 10% of cullet added to a glass batch, 2.5% to 3% of melting energy is saved.

### New energies

To reduce our greenhouse gas emissions, we are developing manufacturing projects that use biomass as an energy source (charcoal for cast iron in Brazil, biogas in Finland, etc.). A number of pilot tests are underway.



 A substantial part of the Group's research and development is devoted to enhancing production processes.

<sup>9</sup> The scope includes sites concerned by the three-year objectives. It represents, for example, around 90% of the Group's water withdrawals (excluding the Building Distribution Sector). Sites at which production levels declined by at least 30% from 2010 were excluded from the calculation based on 2010 performance (see page 82).

<sup>10</sup> Broken glass from production waste, sorted waste or recycling containers.

## ↑ FOCUS

### HEAT RECOVERY

Verallia Deutschland intends to start supplying the Neuburg municipal heating network with recovered process heat from its plant in 2013. In addition, the company has initiated a project to find ways to use renewable energy sources, such as biogas, in its glass furnaces. Tests at the Bad Wurzach plant indicate that, under certain conditions, these types of energies could be substituted for around 10% of the energy mix for glass furnaces.



## Improvements through innovation

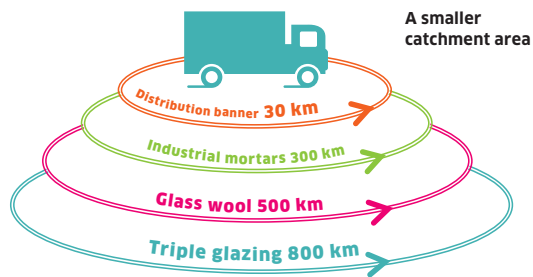
Saint-Gobain has focused on reducing its energy use for many years. One of our major strategic research programs concerns the energy efficiency and environmental impact of our processes. The program covers several Activities, including Pipes, Flat Glass and Insulation (both of which use glass furnaces) and Packaging.

2012 was shaped by significant progress in improving combustion methods in our glass furnaces, a nearly 20% reduction in the energy used in our TEL process for producing mineral wool fibers and optimized drying in a number of our plasterboard plants.

## RE-THINKING OUR TRANSPORTATION OPTIONS

The carbon assessment indicates that transportation accounts for a non-negligible portion of our indirect emissions at the various stages of the product manufacturing and distribution process. Transferring raw materials to the plant, transporting certain products to a second site for additional processing and delivering finished products to the distribution outlet all generate emissions. This is one of the reasons why we choose to locate our industrial and sales facilities as close to customers as possible.

Alternatives to road haulage are used by Building Distribution brands, as well as by other Group Sectors. For example, some 38% of Saint-Gobain PAM products are shipped to their destination entirely via sea, river and/or rail links. Point.P intends to publish a white paper on eco-transportation in 2013.



## ↑ FOCUS

### RIVER TRANSPORTATION FOR PLASTERBOARD

In 2012, Saint-Gobain Construction Products Belgium made several Gyproc plasterboard deliveries by ship from its Kallo site in northern Belgium. A total of 2,200 metric tons of plasterboard was transported by this method, resulting in lower CO<sub>2</sub> emissions and fewer trucks on the road.



## Advanced research

Group researchers are using their skills to create more efficient shipping processes for Saint-Gobain materials and to reduce the related environmental impact. A team specialized in applied mathematics and based at the Aubervilliers research center is developing innovative models for the manufacturing Activities (Saint-Gobain Weber, Saint-Gobain ISOVER and Saint-Gobain Glass), as well as for the distribution Activities (Autover and Point.P), where logistics is of key importance.

## MAKING OUR BUILDINGS MORE ENERGY EFFICIENT THROUGH THE CARE:4® PROGRAM



In line with our strategic vision, we are committed to making our own buildings more energy efficient. Launched in 2008, our CARE:4® (Company Actions for the Reduction of Energy by 4) program calls for a fourfold reduction in overall energy consumption and greenhouse gas emissions in our office buildings by 2040.

In 2012, the Delegations finished inventorying their buildings in the industrial sector. They will complete the evaluation for Building Distribution sites by the end of first quarter 2013. The inventory includes 8,000 buildings. A description of the geometric characteristics, envelope, heating, air conditioning and other comfort-related equipment has been prepared for 1,500 of them. Based on this inventory, an analysis was carried out to map building energy

consumption. For each Activity, this analysis will be used to define action plans to improve buildings' energy performance.

CARE:4® covers all heated or air-conditioned administrative and services buildings owned by Saint-Gobain. This includes offices, sales outlets, training and product demonstration centers and research centers.

The program was first applied to new buildings as from 2008, setting a performance target aligned with the best local energy consumption standard<sup>11</sup>. In 2011, CARE:4® was extended to renovation projects.

### OBJECTIVE:

achieve a **fourfold** reduction in overall energy consumption and greenhouse gas emissions at our office buildings by 2040.

14

CARE:4® certified buildings as of end-2012

7

certified during the year



FRANCE

### Eco-construction

The Point.P group has launched an eco-construction approach for its new buildings. *“The CARE:4® program helped speed things along,”* noted Michel Daniel, Vice President Real Estate Assets, Environment and Risk Prevention. Thanks to the expertise acquired since 2011, the Real Estate Assets department guides front-line teams with support from a network of twenty experts.



 The Point.P sales outlet in Pavillons-sous-Bois, France has received CARE:4® certification.



INTERNATIONAL

### Dynamic simulations

In 2012, three Saint-Gobain Weber buildings received CARE:4® certification for projects in Sweden, Turkey and France. Bernard Chauvet, Regional Manufacturing Manager and CARE:4® correspondent, described the certification process:

*“We worked with an engineering firm specialized in energy use to conduct dynamic simulations of buildings in different climatic conditions. With the computer models, we were able to demonstrate that we could meet the CARE:4® objectives. Our experience shows that it is crucial to take the standard into account from the very beginning of a project. CARE:4® is also a useful tool for promoting Weber solutions to enhance outer building envelope quality.”*



 The administrative building at the Adana plant in Turkey obtained CARE:4® certification in 2012.

<sup>11</sup> In any case, new building energy consumption is capped at 80 kWh of primary energy per square meter per year in temperate climates and 120 kWh of primary energy per square meter per year in extreme climates for all comfort-related energy use.

# NATURAL RESOURCES

We take measures to limit our impact on ecosystems and to optimize our use of natural resources, especially water.



## 2012 Results

In 2012, based on 2010 output, the Group's concerned sites<sup>12</sup> withdrew 52.5 million cubic meters of water, down 3.6% from 2010. All Group sites combined withdrew 75.3 million cubic meters of water ✓.

## 2013 Objective

Reduce water withdrawals by 6% between 2011 and 2013 at concerned sites, based on 2010 production output.

## WATER

The Group's water policy<sup>13</sup> grew out of extensive, cross-departmental discussions between EHS, Responsible Development, Risks and Insurance, Purchasing, R&D and the EHS network in the Sectors and Activities.

By formalizing its policy, Saint-Gobain has confirmed its commitment to reducing the impact of its activities on water resources as much as possible, both in terms of withdrawals and discharges. **Our long-term goal is to withdraw the minimal amount of water required and aim for zero industrial liquid discharge<sup>14</sup>, while avoiding the generation of new impacts on other environments and/or stakeholders.**

In 2012, our commitment prompted us to participate in the CDP Water Disclosure program, which is designed to encourage companies to produce a detailed report of the risks and opportunities in their water management and to communicate the results in a transparent manner.

### Tools

To support the deployment of our water policy across the industrial base, we defined an EHS standard for water that sets out the

minimum requirements to be ultimately fulfilled. We have also introduced an assessment grid for risk exposure and site vulnerability.

The common assessment grid used throughout the Group was tested at more than 800 industrial sites in 2012. The resulting feedback was used to improve the grid, which makes it possible to define, at the Group scale, the extent to which sites are exposed to water stress, pollution and flooding risks. Each of these three risks was analyzed in terms of operations, regulations and reputation.

The EHS water standard helps to structure improved site performance in water management and the prevention of these three risks. Its deployment should reduce water withdrawals and discharges, encourage sites to select the least sensitive areas for their withdrawals and releases, promote monitoring of water quality and prevent accidental pollution.

In the deployment process, priority is being given to sites identified in 2012 by the Activities as having the highest levels of risk. These sites' water withdrawals represent 69% of the Group total.

The analysis of the risk assessment grid will help the Group identify other priority sites that should apply the standard in 2013.

<sup>12</sup> The scope includes sites concerned by the three-year objectives. It represents, for example, around 90% of the Group's water withdrawals (excluding the Building Distribution Sector). Sites at which production levels declined by at least 30% from 2010 were excluded from the calculation based on 2010 performance (see page 82).

<sup>13</sup> The Group's Water Policy is available upon request.

<sup>14</sup> This target does not include steam discharge.



**↑ FOCUS**

**WATER RECYCLING**

By recycling its industrial water, the Saint-Gobain Performance Plastics facility in Akron, Ohio, United States, will save more than 308 million liters of water each year, enough to fill 120 Olympic-size swimming pools.

The plant uses water to operate its pumps and to cool Tygon® tubing during the production process. Process water is now re-used thanks to a closed circuit system installed in 2012, which both reduces water use and eliminates discharges.



**TESTIMONIAL**

**Allen Gorringe**  
Head of Environment of the United Kingdom,  
Ireland and South Africa Delegation



“Optimal water management.”

*“In the South of England, low rainfall and high population density put great pressure on water resources. We must therefore limit its use in industry as much as possible. Taking these challenges into account, the Robertsbridge Gypsum site has implemented schemes for recovering leachate\* from landfill and condensate from steam plumes to reuse in the manufacture of plasterboard as a substitute for raw water.”*

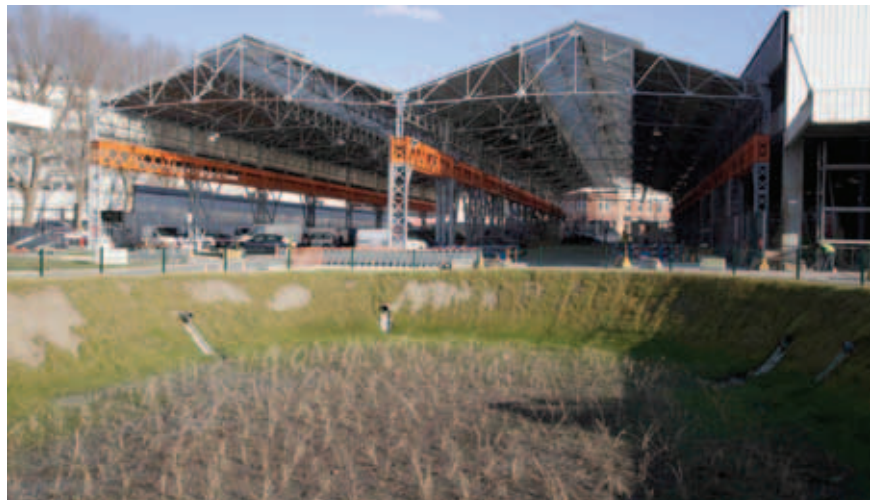
\* Solutions containing solubilized or leached compounds.

**BIODIVERSITY**

The Group operates 143 underground and open-cast quarries worldwide. The vast majority (111 or 78%) belong to the Gypsum Activity, which has issued a biodiversity charter for its quarries.

The Group's quarries are operated in an environmentally friendly manner in compliance with local regulations. During extraction and restoration, the effects on local communities and the environment are reduced as much as possible. These include the visual impact of the operations, dust, noise and vibration, added road traffic and any repercussions on the natural surroundings.

Work will begin on drafting a biodiversity policy for all Group Activities in 2013. We will assess the biodiversity sensitivity of all our quarries. The resulting map will allow us to identify which quarries are located in areas of special interest for biodiversity. A risk evaluation grid will be drawn up based on this assessment.



**Filtering garden**

The Point.P group has transformed the greenspace at the Plateforme site in Aubervilliers, near Paris, into a filtering garden (*jardin filtrant*®). Thanks to this treatment system, the site makes zero discharges into the sewage network. The filtering garden concept will also be applied at the Pantin site, currently under construction. The group's goal is to gradually introduce the method at all new sites.

# ENVIRONMENTAL PROTECTION

Our environmental policy is based on setting three-year objectives, deploying action plans developed at the local level and regularly measuring the results obtained.

## 2012 Results

**75.2% of concerned sites<sup>15</sup> have obtained environmental certification (ISO 14001 and/or EMAS).**

## 2013 Objective

**Extend environmental certification (ISO 14001 and/or EMAS) to more than 90% of concerned sites by end-2013.**

### A STANDARD FOR EXEMPLARY ENVIRONMENTAL MANAGEMENT

In 2012, Saint-Gobain launched a standard called EvE to identify and manage environmental events, such as accidents or incidents that could potentially occur at its sites. The standard gives us a shared methodology to help all our sites move towards our objective of zero environmental accidents.

The EvE standard was developed on the basis of tools used by the Gypsum Activity, the Innovative Materials Sector and Verallia.

### AN ASSERTIVE CERTIFICATION POLICY

Certification is an effective way to include environmental issues in overall unit management. It is also a way to build in a commitment to continuous improvement and to preventing pollution.

As of December 31, 2012, 75.2% of concerned sites (400 in all) were certified to ISO 14001 and/or EMAS standards versus 65.8% in 2010 for a comparable scope of reporting. In 2013, 36 additional units should obtain environmental certification, bringing the percentage of concerned sites with certification up to 82.0%.

### LIMITING OUR ATMOSPHERIC EMISSIONS

#### Dust

Saint-Gobain takes an active approach to managing dust emissions. We are pursuing our investments in electrostatic precipitators

and bag filters, depending on the type of furnace. Verallia, for example, has made a series of substantial outlays to equip its furnaces with electrostatic precipitators. The Flat Glass Activity is also taking measures and continuing to invest in electrostatic precipitators.

#### NO<sub>x</sub> and SO<sub>x</sub>

Some of our facilities—mainly glass furnaces and Pipe Activity plants—emit sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>), which contribute to environmental acidification.

Methods to reduce sulfur dioxide emissions include using higher-quality fuel oil or coal slack and reducing energy consumption. In some cases, it is necessary to introduce desulfurization processes.

In addition to reducing NO<sub>x</sub> emissions at the source, we also install treatment systems. Saint-Gobain Glass, for example, invested in catalytic reduction systems for NO<sub>x</sub> in France and Germany in 2012. These secondary flue-gas treatment systems are installed upstream of electrostatic precipitators to reduce dust emissions. Verallia is also looking into these solutions and has launched R&D programs to achieve lower NO<sub>x</sub> emissions. Between 2011 and 2013, emissions from concerned sites of the Pipe and Glass Activities (flat glass, container glass and glass wool) decreased by 7.0% for NO<sub>x</sub>, 28.3% for SO<sub>2</sub> and 15% for particulates.

#### Other regulated substances

Heavy metals resulting from impurities in raw materials, cullet and other furnace input are closely monitored. Pollution control equipment, such as the electrostatic precipitators described above, has proven effective in reducing emissions of heavy metals.

### TESTIMONIAL

All of the Pipe Activity's sites are certified to ISO 14001.

**Philippe Tallendier**,  
Activity's Environmental Officer,  
explains the benefits:



“All of the Pipe Activity's sites are certified to ISO 14001.”

“Certification has profoundly changed the way we work and, above all, broadly raised awareness of environmental challenges throughout our workforce. At each site, operators are now able to immediately name the environmental risks related to their workstations and take appropriate action in the event of a problem.”

<sup>15</sup> The scope includes sites concerned by the three-year objectives. It represents, for example, around 90% of the Group's water withdrawals (excluding the Building Distribution Sector).

## 2012 Results

In 2012, landfill waste at concerned sites (based on 2010 production) totaled 2.3 million metric tons, a reduction of 6.7%.

## 2013 Objective

Reduce waste produced by 6% by end-2013 on the basis of 2010 production at concerned sites.

### REDUCING PRODUCTION WASTE AND CONSUMPTION OF RAW MATERIALS

Saint-Gobain has set a long-term objective of **zero environmental accidents and a minimum impact on the environment from our activities**. Our priorities for waste management are, in descending order, to reduce the amount of by-products generated by our process, use by-products internally and promote external recycling and energy recovery solutions for by-products that cannot be used internally. Final waste is landfilled only as a last resort. Reducing production waste is clearly a priority for the Group.

In addition to recovering our own waste products, we also use recycled materials

from outside sources, such as cullet and recovered scrap metal, to optimize our raw materials consumption.

The primary method for reducing resources consumption in glass furnaces (furnaces used to produce flat glass, container glass and glass wool) is to include cullet (crushed recycled glass) among the raw materials. The Pipe Activity uses two melting processes to produce cast iron: primary melting, which produces cast iron from iron ore in blast furnaces, and secondary melting, in which cast iron is manufactured from scrap metal and recovered cast iron.

The conversion of gypsum into plaster is an age-old process. Plaster is a natural, recyclable and abundantly available material that requires very little energy to be produced. As with cullet, the only limitation on recycling plaster is the problem of waste sorting.



#### FOCUS

### JEWSON WINS WASTE MANAGEMENT AWARD

Jewson has been recognized in the Sustain Awards that celebrate companies' sustainable development achievements. The brand received the award for its innovative waste minimization initiatives.

In particular, Jewson was singled out for its pallet recycling, overall reduction in waste to landfill and recycling management across the branch network. The Sustain Awards were presented at the Ecobuild international trade show.

# ENCOURAGE EMPLOYEES' PROFESSIONAL GROWTH



**Making the Group a collective experience is our ambition**

for Saint-Gobain's human resources. We have launched a program for all employees called OPEN (Our People in an Empowering Network) to support the Group's development. This ambition is driving our community to make Saint-Gobain even more open both inside and to the world around it. Our human resources policy is designed to offer all employees a working environment in which they can thrive both personally and professionally. Giving meaning to everyone's actions in the organization is a fundamental factor in well-being and performance.

# TEAM 2012



INTERNATIONAL

## Isover Inside

The Insulation Activity has launched the Isover Inside corporate program to share a common strategic vision with its 9,500 employees regarding rapid changes in the market, the brand's commitment, habitat solutions, organizations and sustainable development, the business's challenges, the importance of customer service and team members' role in the company's success. This federating initiative, which was inspired by the Industrial Mortars Activity's Weberation program, is being cascaded down to all employees. The Activity's managers are responsible for instilling the program in their country organizations and sharing its strategic topics with their teams.

From left to right:

**Gilles Léva,**  
International  
Marketing Director  
for Insulation  
Activity

**Dariusz Kurowski,**  
Commercial  
Excellence and Area  
Marketing Manager

**Philippe Génin,**  
Area Marketing  
Manager

**Paula Mingatos,**  
ISOVER Inside  
Program Manager

**Benoit Collache,**  
Area Marketing  
Manager

# AN OPEN GROUP

The changes experienced by Saint-Gobain over the past few years, notably with its sustainable habitat strategy, have had a significant impact on human resources. The shift from a focus on products to a focus on markets in all our Activities has made Saint-Gobain a more open and outward-looking Group.



**192,781**  
employees ✓  
in **64** countries

## BREAKDOWN BY CATEGORY:

- **26,902** managers ✓
  - **80,384** administrative employees, technicians and supervisors ✓
  - **85,495** operators ✓
  - **75%** of employees are located outside France
  - **Nearly 100** nationalities are represented in the workforce
  - **20.4%** of our employees are women ✓
  - **LTAR\*** of **2.8** ✓ in 2012
- Workforce trends and breakdowns by business, country and job category can be found at the end of the report (see pages 88-93).

\* Lost-time accident rate (LTAR) (more than 24 hours' lost time) - Group, including temporary employees.

We use our in-depth knowledge of customer needs to define the right products, solutions and services. To be effective, we need to be more open in our creative processes and develop partnerships with customers and suppliers, as well as with associations, corporations, universities and regional representatives. Being attentive to the outside world and how it is changing will be a determining factor in Saint-Gobain's long-term competitiveness and attractiveness. Our employer brand, launched in 2012, reflects this ambition of openness and positions Saint-Gobain as a reference employer (see opposite). The employer brand speaks to both potential job applicants and to our employees, who are the best possible ambassadors for promoting Saint-Gobain as a great place to work. Openness also applies inside the Company. At all levels, we encourage collaborative working methods. Diversity, professional mobility and the emergence of internal

social networks all stimulate collective practices and innovation. This spirit of openness is also cultivated individually so that each employee supports the Group's strategy in his or her work and finds new sources of inspiration. In this way, we will sustain the Group's innovative capabilities and ensure its success. This openness fully corresponds to the values that have informed Saint-Gobain's human resources policies over the years: respect for people and their diversity, attentiveness to working conditions and the work environment and quality social dialogue. These values are formalized in Saint-Gobain's Principles of Conduct and Action, which explicitly refer to the OECD Guidelines for Multinational Enterprises. They guide our commitment to exemplary practices in all host countries, as we want to offer all employees the same opportunities for professional growth and share a common ambition for the Group's future.



## Openness **at all levels**



Saint-Gobain Abrasives Pacific's new training and technology center, which opened in Victoria, Australia in 2012, is designed to foster collaboration between employees and customers. The center trains sales staff and customers in the Group's latest innovations, tests new products and provides guidelines on product use and safety.

### ↑ FOCUS

#### **MY SAINT-GOBAIN, A NEW COLLABORATIVE PLATFORM**

**The Group has rolled out a new internal collaborative platform called My Saint-Gobain to facilitate the sharing of information and good practices among employees. More than 8,000 employees have already started using My Saint-Gobain, and deployment is continuing.**



## Innovation, a source of attractiveness

Saint-Gobain's research and innovation are a source of attractiveness for hiring the top-level researchers that make up the Group and Activities' talent pool. Each year, the ties forged with major universities and institutions through the Saint-Gobain University Network attract numerous applicants. Since 2011, the Northboro research center in the United States has been testing an interview system in which candidates present their work to a jury of representatives from R&D, Marketing and Human Resources. This system has increased the number of selected candidates and shortened time to recruitment.



#### **FRAMEWORK AGREEMENT ON DIVERSITY**

**Chairman and Chief Executive Officer Pierre-André de Chalendar and all the representative labor unions have signed a framework agreement on diversity in France. It includes commitments in three main areas: job opportunities for individuals from disadvantaged neighborhoods and literacy programs, recruitment and support measures for disabled individuals and increased hiring and promotion of women. These priorities are being addressed in the Group's other host countries in line with the local cultural and regulatory environment.**

## Saint-Gobain, **a reference employer**

Saint-Gobain developed its employer brand in 2012. The launch of a new careers and recruitment website ([www.saint-gobain-experience.com](http://www.saint-gobain-experience.com)) and its North American version were an important milestone in this process. In numerous countries, initiatives were carried out to enhance Saint-Gobain's visibility and attractiveness as an employer. Partnerships with schools and universities were also strengthened, notably in four target countries: the United States, China, Poland and France. The Group and its Activities were recognized once again this year among the best places to work in Thailand, India and Portugal.

To find out more, go to: [www.saint-gobain-experience.com /](http://www.saint-gobain-experience.com/)  
[www.saint-gobain-northamerica.com/experience/](http://www.saint-gobain-northamerica.com/experience/) (North American site).



# THE FOUNDATION FOR OUR ACTION

Safety, employee health, exemplary managerial practices and social dialogue are the foundation on which Saint-Gobain's action and growth model are based.



## SAFETY: PURSUING PROGRESS

Safety is a core value in the management of Saint-Gobain's manufacturing, distribution and research activities. It reflects a deep corporate commitment that is put into practice through the involvement of each and every Saint-Gobain employee.

### Groupwide involvement

Workplace safety, like occupational health (see pages 48-49) is a full-time priority for the Group, which has set zero work related accidents as its long-term objective<sup>16</sup>. Everyone at Saint-Gobain sites, from employees to temporary staff to subcontractors, is ensured of working under safe conditions and in an environment that exceeds the requirements of local legislation.

This approach, which covers all of the Group's professions, is designed to put safety firmly at the center of our corporate culture. Safety is a value promoted by all our employees and at all levels of management. At the highest level, management

has demonstrated its commitment to developing a culture of safety within the Group (see letter of commitment, pages 14-15). Front-line managers everywhere are responsible for ensuring all aspects of safety, from setting objectives and deploying action plans to tracking performance.

To highlight this commitment, a percentage of our managers' bonuses are based on safety results and on the resources allocated to ensuring the safety of all, notably by applying safety standards.

Our EHS teams carry out numerous awareness and training initiatives at Group sites. The Group and the Delegations also offer training modules to suit each individual's needs. We make every effort to share best practices and recognize positive results and progress in the front lines, for example through our Millionaires Club. The goal is to make all employees responsible for their own safety, as well as that of their colleagues.

### Decrease in work accidents

Thanks to everyone's efforts, the Group has seen a steady decline in accidents for several years. Safety performance continued to improve in 2012, exceeding our targets.

That said, ten fatal accidents were recorded during the year, which is unacceptable.

### Safety standards

The causes of the most frequently reported accidents have been identified to define standards for priority deployment.

In 2012, the Group worked on its road risk standard and updated its Safety Management Tool (SMAT), which governs safety behavior (see opposite).

They will join the list of safety standards already implemented across the Group, which cover confined spaces, vehicles and pedestrians, warehousing and loading, working at height, control of contractors, permit to work, lock out/tag out, forklift truck and machinery safety.

<sup>16</sup> The EHS charter, which is posted at all sites, sets the long-term objectives of zero work related accidents and zero occupational illnesses in the areas of health and safety.





**↑ FOCUS**

**ENCOURAGING PROGRESS: THE MILLIONAIRES CLUB**

The Millionaires Club is composed of the sites that deliver the best safety performance. As of December 31, 2012, the Club had 188 member sites compared with 179 the year before. The Club is a way for us to recognize units that have achieved the best results and that demonstrate to everyone that we can reach our objective of zero work related accidents. Among the 2012 Club members, 60 were silver Millionaire sites with no lost-time accidents over the past 10 years and 5 were gold Millionaire sites with no lost-time accidents over the past 15 years. This compares with 50 and 5 respectively at December 31, 2011.

**TESTIMONIAL**

**James Daykin**  
Managing Director Burton-on-Trent mine (Fauld) (BPB United Kingdom Limited)



“Looking after each other.”

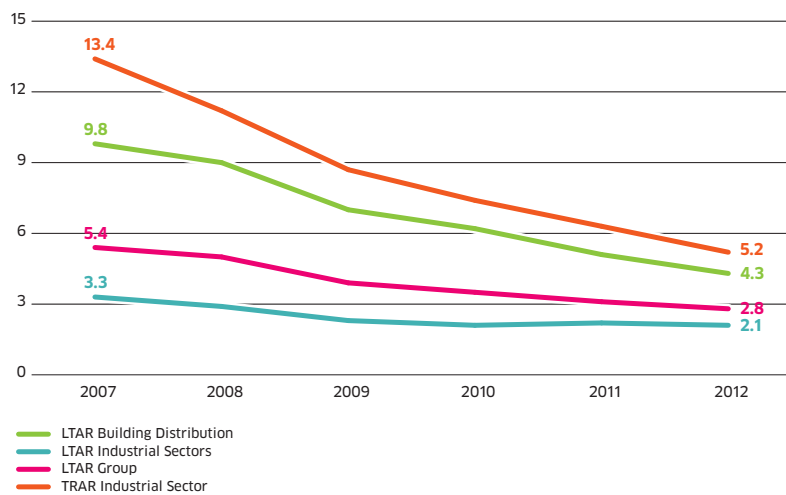
“The miners at Fauld are very proud of their safety record and its no ‘accident’ that it’s now over 16 years since their last lost-time injury. Operating in a high-risk environment, employees understand that they cannot afford to be complacent and lose focus. Despite this, their philosophy is simple – they look after themselves and, more importantly, they look after each other. As a result, a strong team spirit has evolved into a strong safety culture. Recognition of their achievement through the exclusive Saint-Gobain Gold Millionaire’s Club is very special to everyone at Fauld.”

**2012 Results**

In 2012, the lost-time accident frequency rate (LTAR) was 2.8✓ for the Group, compared with an objective of 3.0, and 4.3✓ for the Building Distribution Sector, compared with an objective of 5.1. The total reportable accident rate (TRAR) in the industrial Sectors stood at 5.2✓ compared with an objective of 5.8. These indicators concern employees and temporary staff.

→ The Group has exceeded the objectives set for 2012.

LOST-TIME ACCIDENT RATE (LTAR) (MORE THAN 24 HOURS' LOST TIME) AND TOTAL REPORTABLE ACCIDENT RATE (TRAR) – GROUP, INCLUDING TEMPORARY EMPLOYEES.



**2013 Objectives**

To integrate this progress, new objectives have been set for 2013. These call for a LTAR of less than 4.1 for the Building Distribution Sector, a TRAR of less than 4.8 for the industrial Sectors and a LTAR for the Group of less than 2.6.

**↑ FOCUS**

**SAFETY MANAGEMENT TOOL**

Safety Management Tool (SMAT), an analysis tool created to observe front-line safety practices, was updated in 2012.

SMAT uses constructive discussion among participants to help effect positive change in safety behaviors.

The analysis is carried out by a Director or local managers according to an annual schedule. Selected participants are informed ahead of time.

# THE FOUNDATION FOR OUR ACTION



PORTUGAL

## Daily steps to improve health

With help from an expert, Verallia Portugal has set up a program of ergonomic exercises for its employees. Even when a workstation has been fitted out properly, employees can experience health problems if they do not pay attention to the way they carry out tasks. Performing repetitive tasks in a plant—and even in front of a computer—can cause pain and muscular fatigue. Verallia Portugal's program is designed to prevent potential problems with a 15-minute exercise routine at the start of each workday. The initiative has been very successful, with all employees joining in.



## HEALTH, WORK ENVIRONMENT

As part of our operations, we process and use mineral and chemical substances that may potentially expose some of our employees to risks. The industrial hygiene procedures and innovative resources deployed by the Group are designed to help us achieve our long-term objective of zero occupational illnesses.

### Group health policy

A health policy was formalized in 2012 and will be relayed throughout the Group in 2013. This policy includes measures to protect employees' health and to take into account the health of our customers, the people who use our products and the people who live near our sites, within the framework of our operations. It also calls for exemplary performance from processes, products and services across their life cycle. Building on existing initiatives, this policy requires a collective and personal commitment from each member of the Saint-Gobain community.

### Standards and recommendations

To ensure the same high level of protection for all Saint-Gobain employees and contractors who work at Group sites, we have

prepared obligatory industrial health and safety standards and recommendations that are applicable worldwide.

- A Noise Standard (NOS) enables us to detect, measure and control potential sources of noise exposure in the workplace. The standard is designed to protect all employees and contractors from potential exposure to noise.
- A specific Posture/Lifting/Movement (PLM) method for identifying the risks inherent in handling operations and work postures has been developed and distributed to EHS managers in the Sectors and Delegations for use in industrial and distribution facilities. An EHS recommendation has been issued concerning the use of this method.
- The Toxic Agent Standard (TAS) provides a framework for identifying, assessing and eliminating or controlling potential sources of exposure to toxic agents in the workplace.



### Managing toxic and other risks

The Group has provided the Sectors and industrial Activities with a new procedure for managing toxic and other risks (mechanical, electrical, etc.) called SAFHEAR (for SAFety and HEAlth Risk Management) that leverages best internal and external practices. The module on evaluating toxic risks was deployed in 2012. A second module on evaluating other health and safety risks will be rolled out in 2013.

Following the implementation of a training program in each Delegation for team members in charge of deploying SAFHEAR, training was carried out in 2012 and user feedback was collected to improve the procedure. Product and substance inventories are currently being completed at the Group's industrial sites. The goal now is to carry out risk assessments before the end of 2013.

SAFHEAR incorporates S'B@se, our internal substance hazards database. The overall policy and related resources aim to ensure uniform prevention of health risks for all employees and product users.

### REACH<sup>17</sup> European regulation

In connection with its Toxic Agent Standard (TAS), the Group is actively involved in implementing the European REACH Directive to ensure regulatory compliance. Saint-Gobain is concerned by REACH in all of its professions, as a manufacturer, importer, user or distributor.

We have successfully submitted a number of dossiers as lead registrant in various consortia and we are also working in partnership with other reporting companies in Europe on registering other substances together. The dossiers for the substances covered by the next registration deadlines are now being prepared. Certain dossiers are submitted in anticipation of upcoming provisions.

We inform our suppliers about how we use substances so that they can cover these uses in their registration documents. We also include a specific clause in all purchasing contracts to ensure that our suppliers comply with REACH. This clause was updated in 2012, notably to take into account extended safety data sheet obligations.

Lastly, we monitor updates to the list of authorized or restricted substances so that we can fulfill our obligation to inform customers about specific hazards or substitutes, when applicable.



### TESTIMONIAL

**Patrick Sébastien**  
Industrial Hygiene Manager,  
Innovative Materials Sector



“A quality industrial hygiene approach.”

*“The challenge for Saint-Gobain is to systematically apply a quality industrial hygiene approach across a base that is very diverse in terms of products, manufacturing processes, organizations and cultures. To meet this challenge, the Group is developing tools to complement existing programs, such as the Toxic Agent Standard (TAS). The SAFHEAR software was therefore rolled out in early 2012. This software will allow us to inventory chemical products at our sites and assess the chemical risks related to toxic substances across the base. That said, anticipating and reducing risks for new products and new production processes from the design, development and process engineering stages is even more effective. This approach is now systematically included in our researchers' in-house training.”*

<sup>17</sup> EC regulation 1907/2006 concerning the registration, evaluation, authorization and restriction of chemicals, and establishing a European Chemicals Agency.

# THE FOUNDATION FOR OUR ACTION

## LEADERSHIP BY EXAMPLE, A REQUIREMENT IN THE WORKING RELATIONSHIP

All employees in a management position must be exemplary in their practices. No matter what the level or geographic region, managers are expected to display four managerial attitudes: always be consistent with our values, no leadership without close focus on people, walk the talk and no complacency allowed.

These managerial attitudes are modeled by all Group executives and cascaded throughout the organization. Available in several languages, they are systematically presented at the beginning of seminars at the Saint-Gobain School of Management and are also included in many in-house training modules. These fundamental attitudes are supplemented by a managerial competencies guide, which is used to prepare job descriptions and to conduct annual performance reviews.



## What do our team managers have to say about leadership by example?

### TESTIMONIAL

**Daniel Henkel**  
Scientific Director, Saint-Gobain  
R&D Center in Northboro,  
United States



“Be open”

*“For me, being a good manager means getting personal with the work and sharing a passion for what the team does. I try to project optimism about the goals to be achieved, be open to discussion and maintain a respectful attitude even when I don't agree. In the end, it always comes down to good communication with the team. Being new at Saint-Gobain, I find the Group's management culture allows everyone to express themselves. Ideas are encouraged at all levels of the organization.”*

### TESTIMONIAL

**Alexandre Pasquesoone**  
Country Manager for Morocco,  
Mauritania, Tunisia, Senegal and Guinea,  
Saint-Gobain PAM



“Motivate”

*“In my role, I'm rather like the hub of a wheel. I give out instructions, plan the work, distribute tasks and make sure that everyone in my very multicultural teams is communicating effectively so that we can meet our customers' needs. It is essential to motivate employees and set challenges for them so they can give their best. The most satisfying thing for a team is to bring a project to completion fruition. That's the greatest reward.”*

### TESTIMONIAL

**Nadine Matthews**  
Director Saint-Gobain Glassolutions,  
United Kingdom



“Share”

*“For me, the manager's role is to bring together talented individuals, with differing perspectives and ideas and then create the conditions that enable them to come together as a highly effective team. Balancing business results and personal development agendas is key and our principles of conduct and action help inform this approach. I firmly believe that if you have the ability, ambition and commitment to succeed, anything is possible! That's the ethos I try to share with my teams every day.”*



## SOCIAL DIALOGUE

Social dialogue is a major part of the Group's operations and a lever for long-term development. Led by local managers in our companies and sites, social dialogue is based on employee involvement, discussions with employee representatives and active internal communication. Saint-Gobain's commitment in this area is notably reflected in the European Social Dialogue Convention, which brings together 70 labor union representatives from 27 European countries. With assistance from an independent expert, the Convention engages in prospective dialogue on changes in employment at the Group's industrial sites in Europe.

In France, Saint-Gobain's Chairman and Chief Executive Officer periodically meets with the French central union coordinators. He also participates in French works council meetings and the European Social Dialogue Convention. These actions attest to his commitment to open and constructive social dialogue.

In 2012, 1,371 agreements were signed within the Group, reflecting the strength of our social dialogue. Of these, 41% concerned compensation issues, 22% work organization, 10% employment and 3% training. In all, 72.1% of employees (100% in France) benefit from employment terms and conditions set by legislation or by a corporate or industry collective bargaining agreement.

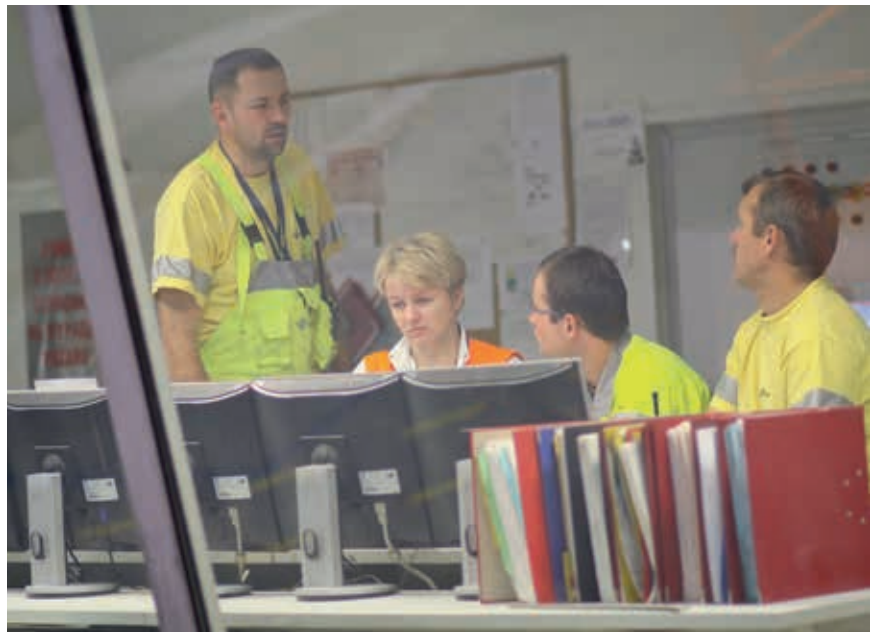
Particularly dynamic in France and the rest of Europe, our social dialogue initiatives must now be extended to all our host countries so we can establish durable exchanges with our stakeholders

everywhere while taking into account our decentralized business model and Delegation-based organizational structure.

### Adjusting the workforce in a way that respects people

In an uncertain economic environment, the Group has taken measures to preserve jobs by encouraging internal mobility. Workforce reductions are a last resort. Instead, we prefer to apply short-time working when necessary. Restructuring may include plans to preserve employment and voluntary separation plans. When such measures are unavoidable in order to preserve the

Group's economic health, they are accompanied by personalized support measures for the employees concerned, taking into account the professional, material, psychological and family-related consequences. All employees are entitled to additional training, re-location assistance and support in carrying out a personal project.



## NORTH AMERICA

## Flexible working hours

Saint-Gobain continues to roll out its Work Smart program in the United States and Canada, introducing flexible working hours for salaried personnel. The program allows employees to structure their work time around their personal commitments, minimizing difficult commutes and helping with the day-to-day organization of family life. The result of employee engagement survey feedback and subsequent discussions between Saint-Gobain and its employees, the program symbolizes the Group's commitment to encouraging work-life balance and boosting its teams' involvement, productivity and commitment.

## TESTIMONIAL

**Nathalie Abbott**  
Associate General Counsel,  
General Delegation for North America



*"By working from home one day a week, I save two hours' commuting time, lower my stress levels and can focus on larger projects. I really value that."*

# FOUR PRIORITIES TO HELP US GROW

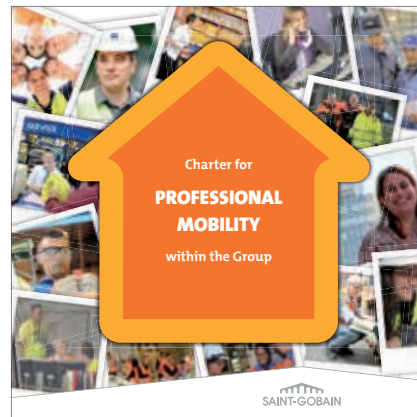
To support Saint-Gobain's growth, human resources policy focuses on four key priorities: professional mobility, team diversity, employee commitment and development of talent. All Group sites deploy these priorities based on their local cultural and regulatory environment and job characteristics.

## PROFESSIONAL MOBILITY

Encouraging mobility between regions, functions or Activities is a priority path for helping employees grow and broaden their horizons. It is the best way to stimulate inter-team collaboration, establish new solutions for our customers and open the Group up to new cultures and new territories. Mobility also allows employees to build more diversified career paths and experience a wider range of assignments. It fosters innovation and strengthens the Group's culture and values through a multitude of exchanges.

Mobility assignments are available to all employees, managers and non-managers alike. Annual performance reviews, individual reviews and annual succession plans provide key opportunities for identifying individuals interested in mobility. Mobility Committees meet regularly in each country to discuss job offers and employee aspirations. Managers at all levels have an important role to play in encouraging mobility, as they are the first point of contact for their team members.

The Group's Professional Mobility Charter helps employees prepare for a mobility assignment. They can also consult OpenJob on the intranet or on the Group's careers website ([www.saint-gobain-experience.com](http://www.saint-gobain-experience.com)) to find open positions and apply online. Introduced in 2012, OpenJob promotes internal mobility by allowing Group units to tap into a shared pool of available talent.



↑ Saint-Gobain's Professional Mobility Charter, available on the Group intranet, defines the roles and responsibilities of each participant—employee, direct manager and human resources manager—in ensuring a successful mobility experience.

Also in 2012, Saint-Gobain rolled out mobility initiatives in its host countries and created bridges between the functions and Activities. Although mobility is a long-term objective, the initial results should be visible in 2013. In France, the Group will increase the number of opportunities for non-managers with support from Saint-Gobain Développement (see pages 58-59). In 2012, 458✓ managers took assignments in another Activity, 1,014✓ moved between functions and 231✓ went to work in another region.

### ↑ FOCUS

## INTERNATIONAL EXPERIENCE

We encourage our teams—and future executives in particular—to acquire international experience. Expatriate employees and their families receive support and guidance to help them move and adapt to their new environment, with assistance in finding housing, schools, language courses, etc. An intranet site and international mobility guide also provide a wealth of information on the cultural challenges and practical aspects of life in the host country. At the end of 2012, 1,589 managers, including 411 expatriates, were working outside their home countries. Every other year, the Group conducts a satisfaction survey of expatriate employees and identifies areas for improvement.

## TESTIMONIAL Ian Beresford

Product Manager – Foams, Saint-Gobain Performance Plastics in Corby, United Kingdom

“A very good move and exactly what I wanted.”

“I started at Saint-Gobain in plasterboard production and operations. Several years later, I realized I wanted to shift my focus and acquire marketing and sales experience. Saint-Gobain listened to me. I discussed my desire for change with my line manager during my annual review and the Product Manager role was identified. This combined my technical and operations skills with a customer-focused approach to deliver best value for the business and our customers. I received training from Saint-Gobain and continued support from HR to help with the transfer and ensure that this move was in line with my personal goals and my long-term development plan. A very good move and exactly what I wanted.”





## TEAM DIVERSITY

Looking at our organizations in a new way and helping new ideas emerge is our diversity challenge. Saint-Gobain is committed to developing and promoting all types of diversity. Fostering a diverse, plural community in terms of nationalities, gender, generations, training and professional backgrounds is essential to creating a broader mindset and a more open Group. Diversity is a source of added value and performance for Saint-Gobain. It is also a powerful sign of our desire to offer equal opportunity to all. In 2012, Saint-Gobain emphasized its commitment by signing a framework agreement on diversity for its subsidiaries in France (see page 45).

### Gender diversity

Gender diversity was a headline topic for the Group in 2012. Action plans were deployed to actively promote women at all levels of our organization. These plans covered hiring policies, professional promotion, equal pay for equal work, training and work-life balance. In 2012, 24.3% of our new hires were women. At year-end, our workforce included 39,023 women, representing 20.4% ✓ of the total.

### Cultural diversity

Saint-Gobain has a deep multicultural ambition to provide local responses to its customers around the world. First and foremost, this requires multicultural management and local teams who promote the Group's values and culture. This approach enables us to continuously adapt our approach to each country's specific situation and conditions, making us a local player in all of our host countries.

### Professional diversity

Saint-Gobain develops diversity within its teams by rewarding varied training and professional backgrounds. With this in mind, the Group manages skills-sets in the areas of marketing, research and development, sales, etc.

### Generational diversity

Saint-Gobain gives both young people and seniors the opportunity to express their talents fully, because each team member gives our organization the richness and

singularity it needs to operate and renew itself.

In 2012, more than 8,000 young people under 26 joined Saint-Gobain.

The Group also offers numerous opportunities to students and young graduates looking to enter the workforce. These include internships, apprenticeship and skills-qualification contracts, international co-op placements and specific programs like the Global Player Program in central and northern Europe and the Trainee Program in Brazil.

In 2012, 5.7% of our new hires were seniors. Local initiatives are carried out to recruit people over 55 and offer them interesting career paths. This involves, for example, promoting forward-looking career planning, improving working conditions, preventing physically challenging situations, developing skills and providing access to training. Saint-Gobain offers employees in the second-half of their careers the opportunity to transmit their skills during short assignments. This is the case in France with the technical support program (see pages 58-59), which taps older employees' expertise to help revitalize small and mid-sized companies.

### Ability diversity

Disabled employees represent 1.7% of the Saint-Gobain workforce. In 2012, the Group pursued its initiatives to integrate disabled team members. In France, human resources managers shared their success stories in hiring, integrating and retaining disabled individuals so that the rest of the Group could benefit from their experience more quickly. These good practices have been collected in a toolbox called "Handibox", which has been made available to human resources managers. In 2013, training sessions for human resources teams and managers will be rolled out to ensure that this issue is addressed more effectively throughout the Group.



Women's networks are developing at Saint-Gobain. In 2012, Women in Network (WIN) was launched in France to promote gender diversity through training and tutoring initiatives. In North America, the Women's Network has been up and running since 2003. Dedicated networks are also being formed in other countries.

## TESTIMONIAL

**Ezequiel Driano**  
Regional Sales Agency Deputy Manager,  
Saint-Gobain PAM, Jordan



**“Working in a multicultural environment is an opportunity.”**

*“I'm from Argentina. When I first joined Saint-Gobain, I worked in France. Now I'm in Jordan, where I also cover Iraq. Working in a multicultural environment is an opportunity that teaches me how to adapt and learn new ways of being and doing things. It's a source of respect with my colleagues and customers that allows us to make the most of our differences.”*



In Germany, the first Saint-Gobain Building Distribution Deutschland sales outlet managed exclusively by apprentices was inaugurated in Bielefeld.

# FOUR PRIORITIES TO HELP US GROW



## ↑ FOCUS

### EMPLOYEE SHARE OWNERSHIP

For the past 25 years, employee share ownership has strengthened ties between the Group and its employees by giving team members the ability to become shareholders on preferential terms. Under the Group Savings Plan, employees can purchase Saint-Gobain shares at a discount and, in certain countries, benefit from a matching contribution. Our employee shareholder base is composed of more than 90,000 individual accounts. These loyal investors take part in the Group's long-term development and share in the value created.

## Actively involved human resources teams

Our human resources teams support and energize employees to implement our strategy. In carrying out this task, they leverage powerful values, tailored processes and a decentralized management organization that encourages a local approach. In 2013, the Group will launch a Human Resources Academy program to further enhance the function's professional skills. This program, which includes several training modules, will guide local and international human resources teams, for more effective career and talent management.

### EMPLOYEE COMMITMENT

Commitment at work is influenced by numerous factors that have been changing over the past few years, notably for the new generations joining the Group. Employees look for motivation and meaning in their daily work. For this reason, Saint-Gobain seeks to stimulate its employees and help them grow through varied career paths, from their first day on the job and throughout their time with the Group. This involves such fundamentals as offering attractive and motivating remuneration, quality social coverage and access to employee share ownership on preferential terms (see box). As concerns remuneration, basic pay package standards are defined by the Delegations in each country and in each business sector based on market conditions. The companies then establish their salary policies. Bonus and incentive systems have also been implemented. Lastly, to foster team spirit and ensure that all

employees have a stake in the Group's success, we encourage the signature of discretionary profit-sharing agreements.

Saint-Gobain also focuses on offering employees health coverage that provides sufficient protection from unforeseen events. Until now, our initiatives have been particularly visible in France, where the policy governing healthcare costs and insurance has been harmonized with common guarantees and high-quality coverage. The Group is extending its efforts to social protection systems in all host countries.

The support and attention granted to employees throughout their careers also promotes commitment at work. Our Principles of Conduct and Action (see pages 6-7) help create a motivating and engaging professional environment, as do our onboarding and integration programs, commitment to teamwork and cross-functionality, flexible working arrangements, communication, new information tools and participation in community outreach projects (see pages 60-63).

### TESTIMONIAL

**Fabienne Laurent**

Manager in charge of payroll development and continuous improvement, Saint-Gobain Human Resources, Saint-Gobain Service, France.

“Telecommuting has had a very positive impact.”

“I manage a team of three people and telecommute two days a week. This arrangement allows me to be efficient professionally and have a balanced family life. Saint-Gobain provided me with the equipment I needed to remain connected to the office. Telecommuting has had a very positive impact on my co-workers' autonomy. We have set up an organization that empowers them while maintaining regular exchanges.”







## DEVELOPMENT OF TALENT

Saint-Gobain cultivates openness, innovation and diversity among employees to develop their skills and know-how, broaden their horizons and raise their awareness about sustainable development. The goal is to offer appropriate, adaptable programs through collective and cross-functional training initiatives or individualized courses. The Saint-Gobain School of Management, in particular, is responsible for carrying out this mission among managerial staff. More than 1,000 team members participated in the School's training modules in 2012 and deployment has continued in the Delegations with 18 locally adapted programs.

To accompany the Group's strategy and integrate changes in the market, Saint-Gobain is developing programs worldwide to support its major front-line projects. This is the case, for example, with World Class Manufacturing<sup>18</sup> (see pages 14-15), a program to promote operational excellence, and specific programs concerning the supply chain and R&D. The Group is also shifting to approaches that mix distance learning and on-site classes that analyze real-world cases at Saint-Gobain.

In the area of talent management, the Saint-Gobain Talents program identifies managers with strong development potential or key competencies. Applied locally, the program allows the Group to develop these talents and map out career plans with an emphasis on diversified paths. Human resources committees and succession plans ensure precise tracking of our talent pool.

### Four challenges for training

- Facilitate the deployment of our sustainable habitat strategy and get employees involved in making this strategy a reality.
- Drive change within the Group to place greater emphasis on innovation and to meet customer needs and expectations more effectively.
- Consolidate the operational and technical know-how that gives us a competitive advantage in our markets.
- Decentralize training, adapt programs to each country's specific situation and support the development of training in high-growth regions.

## Training facts & figures

150,754

employees received training in 2012, representing 78.2% of the workforce

22.9

hours of training, that's what each employee received on average

1,016

employees attended the School of Management, which offered 43 training modules

18

programs were deployed locally

### FOCUS

#### CUSTOMIZED CAREER PATHS

**The Delegation for Asia-Pacific offers high-potential managers the option of attending a two-day development center accompanied with customized development plan. During the comprehensive assessment phase, participants go through role playing exercises, case studies, project simulations, behavioral tests, 360 feedback and group discussions that are based on our Saint-Gobain managerial competencies. Upon completion, they work out a personalized development program with their sponsoring manager and HR.**

“It's a very instructive exercise, enabling you to take stock of where you are and leading on to a continuous upskilling process. Each activity is carefully designed and very well organized. It's one of the most engaging programs I've ever participated in.”



**Lucia Sun,**  
Managing Director, Saint-Gobain Performance Plastics – Greater China, former program participant and current assessor

## Stress prevention and well-being in the workplace

**In 2012, more than 800 managers and members of the occupational health, safety and working conditions committee participated in a daylong session on preventing stress in the workplace. This training program facilitates the development of a shared culture and a strategy for preventing psychosocial risks within the Activities, with qualitative surveys, diagnostics and other tools.**

**Also in 2012, a system was rolled out to help front-line managers handle individuals in difficulty. The system is based on a guide to fragile profiles in companies\*, work with pluridisciplinary teams combining members of human resources and social and medical workers, and preventive interview training.**

\* Guide produced within the framework of the HEC Social Business/Enterprise and Poverty Chair, which promotes social business. Saint-Gobain has been a member since May 2010.

<sup>18</sup> World Class Manufacturing: a program to drive continuous improvement in manufacturing efficiency using shared methods.

# SUPPORT

LOCAL COMMUNITY

# DEVELOPMENT



**Saint-Gobain is a multiregional organization serving local markets.** We invest in both mature countries and high-growth economies. These investments contribute to local employment and to the economic development of our host communities. We deploy initiatives to promote the social and economic development of our job catchment areas and also take action through community outreach programs.

# TEAM 2012



THAILAND

## *Projets Solidaires*

The *Projets Solidaires* association was created by the employees of Saint-Gobain Weber to actively participate in humanitarian projects. It has received the Saint-Gobain Initiatives International Corporate Foundation's support for a project to renovate a school and build a children's nursery and toilet block in Thailand. Fifteen Saint-Gobain Weber employees working in France and Thailand have been involved in this project in the villages of Poblaki and MaeWae, in the relatively inaccessible mountains region in the country's west.

From left to right,

First row:

**Somporn Chaiwut,**  
Senior Technical Advisor  
(Saint-Gobain Weber  
Thailand)

**Damien Novak,**  
Head of the external wall  
insulation market

**Blandine Bruno,**  
Intellectual Property  
Manager (Construction  
Products Sector)

**Supaporn  
Natpatsawee,**  
Human Resources and  
Communication Manager  
(Saint-Gobain Weber  
Thailand)

**Chonthicha Chaiyarin,**  
Assistant to the Managing  
Director and Sales Analyst

Second row:

**Nicolas Royer,**  
Research Engineer

**Aymeric Collard,**  
Raw Material Purchaser

**Pascal Crozet,**  
Production Management  
Technician

**Marie-Claude Guerton,**  
Logistics Agent, Deliveries

Third row:

**Delphine Treguer,**  
Junior Management  
Controller

**Denis Frelat,**  
Sales Manager

Fourth row:

**Wanchai Kochasang,**  
Sales Manager

**Emmanuel Ramaux,**  
Technical Advisor

**Valérie Fers,**  
Purchasing Manager

# DEVELOPING JOB CATCHMENT AREAS

We contribute to the development of our sites' host communities.



 Saint-Gobain Weber plant in Château-Thébaud, France.

## FOCUS

### SUPPORT FOR SMES

**In 2012, *Saint-Gobain Développement* provided 188 days of technical support to SMEs compared with 112 days in 2011 (calculated from December 1 to November 30 of the following year).**

Saint-Gobain is a multiregional organization serving local markets. Today, solutions and services created and distributed locally account for more than 90% of our sales.

By investing locally and carrying out initiatives to develop our job catchment areas, we contribute to our host regions' social and economic vibrancy, which benefits all local players. Our mindset is one of sustainable and shared profitability. When restructuring cannot be avoided, we do everything in our power to limit the impact and to help revitalize the affected areas.

### SAINT-GOBAIN DÉVELOPPEMENT

Relations with local communities are the most highly structured in France, where the Group's presence is the most concentrated. This is primarily due to Saint-Gobain Développement, which supports local development and the revitalization of job catchment areas.

Saint-Gobain Développement contributes to local economies in a variety of ways, from forging direct partnerships with small- and medium-sized enterprises (SMEs) and helping employees create their own busi-

nesses to providing assistance to local development networks and organizations and participating in regional events.

To support growing SMEs, Saint-Gobain Développement offers a comprehensive range of solutions, such as unsecured, low-interest participating loans, expertise sharing and skills transfers, as part of a long-term "manufacturer-entrepreneur" partnership.

In response to growing demand from SMEs and our host regions, we are continuing to deploy a program through which seasoned employees can share their expertise with small- and medium-sized businesses and industries supported by the Group. Individuals interested in participating receive a day of preparation and a letter of engagement explaining the terms of their assignment. This initiative is giving us a way to promote local economic development even more effectively. We are also expecting a positive impact on our own teams' motivation and interaction with the outside community.



## Training ex-convicts

Izocam and Saint-Gobain Weber in Turkey provide materials and technical expertise to train ex-convicts in the installation of external wall insulation systems for buildings. Currently carried out in Mersin, on the Mediterranean Sea, the training sessions will be extended to other cities in agreement with the general prosecutor's office. This program is designed to help ex-convicts return to the workforce by providing skilled-operator training.



## Safety kits for recycling

In order to build closer relations with recycling cooperative partners, encourage sort-at-source waste collection and generate employment and income, Verallia is donating 500 safety kits to recycling cooperatives. These kits include safety goggles, gloves and uniforms, and 50 container sacks.

The project aims to eradicate the actions of bottle scavengers or "garrafeiros" who buy bottles, demijohns, perfume bottles, glass jars and whisky bottles for the counterfeit market and, to provide an opportunity for their social reinsertion by providing them with a legitimate source of income from sort-at-source waste collection. In addition, this action will increase the amount of cullet recycled back into glass production, which will increase the service life of landfills and help protect the environment.

### FOCUS

#### PILOT JOB OPPORTUNITIES PROGRAM IN HABITAT-RELATED PROFESSIONS

In 2012, Saint-Gobain decided to launch a job opportunities program specific to habitat-related professions in France. The program will be managed in partnership with the main regional employment agencies and habitat-related businesses that have hiring needs (craftsmen, building materials outlets, manufacturers of products for the building industry, etc.). Participants will have the opportunity to discover jobs to be filled in the partner companies. They will then learn about the specificities of habitat-related professions— notably the concept of energy efficiency—and benefit from a support system to facilitate their integration. A pilot session will be held in the Seine-Saint-Denis area near Paris in 2013.

# THE SAINT-GOBAIN INITIATIVES INTERNATIONAL CORPORATE FOUNDATION

As a responsible player and leader in its businesses, Saint-Gobain considers that it has a responsibility to carry out support initiatives in areas aligned with its strategy.

The Saint-Gobain Initiatives International Corporate Foundation supports projects sponsored by current or retired Saint-Gobain employees in three areas:

- youth integration through work in the housing sector;
- construction, refurbishment or renovation of social housing, for general interest purposes;
- energy efficiency and environmental protection in social housing.

Projects must be carried out by a non-profit organization and be located in one of the Group's host countries. The Foundation can finance the work or provide technical expertise.

By giving employees the opportunity to participate in initiatives aimed at serving the public interest and providing assistance to the poor, the Foundation is helping to create a community of socially responsible men and women who share common values. The Foundation was created in 2008 for a



period of four years, ending on December 31, 2012. At its meeting of November 27, 2012, the Foundation's Board of Directors decided to renew its term, with an annual endowment of €1 million.



## ↑ FOCUS

### FOUNDATION FACTS AND FIGURES

Over the 2008-2012 period:

- **143** projects were submitted to the Foundation, corresponding to **€15 million** in requests for support.
- Of these, **48** were supported, for a commitment of **€3.9 million**.
- **78** were not selected, notably because they did not correspond to one of the Foundation's three focus areas or because they were located too far away from a Group site.
- As of end-2012, **17** projects were still under review by the Foundation's Selection Committee and Management Committee.

## Travail et Vie

The Saint-Gobain Initiatives International Corporate Foundation supported a project to renovate a transitional living and reintegration center in Paris' 20th arrondissement in liaison with the *Travail et Vie* and *Bail Pour Tous* associations. Each year, the center takes in some fifty people in difficulty, many of whom are homeless.

Saint-Gobain's teams were involved in drawing up specifications, providing technical expertise to define an energy renovation strategy that allowed the center to obtain France's BBC label for energy efficient buildings.

On February 28, 2012, the French Ministry of Ecology, Sustainable Development, Transportation and Housing granted its 2011 Corporate Sponsorship Award in the Environment/Community Outreach category to Saint-Gobain Initiatives and *Travail et Vie* in recognition of their work on this project.



# 2012

**40** new projects submitted

**€1.2** million allocated

**10** sponsorship agreements signed



**BRAZIL**

## For the children

Working with *Pontos Coração*, a local association, the Foundation supported the *Fazenda do Natal* project to improve sanitary conditions in shelters for disadvantaged children near Salvador, in Bahia State. The project included renovating toilets and sewer systems in four houses. The Foundation has agreed to support a second phase of the project in response to a new request in 2013.



**BELGIUM**

## Drop-in center

Saint-Gobain Initiatives has participated in the project to renovate the premises of the Fabota drop-in center in Louvain. This association provides educational activities for children from underprivileged backgrounds as well as support for their parents. Fabota has entrusted the bulk of this work to the *Wonen en Werk* association, which provides building trades training for young adults in need. Saint-Gobain Gyproc, Saint-Gobain ISOVER and Saint-Gobain Weber are also helping by providing materials and the training required to put them to use.

## Sponsors' testimonials



**FRANCE**

### TESTIMONIAL

**Alexandra Dekoninck**  
Sponsor of the Prieuré de Vanves project, a community living center near Paris built with the Simon de Cyrène association and the Abbé Pierre Foundation.



“Seeing the residents flourish is my greatest source of satisfaction.”

*“I was thrilled to learn that my company participates in mainstreaming programs for people in difficulty and gives its employees the opportunity to contribute to this shared effort. Seeing the residents flourish in their new home is my greatest source of satisfaction.”*



**MALAYSIA**

### TESTIMONIAL

**Shahrani Mohamed Raffi**  
Human Resources Manager (Gyproc). Sponsor of the Al-Munirah Charity Home orphanage project for children abandoned by low-income families in Klang Valley, Selangor State.



“This project has strengthened our team spirit.”

*“We had been supporting the orphanage for two years already, and wanted to help the children even more. This project has strengthened our team spirit. The employees are proud of the time they give to the orphanage and the results that have been achieved through the Foundation's contribution.”*



**PORTUGAL**

### TESTIMONIAL

**Artur Brandao Reynolds**  
Marketing Manager (Saint-Gobain Glass). Sponsor of the Casa de Santo António project, a shelter for children from disadvantaged families and for women, in Lisbon.



“Sponsoring this project gave me a sense of being useful.”

*“A friend told me about Casa de Santo António. When I visited, I was very impressed and moved by the volunteers' work with the mothers and their children. Sponsoring this project gave me a sense of being useful to the community.”*

# LOCAL OUTREACH INITIATIVES

Our sites around the world interact with their immediate environment through a variety of community development initiatives.

Including the contribution of the Saint-Gobain Initiatives International Corporate Foundation, a total of €5.1 million was devoted to these programs in 2012.

Saint-Gobain Activities, companies and sites launch these initiatives to participate in local community development in the Group's reference markets. In certain cases, programs address more general topics such as education, research, culture and healthcare.

Examples include:

- in North America: the Saint-Gobain Corporation Foundation, which carries out projects in the United States and Canada;
- in India: the Saint-Gobain India Foundation, which is active in educational projects;
- in France: Fondation PAM and Fondation Placoplatre®, which have programs to provide job opportunities for young people in their respective businesses.



## Social inclusion

In Brazil, Saint-Gobain Ceramic Materials participates in local community development near its plant in Barbacena, Minas Gerais State through its support for *Sociedade São Miguel Arcanjo*, an organization that assists children and teenagers who have been abandoned or live in extreme poverty. With help from Saint-Gobain, the organization provides housing, schooling, medical care, cultural and artistic activities for 400 young people. The older children also benefit from professional training to help them find work in the local job market. "Taking part in this social inclusion initiative is a fantastic experience," says Reinaldo de Andrade Valu, general manager of Saint-Gobain Silicon Carbide in Brazil. "It helps us grow, both as a Company and as individuals."

### FOCUS



### EDUCATION

The Saint-Gobain India Foundation supports several educational projects for young girls to help fight against still prevalent discrimination. One example is an initiative carried out in partnership with NGO *Nanhi Kali* to help 500 young girls aged 5 to 10 from villages located near the Saint-Gobain Sekurit plant in Pune. The Foundation provides material and social support and offers a program of academic training that goes beyond the level of schooling available locally.







## Supporting an orphanage

For the past ten years, Saint-Gobain Sekurit HanGlas Polska has supported an orphanage in Kożuchów near its Żary plant. In 2012, donations totaled €10,000. In addition, a shared initiative based on the Saint-Gobain Principles of Conduct and Action was launched under which the children were asked to illustrate each of the Principles with a drawing. The drawings were compiled in a calendar that was distributed to all plant staff at the end of the year.



## TOGETHER

The Together program has garnered increasing support from employees, customers and suppliers of Saint-Gobain Building Distribution UK & Ireland. In 2012, a record number of participants joined the Tour de Jewson cycling race to raise funds for charity. In all, 294 cyclists covered a total of 2,500 miles, raising £32,500 (around €41,000) for Bernardo's, an association that assists disadvantaged children and their families. Saint-Gobain



Building Distribution UK & Ireland has partnered with Bernardo's since 2011. In addition to financial support, numerous employees give their time to the association through habitat improvement projects for the disadvantaged.



## YOUTHBUILD

YouthBuild is a non-profit association that provides education and job training opportunities for low-income youth. As part of its partnership with this association, the Saint-Gobain Corporation Foundation provides a three-year grant of \$550,000 (around €410,000). Saint-Gobain employees volunteer their time to provide assistance and advice. At the same time, the young people continue their schooling, with the goal of obtaining a high school degree and then finding a job or going on to university.

A first project completed in 2012 involved rehabilitating a low-income residence in Philadelphia in compliance with very strict energy efficiency criteria. The building obtained LEED (Leadership in Energy and Environmental Design) certification.



## TESTIMONIAL

“This house was completely transformed. So was my life.”

“My name is Ciera Russum and I'm a member of the Advanced Construction team at YouthBuild Philadelphia Charter School. We worked with the Green Building team to complete a full-gut rehab project on Greene Street. In the past year, this house was completely transformed. So was my life. When I first saw the house, there were holes in the floor and the wallpaper was peeling all the way down to the brick. I had a lot of doubts about whether a group of inexperienced students could rebuild the home. Thanks to the Saint-Gobain Corporation Foundation, we've learned new building skills that have opened my eyes to what I can do with my life. Before YouthBuild I'd never even picked up a piece of pipe in my life; now I will study plumbing. We also learned how to work as a team, manage our time and trust each other. I learned how to accept criticism and act as a leader, with responsibility for the project's success.”

# TAKE ACTION ACROSS THE VALUE CHAIN



**Saint-Gobain's size, global scope and sustainable habitat strategy** give it a special responsibility in raising partners' awareness to the challenges of sustainable development and in promoting exemplary practices.

Outside the Group, we work with customers to promote sustainable construction. In-house, our teams are actively engaged in applying our sustainable development policy in front-line programs.

# TEAM 2012



NORTHERN EUROPE

## Klimacenter

In Northern Europe, Brødrene Dahl continues to roll out its innovative Klimacenter concept combining showrooms, training centers and skills hubs exclusively devoted to renewable energy and energy savings. Initially introduced in Denmark in 2009, the concept has since been extended to Norway and Sweden. A second Klimacenter has also been opened in Denmark.

Professional installers and homeowners are able to browse through a wide range of environmentally friendly solutions presented in life-style displays. They also have access to advice and training provided by Dahl's experts in these fields.

From left to right:

**Lars Pedersen,**  
Sales Manager  
Climate

**Lars Fournais,**  
Managing Director,  
Saint-Gobain  
Building Distribution  
Denmark

**Hauke Thiessen,**  
Sales Director  
Climate and Concepts  
Dahl Denmark

# ENGAGING TEAMS

Saint-Gobain member companies apply the Group's sustainable development policy by setting objectives and launching front-line initiatives to get their teams engaged.

## CORPORATE SOCIAL RESPONSIBILITY PROGRAMS

A number of our subsidiaries and Delegations have rolled out corporate social responsibility programs and set up specialized steering committees to track their environmental and social progress.

In the United Kingdom, the Delegation brought together members of the corporate team and representatives from the Activities

to draw up a road map and three-year objectives, notably for CO<sub>2</sub>, water, eco-innovation, diversity and safety. These issues have been widely discussed internally in communication media and during meetings and events. Team commitment also depends on recognition of success at the Group, Activity and country level.

### ↑ FOCUS

## PRINCIPLES OF CONDUCT AND ACTION: "TRAIN THE TRAINER"

Providing information on the Principles of Conduct and Action is necessary, but it is also important to ensure that they are applied on a daily basis in all Saint-Gobain units and are reflected in individual and collective behavior. To boost the awareness-raising effort, the Responsible Development Department has developed a "train the trainer" program intended primarily for human resources managers, who are the first Saint-Gobain representatives new hires encounter. As such, it is their job to present the Principles of Conduct and Action and, when necessary, to remind the employees of them. This "train-the-trainer" program is designed to help them carry out this mission. Available in China for several years now, the program was introduced in Brazil in 2012 and will be rolled out across the Group starting in 2013.



## PrioriTerre

In 2012, Lapeyre group launched its PrioriTerre sustainable development program with ten projects to engage employees. These range from waste recovery and recycling and carbon footprint reduction to responsible purchasing and deployment of an environmental timber policy. The goal is to instill a socially responsible approach that will create value for both employees and customers. The two project managers share their experience.

### TESTIMONIAL

**Hubert Leroy**  
Lapeyre Human Resources Director



“Several initiatives have already been carried out.”

“We wanted to anticipate changes in environmental regulations, implement them methodically and turn this into an advantage for our customers. Several initiatives have already been carried out, including carbon assessments and a project to establish recovery and recycling channels for end-of-life joinery.”

### TESTIMONIAL

**Camille Mouly**  
Exterior Joinery Product Manager



“We are at the very beginning of the program.”

“We have access to Saint-Gobain experts for the most technical issues. We are at the very beginning of the program, and we need everyone to get on board to make it a success.”



International Environment Health and Safety Day




# All together!

All around the world, Saint-Gobain employees celebrated the fifth International Environment, Health and Safety Day on October 11, 2012. At all Group sites, employees participated actively in this

major event for raising awareness about safety, health and environmental protection. Numerous safety exercises, disease prevention initiatives and environmental protection workshops were held during the day. The

presentation of a new letter of commitment from Pierre-André de Chalendar, Chairman and Chief Executive Officer of Saint-Gobain, concerning the Group's EHS policy was another of the day's highlights.



 Mexico: Team spirit in front of the Saint-Gobain Merit site.




 United States: Employees demonstrate their commitment to EHS policy at the Saint-Gobain Performance Plastics site in Granville, New York.



 South Africa: Team meeting on health, safety and environmental issues at Saint-Gobain Construction Products South Africa.



 China: Saint-Gobain PAM employees in Xuzhou.

## FOCUS

### DIAMONDS AND EMERALDS

**For over twenty years, the Diamond Awards have recognized outstanding progress and performance in health and safety at the Group's sites. In 2011, the Environmental Emerald Awards were created to spotlight environmental performance. The event promotes healthy competition and provides an opportunity for useful exchanges among all participants. A number of Delegations have set up similar ceremonies of their own to give their teams added encouragement.**

# RAISING AWARENESS AMONG STAKEHOLDERS

Saint-Gobain carries out a number of programs to raise awareness among various audiences—notably building professionals—about sustainable development and habitat issues.



## ↑ FOCUS

### **SAINT-GOBAIN, PARTNER TO THE EUROPEAN NETWORK OF THE WORLD GREEN BUILDING COUNCIL**

**Saint-Gobain has been a partner to the European network of the World Green Building Council (WGBC) since June 2012. The network, which is present in more than 35 countries, is designed to promote sustainable construction across Europe. This partnership strengthens Saint-Gobain's commitment with the Green Building Councils and participates in the development of a European vision of sustainable construction.**

We are involved in forward-looking thinking on the sustainable buildings of tomorrow, both at the local level, taking regional or national characteristics into account, and internationally, with the deployment of shared solutions.

In line with this philosophy, we promote approaches that make Life Cycle Assessment (LCA) a deciding criterion for products and buildings (see pages 28-31).

This work has translated into a number of tangible initiatives carried out in cooperation with other manufacturers and public partners.

### **AN INTERNATIONAL COMMITMENT TO SUSTAINABLE BUILDING**

Saint-Gobain is a member of the Sustainable Building Alliance, an organization whose goal is to develop common metrics that can be used to monitor the environmental quality of buildings. These metrics are to be

based on a shared methodology but adapted to local labor, economic, cultural or weather conditions.

More generally, we encourage and support the deployment of harmonized approaches based on Life Cycle Assessments for evaluating the environmental performance of buildings and building products.

### **A LOCAL COMMITMENT TO SUSTAINABLE BUILDING**

#### **Recognizing each country's specific characteristics**

To promote sustainable habitat solutions at the local level, we encourage our subsidiaries to join trade associations known as Green Building Councils (GBCs). Saint-Gobain is a member of numerous GBCs around the world, with a particularly deep commitment in Europe (see Focus).

These partnerships give us the opportunity to share our expertise in environmental

quality and encourage best practices in the building industry, while recognizing each country's specific characteristics.

**Promoting energy efficiency in buildings**

In response to the challenge of global warming, we have adopted a proactive communications policy to raise public awareness about the impact of buildings on the environment and on energy

consumption and to encourage action to significantly reduce this impact. We have also helped to create and develop a number of local associations to generate support for energy efficient buildings, among them *Isolons la Terre contre le CO<sub>2</sub>* in France, *Spaar het Klimaat* in the Netherlands, *La Casa que Ahora* in Spain, Alliance to Save Energy and Council of NAIMA in the United States, EURIMA and EUROACE in Europe and the Active House Alliance.



 The '8-tallet' building complex in Copenhagen, Denmark, built in part with Saint-Gobain materials.



**↑ FOCUS**

**SCENARIO 2012**

**Saint-Gobain partnered ScenaRio 2012, the world's first survey on youth and sustainable development. The researchers surveyed 30,000 young people aged 16-29 from thirty countries on five continents, as well as 100 specialists including architects, elected officials and experts in sustainable cities. Saint-Gobain's support for this project fits in with the Group's strategy and approach to stakeholder dialogue. The survey results (\*) were presented on June 20, 2012 at Rio+20, the United Nations global conference on sustainable development.**

*\* A multilingual presentation of the survey results collected by Nomadéis and Fondapol is available online at [www.scenario2012.org](http://www.scenario2012.org).*



*Entreprises*  
**pour l'Environnement**



**Pierre-André de Chalendar, Chairman and Chief Executive Officer of Saint-Gobain, became chairman of *Entreprises pour l'Environnement* (EpE) on June 28, 2012.**

**EpE is an association of some forty French and international companies involved in industry and services who have made a commitment to work together to ensure that environmental issues are integrated more effectively in their daily management strategies. The association, which recently celebrated its 20th anniversary, is a forum where members can discuss issues and share knowledge and best practices. Working groups are currently studying such topics as climate change, the economy of the environment, links between the environment and health and biodiversity.**

**[www.epe-asso.org](http://www.epe-asso.org)**

# SUPPORTING CUSTOMERS

Saint-Gobain devises products and services for habitat and construction industry professionals, who process or integrate them to serve their own customers.

## INNOVATIVE SOLUTIONS AND PARTNERSHIPS TRAINING

Our relationships with building industry professionals and our knowledge of their profession helps us improve sustainable construction techniques. For us, it is clear that very close cooperation with all public and private industry participants—including architects, builders and professional installers—will be required to meet the sustainable habitat challenge.

We forge tight bonds with customers to get a better understanding of their markets and develop innovative, tailored, high value-added products. Saint-Gobain has created several specific venues to foster exchanges with market players and provide them with solutions aligned even more closely to their needs.

One of these, the Domolab innovation center in Aubervilliers, France, was inaugurated in October 2011. As of its first anniversary, the center had welcomed more than 3,500 visitors and nurtured numerous new projects to be developed in the year ahead.

Taking a page from the Domolab's success, the Group has opened the Habitat Lab in Milan (see pages 22-23). Similar centers are under construction in London and Moscow.

Investing in training a new generation of contractors and professionals who are aware of the challenges of energy efficiency and sustainable construction will help provide a solid future for the industry's skill sets and promote its development.

In our view, training is most effective at the local level, led by each Activity and each country organization, to ensure that our solutions are used and installed properly in the front lines.

Supported by Delegation teams, Saint-Gobain's Activities in the United Kingdom prepared for the introduction in 2012 of the UK government's Green Deal program to make buildings more energy efficient. They designed training programs in line with the Regulation's new needs (see Focus p.71).

*"The Green Deal will speed up the growth of sustainable building materials for the renovation market sector. We must make sure that our Industrial (Gypsum, Insulation, Flat Glass and Industrial Mortars) and Building Distribution Activities are well placed to help their customers by supplying the solutions, advice and training they need on this emerging, complex but exciting sustainable construction market",* sums up Mark Weaver, Strategic Sector Director, Renovation Market, for United Kingdom and Ireland.

Alongside training, we also use trade shows as an opportunity to raise awareness about sustainable construction.

### ↑ FOCUS

## MEASURING ENERGY PERFORMANCE

Saint-Gobain ISOVER and the Rantigny and Aubervilliers research centers in France worked with numerous outside partners from the private sector (such as IGC and ARCADE), the public sector (such as EDF) and academia (such as Salford University in the UK) to develop, test and patent a new in-situ method to measure building energy performance. The innovative Quick U-value of Buildings (QUB) protocol is designed to quickly compare real performance to announced performance in low-energy-consumption or passive buildings. This marks an important step in promoting sustainable construction, as for the first time it will be possible to put a number on a building's intrinsic energy performance instead of relying on theoretical calculations alone.

## Verallia Products that create value

Verallia develops value-creating products with its customers that respond to changing market trends while taking into account the challenges of sustainable development. All around the world, the company introduces eco-designed bottles and jars that respond to demands to reduce environmental impacts, offer attractive packaging and highlight the product inside. Since launching the ECOVA ranges in 2009, Verallia has sold more than five billion eco-designed bottles.

ecova






**↑ FOCUS**

**APPROVED INSTALLERS**

The Greenworks Training Academy in Birmingham, in liaison with the Group's brands in the United Kingdom, is the first training center in the country to offer a Green Deal authorization course for professional installers. Launched by the UK government, the Green Deal program is designed to help landlords and businesses make their buildings more energy efficient. Birmingham is one of the six cities selected to receive assistance from the UK Department of Energy and Climate Change to promote the Green Deal.



 A GreenWorks Training Academy opened in the Netherlands in 2012.

 **GERMANY**

**ISOVER LIVE, A NEW INTERACTIVE TRAINING TOOL**

In Germany, ISOVER G+H has launched ISOVER live, a series of training modules streamed live on the Internet. In these modules, an ISOVER trainer explains how to install products and systems correctly to insulation professionals and consumers. Viewers can ask questions in real time via instant messaging.



 **BRAZIL**

**MOBILE TRAINING**

A year after its launch, Saint-Gobain's mobile training center in Brazil has visited more than 5,000 building industry professionals.



 **UNITED KINGDOM**

**AN APP FOR CUSTOMERS**

To help UK customers make the right sustainable construction choices, Jewson has developed a website and smartphone application called "Ask Jack". Professional builders and consumers alike can submit questions to Jack, a virtual branch manager, who responds instantly with information based on Jewson's "Sustainable Building Guide".

# RESPONSIBLE PURCHASING

Saint-Gobain's responsible purchasing approach is designed to extend the Group's good business practices to partners all the way up and down the value chain.



The first challenge is compliance. This means ensuring that all players in the supply chain comply with local and international regulations, notably as concerns human rights, labor law, workplace health and safety and environmental protection. In addition to addressing the critical need to comply with regulations, responsible purchasing helps create value for the Company by providing a clearer picture of purchasing-related impacts and potential risks. In this way, it delivers a meaningful competitive advantage.

The Group's responsible purchasing approach is based on:

- a **Purchasing Charter**, which provides all purchasing officers with guidelines for carrying out their mission on a daily basis.
  - > A new Purchasing Charter was introduced in 2012;
- a **Suppliers Charter**, which explains the Group's requirements for suppliers and service providers in terms of human rights, business practices and environmental and social performance. This charter is distributed to all registered suppliers.
  - > In 2012, a new Suppliers Charter was introduced and a database was commissioned so that suppliers serving each subsidiary and country can acknowledge receipt of the Charter and sign it electronically;
- the inclusion of **responsible purchasing clauses**, in all framework agreements signed by the Group, to remind suppliers about Saint-Gobain's sustainable development requirements.
  - > This measure has been extended to all contracts signed by the Group and its subsidiaries;

- a **self-assessment questionnaire for suppliers**, which is systematically included in all requests for proposals generated by the central SRM Prosource software package;
- a **supplier audit program**, designed to ensure that our suppliers meet their commitments concerning labor law, human rights, workplace health and safety, environmental protection and the implementation of an appropriate management system. In the event of non-compliance, the supplier is asked to take corrective action and a new audit is carried out. If the issue persists, the Group may sever relations with the supplier.
  - > In 2012, 108 supplier audits were conducted, of which 44 were follow-up audits;
- **team investment and participation in training**.
  - > In 2012, 1,220 people completed the Adhere online training module for responsible purchasing. Introduced in 2011, the module is available in six languages;
- a **dedicated organization** comprising a network of purchasers in different countries and Activities and designated specialists who can provide methodological guidance and advice, led at the corporate level by teams from Saint-Gobain Purchasing and Saint-Gobain Building Distribution (for distribution issues).

## ↑ FOCUS

### RISK ANALYSIS

**An analysis of risk by spend category was implemented in 2012 on the basis of EcoVadis category profiles. All Saint-Gobain purchases (excluding distribution) were segmented into 141 categories and analyzed in terms of geographic region, as well as against 21 Corporate Social Responsibility criteria. This approach allows us to identify critical suppliers more easily so we can target supplier audits more effectively.**

# Building Distribution purchases



In late 2011, the Building Distribution Sector introduced a policy based on the Group's responsible purchasing approach and adapted to the specific characteristics of distribution operations. A total of 300 strategic suppliers committed themselves to the policy in 2012 by signing the Sector's Suppliers Charter. Internally, a particular emphasis was put on training for category and product managers in charge of a supplier portfolio in the Business Units.

As concerns ongoing initiatives, the Sector continued to apply its Environmental Timber Policy, with new outlets obtaining certification, a broader range of FSC or PEFC-certified products in joinery, and training on the new European Timber Regulation, Forest Law Enforcement, Governance and Trade (FLEGT).

## FOCUS

### PURCHASES FROM THE SUPPORTED EMPLOYMENT SECTOR

For many years in France, we have developed local partnerships in various areas with the sheltered and supported employment sector, from which we sub-contract or purchase goods and services. In 2012, a module was added to the Group's training catalogue in France to familiarize employees (especially purchasing agents in the subsidiaries) with the sheltered and

## TESTIMONIAL

### Wavin

#### Strategic supplier of Saint-Gobain Building Distribution

**Nisrene Haddad,**  
Sustainability Manager

**Gert-Jan Maasdam,**  
Country Director Belgium and Corporate Key Accounts Director



“Engaging our suppliers to work with us in incorporating sustainability throughout the value chain.”

“In 2003, we signed a European partnership agreement with Saint-Gobain's Building Distribution Sector. In 2012, Saint-Gobain Building Distribution chose Wavin as a pilot supplier to test new sustainability clauses in its contracts. This cooperation with SGBD sent us a key message that our sustainability policy has provided us with a real opportunity to establish ourselves as a sustainable partner with one of our key customers. Furthermore, it reinforces our position as European leader in the use of recycled raw materials in plastic pipes, which is one of our key sustainability commitments. Alongside SGBD, we are able to engage our suppliers and others within the industry to work with us in incorporating sustainability throughout the value chain.”





**PERFORMANCE**  
**INDICATORS**  
**AND ADDITIONAL**  
**INFORMATION**

# REPORTING METHODOLOGY

## **The contents of this report reflect broad consultation with internal and external stakeholders.**

In-house, the Sectors, Delegations and a number of corporate functions (Human Resources, Responsible Purchasing, Investor Relations, Responsible Development, EHS, Risks and Insurance, etc.) were asked to contribute examples and real-world case studies to make this year's report even more informative. In particular, the Sectors were involved in the sections on solutions and the Delegations provided examples and testimonials.

Outside the Group, our stakeholders were consulted on Saint-Gobain's general strategy and on specific aspects of our sustainable development approach. Their comments are included in the report.

A steering committee comprising the Corporate Secretary and representatives from the Responsible Development, Human Resources, EHS, Planning, Corporate Communication and Investor Relations departments defined the report's priorities and set the editorial line. The committee met four times between September 2012 and March 2013.

## **The data published in this section on sustainable development at Saint-Gobain following Global Reporting Initiative (GRI) methodology comes from three different Group-wide reporting systems:**

- The NRE system set up in 2002 to comply with the disclosure requirements of France's NRE Act, supported by the Enablon software package for managing headcount reporting.
- The PeopleGroup management and reporting system for managerial staff.
- The Gaia environment, health and safety (EHS) reporting system set up in 2003.





## Social Reporting

### 1. Basic principles

#### • An enhanced frame of reference

The baseline initially used for Saint-Gobain social reporting was developed in line with the requirements of the United Nations Global Compact and France's NRE Act of 2001, supplemented by France's Grenelle II Act of 2012. To obtain a global frame of reference, the baseline also included in 2011 to reflect the social indicators of the Global Reporting Initiative (GRI).

#### • A continuous improvement approach

The Group is involved in an assertive, step-by-step to enhance the reliability of its social reporting data. This approach includes:

- continuous exchanges with the 800 data reporting contributors to make sure that they fully understand and apply the social indicator calculation guidelines defined in the Group's doctrine, which is available in French and English. Since 2012, the use of the My Saint-Gobain collaborative platform and the creation of a social reporting community composed of key contributors have strengthened these exchanges. All of the documents related to the reporting process and the effective execution of all our campaigns are available on this shared platform;
- a focus on stability in selecting indicators to guarantee, inasmuch as possible, reliable comparisons over several years;
- the annual submission of selected social reporting data for external assessment;
- enhanced monitoring at each level of data collection and consolidation;
- an increase in the number of interfaces with payroll systems for companies managed by shared service centers to ensure the reliability of transferred data.

#### • Scope

In 2012, there were 1,276 social reporting units for 572 fully consolidated companies at year-end. The two reporting systems used separately in prior years have been merged.

- The employee numbers report (SIS), prepared monthly, contains data from all companies controlled by the Group, including joint ventures in which Saint-Gobain holds at least a 50% interest. It is the basis for calculating the total consolidated workforce.
- The NRE reporting system, created in 2002 to provide information on the Group's social performance, has a somewhat smaller scope, covering 97.2% of the consolidated workforce in 2012. It

is the basis for calculating all the social indicators.

New companies joining the Group are included from the date on which they are consolidated, while divested companies are excluded from the figures for the year of divestment.

#### • Indicators definition

The indicators are defined in the Saint-Gobain Group doctrine, which has been prepared in French and in English to ensure that all contributors understand what is required, and is distributed by the Delegations.

### 2. Consolidated data

Two software tools—Enablon and PeopleGroup—were used to collect the quantitative social data used in this report. Data is consolidated at the Saint-Gobain Group level.

#### • Enablon reporting software

The reporting process comprises five stages:

- updating of the Group's scope. Each month, the collection software is reconfigured to reflect acquisitions, disposals, mergers and changes in consolidation method;
- data input by contributors at the individual company level. Certain indicators are pre-filled thanks to interfacing between Enablon and local payroll systems;
- data validation by the head of Human Resources at the company or Delegation level, depending on the country;
- data verification and consolidation by the Group Social Affairs Department;
- data reporting, which makes it possible to generate scorecards used in human resources management by the Group Human Resources Department.

#### • PeopleGroup data management software

PeopleGroup is the software tool used to manage data on Saint-Gobain's managerial staff. It is organized on the basis of each manager's individual file and includes the processes for career management, annual appraisal interviews and senior executive remuneration.

Group organization data is updated in PeopleGroup at the beginning of each month using the information on changes in scope entered into the social reporting system.

Managers' individual files are updated in one of two ways:

- manually, by the companies' Human Resources teams;

- automatically, from the local Human Resources information systems (used for more than 80% of the Group's managers). Human Resources managers and their deputies can access the fields in PeopleGroup concerning their scope of reporting to update individual data.

Changes in managers' situations are archived.

Cognos, a reporting tool linked to PeopleGroup, is used to extract the data needed for analyses and to produce the specific management scorecards for managerial staff.

### 3. Difficulties and limitations

The main difficulty in social reporting stems from the Group's wide geographic presence. Indicators may be interpreted differently from one country to another, due to differences in local legislation and practices. For example, certain employee categories commonly used in France, such as "cadre" (translatable as "manager") and "CDI" (employee with a permanent employment contract) may not have any direct equivalent in other countries. The Doctrine Department is working on commonly understood definitions to avoid this problem.

## EHS Reporting

### 1. Basic principles

#### • Frame of reference

The baseline for Saint-Gobain EHS reporting, as for social reporting, was developed in line with the requirements of the United Nations Global Compact and France's NRE Act of 2001, supplemented by the Grenelle II Act of 2012. To keep pace with developments in international standards such as the Global Reporting Initiative and leverage feedback from sites, working groups meet on a regular basis to propose improvements for new EHS indicators. These proposals are discussed and approved at steering committee meetings held twice a year.

#### • Scope

There were nearly 1,771 EHS reporting units in 2012, corresponding to all of the Group's facilities. The increase from 2011 reflects the more targeted data collection process. The scope of reporting covers the facilities operated by all companies that were at least 50%-owned by Saint-Gobain at the balance sheet date, including, where possible, facilities that came on-stream or were acquired during the year and excluding facilities that were closed or sold.

# REPORTING METHODOLOGY

A list of concerned sites was established to focus efforts on the facilities with the greatest environmental impact, as well as to make the data and progress in meeting objectives easier to understand. The Activities have validated certain criteria, such as energy consumption, water consumption, and quantity of non-recovered waste, enabling clear identification and monitoring. In all, 532 facilities are included in the scope of concerned sites. Facilities at which production levels declined by 30% or more from 2010 (69 sites) were excluded from this scope for the calculation of three-year objectives based on 2010 production levels. This calculation method is designed to present site performance without the impact of changes in production. If production levels decline significantly, the site's efforts cannot offset the

minimum consumption needed to maintain the technical installations in working order. Data for concerned sites are presented using environmental subgroups. Because of the Group's wide-ranging operations, the environmental indicators managed in the Gaia EHS reporting system do not all apply to all Activities. The indicators are therefore combined into "batches" and allocated to groups of units with similar environmental impacts and ratios (i.e., indicators expressed by unit of production, generally per metric ton of finished product<sup>1</sup>). The main unit groups—referred to as environmental sub-scopes—are as follows:

- the "Glass" sub-scope, comprising entities in the Innovative Materials Sector—Flat Glass and Verallia, the Adfors Activity (Innovative Materials Sector—High-Performance Materials) and the

Insulation Activity excluding stone wool (Construction Products Sector), that use glass furnaces (118 concerned sites out of a total of 129 units);

- the "Pipe" sub-scope (21 concerned sites out of a total of 22 units);
- the "Others" sub-scope, covering all other entities (Industrial Mortars, Lapeyre plants, glass products, Gypsum, etc.) (393 concerned sites out of 875 units). This sub-scope also includes the 143 quarries.

The majority of data are entered directly into the Gaia EHS reporting system by the EHS units, and the remaining information is extracted from reporting systems used for other purposes (such as "Teams" for the Insulation Division).

The frequency, scope and content of the various questionnaires are described in the table below.

Questionnaire	Frequency	Scope	Content
Safety-On-Line	When needed	Global, all categories of victims	Instant alert in the event of accidents involving fatalities or lost time
Safety	Monthly	Global, all categories of victims	Accidents, number of days lost, hours worked, etc.
General	Annually	Global (all facilities except certain offices or related sites)	Certification, audit results, etc.
Complaints and financial data	Annually	"Concerned" sites + Mines and quarries (excluding sites connected to plants) + Other sites at the Sectors' discretion	Complaints and financial data in compliance with the NRE Act
Health	Annually	Global (all facilities except certain offices or related sites)	Assessment campaign, health standards tracking, etc.
Environment & Mines and quarries	Annually	"Concerned" sites + Mines and quarries (excluding sites connected to plants) + Other sites at the Sectors' discretion	Output, raw materials, energy consumption, atmospheric emissions, water, waste, rehabilitation plan, etc.

<sup>1</sup> Corresponds to finished products that leave the plant to be sold.





**The Safety, Industrial Health & Hygiene, General and Safety-On-Line (SOL) questionnaires** are designed to cover all facilities and all Group employees. The Safety and Safety-On-Line questionnaires include questions about temporary staff, and the Safety-On-Line questionnaire also includes questions about sub-contractors.

Safety data are reported on a monthly basis and comprise information about all accidents that occurred during the month and their severity. The system covers approximately 98% of employees across the Group. Lost-time accidents (including fatal accidents) are reported systematically via the Safety-On-Line system, with a description of the circumstances.

The Industrial Health & Hygiene questionnaire and the General questionnaire are completed annually.

**The Environment questionnaire** is completed annually by 1,026 facilities, including "concerned" sites, mines and quarries (except for sites connected to plants) and other sites selected by the Sectors.

One of the principles applied by the Group for the calculation of ratios is to use tons of finished product complying with quality standards ("tons of finished products"), rather than tons floated (for glass) or cast (for cast iron)<sup>2</sup>.

**EHS financial data** (expenses and capital expenditure) have been tracked in Gaia since 2007. Annual data are adjusted during the following year to take into account information obtained after the year-end.

#### • Indicators definition

The indicators are defined in the EHS reporting protocol, which has been prepared in French and in English to ensure that all contributors understand what is required.

#### • Objectives for 2011-2013

Environmentally concerned sites have been identified based on 2010 reporting data, and their performance will be tracked in relation to 2013 environmental targets. Results for concerned sites will therefore be reported on a comparable scope basis in each year through 2013. Any divested facilities will be removed (from current year indicators and the 2010 baseline) but no acquisitions will be taken into account until January 1, 2014, when the scope will be adjusted. In addition, environmental indicators will be calculated each year by reference to the 2010 baseline. As a result, data on 2012 emissions and consumption have been restated on the basis of 2010 production and do not include any sites at which production declined by more than 30%.

#### 2. Consolidated data

The EHS reporting protocol is available in French and English. The EHS reporting process (monthly and yearly) involves four stages:

- data input by the EHS correspondent or correspondents at the reporting unit concerned;
- data validation, usually by the unit manager or by the company or Activity coordinator;
- data verification by EHS managers in each Sector;
- data consolidation by the Group EHS Department.

#### 3. Difficulties and limitations

Difficulties can be experienced with verifying data across businesses and countries that use different units of measurement. Problems can also arise from differences in the interpretation of technical terms across different countries and businesses. The definition of "waste" for example can vary depending on local legislation, as can that of its components (production waste, by-product, waste, etc.). Since Groupwide reporting systems were launched, reporting quality has steadily improved thanks to effective feedback and increased familiarity with the systems. In 2012, the translation of the indicators in Spanish and Portuguese was revised to improve comprehension.

<sup>2</sup> Corresponds to all products that come off the production line, including finished and substandard products.

# STATUTORY AUDITORS' REVIEW REPORT

## STATUTORY AUDITORS' REVIEW REPORT ON A SELECTION OF ENVIRONMENTAL, HEALTH, SAFETY AND SOCIAL INDICATORS PUBLISHED IN THE 2012 SUSTAINABLE DEVELOPMENT REPORT OF SAINT-GOBAIN GROUP

Further to your request and in our capacity as Statutory Auditors of Compagnie de Saint-Gobain, we have carried out a review to enable us to provide limited assurance on certain environmental, health and safety (hereinafter referred to as EHS) and social indicators, identified by the symbol ✓ and published on pages 82-93 and 96-101 of the 2012 sustainable development report of Saint-Gobain Group. The selected EHS and social indicators are as follows:

### • Environmental indicators:

- Direct and indirect CO<sub>2</sub> emissions,
- NO<sub>x</sub> emissions,
- SO<sub>x</sub> emissions,
- Energy use per type of energy,
- Water input (withdrawn) per type of source,
- Total quantity of production waste.

### • Health and safety indicators:

- TF1: ratio of lost-time accidents involving Group employees to the number of hours worked by Group employees,
- TF2: ratio of declared accidents with or without absence from work involving Group employees to the number of hours worked by Group employees,
- TF1: ratio of lost-time accidents involving temporary staff to the number of hours worked by temporary staff.

### • Social indicators:

- Total number of employees per socio-professional category,
- Male/female workforce breakdown,
- Managers' recruitment per gender,
- Managers' promotion per gender,
- Managers on inter-Activity mobility assignment,
- Managers on inter-profession mobility assignment,
- Managers on geographic mobility assignment.

These indicators were prepared under the responsibility of the Environment, Health and Safety (EHS) Department and the Employee Relations Department, in accordance with the EHS reporting rules and the Group's procedures for the monthly reporting of employee data, both of which can be consulted at the Group's head office and appear in a summary on pages 76-79 of the 2012 sustainable development report. It is our responsibility to express an opinion on the selected indicators based on our review.

### Nature and scope of our work

We performed our review in accordance with the International Standard on Assurance Engagements (ISAE) 3000 and the professional standards applicable in France.

We carried out the limited review procedures to provide limited assurance that the EHS and social indicators are free of material misstatement. A higher level of assurance would have required a more extensive review.

For the selected indicators, we performed the following work:

- We reviewed the reporting procedures prepared by the Group with regard to their relevance, reliability, objectivity, comprehensibility and completeness.
- We selected the following sites on the basis of quantitative and qualitative criteria applied to the indicators, enabling us to cover a representative sample of the Group's activities in the geographic areas where it operates:
  - Building Distribution Sector: 6 Point. P group regions (France) and 1 Lapeyre group company (Brazil), and 4 other companies of the Sector (Norway, Netherlands, Poland, United Kingdom),
  - Innovative Materials Sector: 12 sites (Colombia, Egypt, United States, France, Italy, Czech Republic, Romania, United Kingdom), of which 6 were verified at company level for social indicators,
  - Construction Products Sector: 12 sites (Germany, Brazil, China, Denmark, United States, France, Thailand), of which 2 were verified at company level for social indicators,
  - Packaging Sector: 7 sites (Germany, Spain, United States, France), of which 1 was verified at company level for social indicators,
  - Head office of the General Delegation, United States,
  - Research Center (France).



- At the level of the sites selected:
  - On the basis of interviews with the people in charge of preparing the indicators, we verified the proper understanding and application of the procedures,
  - On a sample basis, we performed detailed tests which consisted in verifying the calculations and in reconciling the indicators with substantiating documents.
- At Group level, we carried out analytical procedures and verified, on a sample basis, the calculations and the consolidation of data used to generate the indicators. This work mainly relied on interviews with the members of the EHS Department and the Employee Relations Department responsible for the preparation and application of the procedures, as well as the consolidation of the indicators.

The contribution of the sites included in our review represents between 12% and 35% of the consolidated EHS and social indicators selected.

We were assisted in our work by our specialized sustainable development teams.

### Conclusion

Based on our work, no material misstatement has come to our attention that causes us to believe that the EHS and social indicators reviewed, identified ✓ by the symbol and published on pages 82-93 and 96-101 of the 2012 sustainable development report, were not prepared, in all material respects, in accordance with the EHS reporting rules and Group procedures for the monthly reporting of employee data.

**Neuilly-sur-Seine and Paris La Défense, March 21, 2013**

### The Statutory Auditors

#### PricewaterhouseCoopers Audit

**Jean-Christophe Georghiou**

**Thierry Raes**

Partner in  
PricewaterhouseCoopers  
Advisory in charge of the  
Sustainable Business Solution  
Department

#### KPMG Audit

Department of KPMG S.A.

**Philippe Grandclerc**

**Philippe Arnaud**

Partner in charge of the  
Sustainability & Climate Change  
Services

# ENVIRONMENT - HEALTH - SAFETY (EHS)

## Environmental indicators

In the following pages, results for CO<sub>2</sub> emissions, water withdrawals and waste produced are presented in absolute value on the basis of actual production compared with 2010 for the 532 facilities listed as concerned sites. These results provide information on the Group's **environmental impact**.

Indicators related to the three-year objectives for CO<sub>2</sub> emissions, water withdrawals and waste produced on the basis of 2010 output for concerned sites are also presented. These indicators reflect the sites' **environmental performance**. This information is not meaningful when production at a significant number of sites has declined because the efforts made by the sites do not show up in the indicators.

The reason for this is that a significant amount of the water, energy and raw materials used in a plant remains constant, no matter what the level of production. Glass furnaces, for example, are not shut down during slower periods, so they still need energy to operate, water for cooling and glass to heat.

In presenting indicators based on 2010 output for CO<sub>2</sub> emissions, water withdrawals and waste produced, we have therefore chosen to exclude the 69 concerned sites at which production declined by more than 30% in relation to 2010. This represents 12% of the facilities listed as concerned sites.

## • Materials used (EN1, EN2)

### • Glass

The proportion of cullet used for production within the Group increased between 2011 and 2012 based on a comparable scope of consolidation. In 2012, glass furnaces at concerned sites used 10.1 million metric tons of primary raw material, compared with 11.1 million metric tons in 2011; 4.41 million metric tons of externally-sourced cullet, versus 4.37 million in 2011; and 3.15 million metric tons of internally generated cullet, compared with 3.11 million in 2011.

### • Cast iron

In 2012, the use of primary melting increased, representing 81.1% of production at concerned sites (compared with 80.5% in 2011 based on a comparable scope). This change reflects the spread of produced volume at our different sites around the world. During the year, 45.8% of finished cast iron was produced from recycled materials at concerned sites (versus 38.4% in 2011 based on a comparable scope). The year-on-year change reflects the availability of externally-sourced recycled materials.

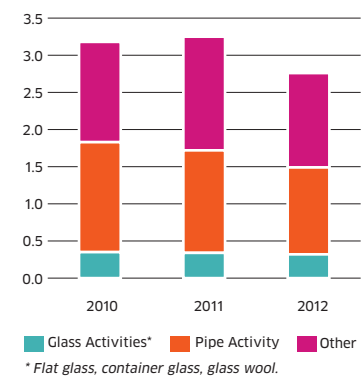
### • Gypsum

In 2012, at the concerned sites within the Gypsum Activity, 26.3% of finished gypsum was produced from recycled materials compared with 29.2% in 2011.

## • Production waste (EN22)

In 2012, based on actual production<sup>3</sup>, waste produced declined by 13.2% in absolute value in relation to 2010. In all, 2.8 million metric tons of waste were produced during 2012<sup>4</sup>. The decline is primarily attributable to the reduction of waste produced by the Pipe Activity.

WASTE PRODUCED - CONCERNED SITES  
in million metric tons



In 2012, based on 2010 output, concerned sites<sup>4</sup> reduced their production waste by 6.7%.

In the area of reporting, a new waste management module will be developed in 2013. This module, combined with more precisely targeted waste indicators, will allow us to produce more reliable data, notably for recovery and recycling channels.

<sup>3</sup> Actual output in 2012.

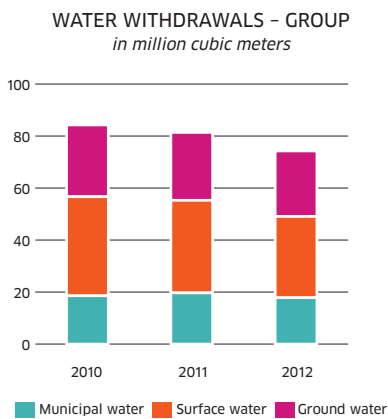
<sup>4</sup> Does not include concerned sites at which production levels declined by more than 30% in relation to 2010.



**• Water management (EN8, EN10, EN21)**

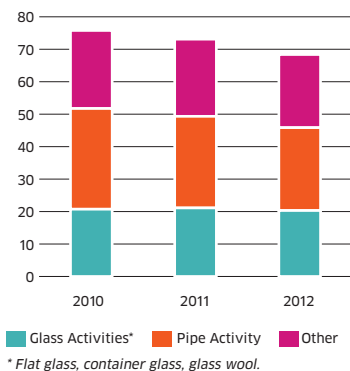
**• Group water withdrawals**

In all, the Group's sites withdrew 75.3 million cubic meters of water in 2012✓, for a reduction of 11.3% since 2010. Municipal water withdrawals have been stable since 2010, whereas groundwater and especially surface water withdrawals have declined over the same period.



Based on actual output<sup>5</sup>, the concerned sites withdrew 68.4 million cubic meters of water in 2012✓, for a 9.8% reduction in absolute value. This decline was primarily attributable to the Pipe Activity.

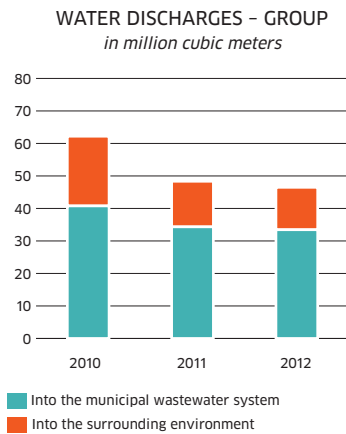
**WATER WITHDRAWALS - CONCERNED SITES**  
*in million cubic meters*



Based on 2012 output, the Group's concerned sites<sup>6</sup> reduced their water withdrawals by 3.6% in 2012.

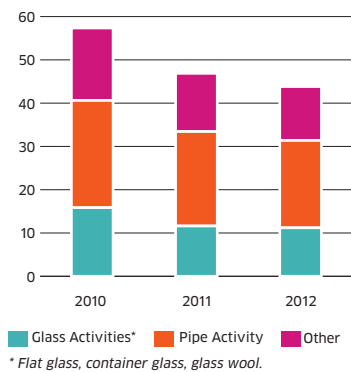
**• Water discharges**

In 2012, the Group's liquid water discharges totaled 46.6 million cubic meters. This represents a reduction of 25.2% in absolute value in relation to 2010. Discharges declined both into the municipal wastewater system and the surrounding environment.



Based on actual output<sup>7</sup>, the concerned sites discharged 43.8 million cubic meters of water in 2012, for a 23.6% reduction in absolute value compared with 2010. This decline reflects the implementation and application of the Group's water policy.

**WATER DISCHARGES - CONCERNED SITES**  
*in million cubic meters*



The water standard, which was applied for the first time in 2012, requires sites to limit the number of discharge points and ensure discharge quality before channeling effluent into the municipal sewage system, natural environment, or other outlet. A risk assessment for accidental chemical pollution will also be included in the water standard.

**• Water recycling**

We encourage in-house water recycling, particularly through the use of closed circuits, as this considerably limits withdrawals from natural resources. Due to the complex nature of many of the Group's processes, it is difficult to calculate the rate of water recycling and reuse. In applying the water standard, we intend to make improvements in this area and ultimately produce a reliable metric for the entire scope of reporting.

<sup>5</sup> Actual output in 2012.

<sup>6</sup> Does not include concerned sites at which production levels declined by more than 30% in relation to 2010.

<sup>7</sup> Actual output in 2012.

# ENVIRONMENT - HEALTH - SAFETY (EHS)

## • CO<sub>2</sub> emissions (EN16, EN17)

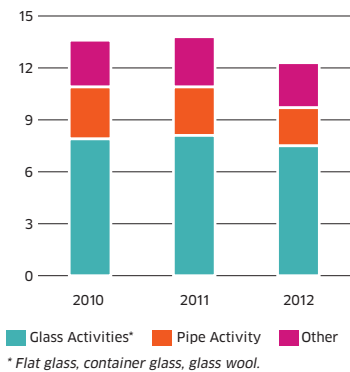
Climate change's risks for Saint-Gobain:

- an increase in extreme weather events, which can temporarily halt production or supplies;
- a change in rainfall patterns and the expansion of regions experiencing water stress, which can lead to production risks and impact local populations. The Group's water policy addresses these issues;
- the emergence of heavy regulatory constraints. This is leading the Group to take part in shared initiatives to anticipate and reduce risks.

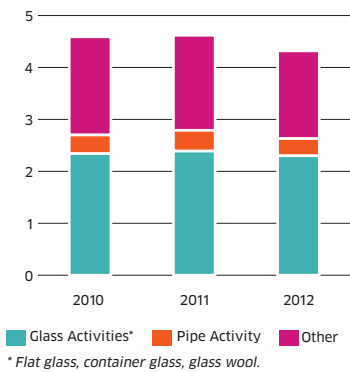
### • 2012 results

Industrial processes account for the vast majority of our direct emissions. These CO<sub>2</sub> emissions stem from the burning of fossil fuels and from chemical reactions such as carbonate removal.

**DIRECT CO<sub>2</sub> EMISSIONS - CONCERNED SITES**  
in million of metric tons



**INDIRECT CO<sub>2</sub> EMISSIONS - CONCERNED SITES**  
in million of metric tons



More than 90% of the concerned sites' direct carbon emissions are related to the production of glass, cast iron and gypsum.

In 2012, manufacturing operations were shaped by a sharp decline in production, which had an impact on energy performance, in particular.

As a result, based on actual output, concerned sites' CO<sub>2</sub> emissions in 2012 were as follows:

- direct emissions (scope 1) of 12.3 million metric tons of CO<sub>2</sub>✓, representing a reduction of 8.7% in absolute value from 2010;
- direct and indirect energy-related emissions (scope 1 and 2) of 16.6 million metric tons✓, for a reduction of 8.0% in absolute value from 2010.

For concerned sites<sup>8</sup>, based on 2010 output, CO<sub>2</sub> emissions declined as follows:

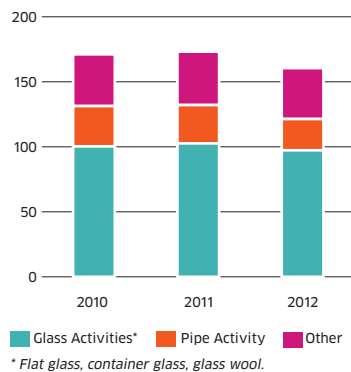
- for scope 1, by 3.3% between 2010 and 2012;
- for scope 1 and 2, by 3.5% between 2010 and 2012.

## • Energy consumption (EN3 and EN4)

In 2012, energy consumption at Group sites totaled 210,899 TJ✓ versus 224,668 TJ in 2011. The proportion of indirect energy<sup>9</sup> was relatively stable at 21% of total energy consumption.

Our Glass Activities and Pipe Activity reduced their direct energy consumption as can be seen in the chart below.

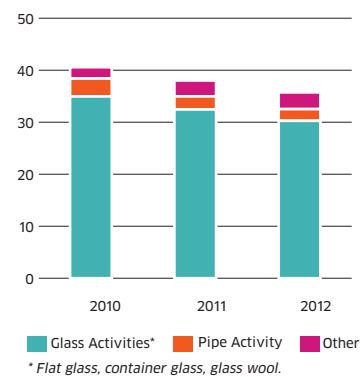
**DIRECT ENERGY CONSUMPTION - CONCERNED SITES**  
thousands of TJ



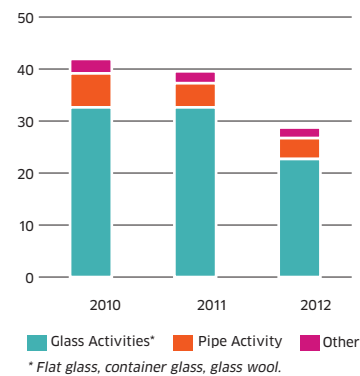
## • NO<sub>x</sub>, SO<sub>2</sub> and other significant air emissions (EN20)

Emissions of NO<sub>x</sub>, SO<sub>2</sub> and dust at concerned sites, based on 2010 output, declined between 2010 and 2012.

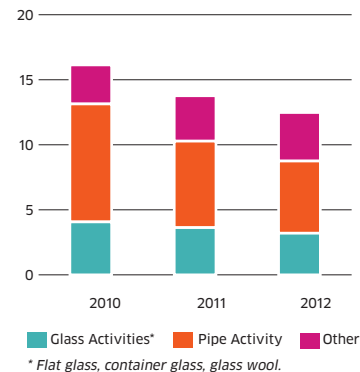
**NO<sub>x</sub> EMISSIONS - CONCERNED SITES**  
thousands of metric tons



**SO<sub>x</sub> EMISSIONS - CONCERNED SITES**  
thousands of metric tons



**PARTICULATE EMISSIONS - CONCERNED SITES**  
thousands of metric tons



<sup>8</sup> Does not include concerned sites at which production levels declined by more than 30% in relation to 2010.  
<sup>9</sup> Purchased heat and electricity.



**• Total number and volume of significant accidental spills (EN23)**

Systems for detecting and remediating instances of non-conformity (accidents, incidents, etc.) are included in the ISO 14001 approach. Sites that have obtained environmental certification are responsible for managing all environmental incidents, such as accidental spills.

The Gypsum Activity has set up an environmental system to detect, treat and analyze accidental pollution. Three spills were recorded in the Gypsum Activity in 2011. Verallia and the Innovative Materials Sector launched a similar approach in 2011. A common methodology for the entire Group was deployed in 2012 (see page 40).

**Health and safety indicators**

**• Work related accidents (LA7)**

**• Decrease in work accidents**

For Saint-Gobain employees and temporary staff, the lost-time accident rate (LTAR), defined as more than 24 hours' lost time, stood at 2.8 ✓ in 2012, representing a 0.3-point improvement from 2011. This compares with a target for 2012 of less than 3.0. The severity rate (SR), defined as the number of lost-time days per thousand hours worked, stood at 0.18, a 0.02-point improvement over 2011.

The Group also monitors the frequency of reportable accidents, corresponding to accidents that lead to medically diagnosed injuries regardless of whether they result in lost time. In the industrial Sectors, the total reportable accident rate (TRAR) stood at 5.2 in 2012 ✓ compared with 6.3 in 2011, representing a 1.1-point improvement.

**• Preventing serious accidents**

Our objective is to reduce the number of fatal accidents in the Group to zero.

A total of ten work-related fatalities occurred in 2012, compared with eight in 2011.

They concerned:

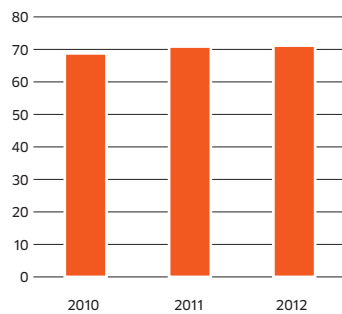
- six Saint-Gobain employees (versus three in 2011);
- two outside contractors (three in 2011);
- zero temporary workers (one in 2011);
- two third parties (one in 2011).

The Group also recorded nine non-work-related deaths among employees in 2012 (versus 11 in 2011) and nine fatal accidents during commutes (12 in 2011).

**• Health**

The number of sites offering regular check-ups for employees increased between 2010 and 2012.

**REGULAR MEDICAL CHECK-UPS**  
% of sites offering regular medical check-ups



**ACCIDENT RATE**  
(SAINT-GOBAIN EMPLOYEES AND TEMPORARY STAFF)



**• Life cycle stages in which health and safety impacts of products and services are assessed (PR1)**

For new products, R&D specifications take health and safety concerns into account. The tracking process includes an EHS validation procedure covering all topics to be verified for raw materials, production processes, product use and end-of-life treatment. In France and Germany, training is organized in Saint-Gobain's research centers to ensure that EHS issues are more effectively taken into account during research and development projects and new product launches. In 2012, four training sessions were organized, with a total of 56 participants.

The Group also assesses the impact of existing products on health and safety. Specific programs to measure exposure are carried out for certain products. Emissions of volatile organic compounds are an example. Products undergo a safety assessment before they are brought to market, in compliance with regulations such as the European directive on product safety.

# EHS SUMMARY

## TABLES

Area	2012 results	Comments	Objectives for 2013
<b>ENVIRONMENT</b>			
Reduce direct CO2 emissions at concerned sites*	Down 3.3% based on 2010 output*** Down 8.7% in absolute value		Reduce direct CO2 emissions at concerned sites** by 6%*
Assess the Group's greenhouse gas emissions (GHG)	Assessment of French subsidiaries' GHG emissions using the Saint-Gobain Carbon Assessment methodology		Deploy the assessment across the Group's main companies worldwide
Define Factor 4 targets for tertiary buildings: CARE:4® project	Support tools for conducting energy audits in tertiary buildings introduced 7 new buildings certified to CARE:4® standards	In all, 14 buildings are certified to CARE:4® standards	Deploy CARE:4® action plans (renovation, etc.) in each Activity
Water management	Group water standard deployed Water withdrawals at concerned sites** down 3.6% based on 2010 output*** down 9.8% in absolute value	Results are positive. Measures continue to be taken in the Activities	- Reduce water withdrawals at concerned sites** by 6%* - Deploy the water-related risks assessment grid and the Water Standard at industrial sites
Waste produced at concerned sites*	Waste produced down 6.7% based on 2010 output*** Waste produced down 13.2% in absolute value	A waste management standard scheduled for launch in the near future will allow reliable tracking of landfill waste	Reduce landfill waste at concerned sites** by 6%*
Obtain environmental certification for concerned sites	75.2% of sites were certified	6.8% more sites will be certified in 2013	Obtain ISO 14001 certification for more than 90% of concerned sites**
Apply the Environmental Timber Policy in the Building Distribution Sector	Nearly 80% of wood product purchases were sourced from certified forests		Deploy the Environmental Timber Policy at all sites, including those in the industrial Sectors
Conduct systematic life-cycle assessments (LCAs) for all product lines	LCAs conducted for all construction product lines	A methodology for evaluating and communicating LCAs for all construction products has been deployed	Conduct LCAs for all construction and solar product lines
Introduce an eco-design (eco-innovation) policy for construction products	Training module developed		Deploy the module among all concerned managers





Area	2012 results	Comments	Objectives for 2013
<b>SAFETY</b>			
Reduce the accident frequency rate as follows: Objectives for 2012 - Overall LTAR of less than 3.0 (less than 5.1 for the Distribution Sector). - TRAR of less than 5.8 for the Industrial Sector	LTAR: 2.8 ✓ - Distribution = 4.3 ✓ TRAR: - Industrial = 5.2 ✓	We achieved our target for 2012	Reduce the accident frequency rate as follows: - LTAR of 4.1 for Building Distribution - TRAR of less than 4.8 for the industrial Sectors - Overall LTAR of less than 2.6 These indicators concern employees and temporary staff
Deploy safety standards	Safety standard defined for road risks SMAT standard on behavior**** updated	Nine safety standards have been deployed on working at height, control of contractors, permit to work, lock out-tag out procedures, machinery safety, forklift truck, confined spaces, vehicle and pedestrians and warehousing and loading	Deploy standards at all new sites within three years of joining the Group Have the Delegations implement the EHS training matrix in liaison with the Sectors
<b>HEALTH</b>			
Health policy	Development of a framework health policy for Saint-Gobain		Deploy the health policy
Assess risk using SAFHEAR	Toxic risk assessment module deployed	Deployment of the "other risks" module for safety and health is scheduled for 2013	Deploy SAFHEAR across the Group Ensure exposure traceability with SAFHEAR in accordance with French regulations
Deploy guide on crystalline silica and respirable dust			Ensure that the silica indicator is reliable and reduce exposure (target defined by Activity) Implement annual individual measuring of exposure and reduce exposure (target defined by Activity)
Analyze EHS hazards and impacts in R&D projects using the Saint-Gobain Gate process	Training on the Saint-Gobain Gate process deployed at the R&D centers	In all, 56 people were trained in 2012	Deploy a training module on the procedure among R&D project managers

\* Based on 2010 output, in relation to 2010 scope.

\*\* Concerned sites; see reporting methodology, pages 76-79.

\*\*\* Does not include concerned sites at which production levels declined by more than 30% in relation to 2010.

\*\*\*\* SMAT : Safety MAnagement Tool.

LCA: Life-Cycle Assessment

MSD: MusculoSkeletal Disorders

# SOCIAL PERFORMANCE

## 1. Employment data (LA1, LA2, EC7)

### • Changes in employee numbers and breakdown

2012 was shaped by a new general slowdown in Europe's economies and mixed growth trends in the main markets of Asia and fast-growth economies.

At December 31, 2012, Saint-Gobain had 192,781 employees, down 1.0% from 194,658 in 2011.

On a like-for-like basis, the decrease came to 1.9%.

Headcount declined slightly in all regions except for North America and the developed markets of Asia.

The Building Distribution Sector accounted for 36% of total headcount, followed by the Innovative Materials Sector (32%), Construction Products (25%) and Packaging (7%)<sup>10</sup>.

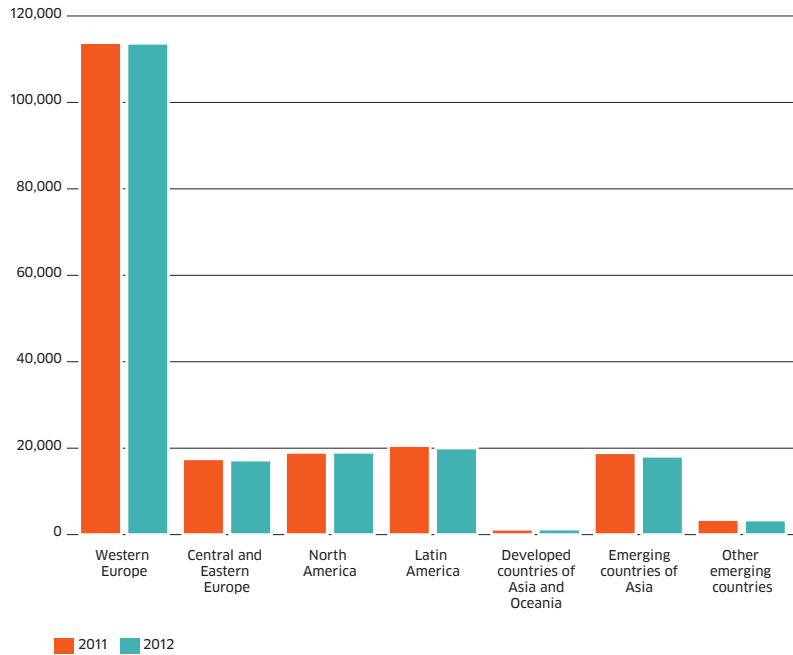
The number of employees in the Innovative Materials Sector decreased by 2.1% during the year, due primarily to changes in headcount in flat glass and building glass.

The Construction Products Sector's workforce decreased by 0.8%, with most of the change coming from the Pipe Activity.

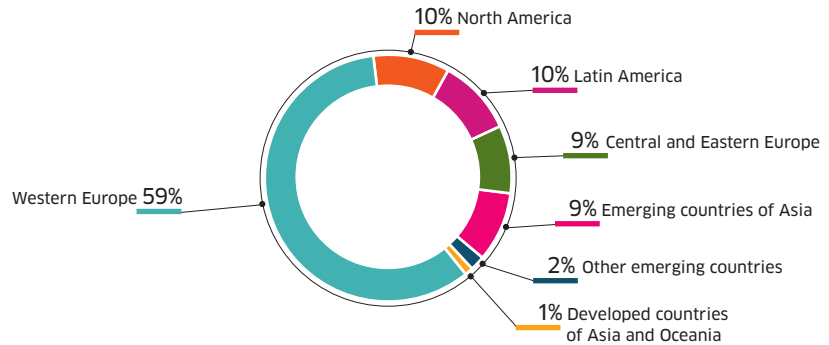
Headcount in the Building Distribution Sector edged back by 0.3%, reflecting mixed trends in the different brands. On a like-for-like basis (excluding the acquisition of Brossette and Build Center), the Building Distribution workforce declined by 2.9%.

Headcount at the Packaging Sector decreased by 4.0% during the year.

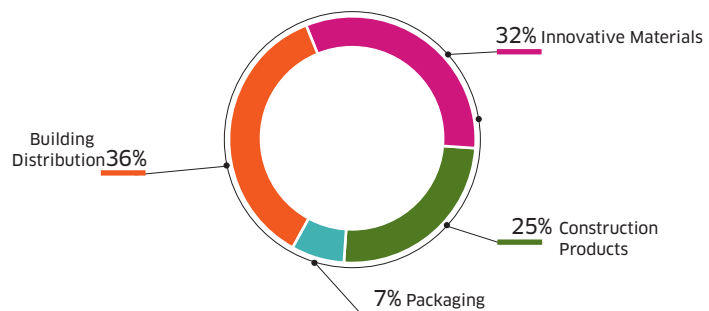
CHANGE IN HEADCOUNT BY REGION



BREAKDOWN BY REGION



BREAKDOWN BY SECTOR



<sup>10</sup> Excluding the holding company and support functions.

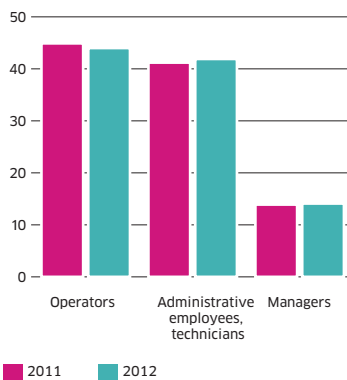


CHANGE IN HEADCOUNT BY GENDER  
in %



Saint-Gobain is committed to achieving a better gender balance, particularly at the managerial level, with regard to both hiring and access to positions of responsibility. The proportion of women in the total workforce increased very slightly to 20.4% in 2012 from 20.0% in 2011.

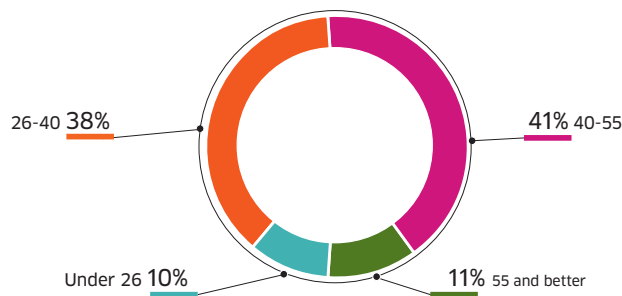
CHANGE IN HEADCOUNT BY CATEGORY  
in %



The proportion of managers in the workforce rose in 2012 to 14.1%. The percentage is generally higher in developed countries, where our longer history is reflected in a greater number of head offices and Research and Development centers. This is especially true in France (17.4%). The proportion of women increased more noticeably in this category, rising to 19.0% in 2012 from 18.0% in 2011<sup>11</sup>. Administrative employees, technicians and supervisors totaled 41.9% of the workforce, up from the year before. Women again made up a significant portion of this category, representing 31.8% of the total.

Overall, operators represented 44.0% of the total workforce in 2012, down from 2011. The percentage was much higher in the industrial Sectors, at 59.8%, than in distribution (18.4%). Women accounted for 10% of the category in 2012.

BREAKDOWN BY AGE<sup>12</sup>

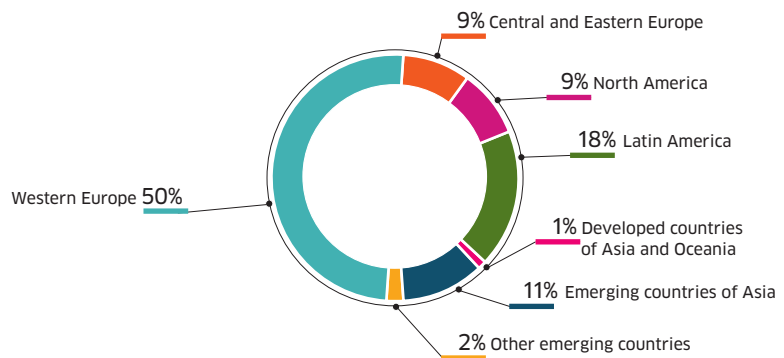


• Hiring

The hiring rate trended downward in 2012, declining to 13.3% in 2012 from 15.9% in 2011. 24,983 people were hired at Saint-Gobain in 2012 versus 29,718 in 2011. Applicants under 26 accounted for 34.7% of new hires, compared with 35.4% in 2011, while individuals over 50 represented 5.7%, versus 5.3% in 2011<sup>12</sup>. In 2012, 24.3% of our

new hires were women, up from 23.1% in 2011. Lastly, 135 managerial-level researchers were hired in 2012 to strengthen the Group's innovation capabilities. Hiring is handled locally by the Delegations and companies, who define the most appropriate strategy for their situation. In 2012, our new careers and hiring site ([www.saint-gobain-experience.com](http://www.saint-gobain-experience.com)) gave us an expanded presence on the Internet for hiring.

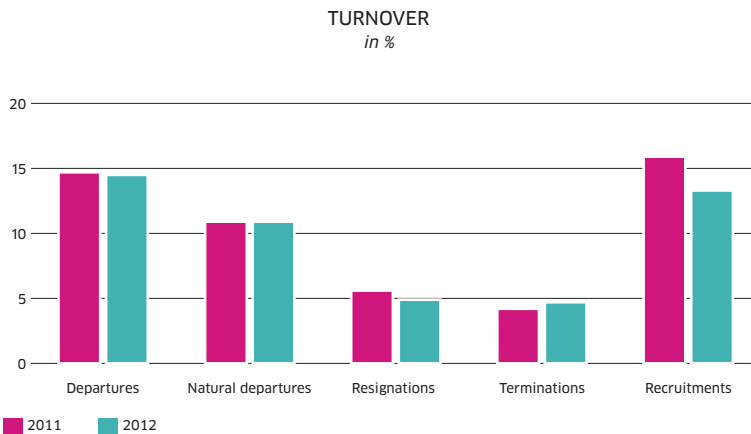
HIRING BY REGION



<sup>11</sup> Source: People Group.

<sup>12</sup> Due to current legislation in certain countries, information on the breakdown by age covers 95% of the total workforce.

## • Turnover



Saint-Gobain more or less stabilized employee turnover in 2012, with the separation rate down by 0.2 point in relation to 2011. At the same time, the hiring rate and resignation rate declined significantly, reflecting the state of the job market. Average employee seniority rose to 11.3 years from 10.9 in 2011.

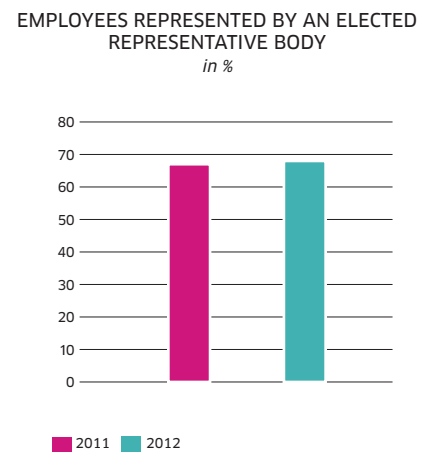
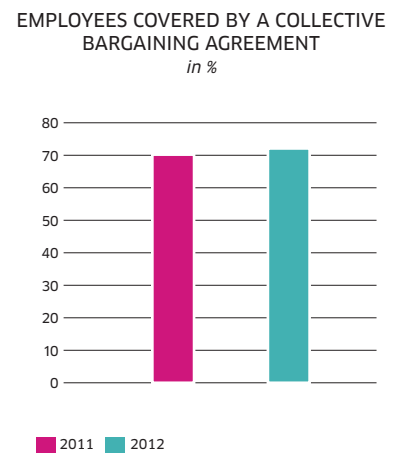
## 2. Organization of the workweek (LA1-LA7)

Due to the Group's manufacturing operations, 32.7% of employees work in shifts. Days may be organized into two or three shifts (2x8 or 3x8) or more (5x8), in the case of round-the-clock production, 365 days a year. Groupwide, round-the-clock production is performed in cycles, with alternating active and idle periods. In every country, shift workers work fewer hours a year than day workers. In the Building Distribution Sector, customer needs may sometimes require that employees work in shifts. To respond to a temporary increase in workload, some Group companies are occasionally required to ask their employees to work overtime. On average, overtime represented 4.1% of all hours worked in 2012. Temporary workers accounted for 6.8% of hours worked in 2012 versus 5.9% in 2011.

Group companies in every host country use subcontractors to perform certain activities that fall outside their core competencies. Before signing an outsourcing agreement, subsidiaries are required to verify that the partner company's operations and employment contracts comply with applicable legislation. Employees of service providers and subcontractors working on a Group site are expected to familiarize themselves with site safety standards upon their arrival. During their presence on-site, they are subject to the same health and safety rules and regulations applicable to Group employees working at the same facility. They receive specific training in these areas as needed. Part-time work concerned 2.9% of the workforce in 2012, down from 3.1% in 2011. 4.4% of Group employees had fixed-term employment contracts in 2012 compared with 3.9% in 2011. This trend reflects, among other things, Group efforts to develop work/study contracts, which corresponded to 2.4% of the workforce in 2012 versus 1.9% in 2011. During the year, 27.9% of fixed-term employment contracts were converted to permanent contracts, compared with 35.0% in 2011. Absenteeism was stable, at 3.7%. The most frequent causes are illness (67.8%), maternity (14.0%) and work accidents (3.8%).

## 3. Employee relations, collective bargaining agreements and restructuring (LA4, LA5, LA9)

### • Organization of social dialogue



In all, 1,371 agreements were signed in 2012. Of these, 41% concerned wages, 22% the workweek, 10% employment and 3% training.

In France, a major agreement on diversity was signed in September 2012 (see pages 44-45).

In 2012, 72.1% of the overall workforce was covered by a collective bargaining agreement (100% in France) and 68.0% was represented by a body of elected representatives.



• **Restructuring**

The Group does not carry out collective terminations, restructuring or site closures unless they are absolutely necessary. Saint-Gobain's size and the diversity of its businesses and sites are important strengths in fostering mobility and return to employment.

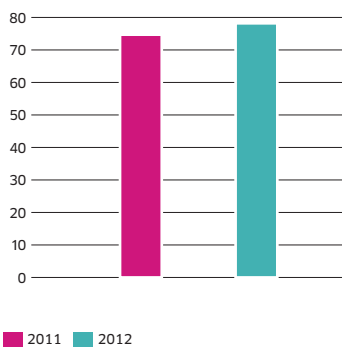
Notice processes prior to changes in organization vary widely from one country to another. In most of the Delegations, the process is either a legal obligation or specified in a company agreement. Depending on the region, notice periods can range from 2 to 15 weeks, although special cases do exist (in Germany, for example, notice periods can range from 2 weeks to 7 months).

**4. Occupational health and safety (LA7)**

- See EHS performance indicators (pages 80-87).

**5. Training (LA10, LA12, LA8)**

PERCENTAGE OF EMPLOYEES WHO HAVE RECEIVED TRAINING  
in %



In 2012, 150,754 employees (or 78.2% of the workforce) benefited from 4.2 more than million hours of training, an investment that represented 2.1% of total payroll. Classroom training (4 million hours) accounted for the major part of this effort.

AVERAGE NUMBER OF HOURS OF TRAINING PER EMPLOYEE PER YEAR



During the year, each employee received an average of 22.9 hours of training. Technical courses accounted for 49.1% of training, while EHS courses represented 24.4%. Programs vary from one country to another as concerns education, training, advice, prevention and risk management to help employees, their families or members of the local community in the event of a serious illness. We offer programs for employees in the areas of education (training on workplace health, chemical products, noise, first aid, etc.), prevention (campaigns against obesity, vaccination drives, monitoring for psychosocial risks, etc.), assistance and advice (on-site social workers, appointments with psychologists, help in stopping smoking, etc.) and treatment (health coverage, accident insurance, etc.).

In numerous cases, these services are also open to family members. Many education and prevention campaigns are carried out in local communities.

**6. Diversity and equal opportunity (LA1, LA13, LA14, LA15, HR4, HR5)**

• **Diversity and equal opportunity**

HIRING AND PROMOTION OF WOMEN  
in %



Of the Group's 192,781 employees at year-end 2012, 39,023 (20.2%) were women. This represents a 0.2-point increase from 20.0% at year-end 2011.<sup>13</sup> The hiring rate for women rose to 24.3% in 2012 from 23.1% the year before.

Operators accounted for 21.8% of the women in the Group (8,498 employees); administrative employees, technicians, sales staff and supervisors accounted for 65.3% (25,485) and managers accounted for 12.9% (5,040).

<sup>13</sup> Based on the SJS employee numbers report (total headcount). On the basis of the NRE report (97.2% of headcount), the proportion of women in the workforce rose by 0.4 point to 20.4%.

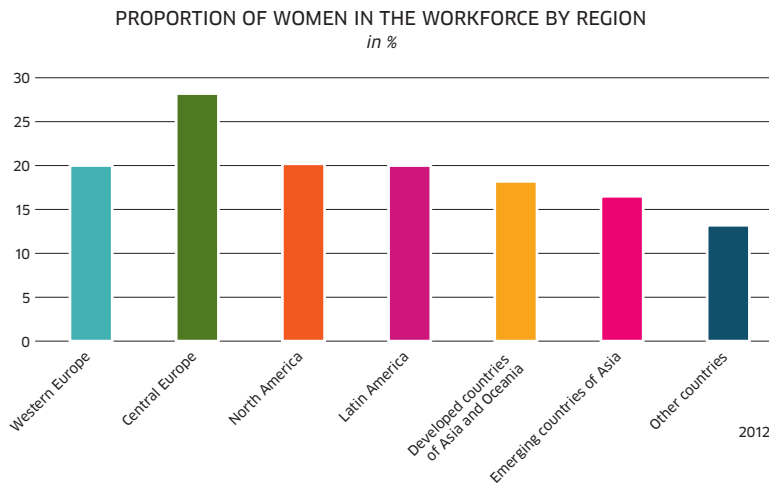
# SOCIAL PERFORMANCE

More women were promoted to positions of responsibility during the year, as the increase in the percentage of women employees in the manager category to 12.9% ✓ from 12.3% in 2011 attests. At the same time, the hiring rate for women rose to 24.9% ✓ from 24.6% in 2011. The proportion of women among senior executives increased by 1.3 point in 2012.

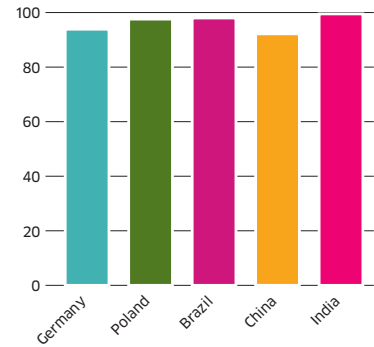
Among managers working outside their home countries, 23.0% were women.

In 2012, 8,678 young people under 26 joined Saint-Gobain. Applicants under 26 accounted for 34.7% of new hires versus 35.4% in 2011, all employee categories combined. In France, 1,397 skills-acquisition or apprenticeship contracts were signed with work-study program participants.

Business development outside France involves building local teams that allow Saint-Gobain to continuously adapt to the specific features of each country.



**PERCENTAGE OF LOCAL HIRES AMONG SENIOR MANAGERS IN FIVE HOST COUNTRIES**  
in %



- Equal opportunity
- Compensation

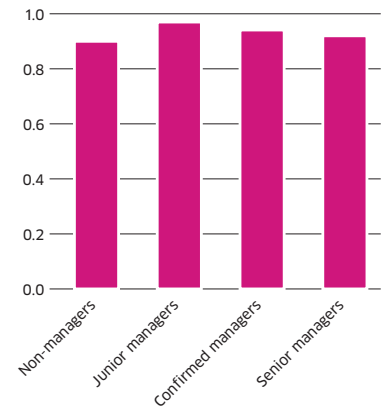
In cooperation with the French Agency for International Business Development (UBIFRANCE), Saint-Gobain also offers assignments as part of the country's Volunteer for International Experience (VIE) program. During the year, 45 such assignments were under way in the United States, Germany, Belgium and Japan.

Applicants age 50 and better represented 5.7% of new hires in 2012, up from 5.3% in 2011.

Disabled employees represent 1.7% of the Saint-Gobain workforce. However, this figure is not necessarily representative in that legislation in certain countries does not always allow for precise data.

In France, Saint-Gobain has 1,438 disabled employees, representing 3.8% of the workforce number used to calculate the Group's legal obligation. 69 workstations were fitted out in cooperation with our occupational physicians.

**RATIO OF BASIC SALARY OF WOMEN TO MEN IN FRANCE**



- Discretionary and statutory profit sharing

In France, virtually all employees (98.5% versus 97.8% in 2011) are now covered by a collective bargaining agreement. In 2012, French subsidiaries paid a total of €68.5 million under discretionary profit-sharing agreements and €37.4 million in relation to statutory profit-sharing, representing 6.4% of their total payroll.



• **Health coverage**

Nearly 95% of the employees concerned by the project to harmonize death, disability and health insurance in France benefit from a system that covers at least 94% of their actual medical expenses.

• **Employee share ownership**

In 2012, employees subscribed 4,387,680 shares within the framework of the Group Savings Plan (see page 54), for a total amount of €125.4 million. In France, 46.5% of employees invested in the Group Savings Plan through corporate mutual funds (*Fonds Communs de Placement d'Entreprise* - "FCPE"). The Group Savings Plan was also offered in 24 other European countries and 17 countries outside Europe. In all, more than 32,000 Group employees participated in the Plan during 2012.

Together, Group Savings Plan funds hold 8.4% of the capital and 12.1% of the voting rights of Compagnie de Saint-Gobain.

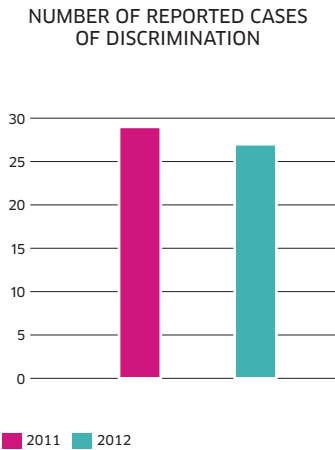
• **Work-life balance**

At Saint-Gobain, we pay close attention to our employees' work-life balance, particularly with regard to parental leave, and we make every effort to ensure that employees on leave return to work.

PARENTAL LEAVE in France in 2012	
Number of female employees in France with the right to parental leave	670
Percentage of female employees who took parental leave in 2012	30.6%
Number of male employees in France with the right to parental leave	1,707
Percentage of male employees who took parental leave in 2012	1.2%

**7. Promotion of and respect for human rights and ILO conventions ( HR4, HR6, HR7)**

• **Reported cases of discrimination**



In 2012, 27 cases of discrimination were reported. Each was analyzed and addressed in an appropriate manner using a range of actions that culminate in termination.

More generally, in addition to training in the Group's Principles of Conduct and Action (see pages 66, 94), the Delegations carry out specific awareness campaigns on the Saint-Gobain's zero tolerance for discrimination.



Two complaints were filed during the year concerning freedom of association and collective bargaining. One was closed without further action and the other is being investigated by local judicial authorities.

A third complaint concerning a request to create a union was rejected by the local authorities.

Generally speaking, Group companies in France and the rest of the world conduct an active policy to establish transparent, meaningful social dialogue that is respectful of employee representatives (see pages 16 and 51).

# BUSINESS PRACTICES AND RESPECT FOR HUMAN RIGHTS

## Implementation of the Principles of Conduct and Action (HR1, HR3, HR10)

All Saint-Gobain managers are introduced to the Principles of Conduct and Action through an online training program that is mandatory for all new managerial hires.

In addition, 828 managers took part in advanced training in the Principles of Conduct and Action in 2012 through the School of Management. To multiply the impact of this effort, a "train the trainer" program is currently being rolled out (see pages 66-67).

The Principles of Conduct and Action are used to assess all investment agreements. They are systematically issued to employees of newly acquired companies and implemented by their management teams.

The Principles of Conduct and Action include specific clauses on human rights. The principle "Employee rights" states that "Group companies [...] must refrain from any form of recourse to forced labor, compulsory labor, or child labor - whether directly or indirectly or through sub-contractors when the latter are working on a Group site." Saint-Gobain refers to the applicable Conventions of the International Labor Organization for the definition of these concepts. The principle also states that Group companies "must refrain from any form of discrimination with respect to their employees, whether in the recruitment process, at hiring, or during or at the end of the employment relationship."

100% of the Group's operations are covered by the internal control system. Compliance with the values and rules of conduct formalized in the Saint-Gobain Principles of Conduct and Action is a basic component of our internal control system. More detailed information is provided in the Annual Report (pages 101-102).

## Competition Law Plan

In 2012, 9,460 employees completed the Comply online training program on compliance with Competition Law.

Since the Competition Law Plan was launched, nearly 7,000 managers and employees have attended more than 254 advanced training seminars in 19 countries.

In all, unannounced audits by lawyers specialized in Competition Law have been conducted at 102 Group sites in 24 countries since the Competition Law Plan was launched

## Compliance alerts system

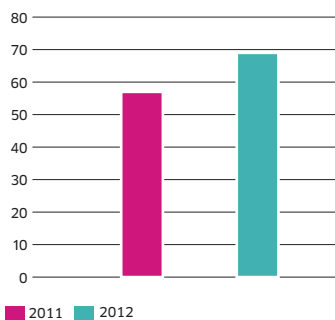
The Group's compliance alerts system recorded nine alerts in 2012. Each was reviewed and, when appropriate, investigated. The necessary measures were taken to address all confirmed cases of non-compliance.

## Prevention of corruption

None of the alerts recorded through the compliance alerts system in 2012 concerned corruption.

## Responsible purchasing (HR2, EC6)

RESPONSIBLE PURCHASING: NUMBER OF INITIAL AUDITS



As part of our responsible purchasing policy (see pages 72-73), 69 initial supplier audits were conducted by a specialized firm in 2012. In addition, 55 follow-up audits triggered by an initial audit were conducted to ensure that the requested corrective measures were properly applied. A breakdown by region shows that 13 initial audits were conducted in India, 11 in China, 8 in Brazil and 4 in Russia. Among the areas under review were specific items pertaining to working conditions, working hours and wages.

Generally speaking, subsidiaries are encouraged to participate in the economic development of their host regions.

In France, Saint-Gobain has signed a charter for its suppliers governing the

PERCENTAGE OF PURCHASES (EXCLUDING DISTRIBUTION) MADE FROM LOCAL SUPPLIERS en %



quality of relations between major customers and small- and medium-sized enterprises (SMEs). This charter comprises ten good practice commitments for dealing with suppliers. In particular, it promotes the concept of regional responsibility, which encourages companies to develop economic activity in their host regions and to forge strong relationships with local customers and suppliers

## Fight against child labor, forced labor and compulsory labor (HR6, HR7)

No cases of child labor, forced labor or compulsory labor were reported in 2012. Group companies verify their employees' ages and carry out additional checks, if needed, in liaison with local authorities.

Similarly, Group companies verify that they are not participating in any way in forced or compulsory labor, notably through dialogue with employee representatives. This system helps detect any possible failures.

Concerning purchasing, the Group's responsible purchasing policy (described on pages 72-73) prohibits working with suppliers who use child labor, forced labor and compulsory labor.

## Other grievances related to human rights (HR11)

One grievance related to human rights was filed in 2012. The Delegation in question analyzed and resolved the grievance.





### Significant financial assistance received from government (EC4)

Our activities do not depend directly on government grants or assistance. Any government grants or assistance received are not consolidated at the Group level. Assistance may be international, national or local in nature.

Examples include:

- case-by-case assistance for certain industrial facilities;
- support for locating R&D operations in certain areas, notably in France;
- insurance programs for foreign investments.

### Compliance with laws and regulations (PR3, PR6, PR9)

#### • Type of product and service information required by procedures (PR3)

Our products comply with current regulations, such as the CE marking or Safety Data Sheets (SDS) and labels for chemicals.

We also provide non-mandatory information specific to certain products, including:

- voluntary declarations with safety data for non-classified articles or substances;
- the declaration of materials and substances for the International Material Data System (IMDS) used by the automotive industry;
- specific labels such as the environmental and health data sheet in France for construction products.

#### • Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion and sponsorship (PR6)

Saint-Gobain bases its development on the values formalized in the Principles of Conduct and Action. In particular, the Principles call for compliance with regulations (Respect for the Law), professional standards (Professional Commitment) and internal rules (principle of Loyalty). The Group Compliance Program is designed to ensure the Principles are applied properly (see pages 12-13).

The Sustainable Habitat Mission (see page 10-11) conducts continuous monitoring and issues recommendations to give marketing teams in the activities a better understanding of existing labels for buildings and construction products with the goal of promoting labels that make life-cycle assessment a deciding criterion.

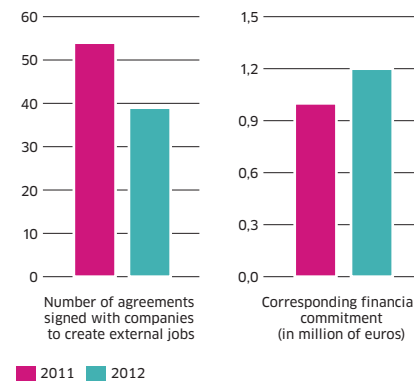
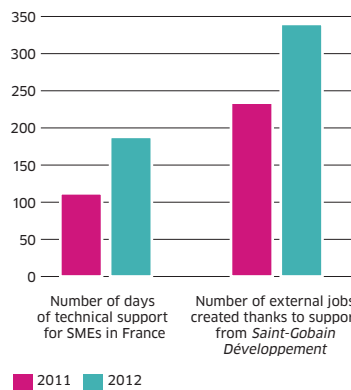
Saint-Gobain Glass and Glassolutions deployed a training program on the environmental benefits of their products for sales staff so that these team members can inform customers more effectively. In 2012, Saint-Gobain PAM implemented a similar approach for its sales staff.

#### • Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services (PR9)

The Group did not pay any fines of this type in 2012.

### Local development

#### • Local economic development



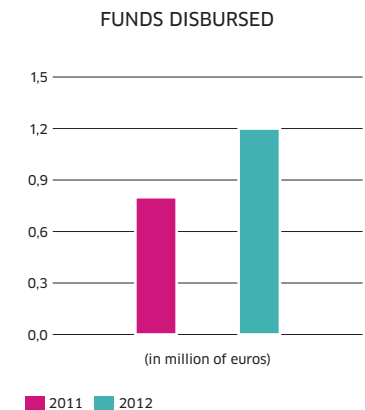
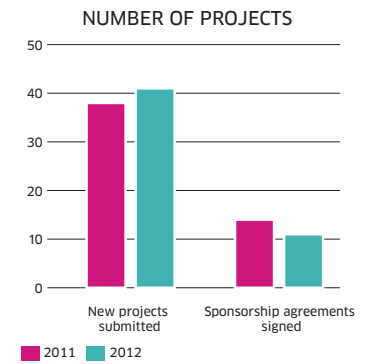
#### • Local outreach initiatives

INVESTMENTS IN PROJECTS TO SUPPORT LOCAL COMMUNITIES (in million of euros)



These figures include the annual contribution of the Saint-Gobain Initiatives International Corporate Foundation (€1 million).

#### • The Saint-Gobain Initiatives International Corporate Foundation



# KEY INDICATORS

## Environment

Indicator	2011	2012	GRI 3.1	Pages
<b>SITE CERTIFICATIONS</b>				
Number of quality-certified sites - comparable scope*	763	704		-
Percentage of concerned sites that are environmentally certified*	72.2%	75.2%		p 40-41
<b>ENVIRONMENTAL EXPENDITURE</b>				
Total environmental expenditure:*	€117.9 m	€144.0m	EN30	p 32-33
Salaries and other payroll expenses for environmental officers*	€21.6m	€26.6m	EN30	-
ISO 14001 and EMAS environmental certification and renewal costs	€2.4m	€2.4m	EN30	-
Environmental taxes	€4.8m	€5.2m	EN30	-
Insurance and warranties	€2.7m	€5.3m	EN30	-
Environmental fines	€0.5m	€0.1m	EN28	-
Cost of environmental incidents	€0.8m	€1.1m	EN30	-
Cost of technical measures	€8.3m	€5.9m	EN30	-
Environmental R&D budget	€67.2m	€90.2m	EN30	-
Soil decontamination, site remediation and other clean-up costs	€9.6m	€7.2m	EN30	-
Capital expenditure on environmental protection measures	€72.1m	€60.8m	EN30	-
Provisions for environmental risks	€169m	€151m	EN30	-
<b>RAW MATERIALS AND PRODUCTION WASTE</b>				
Quantity of production waste - concerned sites (based on 2010 production output) *	2.5 Mt	2.3 Mt ✓	EN22	p 41, 82-85
Consumption of primary raw materials in glass furnaces - concerned sites*	11.1 Mt	10.1 Mt	EN1	p 82-85
Consumption of cullet in glass furnaces - concerned sites*	3.11 Mt internally sourced, 4.37 Mt externally sourced	3.15 Mt internally sourced, 4.41 Mt externally sourced	EN2	p 82-85
Percentage of cullet in each ton of finished product of glass wool produced - concerned sites*	15.0% internally sourced, 47.1% externally sourced	17.2% internally sourced, 45.6% externally sourced	EN2	-
Percentage of cullet in each ton of finished product of container glass produced - concerned sites*	19.2% internally sourced, 43.7% externally sourced	19.8% internally sourced, 46.4% externally sourced	EN2	-
Percentage of cullet in each ton of finished product of flat glass produced - concerned sites*	27.7% internally sourced, 5.3% externally sourced	31.3% internally sourced, 4.2% externally sourced	EN2	-
Percentage of tons of finished products from primary melt of cast iron - concerned sites*	80.5%	81.1%		p 82-85
Percentage of recycled materials in each ton of finished product of cast-iron produced - concerned sites*	38.4%	45.8%	EN2	p 82-85
Percentage of recycled materials in each ton of finished product of gypsum - concerned sites*	29.2 %	26.3%	EN2	p 82-85
Percentage of waste generated by the processing of recycled stack gas in Saint-Gobain Glass furnaces - concerned sites	52.8%	52.6%		-

✓ 2012 indicators verified by the Statutory Auditors. The Statutory Auditors' review report for 2012 is presented on pages 80 and 81.

(\*) Adjusted to reflect 2012 scope of reporting. 2011 data has been updated to take site closings and openings into account.

(\*\*) Saint-Gobain's businesses do not generate any greenhouse gases other than CO<sub>2</sub>.



Indicator	2011	2012	GRI 3.1	Pages
<b>GREENHOUSE GASES</b>				
Direct CO <sub>2</sub> emissions, based on 2010 production output - concerned sites*	11.5Mt	11.1Mt✓	EN16	p 34-37, 82-85
Direct CO <sub>2</sub> emissions - Group, based on a comparable scope*	14.0 Mt CO <sub>2</sub>	12.8 Mt CO <sub>2</sub> ✓	EN16	p 82-85
Direct CO <sub>2</sub> emissions per ton of finished product of glass produced - concerned sites*	569 kg CO <sub>2</sub> /ton of finished product of glass produced	559 kg CO <sub>2</sub> /ton of finished product of glass produced✓	EN16	-
Direct CO <sub>2</sub> emissions per ton of finished product of cast-iron produced - concerned sites *	1,594 kg CO <sub>2</sub> / ton of finished product of cast iron produced	1,523 kg CO <sub>2</sub> / ton of finished product of cast iron produced✓	EN16	-
Direct CO <sub>2</sub> emissions per ton of finished product of plaster produced - concerned sites*	126 kg CO <sub>2</sub> /ton of finished product of plaster produced	126 kg CO <sub>2</sub> /ton of finished product of plaster produced✓	EN16	-
Other relevant indirect emissions of greenhouse gases, in tons CO <sub>2</sub> equivalent**	N/A	N/A	EN17	-
Indirect greenhouse gas emissions from electricity, steam and hot water	5.0 Mt CO <sub>2</sub> equivalent	4.6 Mt CO <sub>2</sub> equivalent✓	EN16	-
<b>ENERGY</b>				
Energy use – Group, based on a comparable scope*	224,668 TJ	210,899 TJ✓	EN3	p 82-85
Indirect energy consumption – Group, based on a comparable scope*	47,784 TJ	44,185 TJ✓	EN4	-
Electricity consumption – Group, based on a comparable scope*	46,831 TJ	43,277 TJ✓	EN4	-
Steam and hot water consumption – Group, based on a comparable scope	953 TJ	908 TJ✓	EN4	-
Direct energy consumption – Group, based on a comparable scope*	176,904 TJ	166,714 TJ✓	EN3	-
Coal and coke consumption – Group, based on a comparable scope	27,515 TJ	24,245 TJ✓	EN3	-
Natural gas consumption – Group, based on a comparable scope*	111,253 TJ	116,704 TJ✓	EN3	-
Petroleum product consumption – Group, based on a comparable scope*	36,019 TJ	25,641 TJ✓	EN3	-
<b>AIR EMISSIONS</b>				
SO <sub>2</sub> emissions per ton of finished product of glass produced - concerned sites*	2.29 kg	1.68 kg✓	EN20	p 82-85
SO <sub>2</sub> emissions per ton of finished product of cast-iron produced - concerned sites	2.68 kg	2.81 kg✓	EN20	p 82-85
SO <sub>2</sub> emissions by the Pipes Activity and the Glass Activities - concerned sites*	37,266 t	26,711 t✓	EN20	p 82-85
NO <sub>x</sub> emissions per ton of finished product of glass produced - concerned sites*	2.27 kg	2.24 kg✓	EN20	p 82-85
NO <sub>x</sub> emissions per ton of finished product of cast iron produced - concerned sites	1.45 kg	1.58 kg✓	EN20	p 82-85
NO <sub>x</sub> emissions by the Pipes Activity and the Glass Activities - concerned sites*	34,976 t	32,524 t✓	EN20	p 82-85
Particulate emissions per ton of finished product of glass produced - concerned sites	0.25 kg	0.24 kg	EN20	p 82-85
Particulate emissions per ton of finished product of cast-iron produced - concerned sites	3.84 kg	3.90 kg	EN20	p 82-85

# KEY INDICATORS

Indicator	2011	2012	GRI 3.1	Pages
<b>WATER</b>				
Water withdrawals, based on 2010 production output - concerned sites*	50.9 million cu.m.	52.5 million cu.m.✓	EN8	p 38-39, 82-85
Water withdrawals - Group, based on a comparable scope*	82.1 million cu.m.	75.3 million cu.m.✓	EN8	p 38-39, 82-85
Rainwater withdrawals - Group, based on a comparable scope*	0.4 million cu.m.	0.5 million cu.m.✓	EN8	p 82-85
Municipal water withdrawals - Group, based on a comparable scope	19.7 million cu.m.	17.8 million cu.m.✓	EN8	p 82-85
Surface water withdrawals - Group, based on a comparable scope*	35.6 million cu.m.	31.2 million cu.m.✓	EN8	p 82-85
Groundwater withdrawals - Group, based on a comparable scope*	26.1 million cu.m.	25.2 million cu.m.✓	EN8	p 82-85
Water discharges - Group, based on a comparable scope*	48.4 million cu.m.	46.6 million cu.m.	EN21	p 82-85
Water discharges into surrounding environment - Group, based on a comparable scope*	34.3 million cu.m.	33.5 million cu.m.	EN21	p 82-85
Water discharges into municipal wastewater collection system - Group, based on a comparable scope*	14.0 million cu.m.	13.0 million cu.m.	EN21	p 82-85
<b>ENVIRONMENTAL RISKS</b>				
Number of Seveso-classified sites	5	5		AR <sup>14</sup> p 113
Number of accidental spills (Gypsum Activity)	5	3	EN23	p 82-85
Volume of accidental spills (Gypsum Activity)	2.7 cu.m. of fuel oil	31.1 cu.m.	EN23	-

<sup>14</sup> AR: Annual Report.



## Social indicators

Indicator	2011	2012	GRI 3.1	Pages
<b>EMPLOYMENT</b>				
Total headcount	194,658 employees	192,781 employees✓	LA1	p 44, 88-93
Breakdown by gender M/F	80.0%/20.0%	79.6%/20.4%✓	LA1	p 53, 88-93
Percentage of operators	44.9%	44.0%✓	LA1	p 88-93
Percentage of administrative employees, technicians and supervisors	41.2%	41.9%✓	LA1	p 88-93
Percentage of managers	13.9%	14.1%✓	LA1	p 88-93
Percentage of fixed-term employment contracts	3.9%	4.4%	LA1	p 88-93
Percentage of fixed-term employment contracts transformed into permanent contracts	35.0%	27.9%	LA1	p 88-93
Percentage of temporary workers	5.9%	6.8%	LA1	p 88-93
Percentage of part-time workers	3.1%	2.9%	LA1	p 88-93
Departure rate	14.7%	14.5%	LA2	p 88-93
Resignation rate	5.6%	4.9%	LA2	p 88-93
Termination rate	4.2%	4.7%	LA2	p 88-93
Recruitment rate	15.9%	13.3%	LA2	p 88-93
Recruitment rate M/F	76.9%/ 23.1%	75.7%/ 24.3%	LA2	p 88-93
<b>MOBILITY</b>				
Number of managers on inter-Activity mobility assignment	Not measured	458✓		p 52-53
Number of managers on inter-profession mobility assignment	Not measured	1,014✓		p 52-53
Number of managers on geographic mobility assignment	Not measured	231✓		p 52-53
<b>WORK ORGANIZATION</b>				
Percentage of employees in manufacturing operations performing shift work	32.5%	32.7%		p 88-93
Overtime rate	4.7%	4.1%		p 88-93
Absenteeism	3.7%	3.7%	LA7	p 88-93
<b>EMPLOYEE RELATIONS</b>				
Percentage of employees with employee representation	67.0%	68.0%	LA4	p 88-93
Number of agreements signed with employee representatives	1,383	1,371	LA4	p 51, 88-93
Percentage of employees covered by a collective bargaining agreement (and percentage for France)	70.2% (France: 100%)	72.1% (France: 100%)	LA4	p 51, 88-93
Minimum notice period(s) regarding significant operational changes	From 2 weeks to several months, depending on the country	From 2 weeks to several months, depending on the country	LA5	p 88-93
<b>OCCUPATIONAL HEALTH AND SAFETY</b>				
Lost-time accident rate (LTAR) (more than 24 hours' lost time) - Group*	3.1	2.8✓	LA7	p 8-9, 44, 46-47, 82-85, 86-87
Severity rate - Group	0.20	0.18	LA7	p 82-85
Lost-time accident rate (LTAR) (more than 24 hours' lost time) - Building Distribution Sector*	5.1	4.3✓	LA7	p 82-85
Total recordable accident rate (TRAR) - industrial Sectors*	6.3	5.2✓	LA7	p 82-85
Number of workplace fatalities - Saint-Gobain employees	3	6	LA7	p 82-85
Number of millionaire sites (sites that have clocked up over one million accident-free hours of work and/or more than five years' work without any lost-time accidents)	179	188		p 46
Number of Health & Safety-certified sites - comparable scope*	356	341		-

✓ 2012 indicators verified by the Statutory Auditors. The Statutory Auditors' review report for 2012 is presented on pages 80 and 81.  
 (\*) Adjusted to reflect 2012 scope of reporting. 2011 data has been updated to take site closings and openings into account.

# KEY INDICATORS

Indicator	2011	2012	GRI 3.1	Pages
<b>TRAINING</b>				
Training expenditure as a percentage of total payroll	2.0%	2.1%	LA10	-
Percentage of employees who took at least one training course during the year	74.7%	78.2%	LA10	p 55, 88-93
Average number of hours of training per employee per year	23.5 hours	22.9 hours	LA10	p 55, 88-93
Percentage of training hours dedicated to technical training and EHS	Technical training 50.0% EHS training 24.8%	Technical training 49.1% EHS training 25.4%	LA10	P 88-93
Percentage of non-managers who had a performance review	49.5%	49.5%	LA12	-
Percentage of managers who had a performance review	81%	81%	LA12	-
Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	Yes	Yes	LA8	-
Extension of such programs to families	Advice and assistance in the event of a serious accident	Advice and assistance in the event of a serious accident	LA8	-
Extension of such programs to local communities	Sometimes, in partnership with associations	Sometimes, in partnership with associations	LA8	-
<b>NON-DISCRIMINATION</b>				
Recruitment rate for employees under 26	35.4%	34.7%	LA1-LA13	p 88-93
Percentage of employees in France taken on under a youth employment scheme	3%	3%	LA1-LA13	p 88-93
Recruitment rate for employees age 50 or better	5.3%	5.7%	LA1-LA13	p 53, 88-93
Percentage of female employees	20.0%	20.4%✓	LA1-LA13	p 53, 88-93
Percentage of white-collar workers among female employees	77.8%	78.1%✓	LA1-LA13	-
Percentage of blue-collar workers among female employees	22.2%	21.9%	LA1-LA13	p 88-93
Percentage of managers among female employees	12.3%	12.9%✓	LA1-LA13	p 88-93
Female managers as a % of total managers	18.0%	19.0%✓	LA1-LA13	p 88-93
Recruitment rate female managers/recruitment rate for managers	24.6%	24.9%✓	LA1-LA13	p 88-93
Promotions of female managers/total promotions of managers	Not measured	18.5%✓	LA1-LA13	-
Percentage of female managers among senior executives	6.1%	7.4%	LA1-LA13	p 88-93
Percentage of disabled employees in France	3.7%	3.8%	LA13	p 88-93
Number of workstations fitted out for disabled employees	52	69	LA13	p 88-93
Total number of incidents of discrimination	29	27	HR4	p 88-93
Operations identified in which the right to exercise freedom of association and collective bargaining may be at risk	2	3	HR5	p 88-93
<b>EQUAL OPPORTUNITY</b>				
Ratio of basic salary and remuneration of women to men in France	9%	9%	LA14	p 88-93
Percentage of employees in France covered by the discretionary profit-sharing scheme	97.8%	98.5%		p 88-93
Number of employees who have joined the Group savings plan	More than 80,000	More than 90,000		p 54
Percentage of shares held by Group employees	8%	8.4%		p 88-93
Percentage of voting rights held by Group savings plan funds	11.8%	12.1%		p 88-93
Number of countries benefiting from Group savings plan	42	42		p 88-93
Percentage of employees with social coverage in France and rate of coverage	Not measured	95% benefit from a coverage rate of 94%		-



## Societal

Indicator	2011	2012	GRI 3.1	Pages
<b>BUSINESS CONDUCT AND HUMAN RIGHTS</b>				
Number of managers trained in the Principles of Conduct and Action through the School of Management	800	828		p 94-95
Number of alerts received on average through the compliance alerts system	Not measured	9		p 94-95
Number of cases of corruption reported	1 case	0 cases		p 94-95
Number of suppliers audited (initial audits)	57	69	HR2	p 8-9, 94-95
Percentage of purchases (excluding distribution) made from local suppliers	18.7%	20.3%	EC6	p 94-95
Operations identified as having significant risk for incidents of child labor	0	0	HR6	p 94-95
Operations identified as having significant risk for incidents of forced or compulsory labor	0	0	HR7	p 94-95
Number of grievances related to human rights	0	1	HR11	p 94-95
Monetary value of significant fines for non-compliance with laws and regulations	0	0	S08	p 94-95
Total number of non-monetary sanctions for non-compliance with laws and regulations	0	0	S08	p 94-95
<b>LOCAL ECONOMIC DEVELOPMENT</b>				
Number of days of technical support to SMEs in France (from Dec. 1 to Nov. 30 of the following year)	112 days	188 days		p 8-9, 58-59, 94-95
Number of jobs created outside the Group in France with the support of Saint-Gobain Développement	234 jobs	340 jobs		p 58-59, 94-95
Number of agreements signed with companies to create external jobs	54 agreements	39 agreements		p 58-59, 94-95
Financial commitment as part of agreements to support SMEs in France	€1m	€1.2m		p 58-59, 94-95
<b>LOCAL COMMUNITY DEVELOPMENT</b>				
Group investments in projects to support local communities	€5.1m	€5.1m		p 62-63
Number of new projects submitted to the Saint-Gobain Initiatives International Corporate Foundation	38	41		p 60-61, 94-95
Number of new projects accepted by the Saint-Gobain Initiatives International Corporate Foundation	15	14		-
Number of sponsorship agreements signed by the Saint-Gobain Initiatives International Corporate Foundation	14	11		p 8-9, 60-61, 94-95
Funds dispersed for projects by the Saint-Gobain Initiatives International Corporate Foundation	€815,000	€1.2m		p 60-61, 94-95

# GRI TABLE

Category	Subsection	GRI ref.	Description	pages
<b>PROFILE</b>				
<b>Strategy and Analysis</b>		1.1	Statement from the most senior decision maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	p 1,
		1.2	Description of key impacts, risks and opportunities.	p 6-7 AR <sup>15</sup> p 110-116,
<b>Organization Profile</b>		2.1	Name of the organization.	Couverture,
		2.2	Primary brands, products and/or services.	p 2-5, 24-25 AR p 10-26,
		2.3	Operational structure of the organization including main divisions, operating companies, subsidiaries and ventures.	p 2-5 AR p 10, 95-96,
		2.4	Location of organization headquarters.	AR p 219-220,
		2.5	Number of countries where the organization operates and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	p 4-5 AR p 7,
		2.6	Nature of ownership and legal form.	AR p 66,
		2.7	Markets served (including geographic breakdown, sectors served and types of customers/beneficiaries).	p 2-5 AR p 10-26,
		2.8	Scale of the reporting organization, including: <ul style="list-style-type: none"> <li>• Number of employees.</li> <li>• Net sales (for private sector organizations) or net revenues (for public sector organizations).</li> <li>• Number of operations.</li> <li>• Total capitalization broken down in terms of debt and equity (for private sector organizations).</li> <li>• Quantity of products or services provided.</li> </ul>	p 4-5 AR p 4, 6, 9, 10, 15, 20, 23, 26, 206-215,
		2.9	Significant changes during the reporting period regarding size, structure or ownership, including: <ul style="list-style-type: none"> <li>• The location of, or changes in operations, including facility openings, closings and expansions.</li> <li>• Changes in the share capital structure and other capital formation, maintenance and alteration operations (for private sector organizations).</li> </ul>	AR p 133-134,
		2.10	Awards received in the reporting period.	p 25, 41, 60,
<b>Report Parameters</b>	Report Profile	3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	AR p 181,
		3.2	Date of most recent previous report (if any).	2012,
		3.3	Reporting cycle (annual, biennial, etc.).	AR p 181,
		3.4	Contact point for questions regarding the report or its contents.	Back of the cover,
	Report Scope and Boundary	3.5	Process for defining report content, including: <ul style="list-style-type: none"> <li>• Determining materiality.</li> <li>• Prioritizing topics within the report.</li> <li>• Identifying which stakeholders the organization expects to use the report.</li> </ul>	p 16-17, 76-79,
		3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	p 76-79,
		3.7	Any specific limitations on the scope or boundary of the report.	p 76-79,
		3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	p 76-79,
		3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report.	p 76-79,
		3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of the business, measurement methods).	p 76-79,
		3.11	Significant changes from previous reporting periods in the scope, boundary or measurement methods applied in the report.	p 76-79,

<sup>15</sup> AR: Annual Report.







Category	Subsection	GRI ref.	Description	pages
Report Parameters	GRI Content Index	3.12	Table identifying the location of the Standard Disclosures in the report. Identification of the page numbers or web links where the following can be found: <ul style="list-style-type: none"> <li>• Strategy and Analysis 1.1-1.2.</li> <li>• Organizational Profile 2.1-2.10.</li> <li>• Report Parameters 3.1-3.13.</li> <li>• Governance, Commitments and Engagement 4.1-4.17.</li> <li>• Disclosure of Management Approach, per category.</li> <li>• Core Performance Indicators.</li> <li>• Any GRI Additional Indicators included.</li> <li>• Any GRI Sector Supplement Indicators included in the report</li> </ul>	p 102-107,
	Assurance	3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).	p 80-81,
Governance, Commitments and Engagement	Governance	4.1	Governance structure of the organization, including committees under the highest governance body (Board of Directors or other) responsible for specific tasks, such as setting strategy or organizational oversight.	p 11 AR p 73-85,  (5)
		4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	p 11,
		4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	AR p 75,
		4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	p 16-19 AR p 72,
		4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	AR p 85-94,
		4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	p 12-13, 94-95 AR p 80,
		4.7	Process for determining the qualifications and expertise required of the members of the highest governance body for making decisions on economic, environmental and social strategy.	AR p 81-82,
		4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	p 1, 6-7, 12-13, 94-95 AR p 34-36,
		4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	p 12-13, 94-95 AR p 81,
		4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	AR p 34-36, 81,
	Commitments to External Initiatives	4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	AR p 110-116,
		4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	p 1, 6-7, 110-111,
		4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: <ul style="list-style-type: none"> <li>• Has positions in governance bodies.</li> <li>• Participates in projects or committees.</li> <li>• Provides substantive funding beyond routine membership dues.</li> <li>• Views membership as strategic.</li> </ul>	p 1, 6-7, 68-69,
	Stakeholder Engagement	4.14	List of stakeholder groups engaged by the organization.	p 16-19 AR p 72,
		4.15	Basis for identification and selection of stakeholders with whom to engage.	p 16-17, 68-69,
		4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	p 16-17, 76-79,
4.17		Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	p 16-19, 76,	

Category	Subsection	GRI ref.	Description	pages
<b>MANAGERIAL APPROACH AND PERFORMANCE INDICATORS</b>				
<b>Disclosure on Management Approach and Performance Indicators</b>	Environment	DMA EN	<b>Environment</b>	
			Materials	p 14-15, 28-29, 41,
			Energy	p 14-15, 28-29, 34-37,
			Water	p 14-15, 28-29, 38-39,
			Biodiversity	p 14-15, 28-29, 39,
			Emissions, effluents and waste	p 14-15, 28-29, 40-41,
			Products and services	p 22-29,
			Compliance	p 12-15 AR p 101-108,
			Transport	p 36,
			Overall	p 8-9, 14-15,
	Human Rights	DMA HR	<b>Human rights</b>	
			Investment and procurement practices	p 58, 72-73,
			Non-discrimination	p 12-13, 45, 53,
			Freedom of association and collective bargaining	p 12-13, 51,
			Prevention of child labor	p 12-13, 72-73,
			Prevention of forced and compulsory labor	p 12-13, 72-73,
			Security practices	p 12-13,
			Indigenous rights	p 12-13, 72-73,
	Labor Practices and Decent Work	DMA LA	<b>Labor practices and decent work</b>	
			Employment	p 52-55,
			Labor/management relations	p 51,
			Occupational health and safety	p 14-15, 46-49,
			Training and education	p 55,
			Diversity and equal opportunity	p 45, 53,
	Society	DMA SO	<b>Society</b>	
			Community	p 53-63,
			Corruption	p 12-13,
			Public policy	p 68-69,
			Anti-competitive behavior	p 12-13,
	Product Responsibility	DMA PR	<b>Product responsibility</b>	
			Customer health and safety	p 14-15,
			Product and service labeling	p 28-29,
			Communication marketing	p 10-13,
	Economic Performance	DMA EC	<b>Economic performance</b>	
			Economic performance	p 4-5, 14-15 AR p 3, 6,
			Market presence	p 22-27 AR p 6-9,
Indirect economic impacts			p 56-63,	



Category	Subsection	GRI ref.	Description	pages
<b>GRI INDICATORS</b>				
<b>Environment</b>	Materials	EN1	Materials used by weight or volume.	p 41, 82-85, 96,
		EN2	Percentage of materials used that are recycled input materials.	p 41, 82-85, 96,
	Energy	EN3	Direct energy consumption by primary energy source.	p 82-85, 97,
		EN4	Indirect energy consumption by primary source.	p 82-85, 97,
	Water	EN8	Total water withdrawal by source.	p 38-39, 82-85, 99,
		EN10	Percentage and total volume of water recycled and reused.	p 82-85,  (1)
	Biodiversity	EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	p 39,  (1)
		EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	p 39,  (4)
	Emissions, Effluents and Waste	EN16	Total direct and indirect greenhouse gas emissions by weight (tons CO <sub>2</sub> equivalent).	p 82-85, 97,
		EN17	Other relevant indirect greenhouse gas emissions by weight (tons CO <sub>2</sub> equivalent).	p 97,
		EN 18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	p 28-29, 34-37, 82-85,
		EN19	Emissions of ozone-depleting substances by weight.	No emission of ozone-depleting substances
		EN20	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions by type and weight.	p 40-41, 82-85, 97,  (4)
		EN21	Total water discharge by quality and destination.	p 82-85, 98,  (2)
		EN22	Total weight of waste by type and disposal method.	p 28-29, 82-85, 96,  (4)
		EN23	Total number and volume of significant spills.	p 82-85, 98,
Products and Services	EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	p 10-11, 28-29,	
	EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	p 10-11, 28-29,  (2)	
Compliance	EN28	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	p 96,  (4)	
Overall	EN30	Total environmental protection expenditures and investments by type.	p 96,  (6)	
<b>Human Rights</b>	Investment and Procurement Practices	HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	p 94-95,
		HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	p 94-95,
		HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	p 94-95,
	Non- discrimination	HR4	Total number of incidents of discrimination and corrective actions taken	p 94-95, 100,
	Freedom of Association and Collective Bargaining	HR5	Operations identified in which the rights to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	p 94-95, 100,
	Prevention of Child Labor	HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	p 94-95, 101,
	Prevention of Forced and Compulsory Labor	HR7	Operations identified as having significant risk for incidents of forced or compulsory labor and measures to contribute to the elimination of all forms of forced or compulsory labor.	p 94-95, 101,
	Assessment	HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	p 94-95, 101 AR p 101-102,
Remediation	HR11	Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms.	p 94-95, 101,	

Category	Subsection	GRI ref.	Description	pages
Labor Practices and Decent Work	Employment	LA1	Total workforce by employment type, employment contract, and region.	p 44, 88-93, 99,  (6)
		LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	p 44, 88-90, 99,  (6)
		LA15	Return to work and retention rates after parental leave, by gender.	p 91-93,  (3)
	Labor/Management Relations	LA4	Percentage of employees covered by collective bargaining agreements.	p 51, 90, 99,
		LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	p 90, 99,
	Occupational Health and safety	LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	p 46-49, 85, 90, 99,  (5)
		LA8	Education, training, counseling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases.	p 91, 101,
	Training and Education	LA10	Average hours of training per year per employee by gender and by employee category.	p 91, 100,  (6)
		LA 12	Percentage of employees receiving regular performance and career development reviews, by gender.	p 91, 100,
	Diversity and Equal Opportunity	LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	p 91-92, 100 AR p 72-75,  (5)
Equal remuneration for women and men	LA14	Ratio of basic salary and remuneration of women to men by employee category.	p 91-92, 100,	
Society	Community	S01	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	p 58-59, 94-95,  (3)
		S09	Operations with significant potential or actual negative impacts on local communities.	AR p 113, 116,
		S010	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	AR p 116,
	Corruption	S02	Percentage and total number of business units analyzed for risks related to corruption.	p 94-95,
		S03	Percentage of employees trained in organization's anti-corruption policies and procedures.	p 94-95,
		S04	Actions taken in response to incidents of corruption.	p 94-95,
	Public Policy	S05	Public policy positions and participation in public policy development and lobbying.	p 68-69,
Compliance	S08	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.	p 101,  (4)	
Product Responsibility	Customer Health and Safety	PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	p 85,  (6)
	Product and service labeling	PR3	Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements..	p 94-95,  (4)
	Communications marketing	PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotions and sponsorship.	p 94-95,
	Compliance	PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	p 94-95,



Category	Subsection	GRI ref.	Description	pages
Economic Performance	Economic Performance	EC1	Direct economic value generated and distributed, including revenue, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	p 4-5, (6)
		EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	p 14-15, 82-85, (6)
		EC3	Coverage of the organization's defined benefit plan obligations.	AR p 113, (6)
		EC4	Significant financial assistance received from government.	p 94-95 AR p 183, (6)
	Market Presence	EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	p 94-95, (6)
		EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	p 88-89, (6)
	Indirect Economic Impacts	EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	p 94-95, (4)

(1) Certain required information is not available - to be reported in 2016.  
 (2) Certain required information is not available - to be reported in 2015.  
 (3) Certain required information is not available - to be reported in 2014.  
 (4) Certain required information is not applicable to Saint-Gobain, notably due to the diversity of the Group's sites and businesses.  
 (5) Certain required information is confidential or not allowed to be collected under certain laws.  
 (6) Certain required information does not concern Saint-Gobain or has very low relevance to the Group.

# GRENELLE II<sup>16</sup>

## TABLE

Information required	pages
<b>1) SOCIAL INFORMATION</b>	
<b>a) Employment</b>	
Total workforce by gender, age group and region	p 44, 88-93, 99
Recruitments and terminations	p 44, 88-90, 99
Compensation and changes in compensation	p 4-5, 51, 54, 92-100
<b>b) Organization of work</b>	
Organization of work time	p 51, 54, 90
Absenteeism	p 90, 99
<b>c) Labor relations</b>	
Organization of social dialogue	p 6, 17, 18, 44, 51, 90, 99-100
Outcome of collective agreements	p 51, 90-91, 99-100
<b>d) Occupational health and safety</b>	
Health and safety conditions at work	p 46-49, 85, 99
Outcome of collective agreements signed with labor unions concerning occupational health and safety	p 91, 100
Frequency and severity of work-related accidents and occupational diseases	p 44, 46-49, 85, 90, 99
<b>e) Training</b>	
Policies implemented concerning training	p 55
Total number of hours of training	p 91, 100
<b>f) Equal opportunity</b>	
Measures taken to promote gender equality	p 44-45, 53, 91-92, 100
Measures taken to promote the employment and integration of people with disabilities	p 53, 91-92, 100
Policy against discrimination	p 44-45, 53, 62-63, 93, 94, 100
<b>g) Promotion of and compliance with ILO conventions</b>	
Respect for freedom of association and collective bargaining	p 94-95, 99-100
Abolition of discrimination in employment and occupation	p 7, 12-13, 93, 94, 100
Abolition of forced or compulsory labor	p 6-7, 13, 94, 101
Effective abolition of child labor	p 6-7, 13, 94, 101
<b>2) ENVIRONMENTAL INFORMATION</b>	
<b>a) Environmental policy</b>	
Organization of the company to take environmental concerns into account. Environmental assessment and certification approaches	p 14-15, 40-41, 96-98
Employee training and information on environmental protection	p 15, 28-29, 55, 91, 100
Total investments and expenditures to prevent environmental risks and pollution	p 38-39, 40-41, 85, 96-98 DR p 113
Total provisions and guarantees for environmental risks	p 96
<b>b) Pollution and waste management</b>	
Measures to prevent, reduce and clean up environmentally harmful emissions and discharges into the air, water and soil	p 28-29, 38-41, 82-85, 98
Measures to prevent, recycle and eliminate waste	p 28-31, 40-41, 82, 96
Measures to mitigate noise pollution and all other types of pollution specific to an activity	p 48-49

<sup>16</sup> Act of July 12, 2010 outlining France's commitment to the environment.



Information required	pages
<b>c) Sustainable use of resources</b>	
Water use and water withdrawals in relation to local resources	p 38-39, 83, 98
Consumption of raw materials and measures to improve their efficient use	p 28-31, 41, 82, 96
Energy consumption and measures to improve energy efficiency and use renewable energy sources	p 34-37, 84, 97
Land use.	p 39
<b>d) Climate change</b>	
Greenhouse gas emissions	p 28-29, 34-37, 84, 97
Measures to adapt to climate change	p 14-15, 28-29, 34-37, 84, 97
<b>e) Protection of biodiversity</b>	
Measures taken to preserve or develop biodiversity	p 39
<b>3) INFORMATION ON SOCIETAL COMMITMENTS TO PROMOTE SUSTAINABLE DEVELOPMENT</b>	
<b>a) Regional, economic and social impact of the company's activities</b>	
Impact on employment and regional development	p 58-59, 94-95, 101
Impact on local and neighboring communities	p 58-63, 94-95, 101 DR p 113
<b>b) Relations with stakeholders, notably mainstreaming associations, educational institutions, environmental associations, consumer associations and neighboring communities</b>	
Relations with individuals or organizations concerned by the company's activities	p 16-19, 68-71
Partnership and sponsorship programs	p 60-63, 94-95, 96-101
<b>c) Sub-contracting and suppliers</b>	
Inclusion of social and environmental concerns in purchasing policy	p 12-13, 72-73, 94, 101
Importance of sub-contracting and integration of corporate social and environmental responsibility in relationships with suppliers and sub-contractors	p 72-73, 93, 94
<b>d) Fair operating practices</b>	
Measures to prevent corruption	p 12-13, 94, 101
Measures to preserve consumer health and safety	p 85
Other measures to promote human rights	p 12-13, 94-95, 101

# COMMUNICATION ON PROGRESS - UN GLOBAL COMPACT

Global Compact Principles	Main Actions In 2012	Additional information
<b>HUMAN RIGHTS</b>		
1. Businesses should support and respect the protection of internationally proclaimed human rights.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> Respect for the law: "All Group companies are to apply in all areas all laws and regulations in force in those countries where they carry on business." Respect for others: "Respect for others is an absolute prerequisite for the professional and personal development of each person. It must be applied throughout the Group worldwide and implies an acceptance of pluralism and others cultures and of people of all origins." - All managers have completed the ADHERE online training program on our Principles of Conduct and Action. - 828 managers were trained in seminars at the Saint-Gobain School of Management in 2012. - A "train-the-trainer" program for the Principles of Conduct and Action was pursued in China and introduced in Brazil. To be extended to other countries in 2013.</li> <li>• <b>Responsible purchasing</b> - Launch of a new Suppliers Charter and a new Purchasing Charter. - Continuation of the responsible purchasing awareness and training campaign. - Continued development of purchases from the supported employment sector and deployment of the specific module to raise awareness about purchases from the supported employment sector. - Launch of a risk analysis by purchasing category and continued deployment of the suppliers' audit and follow-up audit campaign.</li> </ul>	HR1 HR2 HR3 HR10 HR11 S03
2. Businesses should make sure that they are not complicit in human rights abuses.	<ul style="list-style-type: none"> <li>• See above.</li> <li>• <b>Social audits</b> - Continuation of social audits at some sites (Verallia).</li> </ul>	HR10 HR11
<b>LABOR</b>		
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2012) Employee rights: "Group companies are to scrupulously ensure that employees' rights are respected. They are to promote an active dialogue with their employees."</li> <li>• <b>Reference to ILO standards</b></li> <li>• <b>Indicator tracking</b> - Percentage of employees covered by collective bargaining agreements: 72.1%. - Number of agreements signed with employee representatives: 1,371. - Two incidents involving union activities were recorded during the year. After a review, local judges closed the two cases without further action.</li> </ul>	HR5 LA4
4. Businesses should uphold the elimination of all forms of forced and compulsory labor.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2012) Employee rights: "Group companies shall refrain from any form of recourse to forced labor, compulsory labor or child labor— whether directly or indirectly or through sub-contractors where the latter are working on a Group site."</li> <li>• <b>Reporting</b> - No actions or legal complaints were recorded for this type of incident.</li> <li>• <b>Responsible purchasing</b> (see above for main actions carried out in 2012).</li> </ul>	HR7
5. Businesses should uphold the effective abolition of child labor.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2012) Employee rights: "Group companies shall refrain from any form of recourse to forced labor, compulsory labor or child labor— whether directly or indirectly or through sub-contractors where the latter are working on a Group site."</li> <li>• <b>Reporting</b> - No actions or legal complaints were recorded for this type of incident.</li> <li>• <b>Specific procedures</b> - Group companies verify their employees' ages and carry out additional checks, if needed, in liaison with local authorities.</li> <li>• <b>Responsible purchasing</b> (see above for main actions carried out in 2012).</li> </ul>	HR6
6. Businesses should uphold the elimination of discrimination in respect of employment and occupation.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2012) Respect for employee rights: "Group companies shall refrain from any form of discrimination with respect to their employees, whether in the recruitment process, at hiring, or during or at the end of the employment relationship."</li> <li>• <b>Reporting</b> - During the year, 27 grievances were lodged in various countries. Each was reviewed on a case-by-case basis and action plans were implemented in the corresponding unit, when appropriate.</li> <li>• <b>Human resources policy</b> - Introduction of the OPEN program, which includes policies designed to promote gender and other types of diversity, equal opportunity, inclusion of disabled persons and employment of seniors.</li> <li>• <b>Compliance alerts system</b> - The network of e-mailboxes has been deployed in virtually all host countries.</li> </ul>	LA13 LA14 HR4





Global Compact Principles	Main Actions In 2012	Additional information
<b>ENVIRONMENT</b>		
<p>7. Businesses should support a precautionary approach to environmental challenges.</p>	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2012) Caring for the environment: “<i>Group Companies are to actively promote the protection of the environment. At company sites management methods shall be followed, wherever the site may be located, which allow measurable environmental performance standards to be set, and actual performance to be regularly evaluated and checked against the applicable standards.</i>”</li> <li>• <b>Water policy</b> - A sustainable management policy for water was deployed Group-wide.</li> <li>• <b>Reduction of CO<sub>2</sub> emissions</b> - A carbon assessment tool was implemented to get a better idea of our companies’ emissions. 31 Saint-Gobain companies in France, representing 75% of the Group’s workforce in the country, carried out an assessment in 2012.</li> <li>• <b>EHS standards</b> - In 2012, the Group worked on its road risk standard and updated its SAfety Management Tool (SMAT), which governs safety behavior.</li> <li>• <b>Toxic risks</b> - A tool was deployed for managing toxic risks in our industrial facilities.</li> </ul>	<p>EC2 EN8 EN16 EN18 EN21</p>
<p>8. Businesses should undertake initiatives to promote greater environmental responsibility.</p>	<ul style="list-style-type: none"> <li>• <b>Jobsite waste management and recycling</b> - Jobsite waste was recovered by the businesses (Gypsum Activity, for example).</li> <li>• <b>Eco-innovation</b> - An eco-innovation policy was defined and a training module was developed for managers.</li> <li>• <b>Raising awareness among stakeholders</b> - Recommendations for building standards and environmental labels have been drafted so that our customers can be fully informed and make fact-based decisions.</li> </ul>	<p>EN26 EN27</p>
<p>9. Businesses should encourage the development and diffusion of environmentally friendly technologies.</p>	<ul style="list-style-type: none"> <li>• <b>Sustainable habitat strategy</b> - Construction and renovation solutions were developed and launched to ensure that buildings are energy efficient, comfortable, healthy and esthetically superior, while at the same time protecting natural resources.</li> </ul>	<p>EN26</p>
<b>ANTI-CORRUPTION</b>		
<p>10. Businesses should work against corruption in all its forms, including extortion and bribery</p>	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2012) Respect for the law: “<i>All Group companies (...) reject all forms of active or passive corruption whether in domestic or international transactions.</i>”</li> <li>• <b>Reference to the OECD Convention on Combatting Bribery of Foreign Public Officials</b> (published on December 17, 1997).</li> <li>• <b>Group Compliance Program</b> - Responsible development (see above) - Competition Law Plan - Audit and internal control - Compliance alerts system (see above)</li> <li>• <b>Compliance Network</b> - Implementation of a Group Compliance Program under the authority of the Corporate Secretary, supported by a dedicated network comprising 25 compliance correspondents, a compliance committee in each General Delegation and a Group Compliance Committee. In total, the network includes around 80 corporate and line executives.</li> <li>• <b>Indicator tracking</b> - One case of corruption in the private sector was reported in 2012. An investigation was conducted and the individuals involved were disciplined.</li> </ul>	<p>S02 S03 S04 S05</p>



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## Statement GRI Application Level Check

GRI hereby states that SAINT-GOBAIN has presented its report "Sustainable development report 2012" to GRI's Report Services which have concluded that the report fulfils the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see [www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf](http://www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf)

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 11 April 2013

Nelmara Arbex  
Deputy Chief Executive  
Global Reporting Initiative



The "+" has been added to this Application Level because SAINT-GOBAIN has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. [www.globalreporting.org](http://www.globalreporting.org)

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