#FEELING
GOOD
DOING
GOOD

ANNUAL REPORT 2019/2020
ANTICIPATE
Challenges
at the intersection of well-being
and the common good

ACCELERATE
Strategic synergies
and investments,
our growth levers

ENGAGE
Innovations
and initiatives to reshape
the world
For a long time,
Saint-Gobain has worked to improve the lives of as many people as possible by providing materials that contribute to create living spaces that are both comfortable and sustainable, designed with everyone’s well-being and future in mind. Since 2019, the Group has stepped up its transformation, on a local and global scale, to unleash its teams’ full potential to enhance user comfort, boost its customers’ sustainable performance and support the ecological transition.

In 2019,
Saint-Gobain also stepped up in the fight against climate change, by committing to achieve carbon neutrality by 2050. In view of the major challenges of our time, we are convinced that everyone’s well-being can and must be reconciled with the future of society, the planet and future generations. Feeling good, doing good: welcome to the era of convergence.
2019 WAS A GREAT YEAR FOR SAINT-GOBAIN. HOWEVER, THIS FIRST PART OF 2020 HAS BEEN SIGNIFICANTLY IMPACTED BY THE GLOBAL HEALTH CRISIS. BUT THE GROUP HAS SOLID FUNDAMENTALS AND PROMISING PROSPECTS.

WE FIND OUT MORE FROM PIERRE-ANDRÉ DE CHALENDAR, CHAIRMAN AND CEO.

PIERRE-ANDRÉ DE CHALENDAR
Chairman and CEO

RESILIENCE

The Covid-19 health crisis was a shock for everyone. And the economic and social consequences will be felt for a long time to come. The world will need to emerge stronger, and to better anticipate and manage future crises.

This post-Covid landscape creates a fantastic opportunity to rebuild a more sustainable world, particularly taking into account the climate emergency. The “green recovery” is being widely discussed and I am convinced that the transition to a low-carbon economy must not only be an absolute long-term priority, but also one of the immediate responses to the crisis.

Greater attention to environmental issues and greater solidarity will therefore be two key aspects of our future resilience, in a world in which two key themes — and two vital themes for Saint-Gobain — will be ecological transition and the aspiration to live better.

Finally, there can be no resilience without trust in institutions, companies and brands. I am convinced that the Saint-Gobain brand and the values it embodies will be another powerful asset for us.

CLIMATE

Climate change is the most worrying threat of our time and a cause to which I have been strongly committed for a long time, both personally and on behalf of Saint-Gobain. We stepped up a gear in 2019, setting ourselves the ambition — announced during the UN Climate Action Summit — of reaching net zero carbon emissions by 2050. As we have entered a very crucial decade, it was important to do so alongside many other stakeholders, since the climate challenge requires joint action by everyone, from political decision-makers and economic agents, to global institutions and actors on the ground. For Saint-Gobain, net zero carbon emissions require a drastic reduction in our impact directly to our operations, and a joint commitment by all those involved in our value chain. This only makes sense as part of a broader effort to decrease the carbon intensity of our markets, particularly the construction market. Our global footprint and our ability to mobilize must make us an exemplary player, and we are already making a very positive contribution as a supplier of low-carbon materials, solutions and services.

CUSTOMERS

Customer culture has been at the heart of our strategy for over 10 years and our Transform & Grow plan, launched in 2018, has permanently established customer proximity as a key factor in our development. Whether these customers are local or global, our country- and market-based organization optimizes our understanding of
needs, our response and our ability to develop solutions together. This proximity is also an undeniable advantage for the Group in times of crisis like that of Covid-19. We have a very wide range of customers at Saint-Gobain, from large industrial companies to small independent firms. Without forgetting the increasingly significant place taken up by our indirect customers — end-users — who are increasingly specifying their products and sensitive to the value in use of our solutions. Our “multi-local” model enables us to meet all their expectations. Being close to customers is not only an operational necessity, it is also a state of mind, part of the 5 Attitudes that constitute our common culture.

DIGITAL
Digital is transforming the way we work and our consumption habits, having a profound impact on our value chains, ushering in mass customization and making tailor-made solutions available to everyone. Digital is not a matter of tools and technology, but of lifestyles and mind-set. For Saint-Gobain, it is an opportunity to harness digital technology to enhance our relationship with our customers through new services and new personalized experiences, to accelerate changes in working and management methods — as we did from the start of the Covid-19 crisis — in order to invent new business models. When combining the best of what digital can contribute (speed, fluidity, interactivity and customization) with the best offered by people, promising prospects open up.

INDUSTRY
Green factory, factory 4.0, smart industry, etc. — each of our sites is embracing the dual digital and ecological revolution — as the two often go hand in hand! We are maintaining our industrial tool so that it is at the cutting edge of operational excellence, with optimal use of data and artificial intelligence, and a steady decline in our consumption of energy and resources. For a Group like ours, it is essential to combine industrial activity with performance, sustainability and dynamic growth, since our factories are located in the middle of employment areas and contribute to regional economic activity. As well as professional distribution, industry also offers numerous career opportunities and we will continue to promote its benefits.

INVESTMENTS
Investments necessarily mean growth opportunities, to be seized wherever we see the future of Saint-Gobain. We are thus selectively strengthening our presence, expanding our activities in the most promising geographies, such as India and Africa, and developing strong positions in buoyant market segments: off-site construction, healthcare, electric mobility and construction chemistry. External growth is an important pillar of our development. We carried out 18 acquisitions in 2019 and, in early 2020, finalized the largest for Saint-Gobain in more than 10 years — Continental Building Products, a plasterboard manufacturer in the United States.

RESPONSIBILITY
Behaving responsibly is no longer an option today. Large groups in particular increasingly have a role to play in society, alongside local communities. This is why, beyond responsibility, I use the word contribution: companies must have a positive impact, rather than simply being exemplary in their operations.

“Companies must have a positive impact, rather than simply being exemplary in their operations.”

Positive impact can mean a lot of things. For Saint-Gobain, it means environmentally-friendly solutions which improve the comfort of everyone all around the world, a presence as close as possible to the ground, listening to our customers and partners as an essential pillar and, of course, employees, who embody the fundamental values of integrity, respect for people and the environment, and solidarity. Finally, positive impact means being able to bring a strong voice on the international stage to defend great causes alongside all of our stakeholders.

“More than ever, we want to combine technology and sustainability, to be a key player in the green economy, a guarantee of quality and performance, and to contribute to a profound reinvention of our businesses.”

Saint-Gobain counts in everyone’s daily lives and will continue to do so even more in the future. Our presence is often unseen and although the powers of our materials and our services are often invisible, they are nevertheless essential! More than ever, we want to combine technology and sustainability, to be a key player in the green economy, a guarantee of quality and performance, and to contribute to a profound reinvention of our businesses, shaken by powerful changes. In doing so, we will pursue our mission to combine the well-being of each of us the future of all.

#FeelingGoodDoingGood
INTERVIEW WITH BENOIT BAZIN
Chief Operating Officer

“WE OFFER WELL-BEING FOR EACH OF US, PRODUCTIVITY FOR CONSTRUCTION AND INDUSTRY PROFESSIONALS, AND SUSTAINABLE SOLUTIONS FOR ALL.”

AS OF THIS WRITING, THE WORLD IS FACING AN UNPRECEDENTED SITUATION WITH THE COVID-19 PANDEMIC. WHAT DO YOU THINK WILL BE THE KEY SUCCESS FACTORS FOR SAINT-GOBAIN IN THE COMING YEARS?

B.B. — The pandemic has severely tested a large number of countries in which the Group operates, although in others, including Nordic countries, Germany and Eastern Europe, our activity has remained strong. Before the health crisis, the Group was experiencing very strong momentum in countries, Germany and Eastern Europe, our activity has remained strong.

Our products respond to societal challenges: to this emergency, by reinventing our work processes, revising our customer interactions, adapting our distribution methods and harnessing our productive tool to tackle the crisis. Saint-Gobain has shown that creativity is everyone’s business, from research to marketing, customer services, production, distribution, etc. — everyone is innovative at their own level.

Innovation is one of our five “Attitudes” and is a strong unifying bond for the Group. The technological challenges of sustainability require similar skills in the construction market or in industry, the same materials are often found in different applications, their properties are valued by very different customers, the same process expertise can be used in different manufacturing processes, and digital innovation is fuelling distribution as well as industry.

Incremental innovation also helps boost performance, as the small advances we make each time we explore adjacent markets, invent personalized uses or improve the customer experience, are each a source of great value. This is true in eco-innovation and the low-carbon transition, for example, where gradual improvements have proved as valuable as disruptive technologies.

Finally, we constantly strive to ensure that our innovation processes are open to the outside world. They naturally aim to place customer expectations at the center of our system in order to work together on the development of new products and services. Our approach is also based on strong interactions with academic laboratories and with the ecosystem of start-ups, which is steadily becoming stronger. More recently, we decided to further develop initiatives that some of our teams wanted to transform into in-house start-ups. This all illustrates our desire to fully develop the best ideas, both internal and external.

A long-term commitment, a strategic focus for value-creation, a shared state of mind, with everyone contributing and an open approach — that is what innovation at Saint-Gobain means to me.

HOW HAS INNOVATION BEEN AN ASSET IN MANAGING THE CRISIS? HOW WOULD YOU DEFINE INNOVATION AT SAINT-GOBAIN?

B.B. — The strength and speed of our teams’ innovation were decisive to our ability to adapt to this emergency, by reinventing our work processes, revising our customer interactions, adapting our distribution methods and harnessing our productive tool to tackle the crisis.

Innovation is one of our five “Attitudes” and is a strong unifying bond for the Group. The technological challenges of sustainability require similar skills in the construction market or in industry, the same materials are often found in different applications, their properties are valued by very different customers, the same process expertise can be used in different manufacturing processes, and digital innovation is fuelling distribution as well as industry.

Incremental innovation also helps boost performance, as the small advances we make each time we explore adjacent markets, invent personalized uses or improve the customer experience, are each a source of great value. This is true in eco-innovation and the low-carbon transition, for example, where gradual improvements have proved as valuable as disruptive technologies.

Finally, we constantly strive to ensure that our innovation processes are open to the outside world. They naturally aim to place customer expectations at the center of our system in order to work together on the development of new products and services. Our approach is also based on strong interactions with academic laboratories and with the ecosystem of start-ups, which is steadily becoming stronger. More recently, we decided to further develop initiatives that some of our teams wanted to transform into in-house start-ups. This all illustrates our desire to fully develop the best ideas, both internal and external.

A long-term commitment, a strategic focus for value-creation, a shared state of mind, with everyone contributing and an open approach — that is what innovation at Saint-Gobain means to me.

TRANSFORM & GROW HAS HIGHLIGHTED NEW WAYS OF WORKING TOGETHER. WHAT FORM DOES THIS TAKE?

B.B. — We have highlighted three operating principles: trust, empowerment and collaboration. The goal is for our organization to be simple and agile, thanks to direct hierarchical lines, to ensure the commitment of our teams and allow them to give the best of themselves. In real terms, this is built on the central role of Country and BLU CEOs, who are responsible for their P&L and have the necessary autonomy to make rapid decisions on relevant issues relating to their markets, in terms of teams, commercial issues or resource allocation, in order to seize the best growth opportunities. Our new structure is being supported by a simplification of internal processes. At the same time, we are striving to construct an open environment in which risk-taking and new cooperation dynamics are encouraged and the freedom to use trial and error, acknowledged.

Our new structure has already borne fruit in 2019. It also proved its relevance for managing the Covid-19 crisis, thanks to the actions of Country CEOs, supported by excellent international coordination. From business continuity plans, to solidarity actions with local communities, social dialogue and new ways of working — Saint-Gobain’s strength is that it has been able to very quickly establish local responses tailored to the realities in each country.

Proximity with customers locally, decision-making agility, empowering teams, coupled with a common culture and strong commitment, are the foundations on which we have been able to successfully implement our growth strategy.

SO ARE YOU CONFIDENT?

B.B. — Yes, I am confident of Saint-Gobain’s success! We are well positioned on strong strategic priorities, supporting our customers’ growth, including sustainable construction and energy renovation, geographic development in emerging countries, well-structured investment in digital, and strong innovation in industrial markets. All these promising prospects are being skilfully managed by the women and men within Saint-Gobain, who I thank and congratulate for their exemplary commitment.
THE EXECUTIVE COMMITTEE
At June 4, 2020

GOVERNANCE

BOARD OF DIRECTORS
At June 4, 2020

PIERRE-ANDRÉ DE CHALENDAR
Chairman and Chief Executive Officer of Compagnie de Saint-Gobain

JEAN-FRANÇOIS CIRELLI
Chairman of BlackRock France, Belgium and Luxembourg

LYDIE CORTES
Employee Director

SIBYLLLE DAUMIS
General Manager of PuM and Director representing employee shareholders

SIBYLLE DAUNIS
General Manager of PUM and Director representing employee shareholders

IEDA GOMES YELL
Research fellow and Director of companies

ANNE-MARIE IDRAZ
Director of companies

PAMELA KNAPP
Director of companies

AGNÉS LEMARCHAND
Director of companies

DOMINIQUE LERAY
Senior Advisor at Bain & Company (Belgium)

DENIS RANQUE
Director of companies

GILLES SCHNEPP
Chairman of the Board of Directors of Legrand

JEAN-DOMINIQUE SENARD
Chairman of the Board of Directors of Renault

PHILIPPE THIBAUDET
Employee Director

PHILIPPE VARIN
Chairman of the Board of Directors of Suez

Board of Directors’ Secretary

ANTOINE VIGNIAL
General Secretary of Compagnie de Saint-Gobain

A / PIerre-André de Chalendar
Chairman and Chief Executive Officer

B / Benoit Bazin
Chief Operating Officer

C / Armand Ajdari
Vice-President, Research and Development

D / Patrick Dupin
Senior Vice-President, CEO Northern Europe Region

E / Thierry Fournier
Senior Vice-President, CEO Latin America Region

F / Javier Gimeno
Senior Vice-President, CEO Asia-Pacific Region

G / Cordula Gudduschat
Vice-President, Marketing and Development

H / Laurent Guillon
Senior Vice-President, CEO High Performance Solutions

I / Benoit D’Iribarne
Senior Vice-President, Technology and Industrial Performance

J / Claire Piedani
Senior Vice-President, Human Resources and Digital Transformation

K / Laurence Pernot
Vice-President, Communications

L / Mark Bayfield
Senior Vice-President, CEO North America Region

M / Sreeshan N.
Chief Financial Officer

N / Guillaume Texier
Guillaume Texier, Senior Vice-President, CEO Southern Europe, Middle East and Africa Region

O / Maud Thuaudet
Vice-President, Strategy

P / Antoine Vignial
General Secretary in charge of Corporate Social Responsibility

* Member since January 1, 2020.
CHALLENGES AT THE INTERSECTION OF WELL-BEING AND THE COMMON GOOD

Promoting the well-being of each of us while contributing to the common good is more of a priority for us than ever. With solid positions and good prospects for growth, we are reaffirming our ability to achieve this ambition through various action levers, to work together to build a more resilient, more innovative and more sustainable future.

#FeelingGoodDoingGood
The global construction market is set to increase by 2.6% a year on average between 2018 and 2023. 9.7 billion inhabitants in 2050 — two billion more than in 2019.

Provide access to housing and infrastructure delivering well-being and performance...

Cristina Gamboa
CEO, World Green Building Council

“We have to scale up our efforts to bring all our buildings up to date and renovate to provide healthy and comfortable living conditions, whilst at the same time reducing their energy demand. Energy renovation is an indispensable long-term sustainable solution to alleviate energy poverty and to deliver warmer homes for our residents, healthier schools for our children and reduced energy bills for our hospitals and businesses.”
... in the context of rapidly growing global demand, scarcity of resources and climate emergency

39% OF ENERGY-RELATED CO₂ EMISSIONS ARE GENERATED BY THE BUILDING AND CONSTRUCTION SECTORS

40% OF GLOBAL RESOURCES ARE USED TO MANUFACTURE CONSTRUCTION MATERIALS, PARTICULARLY SAND FOR THE PRODUCTION OF CEMENT AND GLASS

Maimunah Mohd Sharif
United Nations Under-Secretary-General and Executive Director, UN-Habitat

“To achieve a sustainable urban future, we need an integrated approach combining cutting-edge ideas and talent through a participatory process that brings out the best of our global and urban family. Technology and innovative thought need to be combined with concrete actions to ensure we are able to attain Sustainable Development Goal 11, which is to create inclusive, safe, resilient, and sustainable cities.”

Source: Message from the Executive Director, “Future cities, new economy, and shared city prosperity driven by technological innovations” report published by UN-Habitat
#3

Turn digital technologies into performance levers for personalized customer experience and accelerated innovation in our industries.

40% of global industrial investments are dedicated to the Factory of the Future.

Three billion people will use the internet in emerging countries in 2022, compared with 2.1 billion in 2017.

“"The future will be shaped by organizations that can seamlessly bring human perspective and ingenuity together with technology and AI to deliver maximum speed and superior progress—whether in business, in our communities, or in the world at large.”

Thomas Reichert
Chair of the Practice Areas, Global Leader Digital BCG, Boston Consulting Group (BCG)
#4

Support new forms of mobility to promote comfort and sustainability

40% of total industrial profits in the European Union and the United States in 2035 are expected to be generated by sales of autonomous and electric vehicles and components and services relating to data management, connectivity and mobility on demand.

50% the projected share of electric vehicles in new vehicle sales by 2030.

“"We need to ensure not only a safe and convenient experience, without which MaaS (Mobility as a Service) will not be feasible, but also a sustainable new mobility system. [...] Mobility is a shared entity, one that encapsulates the public, private and the people. [...] The opportunity to bring people back to the centre of our cities in a sustainable manner is here now, and the pathway is MaaS [Mobility as a Sustainable Service], not just MaaS."”

Maya Ben Dror
Lead, Autonomous and Urban Mobility, Centre for the Fourth Industrial Revolution of the World Economic Forum

"We need to ensure not only a safe and convenient experience, without which MaaS (Mobility as a Service) will not be feasible, but also a sustainable new mobility system. [...] Mobility is a shared entity, one that encapsulates the public, private and the people. [...] The opportunity to bring people back to the centre of our cities in a sustainable manner is here now, and the pathway is MaaS [Mobility as a Sustainable Service], not just MaaS."”
2019: A YEAR OF ACCELERATION

Commitment to the environment, development of innovative technologies, strengthening of its global presence - Saint-Gobain gives itself the means to fulfil its strategic ambition.

2019: A YEAR OF ACCELERATION

4.0 INDUSTRY IS REINVENTING ITSELF

Virtual reality, the Internet of Things (IoT), cobots - all these tools have helped contribute to the birth of Industry 4.0. Plants, which are already largely automated, are becoming smarter, with increasing product customisation on the horizon. While Saint-Gobain has successfully taken advantage of digital technologies to improve its performance and the quality of its solutions, its digital transformation has gone even further. The customer experience is being enhanced thanks to an omni-channel journey guaranteeing the consistency and fluidity of contact points.

4.0 BILLION EUROS

Divestments completed to date represent sales of approximately €3.3 billion, exceeding the initial target of more than €3 billion by the end of 2019 as part of the “Transform & Grow” transformation plan. The full-year operating margin impact is an improvement of more than 40 basis points, reaching the “Transform & Grow” target. In 2019 alone, the positive operating margin impact was 15 basis points.

4.0 BILLION EUROS

RECURRING NET INCOME

1.9

BILLION EUROS

OPERATING INCOME

3.4

BILLION EUROS

FREE CASH FLOW

1,857

MILLION EUROS

(up 50.2% vs 2018)

3.3 BILLION TONS OF RAW MATERIALS UNDRAWN

In light of the scarcity of resources, Saint-Gobain is taking action to reduce its impact. The Group is accelerating its transition towards a circular economy by maximizing the sharing of recycled materials in its products without reducing performance, generating as little production residue as possible and recovering waste from its processes internally or externally. An indicator has therefore been established to monitor the reduction in extracting of virgin natural raw materials (sand and gypsum).

3.3 BILLION EUROS

NET ZERO CARBON

As part of the Climate Action Summit organized by the UN in September 2019, Saint-Gobain formalized its support for the Global Compact’s “Business Ambition for 1.5°C”. The Group has therefore committed to achieving zero net carbon emissions by 2050. The journey towards this carbon neutrality will determine Saint-Gobain's investment policy, industrial roadmaps, R&D programs and actions towards its suppliers, across its entire value chain.

3.3 BILLION EUROS

Operating income gained on 68 countries and a presence on every continent

Saint-Gobain offers products and services designed to meet specific local needs in terms of the climate, user habits and construction methods, manufactured or supplied locally and mostly only transported short distances. The Group’s new organization, rolled out since early 2019, is helping to bring its solutions ever closer to its customers, whether they are local or global.

8.5 BILLION EUROS

Commitment to the environment, development of innovative technologies, strengthening of its global presence – Saint-Gobain gives itself the means to fulfil its strategic ambition.

8.5 BILLION EUROS

PATENTS FILED

At Saint-Gobain, the innovation culture goes beyond patents, encompassing all teams, not just R&D and Marketing. Multidisciplinary networks, agile approaches, design thinking, openness to the external ecosystem and working collaboratively are all practices that encourage thinking “outside the box” and experimentation with innovative solutions.

8.5 BILLION EUROS

OPE R ATI NG INCOME

68

COUNTRIES AND A PRESENCE ON EVERY CONTINENT

400 PATENTS FILED

(1) Design thinking is a collaborative innovation technique focusing on human issues in the design of innovative services and products.
STRATEGIC SYNERGIES
AND INVESTMENTS,
OUR GROWTH LEVERS

Packaged solutions, global footprint, customer proximity, sustainable performance... Saint-Gobain is continuing its transformation and development to meet our societies’ major challenges.

#FeelingGoodDoingGood
Saint-Gobain has differentiated solutions adapted to each of its markets. Its organization brings solutions closer to its customers, whether local or global.

Saint-Gobain designs, develops and distributes innovative solutions that improve the quality of living places, reduce the environmental impact of buildings and bring productivity to professional customers — architects, craftsmen, installers, etc. The Group offers a unique range of products and services for all areas of the construction industry. Its geographical organization allows it to offer solutions that are tailored to the specific needs of its local markets, whether in terms of construction methods or styles, building systems, distinctive climates, etc., for the renovation of existing buildings or the undertaking of large-scale new construction in areas undergoing major development.

Saint-Gobain brings value-added solutions for varied and comprehensive applications in mobility, health, construction and industry. The Group is developing thorough expertise in a range of technologies, giving it the ability to design solutions tailored to its customers’ specific needs. Saint-Gobain relies on substantial expertise in materials science, formulation, and design in automotive glass applications, ceramics, performance polymers and glass fiber. It has expertise in multiple state-of-the-art applications that make use of the specific properties of its materials (high temperature resistance, abrasion, chemical stability, surface properties, etc.). Many HPS products are developed jointly with customers to cater to their specific needs, particularly in plastic products, highly sophisticated refractory products for the metalworking and glass manufacturing industries, and crystals for radiation detection systems.

### THE GROUP’S MARKETS AND BUSINESSES

**Regional Business Lines for Regional Customers**

- Renovation 45%
- New residential construction 21%
- New non-residential construction 12%
- Other industries 8%
- Transportation 7%
- Civil engineering and infrastructure 7%

**Complementary Business Lines for Integrated Offers**

- Distribution of products, solutions and services for construction and housing
- Building glass
- Gypsum
- Ceilings
- Insulation
- Mortars and building chemicals
- Pipe systems
- Exterior products

### Main Brands

- Saint-Gobain
- Glassolutions
- Vetrotex
- SageGlass
- Swisspacer
- Placo
- Gyprec
- British Gypsum
- Rigips
- Formula
- Ecophon
- Eurocoustic
- ISOVER
- Weber
- PAM
- CertainTeed
- Point.D
- CEDECO
- La Plateforme du Bâtiment
- Lapyre
- Jewson
- Graham
- Minster
- Raab Karcher
- DAHL
- Optimera
- BEVEGO
- Santas Tunnish
- Distripac
- DP materiales
- La Plataforma de la Construcción
- Telhanorte
- Altech
- Alterna
- NOVIPG
- ULTRID

### Competitive Positions

No. 2 worldwide for automotive glass applications
No. 1 worldwide for bearings for automotive applications
No. 1 worldwide for aircraft radomes for communications satellites
Leader for single-use tubes for the pharmaceutical industry

### Business Lines

- Mobility
- Life Sciences
- Construction Industry
- Industry

### Global

**High Performance Solutions Businesses**

Saint-Gobain brings value-added solutions for varied and comprehensive applications in mobility, health, construction and industry. The Group is developing thorough expertise in a range of technologies, giving it the ability to design solutions tailored to its customers’ specific needs. Saint-Gobain relies on substantial expertise in materials science, formulation, and design in automotive glass applications, ceramics, performance polymers and glass fiber. It has expertise in multiple state-of-the-art applications that make use of the specific properties of its materials (high temperature resistance, abrasion, chemical stability, surface properties, etc.). Many HPS products are developed jointly with customers to cater to their specific needs, particularly in plastic products, highly sophisticated refractory products for the metalworking and glass manufacturing industries, and crystals for radiation detection systems.
For Saint-Gobain, the relatively new markets of Life Sciences (since 1990) and India (since 1996) are both experiencing strong growth. Over the last decade, the Life Sciences business unit has grown over 10% year on year and has established itself as a leading supplier of polymer components for the global pharmaceutical, medical and biotechnology markets.

In India, Saint-Gobain is also expanding rapidly, growing at an annual rate of more than 16% over the last 20 years in a vast market with huge potential.

**WHAT ARE THE MAIN GROWTH DRIVERS IN YOUR MARKET?**

**J.A.** — Two key areas for the Life Sciences BU are biopharmaceutical processing, which grew 20% last year, and medical components, which grew 10%. Today, we are a market leader for single-use disposable systems — tubing, bags, etc. — for critical medical applications. Certain regions are growing very fast in this industry: the US and Europe, as well as China, Korea and India.

**B.S.** — A big growth area in India is solar control glass, as customers are increasingly seeking energy-efficient solutions. We also have more than 50% market share in India in commercial plasterboard ceilings, a business growing at an annual rate of 18%. Life Sciences is another very important source of growth in India — the market has doubled in the last two years.

**HOW HAVE YOU SUCCEEDED IN CAPITALIZING ON THIS GROWTH?**

**B.S.** — Saint-Gobain acted early, taking steps to invest in local capacity, bring the best technology, develop the local ecosystem and build national talent. We are absolutely unique in this market in offering a complete portfolio of solutions, and have a very strong brand image based on heritage and innovation.

**WHAT ARE THE STRATEGIC PRIORITIES IN THE COMING YEARS?**

**J.A.** — One exciting area we’re working on is the new market in individualized therapy. In 2018, we opened a research lab for cell and gene therapy in Massachusetts. While Saint-Gobain has unparalleled materials expertise, in order to really capture this market we need to bring in biologists and learn about how cells grow to create the best materials and environment for them.

**B.S.** — In India, green building is a major growth area. Saint-Gobain’s wide range of businesses makes us ideally positioned to capture new opportunities in a country still in an early stage of construction and hungry for sustainable solutions.

**HOW HAS SAINT-GOBAIN’S BUSINESS CULTURE CONTRIBUTED TO THIS GROWTH?**

**J.A.** — In last year’s Transform & Grow plan we became a standalone business unit. This empowered us to make decisions independently and move faster. Another key factor has been our global presence, which allows us to co-develop custom-designed products for specific regions or customers.

**B.S.** — In Transform & Grow, we cross-referenced our complementary ranges to create a home interiors solution in a unified database, giving us an incredible opportunity for collaboration between all the different product lines. But perhaps most crucial to our success is cross-collaboration throughout the company, which allows us to take what Saint-Gobain is good at globally and apply it to the local context.
INNOVATIONS FOR CUSTOMERS AND MAJOR ACHIEVEMENTS

Our materials and solutions help tackle challenges to improve daily life and contribute to rethinking construction methods as well as reinventing a new, more sustainable mobility. They are also used in the most spectacular projects— as demonstrated by the Group’s latest projects in the Middle East.

Middle East: technological feats for ambitious projects

Extreme temperatures, humid air and unstable ground—building in Gulf countries is a real challenge. Saint-Gobain employs its most advanced technical solutions to carry out the most ambitious projects, while adapting to local constraints. For the spectacular Museum of the Future in Dubai, Gyproc teams developed a system of “dynamic” metal frames that tilt and pivot according to the desired angle. Other Saint-Gobain solutions have also been used for the museum, including foam seals, drywall tapes, glass wool and cement-based renders. With its platinum level LEED certification, this project is also an example of sustainable construction.

In order to increase thermal comfort and reduce the use of air-conditioning in the new Mohammed Bin Rashid library, more than 70% of the glazed surface area has been fitted with SageGlass, a smart glass that tints according to the amount of sunlight.

In Doha, ready-to-use Weber mortars were chosen to produce the thousands of concrete disks used in the construction of the National Museum of Qatar. Saint-Gobain was also involved in construction of the first Qatari metro line, supplying glass, glass wool, plasterboard, mortars, admixtures and pipework.

Dubai Museum of the Future
The Museum of the Future watches over Dubai like a giant eye. Saint-Gobain has employed groundbreaking solutions for this architectural project, considered to be one of the most complex in the world.

Mohammed Bin Rashid library in Dubai
The 66,000 m² building, designed to resemble an open book, showcases Saint-Gobain’s expertise in reducing energy consumption.

Aboard Qatar’s first metro
The “Red Line”, Qatar’s first metro line—spanning the 98 km between the city of Lusail, central Doha and the international airport—epitomizes Saint-Gobain’s innovative solutions.

PETALS Form THE NATIONAL MUSEUM OF QATAR, DESIGNED BY JEAN NOUVEL

PRODUCT INNOVATIONS TO IMPROVE EVERYDAY LIFE

An entirely vitroceramic worktop
EuroKera (a joint venture between Saint-Gobain and Corning) launched Versâtis, a new multifunctional work surface for kitchens. Made entirely from vitroceramic, the worktop incorporates a hob for greater comfort and aesthetic appeal, transforming into a multi-purpose surface for cooking, working, enjoying meals and spending time with friends.

Smart windscreen from Saint-Gobain Sekurit
Saint-Gobain Sekurit presented the prototype bus of the future, alongside Cerence and e.GO Digital, at CES 2020 in Las Vegas. Its connected windscreen revolutionizes the mobility experience: equipped with transparent screen technology, it allows passengers to interact with the vehicle and view information about their journey.

BIM & LEAN by Placo®
Placo® is offering two new ranges of tailored services in France: BIM (Building Information Modelling), providing plasterers with easier access to the digital model, and LEAN, involving pre-cutting plasterboard in the factory before delivering it to installers on worksites. These solutions save time, improve the quality of work and reduce waste.
How can the Factory of the Future boost both performance and sustainability?

In Vietnam, an emerging market for Saint-Gobain with high growth potential, a state-of-the-art gypsum plant was opened in 2019 in Hai Phòng. With a production capacity of 17 million m² per year, the new factory incorporates advanced environmental, safety and Industry 4.0 standards. Yet industrial transformation is not limited to building ultra-modern plants – new technology can also transform existing sites.

Last year, Saint-Gobain launched the Data and Analytics (DnA) Academy to help plants develop skills in leveraging data to optimize industry performance and sustainability.

**How is your area of activity advanced in industrial methods?**

**T.P.:** The Hai Phòng plant has a high level of automation in the manufacturing process, augmented with digital performance management systems that allow us to analyse real-time data to maximize efficiency and productivity. For example, automated data synchronization between manufacturing and finance systems is saving at least 38 man-hours in reporting per month.  

**K.A.:** All Sekurit plants include automated production with robots or cobots and advanced quality control solutions: for example, cameras that check for potential defects. All of the machines are equipped with systems that collect production data, sensor data, quality data and so on, which we analyse to make continuous improvements.

**How does Industry 4.0 improve operational efficiency?**

**T.P.:** Digitalization means that our managers or maintenance engineers can follow the production process in real time from wherever they are. If there is an issue, an alert will appear on their smartphone and they can act on it immediately. For operators, automated data input is a huge time savings, allowing them to focus on production quality.

**K.A.:** A key advantage of data analytics is that it gives us a window into process stability. For example, on a production line for rear car glass, we correlated data on temperature, pressure, speed, etc. with data on output to identify when any problems were occurring. Then we built a dashboard that gives the operator recommendations in real time, so if the machine is experiencing drift the parameters can be adjusted. This significantly increased yield.

**What steps are being taken to bring Industry 4.0 to existing plants?**

**K.A.:** We’ve started rolling out the DnA Academy initiative in pilot countries with two main goals. One is to identify priority investments – to upgrade a specific machine with a sensor or IT system, for example. But the primary aim is to invest in people: to give them the skills to use data in their day-to-day jobs to resolve issues and improve processes. Data analytics is not just a magic wand; it depends on people knowing how to find the value in the data.

**How can Industry 4.0 benefit sustainability?**

**T.P.:** At the Hai Phòng plant, we monitor energy use as well as CO₂ emissions in real time. We also have equipment that condenses the water used in the gypsum hydration process so it can be put back into the product. This circular solution avoids waste water. Advanced technology is helping us continuously improve our environmental performance to face our planet’s biggest collective challenge.

**K.A.:** The first key benefit is energy savings. Data analysis allows you to fine tune precisely how much you need for a process. It also identifies exactly how much raw material is required to meet the specifications. Plus, improving process stability reduces scrap, which saves both energy and resources.
A VALUE-CREATING PORTFOLIO

Through our acquisitions, our industrial investments and the development of our distribution networks, we are exploiting every opportunity to enhance our portfolio of solutions and meet the expectations of our customers all around the world.

A portfolio optimization strategy

As part of its portfolio optimization strategy, in 2019 Saint-Gobain initiated the acquisition of Continental Building Products. The final agreement was signed in February 2020. This transaction, the largest in over 10 years, makes Saint-Gobain a leading player in plasterboard in the United States and strengthens its presence in this fast-growing region. New industrial and organizational synergies and an expanded trading platform will enable it to strengthen its ability to offer innovative solutions to customers.

Meanwhile, as part of the “Transform & Grow” plan, Saint-Gobain completed divestments for over €3.3 billion in sales, exceeding the target of €3 billion in sales by the end of 2019.

Distribution entities were sold, including Building Distribution in Germany, Optima in Denmark and, in France, Distribution de Matériaux pour les Travaux Publics and K par K. Within the industrial businesses, Saint-Gobain sold its Silicone Carbide business, as well as glass processing and distribution activities in Norway, Sweden and the Netherlands, and completed two additional disposals in building glass in South Korea and expanded polystyrene in France.

TARGETED INVESTMENTS FOR GROWTH

Adfors plant in Hodonice, Czech Republic

€45m was invested to rebuild the furnace at this cleaner and more energy-efficient fiberglass production site, which has seen a 57% increase in production capacity. Another €7m was invested to launch a new line producing laminated insulating fabrics.

New steps in favour of environmental responsibility

The ISOVER plant in Chemillé (France) is expanding with the opening of a new blowing wool production line - an exemplary extension in environmental terms, with 100% recycling of the plant’s waste water, rainwater harvesting and heating of the buildings using the plant furnaces. The same approach in favour of energy transition has been adopted at the flat glass plant in Pisa (Italy), where an innovative process is being tested to recover thermal energy from the furnaces to heat the warehouse, supply the internal network with electricity and operate select machines.

Stepping up our presence in Africa

With the opening of a tile adhesives and grout factory in Luanda, Angola has become the 68th country in which Saint-Gobain operates. The Group has also opened a new mortar production site in Zimbabwe and a new line of ultra-innovative mirrors in Egypt; two sites that are also exemplary from an environmental perspective. Finally, the Group has invested in a new mortar factory in Addis Ababa, Ethiopia, to manufacture tile adhesives and sealants.

Biotech partnership in South Korea

Saint-Gobain’s Life Sciences BU and Samsung Biologics have signed a strategic partnership for the construction near Seoul of an industrial installation of single-use systems for bioprocesses. This strengthens Saint-Gobain’s presence in Asia, improving the service it provides to the Korean biopharmaceutical industry.

New production line in Mexico

To meet growing demand, the Reynosa plant has launched a new production line for cutting-edge non-woven abrasives. The new, high-performance range provides the same rate of material removal and finishing using fewer materials, thereby improving productivity and efficiency.

Distribution: creating greater proximity

Point.P has opened a new kind of sales outlet in the heart of Paris. Built using high-quality, sustainable materials, perfectly integrated into the urban space and as close as possible to customers, it is accessible via the Seine to reduce road freight traffic and CO2 emissions linked to transport. At the same time, €10m was invested in the Saint-Gobain Distribution Bâtiment France logistics base to expand the range of brands, speed up order preparation and boost e-commerce.

In Brazil, the Telhanorte brand has opened its first four compact stores. Small in size and offering an omni-channel customer journey and high value-added services, such as payment via mobile phone and WhatsApp, these stores are aimed at demanding urban and connected customers.
In all our business lines, serving customers is our overriding priority. From R&D teams developing advanced materials for new industrial applications to distribution networks supplying professionals with products for building projects, understanding the needs of our customers and anticipating how these are evolving in a swiftly transforming world are critical to staying ahead. Across Saint-Gobain, our teams work closely with each other and with customers to co-develop cutting-edge solutions that enable them to improve their business.

**HOW IS YOUR AREA OF ACTIVITY CUSTOMER ORIENTED?**

**S.V.:** — A good customer experience is fundamental in distribution. In recent years, digitalization has completely transformed our business. Not only through e-commerce, but with digital tools that allow us to track each point of contact with the customer, whether physical or online, which helps us to personalize their experience across channels and target them with relevant information.

**L.H.:** — In R&D, the core of our work is to develop product solutions for new needs coming from the market. To identify these, we have to interact with customers to really understand the context and the direction they want to go.

**CAN YOU GIVE AN EXAMPLE OF THIS CUSTOMER FOCUS?**

**L.H.:** — Aside from developing new products, R&D also works with customers to improve the performance of existing products. In China, we now propose a service to analyse specific problems and propose solutions.

**S.V.:** — Everything we do is based on customer insights. For example, we track user behaviour on our website and then use this data to optimize aspects such as checkout flow. We can also create value for customers by giving them data about their business they can use to guide their future choices.

**HOW IS THIS CUSTOMER-CENTRIC APPROACH CONTRIBUTING TO GROWTH?**

**S.V.:** — Optimizing our site contributed to increasing online revenue by 46% over the last three years. In delivery alone, our biggest expense as a distributor, we saved 140,000 euros last year by pushing more efficient delivery options. Just as importantly, a good experience builds a relationship of trust with our customers.

**L.H.:** — Understanding our customers’ needs allows us to focus our resources and move quickly. In 2019, we worked with the local marketing team and the customer to develop ultrafine micro-grinding beads for lithium batteries, a high-potential market. This is not only a sales opportunity, but also builds our reputation — when you need to develop a quality product, Saint-Gobain is a preferred partner.

**HOW DO YOU COLLABORATE WITH OTHER BUSINESS LINES TO UNDERSTAND WHAT CUSTOMERS NEED?**

**L.H.:** — Sales and marketing can help us see where the market is going. For example, in the electronics market, mobile phone cases are shifting from metal to glass, so for these customers we engineered a ceramic-blasting product (Zirgrit MA) specifically for glass that creates a very nice texture. Working together, we can better define what material, process or technology will answer future needs.

**S.V.:** — The sales team is invaluable, as they have direct contact with customers. In terms of big data analysis, R&D in Paris helped us develop an algorithm to identify high-margin customers so we could focus on these important clients. Marketing and R&D really complement each other, as engineers can provide us with the products and tools we need to create value for the customer.

**INTERVIEW WITH**

**HUACHUN LI**
Ceramics R&D Manager, Saint-Gobain Research, China

**SANNE HANSEN VINCENT**
e-commerce Manager, Saint-Gobain Distribution, Denmark
Combinations to simplify the customer experience

Simplifying customers’ lives by offering them comprehensive construction systems and exclusive services – that is the experience now offered by the Façade BU in Brazil thanks to the combination of Placo®, ISOVER, Weber, Brasilit and Adfors in a single offer. Customers only have to place a single order for all the products to be delivered to their worksite and they also receive assistance from a team that checks the work is progressing smoothly.

This perfect illustration of the new commercial synergies in place within the Group is not unique. From the merger of the Roofing and Siding teams in the United States to the combination of the Placo® and ISOVER brands in France, the sales structure is evolving in a number of countries to improve the customer experience and offer an integrated, more streamlined journey. Pooled customer service departments, online stores and logistics make sales teams more efficient and free up time to devote to cross-selling and upgrading.

This new dynamic increase in synergies, at work in every field, is also increasing innovation and digitalisation.

SYNERGIES:
INCREASING AGILITY

By drawing on its global presence, its rich portfolio and cutting-edge expertise, the Group is strengthening collaboration between its teams and its business lines and enhancing interaction with its customers as well as product design and distribution. Here are some examples.

Collaborating for stronger solutions

Market synergies

The mobility business lines were brought together in a single business unit in 2019. This merger makes it possible to offer customers in the sector a complete range of complementary products, including glass products from Sekurit, bearings and seals in the automotive market, cockpit windows and radomes in the aeronautical market.

R&D synergies

R&D collaborations between business lines are facilitating the development of innovative solutions and services which can then be used by other Group units. Examples include: the fire-resistant plasterboard developed thanks to the high temperature know-how of the Ceramics BU; electrochromic glass developed for vehicles and adapted to the building industry; a composite exterior thermal insulation system (ETICS); a cross-functional programme involving acoustics; a furnace repair solution resulting from knowledge transfer between Weber and SEFPRO; and finally, the use of artificial intelligence from transactional data, which has led to algorithms developed for the distribution industry and which can also be used for other Group business lines.

Cultural sharing

Thanks to the transfer of knowledge and expertise, the industrial business lines are benefitting from the lead gained by the retail brands in the field of digitalization and customer focus. Meanwhile, regional construction markets are benefitting from the co-development experience of the High Performance Solutions business lines. This approach enabled in particular the co-development, with two manufacturers, of Actilaz laser technology — the basis for Eclaz reinforced insulating glass.

340 341
In our fast-changing world, to stay successful companies must continuously transform, capitalizing on new technology, to make rapid and relevant decisions. Yet just as essential as implementing digital tools is cultivating the expertise to take advantage of them.

Throughout Saint-Gobain, our focus is developing the array of new skills required by the market today — from data analytics to digital marketing — along with an agile, creative, collaborative mindset that will allow us to continue to innovate the products and services our customers expect.

WHAT ARE THE NEW SKILLS THE GROUP NEEDS?

A.R.: — The digital transformation — both in terms of the tools we put in place internally and the services we offer to customers — requires specialist technical expertise such as data science, programming, app development, Industry 4.0 technologies, etc. At the same time, it is equally vital to foster a culture that is dynamic, proactive, open to change and primed to continuously adapt.

S.D.: — In distribution, our teams need to be able to support our customers with whatever services make their lives easier. This includes e-commerce, digital tools that allow them to quickly scan orders or apps to directly place an order from the warehouse. We need people who are not just able to develop these tools in a rapidly evolving context, but who can integrate them into their day-to-day jobs and guide customers in using them.

HOW IS SAINT-GOBAIN ATTRACTING OR DEVELOPING THIS NEW TALENT?

S.D.: — To attract people with the mindset and skills we need, we have to nurture a workplace environment that values creative problem-solving. One way we are doing this in the PUM head office is by hosting a startup of developers: a win-win synergy that is generating productive energy on both sides. Preparing our teams with relevant skills is also critical. This is happening through custom-designed training targeted specifically to their needs.

A.R.: — In terms of recruitment, we are part of an ecosystem that includes partnerships with startup incubators, entrepreneurship centres and specialized talent-sourcing consultants. We are also developing the expertise of our existing teams through a host of training initiatives, programmes, events and learning expeditions that boost digital skills and innovation.

HOW CAN WE ENSURE THESE DIFFERENT PROFILES WORK TOGETHER EFFECTIVELY?

A.R.: — There are a lot of ways we are promoting collaboration, including joint projects based on new ways of working. One example we launched in Brazil in 2018 is a ‘mini-entrepreneur’ programme in which cross-business groups of employees propose a solution to address a problem and then pitch their proposal to business leaders. Last year, four projects were selected for acceleration, meaning they will be developed as new products or services. Initiatives like these are shaping our culture by increasing empowerment and encouraging cooperation.

S.D.: — Digitalization needs to be a two-way process. Our digital team is not separated off, developing tools on their own — they visit customers with our sales reps to better understand their needs and work closely with product managers. Our teams are curious, motivated and undaunted by new challenges. Time and time again, they have proved that we can trust them to work together not just to meet objectives, but to go farther than we ever imagined!
INNOVATIONS AND INITIATIVES TO RESHAPE THE WORLD

Our decentralized organization and our corporate culture are now unleashing our teams’ full potential, for the benefit of our customers and all our stakeholders. Our employees reveal the power of our materials, make a positive contribution in their environment and help build a sustainable and desirable future.

#FeelingGoodDoingGood
ENTREPRENEURS COMMITTED TO PROMOTING WELL-BEING AND THE COMMON GOOD

Our employees imagine and implement solutions that contribute to Saint-Gobain’s growth dynamic as well as positively influence society.

MAKING OUR DIVERSITY OUR STRENGTH

Our 171,000 employees make up the strength of our Group. The diversity of their profiles and expertise builds proximity with customers and local communities. It facilitates our integration into the world around us and stimulates our innovation capabilities.

At the same time, we have a proactive diversity policy in place within our teams, in order to create an environment that promotes fairness and equality, conducive to professional fulfillment. We also maintain a balanced age pyramid, ensuring that everyone has a place, with for example nearly 1,700 apprentices in 2019. Finally, we are working to improve gender equality at all levels of the organization, including within the executive committee, currently composed of 25% women.

SOLIDARITY AT THE CORE OF OUR ACTIONS

We also offer our employees the opportunity to join in solidarity initiatives, supporting local communities all around the world. Through the Saint-Gobain Foundation, they can support projects carried out by non-profit associations in the fields of housing and professional integration.

Similarly, solidarity is displayed through our CARE by Saint-Gobain social protection program launched in early 2020. It allows us to offer our employees and their families welfare cover to meet their essential healthcare needs and support them at key moments in life such as arrival of a child. Thanks to this program, by 2022, all of our employees, regardless of their country, will be able to benefit from minimum benefits.

UNLEASHING POTENTIAL THROUGH A CONSIDERATE WORKING ENVIRONMENT

Saint-Gobain’s culture and values encourage a stimulating and collaborative working environment that values initiative and innovation at all levels of the company.

In order to promote leadership based on confidence, empowerment of everyone and new ways of working together, the Group has formalized five “Attitudes”, which each employee is invited to adopt in their daily lives: cultivate customer intimacy, act as an entrepreneur, innovate, be agile and build an open and engaging culture.

To encourage our employees’ commitment and fulfillment, we support them in their professional development and help them to unleash their potential through online and face-to-face training courses, grouped within the Saint-Gobain University, and designed for new skills development. Particular attention is also paid to physical and psychological well-being. We therefore strive to create healthy working environments, particularly via our Mental WellBeing program, rolled out in 2019 in the form of an interactive application to help each manager establish a customized plan intended to improve their teams’ well-being in the workplace.

ENCOURAGING AND MEASURING TEAMS’ COMMITMENT

Through our Group Savings Plan, in which 47 countries participate, our employees can become Group shareholders under preferential conditions. Employee shareholders make up 8.7% of the Group’s capital, and are therefore fully involved in Saint-Gobain’s strategic directions and performance. A first global engagement survey was launched internally in 2019. The high participation rate and the results testify to our employees’ support for our strategy, their pride in belonging and their renewed confidence in the future of the Group.

ENCOURAGING AND MEASURING TEAMS’ COMMITMENT

Saint-Gobain is one of 13 companies globally recognized by the Top Employers Institute. At a local level, Saint-Gobain is also recognized as a Top Employer in 35 countries. 5th consecutive year Top Employer Global.

Our employees imagine and implement solutions that contribute to Saint-Gobain’s growth dynamic as well as positively influence society.
Designing the windshield of Airbus Helicopters’ new model was a major challenge. We were able to find the optimal technical solutions in a co-development approach.”

Jean-Benoit Mayeux / Head of Advanced Engineering, Saint-Gobain Aerospace

Minimize the weight of the windshield on the new Airbus H160 helicopter without affecting its pressure resistance, bird-strike resistance, optical properties, water — and air-tightness or ease of assembly – that was the challenge taken on by Jean-Benoit Mayeux’s team at the Saint-Gobain Sully site, which specializes in the design and manufacture of glazing for the aeronautical industry. The thickness of the glazing was therefore reduced without compromising the expected properties, thanks to work carried out hand-in-hand with the Airbus Helicopters teams. The result is a “featherweight” windshield that helps make the H160 a new generation helicopter that consumes less fuel and is more environmentally-friendly. Saint-Gobain has once again demonstrated its capacity for innovation with and for its customers!
The Big Build project, supported by the Saint-Gobain Foundation, demonstrated the solidarity of our employees and enabled people in vulnerable situations to access better living conditions.”

Irina Di Conza / Communication Executive, Saint-Gobain Romania

More than five million Romanians live in precarious conditions. To address this, the Habitat for Humanity Romania charity helps them build houses as part of its Big Build project, financially supported by the Saint-Gobain Foundation. But that’s not all: Saint-Gobain in Romania has supplied ISOVER, Rigips and Weber construction materials for the fast-track construction of 10 timber-framed houses in Vaideeni. Some Saint-Gobain employees also shared their construction expertise on October 10, 2019, by joining more than 200 national and international volunteers and members of the 10 families, to help build the houses. This socially-responsible commitment has provided comfortable and environmentally-friendly housing, as well as decent living conditions, to a community severely impacted by flooding in 2014.
Developing new ways to improve the human experience in built environments is one of Saint-Gobain’s key goals as part of its occupant-centric approach of construction. One cutting-edge solution embodying this approach is SageGlass: dynamic glass with an electrochromic coating that automatically tints to block sunlight on hot days, while maximizing daylight and solar energy on cold days. This glass also cuts energy demand by reducing the need for lighting, heating and air-conditioning. It is a complete system consisting of intelligent controls and sensors that tell the glass how to tint for the perfect comfort level at all times. Delivering this requires working closely with customers to customize the design, supported by advanced performance modelling and project specific daylight, glare, energy & thermal comfort analysis. In the case of Le Millennium, in Switzerland, the conception required daylight visualization and sun path analysis.

“By dynamically adjusting to block glare and heat while letting in natural light, smart glass measurably increases occupant comfort and wellbeing.”

Ahoo Malekafzali / Building Science Manager, SageGlass, United States
We planted fruit-bearing, flowering and medicinal trees — native species that restore biodiversity as well as provide a refreshing, peaceful environment for employees.”

Mahaboob Subani Shaik / Team Member - Utilities, World Glass Complex, Sriperumbudur, Chennai, India

Conserving and restoring biodiversity at our production sites is a key target of Saint-Gobain. Over the last 3 years, a lush urban forest has been planted at the World Glass Complex in Chennai, India, creating a green haven with positive impacts for both people and the environment. Urban forests play an important ecological role, providing habitats for native fauna, replenishing the soil, conserving the water table and preventing erosion. They also improve human habitats, purifying the air by absorbing pollution, reducing heat, and providing a barrier against noise and dust. All this creates a healthy environment for our employees, favorable to their well-being and their productivity. The plantation, which covers an area equivalent to about 7 football fields, was developed with traditional methods using 100% organic, natural fertilisers, and recycled waste water for irrigation. This initiative is a win-win for employees, the local community and the planet.
Whether for housing, hospitals or industry, off-site construction technologies can deliver higher performance buildings more quickly, affordably, safely, and with fewer people on site. Saint-Gobain offers a range of off-site solutions, from delivering full kit houses to manufacturing prefabricated components such as roofing systems to support traditional and modern construction methods. The development of systems is only part of the story, as in the modern digital construction industry, services are becoming as important as materials. Saint-Gobain’s offer is enhanced by services to support the project from architectural design to the installation of the building, with new tools currently under development to further improve the customer’s experience. ‘Prefab’ is no longer a synonym for poor design or performance. Homes and buildings delivered using Saint-Gobain off-site systems are attractive, customisable and produced in controlled environments to a high specification.