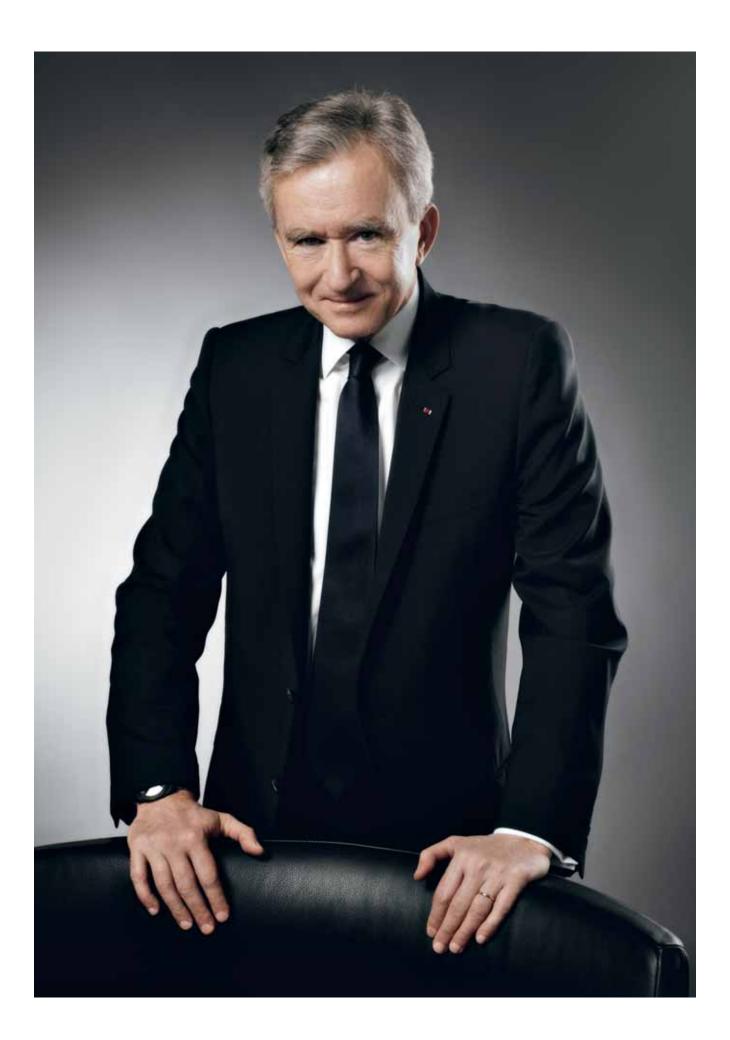




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## FOCUS ON LIFE 2020

LVMH is pursuing its historical commitment to protecting natural resources. Our Group took an important step in this area in 2016: we launched LIFE 2020, which sets our Maisons four joint objectives for the coming years.

First, the Maisons will be required to improve the environmental performance of all their products.

The Maisons use rare and precious natural raw materials to manufacture their products. This is the aim of our second objective, namely to ensure the implementation of the highest standards throughout the procurement chains.

To mark COP 21 in Paris, I decided to set up a carbon fund by assigning a price to our greenhouse gas emissions. This is a key tool for fulfilling our third commitment, in keeping with the overall objective of limiting global warming to a maximum of 2°C, namely reducing the  ${\rm CO_2}$  emissions relating to our energy consumption by 25%.

Lastly, our Maisons have a long history and are proud of their heritage, from their historic manufacturing facilities to their newest store. Our fourth objective is to continue improving each Maison's environmental performance.

These objectives are ambitious, and we aim for excellence, in terms of the environment as well as our products. By always incorporating an environmental imperative as a source of innovation and creativity for our business activities and in our growth strategy, we are confirming our values and our ambition for the Group, i.e. to be a major operator in the luxury goods industry, which delivers a share of dreams and beauty to the world, not only by sublimating nature, but by protecting it.

Bernard Arnault
Chairman and Chief Executive Officer

### MESSAGE FROM ANTONIO BELLONI AND SYLVIE BÉNARD



ANTONIO BELLONI,
DEPUTY CHIEF
EXECUTIVE OFFICER



SYLVIE BÉNARD, ENVIRONMENT DIRECTOR

# 2016 will go down in the history of LVMH's environmental policy as the year when LIFE 2020 was launched. Why is this important?

Antonio Belloni: Day after day, for many decades, LVMH has been anticipating and adjusting its production processes, its work habits, and its behavior in order to respond to the many environmental challenges we face. With LIFE (LVMH Initiatives For the Environment)) our environmental policy has taken on a new dimension: for us, this program represents a new cornerstone, a fresh start, and a new dynamic. It has enabled us to incorporate the environment into our Maisons' strategy, and to embed it in the dayto-day practices of our teams. It has also fostered our creativity, and created stepping stones and convergences around our Group's major environmental challenges. Thanks to LIFE, protecting natural resources has become a cross-divisional subject that involves all of our employees. With LIFE 2020, we wanted to boost and extend this momentum, by

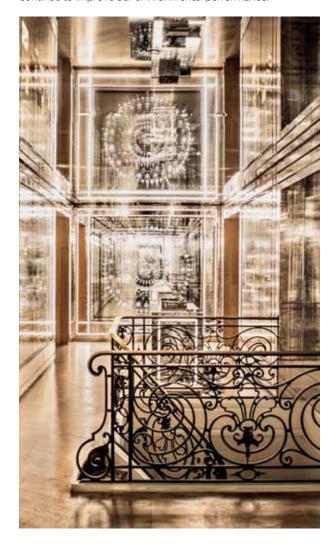
setting our Maisons joint targets that are all catalysts for progress. In this way, we will be able to improve the performance of all our products and facilities at a faster rate, by relying on the highest environmental standards, and carrying our suppliers and partners along with us.

Sylvie Bénard: LIFE has united and mobilized the Maisons around the various aspects of environmental performance. The program has given them a clear view of their main environmental challenges and strengthened their capacity for action on each challenge. LIFE 2020 sets them an objective, to do better and go faster, with increasing rigor and continuous improvement. We felt that our Maisons were ready to move on to this new stage, and they have, in fact, been fully involved in the initiative. Like LIFE, LIFE 2020 is the result of a joint review: our four objectives for 2020 were conceived jointly by a working group of 80 people from 27 Maisons, representing all our business groups and all our businesses.

## The creation of the internal carbon fund was our flagship event in 2015. One year later, are the results positive?

Antonio Belloni: The fund is an undeniable success. The results have even exceeded our expectations, since projects totaling €6.7 million were selected in just one year, €1.7 million more than planned. The Maisons got involved, and made requests for funds to finance 28 projects designed to reduce their carbon footprint, some of which are highly innovative. We have an excellent financial tool in this fund, which helps us achieve our target of reducing greenhouse gas emissions by 25% between 2013 and 2020. The fund will also help us to anticipate changes in regulations and public policies regarding air quality and combating climate change. All this illustrates once again LVMH's pioneering spirit, since this initiative is the only one of its kind in the luxury goods sector to date.

In 2017 the Group's Environment Department will celebrate its 25th anniversary: how do you feel as we approach this anniversary? Sylvie Bénard: We are proud of what we've achieved but determined to go much further. 2016 was a perfect illustration of our state of mind. The many initiatives undertaken by our Maisons across their whole value chain during that twelve-month period, from the eco-design of products right through to the recovery of waste, demonstrate their increasingly strong commitment. At the same time, initiatives - such as the foundation of the Environment Academy, which helps us improve the way we involve our employees, and become more effective thanks to training; or the launch of our online materials library, which introduces our designers and developers to over 300 "ecofriendly" materials; or again, the first LVMH Store Environment Awards event, which encourages competition, and promotes the spreading of best practices for the sustainable management of our boutiques – demonstrate that we are innovating all the time, so that we can capitalize on our experience and continue to improve our environmental performance.





# THE FRAMEWORK FOR ACTION

AFTER INJECTING NEW MOMENTUM INTO OUR ENVIRONMENTAL POLICY WITH THE LIFE PROGRAM, LVMH TOOK A FURTHER STEP IN 2016 BY LAUNCHING LIFE 2020. USING THIS AMBITIOUS ROADMAP, WHICH COMBINES ITS MAISONS' PROGRESS TOWARDS FOUR COMMON OBJECTIVES OVER THE COMING YEARS, THE GROUP INTENDS TO ACCELERATE ITS MARCH TOWARDS ENVIRONMENTAL EXCELLENCE, WHICH IT BEGAN A QUARTER CENTURY AGO.

### PROTECTING ESSENTIAL CAPITAL

LVMH was one of the first groups to set up its own Environment Department – in 1992, the year of the Earth Summit in Rio. Since then, the Group has constantly strengthened its environmental policy. This approach is not just the trademark of a corporate citizen conscious of its duties and responsibilities toward the community. It also confirms LMVH's values of excellence, sustainability and transmission, as well as its model based on a long-term vision.

As a major player in the luxury goods sector, the Groups brings together exceptional Maisons that create high-quality products. All of them use exceptional raw materials. How can you produce perfumes and cosmetics, with no plants or flowers? Wines and spirits, with no vines or cereals? Fashion and leather goods, with no cotton, wool, silk or leather? Jewelry, with no gemstones and precious metals? How can you package and market products, with no wood, paper or cardboard? LVMH uses nature for its raw materials while constantly seeking excellence. Paying attention to the quality of water and soils and protecting animal and plant diversity is tantamount to safeguarding an essential capital resource, which is both a source of the Group's inspiration and a driver of its growth, as well as the guarantee of its future.

#### Making the environment a priority

As a global leader, LVMH must set an example. Its environmental policy must therefore be based on very high standards, and the business must set aside a significant part of its budget for this purpose. In 2016, the total amount of the Group's purely environmental expenditure was €23.8 million, including: €13.5 million in operating expenses, and €10.3 million in investments. The environment also benefitted from indirect expenditure, such as the cost of training, of providing technical support to in-house

teams, or of the environmental quality of its buildings. Thanks to its efforts, LVMH was able to align its environmental commitment with a progress-based approach, punctuated by many internal stages. One of the most important steps was the signing of an Environmental Charter by Bernard Arnault in 2001, in the name of the Group's 130,000 employees. This founding document confirms LVMH's five main ambitions: to seek a high level of environmental performance, to encourage collective commitment, to control environmental risks, to design products incorporating innovation and environmental creativity, and to become involved beyond the company. It also encourages the Chairman of each Maison to become involved in an approach using practical initiatives. In 2008 and 2009, two Codes of Conduct, one intended for suppliers and the other for employees, supplemented and provided a practical embodiment of the Environmental Charter's commitments, by reminding everyone that compliance with the law, regulations and national and international decisions is an essential premise for the credibility of LVMH's approach.

#### Making a commitment to the outside world

Apart from the internal founding documents, LVMH's environmental initiatives are part of a broader framework, shaped by a series of external commitments. In 2003, Bernard Arnault subscribed to the United Nations Global Compact, which focuses on promoting companies' sense of civic responsibility. In 2007, he supported the initiative aimed at involving private companies in achieving the Millennium Development Goals launched by Gordon Brown, then the British Prime Minister. LVMH also supports the Universal Declaration of Human Rights, the OECD Guiding Principles, the International Labour Organization's Fundamental Conventions, the Caring for Climate Program, the Kimberly Process, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). LVMH has embraced the French National Strategy for Biodiversity

2011-2020. This is the French version of the Global Strategic Plan for Biodiversity 2011-2020, which was adopted at the Nagoya Convention on biological diversity in 2010. This voluntary commitment was reflected in a first action program, drawn up for the period from 2012 to 2015, and was selected by the French Government as a recipient of the "National Biodiversity Strategy" Award. LVMH also supports the Sustainable Development Goals (SDGs) (see p.14).

#### Getting organized to take effective action

LVMH has set up an organizational structure designed to translate its environmental commitment into tangible initiatives. In view of its history, its position as a multinational leader in the luxury goods sector, the diversity of its business activities and the highly specific nature of its businesses, the company has prioritized a model that is both decentralized and consistent, which unites without standardizing. This organizational structure is supported by the Environment Department. This Department reports to Antonio Belloni, the Group's Deputy Chief Executive Officer, breathes life into the shared vision based on the LIFE Program, determines the major guidelines for all areas relating to the protection of natural resources and coordinates the environmental reporting process at the global level. It also acts as an interface between the Executive Committee and the Maisons' management teams, while ensuring compliance with the commitments made and coordinating cross-divisional initiatives. The Environment Department is also responsible for helping the Maisons to successfully implement their own environmental policy by making available to them expertise and useful information, practical tools, specific training and tailor-made support. In 2016, for instance, it incorporated a country-by-country review of the environmental regulations into the packaging handbook made available to the Maisons on the Group's Internet portal. Furthermore, the Environment Department attends a large number of reviews and working groups and forms partnerships, particularly with players in fundamental research, in order to boost LVMH's environmental expertise, to support its decisions and to drive internal innovation.

#### Involving all parts of company

The Environment Department relies on a network of about 100 people to carry out its assignments successfully. They represent all LMVH's Maisons and are invited to attend Environment Committees several times a year. These meetings enable: updates to be provided on the LIFE Program and its targets for 2020; exchanges of views about environmental news; the spreading of best practices; and in-depth reviews – sometimes with external experts in attendance – of certain problems, such as the new energies and biomimicry. In order to supplement and extend the work performed at the committees, the Environment Department also leads a variety of specialist in-house working groups, which deal with eco-design, the environmental management of the stores and of chemical substances, for example. Furthermore, as the genuine "orchestra conductor" for LVMH's

environmental policy, the Department works together with the Group's other departments. For instance, it works with the Procurement Department to introduce the Suppliers Conduct Code, and to prepare a joint responsible procurement policy. These two departments also jointly organize the Sustainable Supply Chain Meeting. Its objective is to raise awareness of and train purchasing teams and suppliers about responsible procurement, and to help them achieve the LIFE 2020 targets.

#### Assessing performance

Convinced that only what can be measured exists, LMVH quickly equipped itself with the means to assess the impact of its activities on natural resources, to identify the necessary improvements, and to estimate the progress achieved. As early as 1998, the Group introduced a reporting tool covering the main environment-related subjects. This tool, called Cascade, is based on questionnaires, which the Maisons may also use in order to monitor their own performance, by adjusting them, if necessary, depending on their environmental impact and the frequency of the measures implemented. The data collected thanks to Cascade, which are checked by an independent third party and supplemented by audits, are included in the annual Environment Report published by the Group since 2001. They have also been included, since 2004, in the Management Report of LVMH's Board of Directors. Environmental and social rating agencies, shareholders, investors, consumers and the other stakeholders may view these reports on the Group's website, or receive them on request.

### Using external assessment to strengthen internal assessment

The LVMH Group is determined to make further progress, and to work every day on finding better solutions to the many environmental and social challenges that the Group and its sector confront. LVMH replies to certain questionnaires issued by non-financial, rating agencies that are independent and with which there are no real or perceived conflicts of interest. LVMH does not respond to questionnaires that request a financial contribution. Furthermore, the LVMH Group has historically always been strongly committed to the environment, and will continue to be so. LVMH is specifically included in the main indices based on responsible investment criteria: the FTSE 4Good Global 100, the Euronext Vigo Eurozone 120, and the ESI (Ethibel Sustainability Indices) Europe. The Group was also awarded a 56.3/100 score by the French Corporate Information Center (CFIE), which conducts an annual survey on employment and environment-related information in companies' annual reports.

### 3 QUESTIONS FOR...



JEAN-CLAUDE BIVER,
CHAIRMAN OF THE LVMH WATCH
DIVISION AND CHAIRMAN AND CHIEF
EXECUTIVE OFFICER OF TAG HEUER

### How do you see your Maison's environmental responsibility?

Our responsibility is to take care of the world that future generations will inherit, and to do everything possible to minimize our impact on the natural environment. We also have a responsibility as businessmen, because the long-term future of our Maisons also depends on our ability to adjust to environmental requirements and trends. In the future, our customers will no longer tolerate brands that do not face up to their responsibilities in this area.

### What is the main challenge and top priority for your Maison in this field?

A large amount of work has been performed over the past few years on the materials used in our products and on the industrial process to reduce their impact on the environment. Our carbon footprint is the main challenge of the future and this concerns a wide variety of areas: reducing energy consumption and choosing 100% hydro-power for our industrial sites; full LED lighting in our boutiques; sorting and recovering waste, encouraging car-pooling, the choice of logistics and packaging, etc. This wide variety of small and large initiatives, at every level of the company, enables us to reduce our impact on the environment.

## Does taking account of environmental challenges require a specific management system, in your view?

Yes, it's my role as the CEO to raise the awareness of my teams, to set an example, and to ensure that everyone takes account of our environmental challenges into their decisions. Our innovation and pioneering tradition can be found in our products. It also inspires our preferences in terms of the environment, such as our decision in 2011 to set up the largest solar power station in the Canton of Neuchâtel on the roof of our manufacturing site, and our commitment as a founding member and sponsor of Formula E, the electric car world racing championship. Sustainable development should be second nature for us, but we should not forget that it is first and foremost a question of common sense.

#### THE BUSINESS GROUPS' MAIN CONCERNS

	Wines & Spirits	Fashion & Leather Goods
Saving energy resources and combating climate change	<ul><li>Packaging production.</li><li>Distillation.</li><li>Transportation of product shipments.</li></ul>	Store lighting and air-conditioning.     Transportation of product shipments.
Protecting and saving water resources	Water consumption (irrigation of vines in Australia, New Zealand, Argentina and California).	-
	<ul> <li>Production of effluents containing organic matter during wine-making and distillation.</li> </ul>	
Protecting ecosystems and natural resources	Especially plant resources (vines) required for production.	Especially plant resources (textile fibers) required for production.
		• Exotic leather.
		• Fur.
Waste recovery	Wine-making and distillation processes.	-
Reduction in impact of production and transformation of raw materials, specifically through eco-design	• Packaging.	• Packaging.
		• Cotton and other textiles, leathers.
		• Tanning.

#### KEY FIGURES FOR 2016

At constant scope, LVMH succeeds to improve most of the environmental indicators; a positive outcome compared to the 5% of organic revenue growth.

 $-14\%^{(1)}$ In-store energy

In-store energy consumption reduction  $(kWh/m^2)$ 

 $-3\%^{(l)}_{\text{Greenhouse gas emissions:}} \\ 298,366 \text{ metric tons CO}_2 \\ \text{equivalent}$ 

Perfumes & Cosmetics	Watches & Jewelry	Selective Retailing
<ul><li>Packaging production.</li><li>Transportation of product shipments.</li></ul>	-	<ul><li> Store lighting and air-conditioning.</li><li> Transportation of product shipments.</li></ul>
Protection and saving of water resources.	-	-
Especially plant resources required for production.	<ul><li>Packaging.</li><li>Stones and precious metals.</li><li>Exotic leather.</li></ul>	-
-	WEEE (waste from electrical and electronic equipment, such as batteries).	-
<ul><li>Packaging.</li><li>Constituents of perfumes and cosmetics.</li></ul>	-	-

 $-36\%^{(1)} \\ \text{Water consumption for agricultural requirements:} \\ 4.507,022 \text{ m}^3 \\$ 

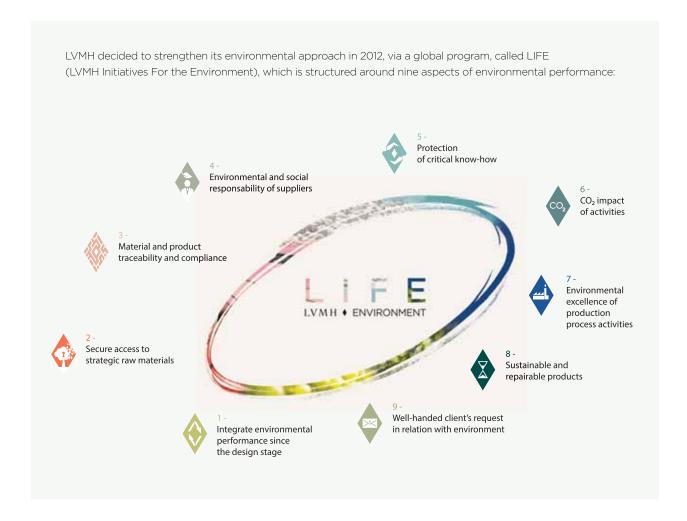
 $-2\%^{(1)} \\ \text{Water pollution:} \\ \text{3,354 tons of COD/year} \\$ 

 $-3\%^{(l)} \\$  Waste produced: 80,787 metric tons

 $+3\%^{(l)}$ Packaging:
206,071 metric tons

(1) Change compared to 2015 at constant scope.

## STRUCTURING THE APPROACH WITH THE LIFE PROGRAM



To commit to the LIFE Program, the Group's Maisons – supported by the Environment Department – were invited to select the challenges that were most strategic for them, given their business activities and their respective problems. The Maisons then set themselves annual improvement targets for each challenge, as well as action plans and indicators for monitoring their performance. Some indicators are shared, such as the EPI (Environmental Performance Index), which calculates the environmental performance of the packaging for the Perfumes & Cosmetics and Wines & Spirits Maisons. Other indicators are specific, enabling the Maisons to take their businesses' particular operating methods into account. After a pilot phase, the gradual roll-out of LIFE began in 2013. In 2015, all the Maisons included LIFE in their annual strategy plan at the request of Antonio Belloni, the Group's Deputy Chief Executive Officer.

#### Gaining greater maturity

LVMH's environmental policy has taken a major turn with LIFE. The Program has provided a strategic backbone for the initiatives implemented by the Maisons to protect natural resources, while structuring all their initiatives around a unified vision and a shared commitment, as part of a long-term approach. LIFE has set the priorities to be shared, strengthened the inclusion of the environment in our management processes, raised employees' awareness and motivation, created a common language that encourages cooperation and has accelerated the spreading of best practices. Accordingly, the Group has been able to inject fresh momentum into its environmental policy, and to enter into an ongoing improvement cycle, while gaining maturity. LIFE now enables the developments and enhancements arising from the Maisons' innovative practices to be taken into account, and encourages joint and cross-divisional initiatives. It also contributes to protecting LVMH's brand image, to reducing costs and

#### ACCELERATING THE PACE WITH LIFE 2020

In 2015, LVMH had reached a plateau in the roll-out of its environmental policy: a mature approach, team involvement and huge increase in the initiatives for performance improvement. To achieve even greater consistency and efficiency in 2016, the Group decided to move to a new level: defining and setting objectives in respect of certain challenges in the LIFE Program shared by all its Maisons, whatever their business group.

The aim was twofold: capitalize on experience, and do better and go faster by involving its teams around their new ambitions. The review was conducted in accordance with the participative approach that had already prevailed when drawing up the LIFE Program: 80 people (including environmental experts and representatives of the businesses) from 27 Maisons met in workshops over two days in order to determine the wording and contents of each objective. This is how LIFE 2020 was created. It provides LVMH with a course to steer towards until 2020 in four strategic areas: the environmental footprint of the products, sustainable procurement, greenhouse gas emissions and improving the environmental impact of production facilities and stores.



Target: products

#### Improving the environmental performance of all products

The Group's Maisons will improve the environmental performance of all of their products by 2020, by taking into account their entire life cycle. To achieve this objective, the Maisons can rely on the array of tools made available to them by the Environment Department. In 2016. LVMH launched the second version of Edibox, an Internet tool developed in-house that calculates the Environmental Performance Index (EPI) of the Perfumes & Cosmetics Maisons' packaging, as well as the CO<sub>2</sub> impact of their packaging materials. Thanks to this new

version, the transportation and processes for treating and decorating packaging material can be incorporated into their emission estimates. The Wines & Spirits Maisons also calculate an EPI for all their products. Both business groups have set themselves the target of a 10% improvement in their rating by 2020. The Fashion & Leather Goods and Watches & Jewelry Maisons manufacture products where the environmental impact is mostly linked to the production of agricultural raw materials or to the extraction of minerals. They will therefore focus on these stages (see the next objective) and, at the same time, will apply eco-design auidelines.



🚺 🌑 Target: supply chain

#### Applying the highest standards in 70% of the procurement chains, in order to reach 100% by 2025

The search for excellence at every level of its sectors is the focal point of LVMH's initiative. The Group has been implementing a sustainable procurement policy for several years. It pays considerable attention to the traceability and compliance of the materials and substances used to manufacture its products. It also works in close collaboration with its suppliers and sub-contractors, in order to develop responsible practices, and increasingly includes these practices in its environmental policy. The Maisons will continue along this path in the coming years: they must ensure that they apply the highest environmental standards in their raw material procurement processes and with their suppliers, in 70% of their procurement chain by 2020, and then 100% in 2025.



Target: C0<sub>2</sub>

#### Reducing by 25% the CO<sub>2</sub> emissions associated with energy consumption

The Group has often played a pioneering role in combating climate change; for instance, it was one of the first companies to test its carbon footprint, or launch the LVMH carbon fund at COP21 in Paris. It now has a new target, i.e. reducing CO<sub>2</sub> emissions linked to the consumption of energy by 25% between 2013 and 2020. The priority initiatives to be implemented concern the energy efficiency of the stores, which cover more than one million m<sup>2</sup> throughout the world and are responsible for 80% of the Group's emissions linked to energy consumption. In parallel, the Maisons will continue to increase the percentage of renewable energy in their energy mix.



Target: sites

#### Improving environmental performance indicators by at least 10% for all production and administrative sites and stores

As a major operator in the luxury goods sector, LVMH has a duty to set an example at all the 369 sites where its products are designed and manufactured, as well as in its 4,000 stores. As part of its LIFE 2020 objectives, the Group wants to go further and has asked its Maisons to reduce at least one indicator of their choice (water consumption, energy consumption and/or production of waste) at their sites between 2013 and 2020, and to install their own environment management system seeking continual improvement. At the same time. the energy efficiency of the stores must be improved by 15%, and new stores must achieve a rating of 50/100 in the "LVMH Store Guidelines" matrix.

to improving internal and external communications. Above all, the program is becoming established as constant source of innovation and progress. Thanks to LIFE, LVMH has completely adopted the environmental imperative. The business's responses to its environmental challenges have a profound influence on its development, shape the future challenges in its markets and determine the opportunities for the growth of its brands.

#### Preparing the future

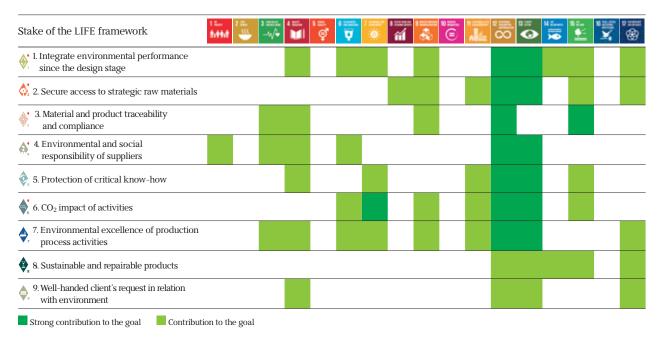
As soon as LIFE 2020 was launched, LVMH's teams got into action in order to fulfill the commitments made. The Environment Department made changes to Cascade, its reporting tool, in order to include the new objectives, and redesigned its intranet site in accordance with the LIFE challenges. Meanwhile, the Maisons mobilized their departments. Some of them adjusted their organizational structure several years ago in order to successfully implement their initiatives aimed at protecting the environment. For example, Guerlain has set up a Sustainable Development Department and a "Sustainable Development" Steering Committee. Louis Vuitton has a similar committee, and steering groups for specific subjects such as recycling or ISO 14001 environmental certification. Fendi followed their example in 2016, by setting up a LIFE Committee, which is attended by representatives of all its departments. The Committee organized five coordination meetings during the year in order to plan and monitor the initiatives to implement to achieve the objectives that have been set.

Whether or not they have a specific organizational structure, all the Maisons have announced their new goals, like Guerlain, which wants to eco-design 100% of its products by 2029 and reduce its  $\rm CO_2$  emissions by 50% compared with 2007. All the Maisons are equipping themselves with the means to achieve their objectives. Louis Vuitton is set to increase its environmental budget by 50% between 2016 and 2017 compared with 2016, and has decided to make significant investments in eco-design, in the environmental responsibility of its procurement chain and in managing  $\rm CO_2$  emissions relating to the transportation of its products.

#### Sustainable Development Goals

LVMH supports Sustainable Development Goals (SDGs). Buoyed by the success of the Millennium Goals, the United Nations has developed this program, which consists of 17 goals and 169 targets aimed at guaranteeing the future of the next generations in a sustainable manner. LVMH has conducted a study to assess the contribution of the LIFE environmental program to the SDGs. Accordingly, more than 150 initiatives have been assessed that cover 12 of the 17 goals and contribute to 34 out of 169 targets. Goals 12 and 13 (responsible consumption and combating climate change) were the ones that generated most initiatives. However, the Group's social and societal policy was not taken into account in this assessment, which focused on the environmental dimension.

#### LIFE FRAMEWORK'S CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS (SDGs)





#### THE LIFE PROGRAM ACCORDING TO BVLGARI

Bylgari has sub-divided the LIFE Program by aligning its environmental policy around five strategic challenges: securing access to raw materials; the conformity and traceability of raw materials; the social and environmental responsibility of suppliers; the impact of its business activities on climate change; and the environmental excellence of its processes. To achieve its targets in these different fields, the Maison has drawn up an ambitious program by reinforcing and structuring the initiatives already implemented several years ago. Specifically, Bvlgari wants to gradually extend the framework of its RJC (Responsible Jewelry Council) certification, which guarantees the responsible origin of precious metals by including all of the operators in the sector (see p.24). The Maison also plans to increase the number of environmental and social audits performed by its suppliers, whatever the business concerned: watchmaking, jewelry, perfumes or leather goods.

Another flagship initiative: for its new jewelry workshop at Valenza, in Italy, Bylgari hopes to obtain LEED® certification (Leadership in Energy and Environmental Design), the US construction standardization system. The construction site itself had low environmental impact, thanks to the implementation of several systems intended to limit soil erosion, and reduce water and air pollution. For instance, areas for cleaning cement

mixers were set up, together with an area for collecting and recycling waste.

Furthermore, the Maison will continue its proactive participation in the LVMH Lighting Program by standardizing the lighting in its stores via LED technology, which enables electricity savings of between 30% and 40%. In 2015, 20 Bylgari stores were fitted with LED lighting. All new stores have been fitted with this lighting since 2016. The Maison is planning to replace traditional lighting with LED lighting in around 30 additional sales outlets by 2018, which will increase the number of its boutiques fitted with environmentally-friendly lighting to 150.

### 3 QUESTIONS FOR...



PHILIPPE SCHAUS, CHAIRMAN OF DFS

### What is your vision for DFS' responsibility to the environment?

DFS' vision for our environment is to be a recognized leader in environmentally sound initiatives among the global travel retail community, demonstrating through our practices and actions that responsibility for the environment rests with all of us. Our promise is to be "the world traveler's preferred destination for luxurious shopping", and the word "destination" guides our environmental approach. We believe that a healthy environment is necessary for the future of our business, our people and our customers, and is the foundation for sustainable and strong global economies. If we encourage travelers to visit certain locations where we have established our airport and downtown T Galleria stores, then we have a commitment to those destinations to ensure they remain attractive and that their tourism industries, and thereby their economies, profit and develop from our presence. We also feel a responsibility to lead by example in driving the transition towards a low-carbon future. Each of our business areas has a critical role to play in finding smart, sustainable solutions that are environmentally responsible, from our store operations to store design, from global logistics to IT. Finally, and perhaps most importantly, our people are our strongest assets in our environmental and sustainability efforts, continually demonstrating their passion for contributing to a healthier environment.

### In this field, what is DFS's foremost opportunity, and your main focus?

As one of the world's leading brands in the retail industry, DFS is committed to achieving environmental sustainability in the design and operation of all our stores around the world. We acknowledge our duty to conserve natural resources by delivering sustainable developments, encouraging the retrofitting of energy-efficient technologies into our existing buildings and working closely with our vendors to implement these technologies

to enhance energy efficiency and create economic value. In all our new store projects and renovations, we actively seek to implement measures to reduce overall energy consumption and water usage, reduce our carbon footprint, minimize construction material usage, and promote a generally healthier environment for our staff and customers. For instance, all paints, coatings and adhesives applied on site must be low volatile organic compound (VOC) type, minimizing potentially harmful emissions. Where possible, we use wood products that are certified by The Forest Stewardship Council (FSC) or sourced from a recognized sustainable timber source. Of course, all our energyconsuming appliances installed such as A/V equipment, TV or video screens, computers and so on are Energy Star rated or equivalent.

In our upcoming store design projects, in order to reduce the waste that we generate in construction and which is disposed of in landfill, a dedicated area for the top waste streams – paper,

cardboard, plastic, metal, cans, glass and plastics - will be designated. It will also be used for the safe collection, storage and disposal of electronic waste and batteries

We are particularly proud of our progress in diminishing the carbon footprint caused by our stores' CO<sub>2</sub> emission levels, a significant portion of which are caused by outdated lighting systems. We are LEED certified, and have retrofitted existing lighting installations with environmentally conscious and enhancedperformance ones in more than seven DFS stores to date. In 2016, we received a special award for our certified "green" lighting strategy and implementation at the inaugural LVMH Store Environment Awards, namely for our T Galleria Beauty by DFS, Hong Kong, Causeway Bay store which set a record within LVMH Group as having the lowest lighting energy consumption per square meter. Looking forward, we plan to replace all store lights with 100 percent LED lighting, in line with LVMH's green guidelines.

The way we move our product around the world also has an environmental impact, and we are very focused on managing our carbon footprint through transportation by using sea freight instead of air freight as much as we can.

## Does the focus on our environmental responsibility require a specific approach to management?

We practice a holistic approach to environmental responsibility across all areas of our business, from the way we design and construct our stores, to how we move product across the world, to the way we conduct our internal and external meetings.

In our day-to-day activities, we leverage technology as much as possible to reduce our carbon footprint, by conducting meetings over videoconferencing rather than traveling by air, and using dynamic resource scheduling (DRS) technology to ensure our computer servers are able to power up and down according to peak and low periods of use.

Finally, our commitment to the environment is proudly supported by all of our nearly 9,000 employees worldwide. As keeping our communities clean is part of enhancing the overall travel and tourism industry in the communities where DFS operates, providing a more pleasant experience for our global traveling customer, many of our teams lead or participate in "clean-up days" in their locations. In 2016, our new team members in Siem Reap, Cambodia, volunteered their time for a day to collect trash. In Okinawa, a community clean-up day formed part of the team's end-of-year CSR activities, while members of our Hawaii team took part in a clean-up project on Waikiki Beach. In our corporate headquarters in Hong Kong, our employees are preparing for "Sous les déchets la plage", a beach clean-up organized by the French community to encourage a cleaner, safer and more beautiful environment.



### THE ACTION DRIVERS

TO ACHIEVE THEIR ENVIRONMENTAL OBJECTIVES, LVMH
AND ITS MAISONS RELY ON ALL THE ACTION DRIVERS
AT THEIR DISPOSAL AND ARE INVOLVING ALL THEIR STAKEHOLDERS:
EMPLOYEES, CUSTOMERS, THE GENERAL PUBLIC, SCIENTISTS,
PUBLIC AND PRIVATE PARTNERS, GOVERNMENTS, LOCAL AUTHORITIES,
NGOS AND VOLUNTARY ORGANIZATIONS.

### EMPLOYEES WHO ARE INVOLVED

### An Environment Academy for training the employees

LVMH's environmental progress is closely linked to its ability to turn its 125,000 employees into participants in the approach, regardless of their business, their position and the country where they are based. Training the staff about protecting natural resources has therefore been the subject of constant efforts. These efforts have been increased due to the roll-out of LIFE and to the Group's new objectives for 2020. Increasing LVMH's employees' skills has been entrusted to an Environment Academy since 2016. The training courses provided to LVMH's employees via the Academy respond to the major challenges of the LIFE Program. A complete pathway has been designed in various educational formats, including face-to-face sessions, e-learning, virtual classes, etc. The Academy includes a basic teaching cornerstone - the Fundamentals - which is intended for beginners in the Environment Department and primarily addresses major environmental challenges, from managing an environmental management system to environmental law. This platform is supplemented by nine "à la carte" business modules, and a "soft skills" module, which enables everyone to convince

and influence people about environmental challenges, whatever their position and experience. Business training courses are also available. The Group's buyers are invited to attend a one-day session entitled "Building environmental performance with suppliers". They learn how to identify environmental risks relating to suppliers' practices and to improve the assessment of those risks using a matrix of 10 questions developed by LVMH. Employees in the stores and the teams responsible for procurement may also follow the training course offered by the Environment Academy on CITES (Convention on International Trading in Endangered Species of Wild Fauna and Flora), in order to gain a better understanding of the way in which it concerns their day-to-day businesses. In total, more than 20,500 hours of training on environmental topics were provided by the Group and its Maisons in 2016, 2,000 of which were directly managed by the Academy.

The Maisons are also involved, like LVMH Fragrance Brands that raised awareness of the environment among all the employees hired on permanent or fixed-term contracts, and among temporary employees and interns at its industrial facilities. At the same time, many Maisons have trained environmental management system managers to conduct internal ISO 14001 audits: thanks to this training, which leads to a qualification, and has been rolled out since 2014, LVMH supports the

#### TRAINING IN ECO-DESIGN

Inclusion of the environment, from the design stage of products, is one of the LIFE Program's priorities. The Environment Academy therefore offers Group Maisons' employees in design, research & development and marketing positions the opportunity to attend a session on this subject. The employees specifically familiarize themselves with the eco-

design tools that the Group provides them with, such as the virtual materials library, which makes it easier to selecting eco-compatible materials. For employees responsible for environmental subjects in the Maisons, the training course also includes an introduction to analyzing a life-cycle, delivered in a virtual class by experts from CIRAIG, the Inter-University Research Center for the Life Cycle of Products, Processes, and Services at the Montreal Polytechnique. A training module covering version 2 of Edibox (the software for calculating the Environmental Performance Index or "EPI") has also be included in the Academy's offering for the Perfumes & Cosmetics Maisons.

achievement of performance objectives, encourages exchanges of best practices, and increases the overall effectiveness of audits.

#### Developing communications and internal events

Training is not the only means LVMH uses to involve its teams in caring for the environment. The Group and its Maisons also rely on communications and events. For instance, every year Guerlain rolls out an internal communications plan dedicated to its environmental approach, which resulted in sending about 20 "e-news items" to its employees in 2016. To raise its teams' awareness of its sustainable procurement sectors, the Maison also launched "The Perfume Maker's Calendar", a memo in which Thierry Wasser discusses his favorite materials, such as Indian yetiver.

#### Highlights that unite the staff

LVMH's internal communications rely on major environmental events, which are also highlights that unite and involve the staff. Accordingly, the Group's Environment Department sends information factsheets on Green Week, the biggest annual conference on European environmental policy, to around 70,000 employees. The 2016 event was dedicated to ways of investing for a greener future. Accordingly, five factsheets were drawn up and distributed in several languages, in order to explain how LVMH is investing in making cities greener and improving city dwellers' living conditions, protecting farming areas and nature, developing sustainable innovation, protecting the seas, and preparing the future of the next generations. Another major annual meeting is the European Sustainable Development Week, which also serves as the framework for many internal communication initiatives within the Group. For instance, all the Louis Vuitton Maison's facilities and workshops have adopted the habit of conveying and celebrating this Week via exhibitions, games and the award of prizes, such as the event organized in the Drôme Workshop in 2016.

#### MANAGED RISKS

#### Optimizing the management of risks

The assessment and management of risks form an integral part of LVMH's environmental policy. The Group has introduced a system for identifying, reducing and preventing all its environmental risks, whether they relate to areas where the facilities manufacture and store their products, to the purchase of raw materials, to the design and production of the products and their packaging, to transport and logistics, or to specific media issues. This system is based on a shared methodology and a single set of guidelines, the roll-out of which is coordinated by the LVMH holding company. The company's industrial, environmental and operational risks have been systematically identified since 2004, via a mapping tool that was designed in-house, and are then ranked in order to emphasize those to be dealt with as a priority. LVMH is then able to roll out operating action plans in order to reduce risks across its entire value chain. For instance, business continuity plans are implemented upstream, in order to enable the facilities to deal with disasters such as flooding or earthquakes. Downstream, the Group avoids any risks relating to its products, while ensuring compliance with quality and security regulations, and increasing traceability on an ongoing basis.

#### Resources that are appropriate for the challenges

LVMH's environmental risk management system involves a wide variety of internal expertise, including the Maisons' Heads of Safety, Quality Assurance and the Environment, as well as external expertise. It also relies on tools and specific initiatives. For instance, to keep the risk of fire to a minimum, LVMH has adopted the HPR (highly protected risk) approach, which requires it to pay particular attention to the storage and transportation of its raw materials. The Maisons of its two Wines & Spirits and Perfumes & Cosmetics business groups use the HACCP (Hazard Analysis Critical Control Point) method for managing the health safety of food, which increases the speed

#### MAKE UP FOR EVER IS CALLING ON ITS "GREEN DRAGONS"

Make Up For Ever partnered the European Sustainable Development Week once again in 2016 by inviting all its employees to a screening of the film entitled *Demain* ("Tomorrow"): this French documentary, produced by Cyril Dion and Mélanie Laurent, presents solutions that are currently being implemented by about 10 countries in order to reinvent the world of the future and avoid envi-

ronmental, economic and social crises that threaten humanity. After watching the film, the Make Up For Ever employees wanted to take tangible measures to protect the environment, and launched a new venture, the "Green Dragons" Venture, organized by millennials who have decided to make a commitment. Seven of them took part in the first "Green Hackathon" organized by the Maison on

November 23 and 24, 2016. The principle is simple: employees were invited to suggest ideas for protecting the environment at the office, as well as while traveling and at home. The Make Up For Ever Executive Committee then selected the most inspiring ideas, and gave the "Green Dragons" four days to turn these avenues into tangible initiatives.

of reaction in the event of product recalls. Regular controls supplement LVMH's risk management and control system. The Group had 104 internal audits and 107 external audits specific to environmental topics performed in 2016. Furthermore, compliance audits were performed on particular regulatory points, as is the case each year. LVMH also launched compliance audits at a few of its partners with no notice, as the Code of Conduct signed with its suppliers entitles it to do (see p.44).

### CERTIFICATION PROCESSES

### Extending ISO 14001 environmental certification

LVMH's Environmental Charter and the LIFE 2020 objectives require the Maisons to establish an environmental management system as part of a management-driven policy. Many of the Maisons have opted for ISO 14001 environmental certification, which enables them to improve on an ongoing basis. The Group has already covered a large amount of ground: thanks to the Maisons' efforts, the scope covered by ISO 14001 certification is increasing every year. For instance, Guerlain began by having its French facilities (head office, stores, and its sites at Orphin and Chartres) certified in 2011. The Maison renewed its certification for the overall "French" scope in 2015, before beginning to roll out its initiative internationally. Guerlain's subsidiaries based in Germany, Benelux, the Netherlands, Spain, Portugal and Italy are now ISO 14001 certified or are in the process of being certified. At end 2016, 36% of the Group's industrial, logistics or administrative sites were ISO 14001 certified, together with 66% of its industrial sites. In fact, thanks to LIFE 2020, the Maisons have committed to maximizing the environmental performance of all their sites

#### A tool that contributes to excellence

This momentum also involves LVMH's hotel businesses: in 2016, two of the Group's Cheval Blanc hotels, at Courchevel in France and Randheli in the Maldives, successfully completed the stages leading to Silver level of EarthCheck certification, which is hotel sector equivalent of ISO 14001. To get there, the hotels involved their teams, implemented initiatives aimed at reducing their consumption of energy, water and paper, and acquired the means to produce green energy, as well as promoting local and organic products on their menus.

Buoyed by their experience in the environmental certification field, the Maisons now see certification as a dynamic, uniting and motivating tool, which fully contributes to the search for excellence dear to LVMH, at their sites and in their business activities. In fact, Guerlain France, Hennessy and the Louis Vuitton logistics center in Cergy-Pontoise upgraded to the 2015 version of ISO 14001 in 2016. The new standard, which applies to the entire product value chain and requires the business to assess its environmental performance on a regular basis, is expected to produce further progress.

#### Other standards in support

LVMH's environmental policy does not rely solely on ISO 14001 certification. Some Maisons apply other standards to make progress from an environmental standpoint, as in the Wines & Spirits business group, for example. The Champagne-Cognac-Vodka unit has been awarded ISO 22000 certification, which is the leading international standard for the application of a food safety management system. This is the case for the Belvedere Distillery in Poland, which also relies on OHSAS 18001, a benchmark for managing health in the workplace. Meanwhile, Chandon California and Newton initially obtained Napa Green Winery certification, awarded to vineyards and cellars in the Napa Valley that use environmentally-friendly farming methods,

#### HENNESSY, THE PIONEER OF ISO 14001 CERTIFICATION

Hennessy was the first wines and spirits company in the world to obtain ISO 14001 certification in 1998 and this certification has been renewed every three years since that date. The Maison has also pioneered the adoption of the new guidelines for the standard (2015 version), with an approach based on assessing the life-cycle during the renewal audit in May 2016. This new version of the standard enables further progress to be made in terms of incorporating all the services

relating to a product, from product development to the supply chain, and including partner wine producers, suppliers and service providers. Hennessy's environmental management system is effective and well established, has already been adapted for the new version of the standard and is consistent with the Maison's pioneering commitment. The system enables Hennessy to demonstrate its compliance with legal and regulatory requirements, to involve

its employees and to boost its reputation and the trust of its stakeholders. Hennessy is further improving its efficiency thanks to certification, and is encouraging the environmental performance of its suppliers, service providers and partner wine producers. Furthermore, the Maison is strengthening its system on an ongoing basis: for instance, it continued to increase its team of internal auditors trained on the new version of ISO 14001 in 2016.

in 2011. Then, in 2012, they were awarded Napa Green Land certification, which is based on a program aimed at protecting the river basins in Northern California and specifically includes the protection of ecosystems, the prevention of erosion and the reduction of energy consumption and waste. Lastly, some Maisons such as Belvedere were awarded ISO 50001 certification, which focuses on improving energy efficiency.

### A SUSTAINABLE CONSTRUCTION POLICY

### Building and renovating while caring for the environment

The construction sector emits the third largest amount of greenhouse gases in the world. Any company wanting to contribute to combating global warming must therefore include the protection of natural resources in the construction and renovation of its buildings. LVMH, which has been doing so for many years, is set to intensify its efforts in this area, since one

of the LIFE 2020 objectives is to reduce the CO2 emissions linked to energy consumption by 25%. LVMH relies on the most demanding standards and methods, in order to ensure that its factories, warehouses, stores and offices display an environmental profile that is compliant with the highest sustainable construction standards. The standards include: the BBC® (Bâtiment Basse Consommation or Low Consumption Building) standard; certification under the French HQE® (Haute Qualité Environnementale or High Environmental Quality) standard; BREEAM® (Building Research Establishment's Environmental Assessment Method), the British method for assessing the environmental behavior of buildings; and the LEED® (Leadership in Energy and Environmental Design) standardization system in the US. For instance, the "La Ruche" (The Hive) factory opened by Guerlain at Chartres in 2014 is HQE® certified at the excellent level, while Louis Vuitton's leather goods workshop in San Dimas, in Southern California, has been awarded LEED® certification at the Silver Level. Meanwhile, Berluti recently commissioned a manufacturing workshop with a surface area of more than 8,000 m<sup>2</sup> in Italy which has been fitted with a natural

#### AN EXEMPLARY CREATIVE WORKSHOP IN GRASSE

On September 15, 2016, Michael Burke and Claude Martinez, the Chairmen and Chief Executive Officers of Louis Vuitton and Parfums Christian Dior, inaugurated Les Fontaines Parfumées, the new creative workshop for perfumes located in the center of Grasse. Both Maisons have joined forces in order to inject new life into this historic property, which dates back to 1640 and is home to La Foux, the largest spring in Grasse that was neglected until it was purchased by Louis Vuitton in 2013. The restoration provides

an illustration of the LVMH Group's sustainable construction policy. Several original architectural components were removed, restored and reinstalled in order to retained the bastide's authenticity, including a woodwork rotunda, the stone doorway at the entrance to the bastide, the historic gateway, the stone flooring, etc. The conservation of the local ecosystem was reflected in the retention of a large number of plants that are part of the gardens' design, including the hundred-year-old trees, which were

protected during the restoration works. The water quality of the La Foux spring was preserved thanks to the appropriate protection measures. Both Maisons also paid attention to minimizing the project's carbon impact. On the construction site, 95% of the craftsmen involved were local contractors. On the building side, double masonry ensures the complete insulation of the premises. Every year the property will welcome several hundred employees from the Louis Vuitton and Christian Dior Maisons.

#### HOE® GUIDELINES: MOËT & CHANDON IS GAINING A HEAD START

A pioneering spirit is the trademark of all the LVMH Group's Maisons, which have been innovating on a regular basis for a long time in order to protect natural resources. This spirit is reflected in the recent initiative by Moët & Chandon: the Maison has invested €150 million in building a particularly environmentally-friendly wine-production center and

winery in Oiry, in the Department of the Marne. The Mont-Aigu project was the subject of an HQE® (High Environmental Quality) process, monitored by an auditor. It will not be certified, however, since the HQE® standard for industrial buildings does not yet exist! The operation stands out by the number of HQE® objectives handled at the highly effective and effec-

tive level (14 in total, from the building's relationship with its immediate environment to the hygienic quality of the water). It enables energy savings of 76% to be achieved for air conditioning and heating, and water consumption to be reduced by 30% throughout its life cycle.

more than  $8,000 \, \text{m}^2$  in Italy which has been fitted with a natural ventilation system, a lighting system that maximizes the use of daylight and an electrical power supply fed by solar panels.

#### Buildings on the cutting-edge of innovation

Thanks to its sustainable construction policy, LVMH can take every environmental parameter into account and uphold all these parameters to the extent possible at each stage of its building projects: design, construction, operation, and renovation. Over the past ten years about 30 "eco-friendly" buildings have been constructed by the Group. Some of those buildings were seminal thanks to their pioneering characteristics. This was the case of EOLE: this platform, opened by the Louis Vuitton Maison in Cergy-Pontoise in 2007, was the first warehouse in France built following an HQE® approach as part of a pilot project, and was then the first warehouse in Europe to be awarded the US LEED® EDOM certification at the Gold level in 2015. Sephora provided a further illustration of the LVMH Group's pioneering spirit where environmentally-friendly buildings are concerned in 2016: its La Canopée Store, opened in the Forum

des Halles in Paris, was awarded BREEAM® certification at the Excellent Level. The Maison is the first business in its sector to achieve this level of performance in France. La Canopée is also the first Sephora store to be awarded BREEAM® certification in the Europe region. Other exemplary projects are in preparation within the LVMH Group. For instance, the Champagne Maisons launched two major projects in 2016: the extension of the Mont-Aigu site, where a 240,000-hectoliter winery will be built, and Comète, the future Veuve Cliquot development site. These projects are both pilot HQE® operations and will be subject to certification. They have both already been assessed as meeting the Exceptional HQE level by Certivéa.



 $Les\ Fontaines\ Parfum\'ees,\ a\ site\ dedicated\ to\ perfume\ creation\ shared\ by\ Louis\ Vuitton\ and\ Christian\ Dior.$ 

### PROFESSIONAL DISCUSSIONS

#### Significantly increasing professional collaboration

LVMH, which is convinced that joint reviews and collaborative working are source of progress, plays an active role in a large number of professional technical projects that deal with environmental issues within its various business groups. The Group is particularly involved in sustainable procurement issues, for instance, and has been a member of the Responsible Jewelry Council (RJC) since it was founded in 2005. This not-for-profit organization has set itself the task of promoting ethical, social, and environmentally-responsible practices that respect human rights throughout the jewelry procurement chain. The RJC now includes over 160 global professional operators, who are adjusting their management systems and their practices in order to guarantee compliance with sustainable development issues and criteria. The RJC has specifically developed a certification system for its members who are involved in the gold and diamond sectors, which requires them to undergo audits by

accredited independent auditors. All of the Maisons in LVMH's Watches & Jewelry business group obtained RJC certification between 2011 and 2012. Bylgari extended the process by becoming the first company in the sector to be awarded Chain of Custody – CoC-certification for its gold jewelry production lines in June 2015. LVMH has also taken part in the work performed by the Dragonfly Initiative, an organization that includes European and US operators in the luxury jewelry sector, and works on the development of best practices for the extraction of colored stones, since 2014.

The Group is also a member of the international Business for Social Responsibility (BSR) network, which is a global leader in the corporate social, societal and environmental responsibility fields. For instance, it is involved in the BSR working group on best practices for the production of fur, with the long-term goal of certifying farms on the basis of animal well-being and the environment. LVMH took part in drafting the new version of the "Animal Sourcing Principles" with the BSR in 2016; this document sets out the general principles according to which all animals must be treated in procurement chains in order to



### 3 QUESTIONS FOR...



PIETRO BECCARI, CHAIRMAN OF FENDI

### How do you see your Maison's environmental responsibility?

The environment and social responsibility have always played a particular role at the Fendi Maison since it was founded in Rome in 1925. Our exceptional raw materials have always been selected from the most demanding farms from the outset, combined with outstanding know-how passed down from generation to generation of craftsmen.

This heritage commits us and drives us to continue to take action to safeguard the environment every day; so, our three manufacturing and logistics sites in Italy, like all our production sites, have been awarded ISO 14001 certification, as has our brand-new head office, the Palazzo della Civiltà Italiana in Rome, the certification of which will be effective as from this year.

We are developing and monitoring a transparent procurement activity that respects its employees, the environment and animal well-being.

In addition to national and European regulations, we have, with our partners, introduced a commitment to the certifi-

cation process known as Welfur, which is unique in the world and guarantees respect for animal well-being on the farms

Lastly, we performed over 100 environmental and social audits on our suppliers in 2016, via the Bureau Veritas independent audit organization, and are planning to double the number of these audits in 2017.

### What is the main challenge and top priority for your Maison in this field?

We want to take tangible action on our  ${\rm CO_2}$  emissions, without lowering the attention that we pay to subjects relating to our materials and our procurement processes.

We want to reduce the  $\mathrm{CO}_2$  emissions of our boutique network throughout the world, i.e. to design exceptional stores for our customers, which are also responsible from an environmental standpoint. This is a particularly ambitious challenge, where we want to push ourselves to the limit. For instance, the lighting in our boutiques, workshops and logistics center, and at our head office in Rome is entirely provided by LED technology, which reduces

electricity consumption and  $CO_2$  emissions by a factor of almost 10.

Furthermore, 100% of the electricity at our Italian sites comes from renewable energy sources.

## Does taking account of environmental challenges require a specific management system, in your view?

The environment is more than a standalone subject to be treated like a project. It must be given the same day-to-day attention that we naturally pay to all our activities: when we open or renovate one of our 200 stores, when we design our new collections or, indeed, concerning our shipment logistics throughout the world, etc.

Every one of our actions has an impact on the environment which we need to minimize: this is the job of all our employees at Fendi, and the responsibility of each of our managers.

It is a collective raising of awareness, which we must encourage, promote and reward.

ensure their well-being. LVMH is also a member of Orée (Organisation pour le Respect de l'Environnement or Organization for the Protection of the Environment), which brings together institutions, companies, regional authorities and professional and environmental organizations in order to review environmental best practices and ways of encouraging integrated management of the environment at a regional level. The Group attended the organization's annual conference on June 2, 2016. The subject addressed at the conference was "Biodiversity and the economy: new management, accounting, and network facilitation processes and tools".

LVMH is also heavily involved in the RESP (Responsible Ecosystems Sourcing Platform). This platform has brought together luxury goods operators in the cosmetics, fashion and jewelry sectors since 2012 in order to develop best practices for the procurement of raw materials and natural resources. RESP focuses its work on systemic problems that no company can solve alone, by relying on an extensive network of public and private participants. LVMH plays an active role in four of the platform's working groups, which respectively deal with the traceability and sustainability of exotic leathers, colored stones, wool and certain substances derived from plants. The work performed within the RESP framework has led to significant progress, especially on the issue of traceability of materials. The Group will continue on this path in 2017. It has specifically planned to fund pilot projects in Indonesia that primarily objective the same goal, i.e. finding a balance between economic development, social benefits, and protecting or showcasing biodiversity.

#### Increased momentum in 2016

LVMH pursued this proactive professional collaboration policy in 2016. For instance, as a member since 2011 of the Leather Working Group, where the work on the traceability of leathers

and tannery audit standards is internationally recognized, LVMH joined the LWG sub-working group dedicated to animal well-being as soon as it was set up in mid-2016. The Group has also become a member of Textile Exchange, a US organization recognized for its work in the textile sectors. Textile Exchange is specifically working on developing organic cotton sectors and new "responsible" wool and down standards: the Responsible Down Standard (RDS) and the Responsible Wool Standard (RWS). These standards, which are directly inspired by the question of animal well-being, are expected to enable all the operators involved to procure supplies where the best animal breeding conditions are guaranteed.

### PARTNERSHIPS AND RESEARCH PROJECTS

### Making a commitment alongside government authorities

To make progress from an environmental standpoint, LVMH partners initiatives implemented by government authorities on both a local and national scale. For instance, its support for biodiversity led the company to sign up to the French National Biodiversity Strategy 2011-2020, which is a major conduit for involving all the backers of public and private projects in promoting the diversity of the living world. The signing of a partnership charter with the Paris Town Hall in order to achieve the goals of the Climate & Energy Plan is another illustration of this policy. As part of the policy, LVMH has committed to reducing its energy consumption by 20%, and to increase its consumption of renewable energy at its 150 sites (head offices, warehouses and boutiques) located in the Greater Paris region by 50% between 2013 and 2020. This reduction will lead to a 60% fall in the Group's greenhouse gas emissions.

### A GROUP INVOLVED IN THE FRENCH NATIONAL BIODIVERSITY STRATEGY

By voluntarily committing to the French National Biodiversity Strategy, the Group has confirmed its determination to go further, to set an example and to unite its Maisons on the issue. The Group's project entitled "Improving the LVMH activities" effects on biodiversity from upstream to downstream with a view to having a positive impact on that biodiversity", which was presented at the first meeting in 2012, obtained the status of "recognized commitment to the French National Biodiversity Strategy". The pur-

pose of the project was to ensure the sustainable and fair use of biodiversity, and to capitalize on the company's experience, and on its environmentally-friendly initiatives over two decades. The French National Biodiversity Strategy is structured about six main goals which have been divided into 20 objectives. LVMH selected three of those objectives that are in keeping with its commitment in its project, i.e. "Making biodiversity a positive challenge for decision-makers" (objective 3), "Guaran-

teeing the sustainable use of biological resources" (objective 12) and "Sharing the benefits of using biodiversity in a fair manner at every level" (objective 13). In late 2016, as it took the view that its international dimension, its ambitious environmental goals for 2020, the wide variety of its business activities and its historical attachment to biodiversity justified pursuing its commitment, LVMH presented a second project, which is in keeping with the initiatives launched since 2012.

#### A policy applied by the Maisons

The Maisons also participate in the initiatives implemented by governments and local authorities, and make commitments depending on their specific locations and issues. In Argentina, for example, Bodegas Chandon has adhered to the "Clean Production" program supported by the Argentinian Government. The aim is to increase the synergies between the Government and wine producers in order to develop responsible production, primarily via programs aimed at raising awareness and providing training on best practices. In Poland, the Belvedere Distillery has set up the Foundation for Protecting the Environment with several local farmers and the City of Zyrardów, where it is based. In France, the Louis Vuitton Maison contributes to facilitating the Plato economic development network set up by the Val-d'Oise region's Chamber of Commerce and Industry, and attends the local committees dealing with waste and energy topics organized by the Cergy urban community.

#### Contributing to environmental research

LVMH is developing its methodology review and its ability to take action on environmental issues by working with voluntary organizations and research bodies. Its partnership with the French Foundation for Research on Biodiversity (FRB) is exemplary in this regard. As a founder member of FRB, the Group became the first private company to join the eight public research bodies that have seats on FRB's Board of Directors in

2014. LVMH has also had a long-standing seat on the Board of FRB's Strategic Orientation Committee; this Committee brings together 160 members in order to review the joint design of research programs aimed at promoting biodiversity. LVMH monitors all the Foundation's work and regularly contributes to this work. Accordingly, the Group carried out a study with FRB on two varieties of plants for cosmetic use included in the formulas for Parfums Christian Dior, namely *Aframomum Angustifolium* from Madagascar and *Anogeissus Leiocarpus* from Burkina Faso. Following this study, the two partners published recommendations on the use of natural substances and on access to and sharing the benefits in the cosmetics sector.

#### A wide variety of academic partnerships

The support that LVMH provides to research also involves a wide variety of academic partnerships entered into at the level of the Group or the Maisons. For instance, the company is one of the industrial partners for CIRAIG, the Inter-University Research Center for the Life Cycle of Products, Processes, and Services based at the École Polytechnique and Management Sciences School at the University of Quebec in Montreal. It has been supporting CIRAIG's work on the circular economy and the water and finance footprint since 2013, via its International Life Cycle chair. The Belvedere Distillery signed an agreement with the Lódź Technological University in 2005, which enables it to reward the best theses in the biotechnology field every year.

#### SUPPORT FOR RESEARCH ON NATURAL CAPITAL

Despite recent developments, most economic operators still see incorporating biodiversity into their activities as a hindrance. This observation has led LVMH to provide a scientific explanation in order to encourage better inclusion of natural resources in companies' strategy. The Group financed the thesis on "Incorpo-

rating biodiversity into companies' strategy: the Biodiversity Report and the Indicator for Interdependency between the Company and Biodiversity" (2010), followed by Ciprian Ionescu's thesis on "Biodiversity and Organizational Strategy: designing tools in order to manage multiple and inter-temporal relations"

(2015). In doing so, the Group intends to promote so-called "strong" sustainability, which is based on the complementarity between three types of capital, i.e. technical, human and natural capital, in contrast with "low" sustainability, where all the types of capital can be substituted for one another.

#### TOWARDS IMPROVED TRACEABILITY OF PYTHON SKINS

Guaranteeing the origin of python skins via the use of DNA and other cellular tracers is the goal of the studies that LVMH has been conducting with Professor Mark Auliya, from the Center for Environmental Research-UFZ in Leipzig, since 2013. These studies, which are performed on South-East Asian pythons,

specifically aim to make a distinction between farmed animals and animals removed from the natural environment for commercial purposes in order to prevent poaching. They may ultimately supplement the work performed as part of the RESP platform. In fact, LVMH has been involved in devising a method that

makes tracing python skins easier with its partners in the platform since 2014; this method is based on visual recognition (as each skin is different in terms of the positioning and size of the scales). RESP began the test stages in 2016.

### 3 QUESTIONS FOR...



MARGARETH HENRIQUEZ, CHAIRWOMAN OF KRUG

### How do you see your Maison's environmental responsibility?

Our view is directly linked to the origins of the Maison of Krug. In April 2010, we were lucky enough to rediscover the notebooks of its founder, Joseph Krug. Until his death in 1866, Josef Krug wrote down in these notebooks his unique approach to champagne, which excludes compromises. For him, everything starts with the soil (or terroir) and its products: to make good wines, you need the product of good harvests, which express the best of what the terroir can offer, independently of variations in the climate. Six generations later, we continue the family tradition and follow this principle to the letter, working closely with the wine-growers who cultivate 80% of our 250 vineyard plots. Our aim is to create an exceptional champagne every year by helping nature and respecting the individuality of each plot. Our cellar master creates a unique blend based on about 4,000 tasting notes drafted over a period of five months with the Tasting Committee, and a library of about 150 wines in reserve from 14 different years. So, our Maison is driven by love of our terroir: this puts environmental responsibility at the heart of what we do.

### What is the main challenge and top priority for your Maison in this field?

It is obviously sustainable viticulture, given our history. We cultivate our 20 hectares of vineyards by applying ancestral knowhow and relying on our increasingly detailed knowledge of the region of origin. We use very few herbicides, and won't use any by 2020. We only feed the soil with organic compounds. After the

grape harvests, the musts from each plot are vinified separately in small traditional oak barrels, where the fruit can express itself in a natural way. Beyond the cultivation of our vines, the environmental challenges are a part of all our activities and projects. For instance, we have been focusing on reducing the amount of water used to moisten barrels for several years by investing in specific systems such as the one that is fitted in our Clos du Mesnil cellar. We sort 100% of our waste in order to make recovering and recycling it easier. We are decreasing the energy consumption of our three sites thanks to LED lighting and the dissemination of best practices. We have launched an eco-design program for our wine boxes in order to ensure that they are all fully recyclable by 2018. Furthermore, after significantly reducing the

transportation of our products by air, we have now banned it. For some time now, our champagnes travel by sea, unless, exceptionally, I sign a counter-order. This measure enables us to significantly reduce our carbon footprint. This overall environmental policy is shared and backed by all our employees. We associate our partner winegrowers with our approach, as well as our customers, including via our Krug Ambassadors program.

## Does taking account of environmental challenges require a specific management system, in your view?

Yes, as I believe that a dedicated organizational structure is required in order to make progress. At Krug, we rely on our ISO 14001 environmental certification, and we are also ISO 22000-certified for

food safety. We have appointed an environment officer, who works with our oenology team. We monitor an array of indicators every month, such as the consumption of water and energy, the generation of waste, customers' calls about our wines or winegrowers' questions about cultivating vines. We hold a Safety and Environment Committee every quarter to review where we are and determine how we are going to continue to take action. Our environment management system also relies on synergies and pooling: we work on environmental problems with LVMH's other Champagne Maisons, and with the Group's Environment Department.

Bvlgari is a partner of the University of Pisa and Sant' Anna School of Advanced Studies: the Maison finances part of the Master's program intended for young professionals working on the environment, and dedicated to managing and auditing the circular economy and the efficient use of resources. Hennessy chose corporate scientific sponsorship in 2016 so as to support a team of French and international scientists who are involved in combating wood and vine diseases.

#### LVMH is a member of the Natural Capital Coalition

The aim of the research work financed by LVMH is twofold: first, to show that economic development can be limited by natural capital, and that the various types of capital cannot be substituted for one another, and second, to identify solutions in order to make natural capital the focal point in the operation of economic activities. One of the avenues that Ciprian lonescu proposes in his thesis is to include environmental criteria into organizations' accounting process. To extend this work, LVMH joined the Natural Capital Coalition, which is a global and multioperator platform dedicated to developing methods for evaluating and using natural capital in professional activities.

#### ENVIRONMENTAL CORPORATE SPONSORSHIP

Corporate sponsorship is another way for LVMH to take action for the environment. For instance, Moët Hennessy has become the official partner for Solar Impulse, an aircraft that is the only one of its kind in the world, with unlimited autonomy, which is capable of flying day and night with no fuel. This is how the Maisons in the Group's Wines & Spirits business group intend to demonstrate their support for the values of conquest and excelling oneself, recognize excellence and innovation as two key drivers of progress, celebrate a major step towards a better world and showcase the opportunities offered by renewable energies. Thanks to corporate sponsorship, LVMH is able not only to make a contribution to unusual projects such as Solar Impulse, but also to make a long-term commitment to natural resources. For instance, this is what Hublot is doing by fighting to protect the natural habitat of pandas and big cats alongside WWF China and the Black Jaguar White Tiger Foundation, and what TAG Heuer is doing by supporting FIA Formula E, the fully electric world car-racing championship.

#### Protecting bees is a symbolic cause

In view of the role that bees play in protecting biodiversity, and their special connection with the history of several of LVMH's Maisons, they have a unique place in the Group's corporate sponsorship policy. Louis Vuitton and Guerlain have been involved in saving bees by supporting scientists and local voluntary organizations for several years. Guerlain's long-term commitment

alongside the Organization for the Protection of the Brittany Black Bee on the Island of Ouessant earned the Maison the "Jury's favorite" corporate sponsorship award granted by the French Ministry for the Environment, Sustainable Development, and Energy in 2013. In 2015, the Maison set itself a new challenge for the protection of bees: it decided to support the French Observatory for the Study of Bees, which it will help to achieve its objective of training 30,000 new beekeepers in Europe and creating 10 million new bee colonies by 2025. Meanwhile, Hublot also decided to commit to protecting bees in 2016. The Maison teamed up with Bees4you, and welcomed eight hives. Since then, it has offered bees an area that is favorable to their development, and is raising its employees' awareness by inviting them to educational workshops and to take part in harvesting the honey. Hublot also gifts its "liquid gold" to its customers and partners, and hopes that its initiative will be emulated.

#### COMMUNICATION

#### Communicating about the Group's environmental policy

LVMH has developed external communications about its environmental policy over the years. The company thereby intends to provide its stakeholders with the most comprehensive and transparent information possible about the initiatives implemented and the results achieved. It would also hope to answer, as accurately as possible, the questions which its shareholders, customers, partners, regulatory authorities, local authorities, NGOs and voluntary organizations ask it, as well as the questions asked by all members of the general public who are interested in its environmental policy. The Group and its Maisons use all the means at their disposal to communicate, including giving interviews in the press, publishing documents, filming videos, a presence on the Internet and on social networks, organizing exhibitions or theme-based days, and visits to the sites, etc. Guerlain is particularly active in this area. The Maison publishes a sustainable development report and organizes "The Inspiration from Sustainable Development for the Department of Haut-Rhin" Event. This very informal gathering regularly brings together at a shared event its Sustainable Development Managers, its committed partners and its customers, who are aware of its societal responsibility initiative.

#### Major events, a priority setting

National and international events focusing on the environment provide LVMH with a priority setting for communicating about its policy in this area. The Group was a partner of COP21 in 2015, and organized a conference on the subject of "climate and logistics" in order to present its LIFE Program and highlight several remarkable initiatives implemented by its Maisons. In 2016, it attended the 13<sup>th</sup> Conference of the Parties to the Convention on Biodiversity, which was held in Cancún, Mexico, in November. This global summit provided an opportunity for LVMH to

demonstrate its commitment to the sustainable use of biodiversity at the local, national and international scale, and to share information and initiatives relating to protecting species and ecosystems. The Group specifically spoke about its policy for financing research on biodiversity, and its work on accounting for natural capital. LVMH is committed to protecting wild species and carries out an ongoing watch on the latest regulatory requirements. The Group attended the 17th Conference of the Parties to the Convention on International Trading in Endangered Species of Wild Fauna and Flora (CITES), which was held at Johannesburg, in South Africa, in October. At the conference, the Group set out its views on the importance of ensuring a sustainable and legal trade in wild animal and plant species. Meanwhile, its Maisons also understand how to rely on events

to publicize their environmental policy and best practices. For instance, Bylgari attended *L'Isola della Sostenibilità* in December 2016; this event in Rome brought together experts, professionals and members of the general public who had come to get an update on the most recent discussions, challenges and opportunities in the field of sustainability.





#### GLENMORANGIE AND KENZO ARE TAKING ACTION TO PROTECT THE SEAS

Although their business activities are not really concerned with seas, the LVMH Group's Maisons are contributing to the collective effort to protect marine animal and plant species threatened by global warming. They are taking action by limiting their greenhouse gas emissions (see p.45) and are also making a commitment via corporate sponsorship. For instance, in late 2014, Glenmorangie launched a limited edition named "Dornoch" after a Scottish estuary that is outstanding for its natural beauty and has become a protected area. A percentage of the sales

was passed onto the Marine Conservation Society (MCS), which is in charge of maintaining and protecting the estuary. Glenmorangie extended this initiative in 2015 by setting up a scientific corporate sponsorship scheme. Since that date, the Maison has been involved in DEEP (the Dornoch Environmental Enhancement Project) that aims to protect and restore ecosystems in the Dornoch Estuary. The aim is to raise the quality of the seabed, coastline and animal species in this area, from the current level considered to be "good", to an "excellent" level, thanks to

the synergies resulting from the combined involvement of the three public, academic and industrial partners in the project. 2014 was also the year when the Kenzo Maison attracted the fashion world's attention to the threats posed to seas: in fact, the Maison entered into a long-term partnership with the Blue Marine Foundation in order to prevent over-fishing and marine pollution. The profits from the sale of T-shirts, sweat-shirts and tops bearing the "No Fish, No Nothing" logo will be passed on to the Foundation.



### ACTIONS TAKEN IN 2016

YEAR AFTER YEAR, LVMH AND ITS MAISONS INCREASE
THEIR COMMITMENT TO THE ENVIRONMENT,
AS SHOWN BY THE MANY INITIATIVES FOCUSING ON EACH ONE
OF THE LIFE PROGRAM'S CHALLENGES IN 2016.



The development of eco-design, which aims to reduce the environmental footprint of a product throughout its life cycle was already a major feature of LVMH's environmental policy. As a result of the launch of LIFE 2020, this has become a priority, since the environmental performance of all products marketed by the company must be improved by 2020. LVMH will rely on two main drivers in order to make progress in the eco-design field. The Maisons in the Perfumes & Cosmetics and Wines & Spirits business groups have committed to improving the Environmental Performance Index (EPI) of their products by 10% between 2013 and 2020. Meanwhile, the Maisons in the Fashion & Leather Goods and Watches & Jewelry business groups must establish eco-design guidelines and roll them out at the product development stages. The Maisons can rely on the array of tools made available to them and constantly enhanced by the Environment Department. Accordingly, LVMH launched the second version of Edibox in 2016. This is an Internet tool developed in-house that calculates the environmental performance index (EPI) of packaging, as well as the CO2 impact of packaging materials. Thanks to this new version, the transportation, treatment and decoration processes for materials can be included into the estimated emissions. The Group is continuing to add to its materials library, which presents several hundred innovative and environmentally-friendly materials that are appropriate for the luxury goods sector to its teams responsible for design, development and marketing. The "Materials to Think About" handbook also draws up a list of the best practices to implement in order to manufacture, distribute, use and facilitate the management of a large number of end-of-life products, from cotton trousers to a website, and including a jewelry case, wine bottle, perfume bottle, shoes, and even store furniture.

Eco-design is also a constant source of innovation. Krug relied on eco-design in order to renew its three Vintage, Rosé and Grande Cuvée boxes, and developed a unique customizable box made entirely out of FSC(1)-certified fibers. The new packaging, which is made out of a single material and is easier to produce, retains its prestigious appearance. The wedging foam inside the box, which is made from recycled PET, which is usually used as an insulation material in the construction sector, is a technical feat. Krug worked with its partner suppliers in order to adjust this foam for the luxury goods sector and its requirements. The Maison also eco-designed new crates for transporting packaging, and got rid of the plastic bags used for protection by working on the resistance of corners and using anti-abrasive varnish. This initiative is in keeping with the more general context of a proactive policy for eco-designing the packaging of the Wines & Spirits Maisons, which is guided by systematically calculating the Environmental Performance Index. This is a system for assessing all the packaging from an environmental standpoint, and is based on predetermined criteria, including the nature of the materials, the weight and volume of the packaging, its production and its transportation.

(1) Forest Stewardship Council.

#### Appropriate tools

The use of these tools is becoming widespread within the LVMH Group. For instance, Edibox is currently being adopted by Loewe Perfumes, Acqua di Parma, Sephora, Benefit and Louis Vuitton, a new perfume maker. Meanwhile Parfums Christian Dior, Guerlain, LVMH Fragrance Brands, Bylgari and Make Up For Ever are already calculating their EPI and have assessed the environmental performance of over 10,000 products. For instance, Bylgari has used the Index for 242 products. The Maison has also relied on these assessments in order to roll out a policy aimed at reducing the environmental footprint of the packaging for its perfumes, watches and jewelry. It is limiting the amount of packaging and reducing its size: it thus saved 48 metric tons of paper and cardboard used in the packaging for its 50 ml and 100 ml *Aqua Amara* bottles in 2016. It is also

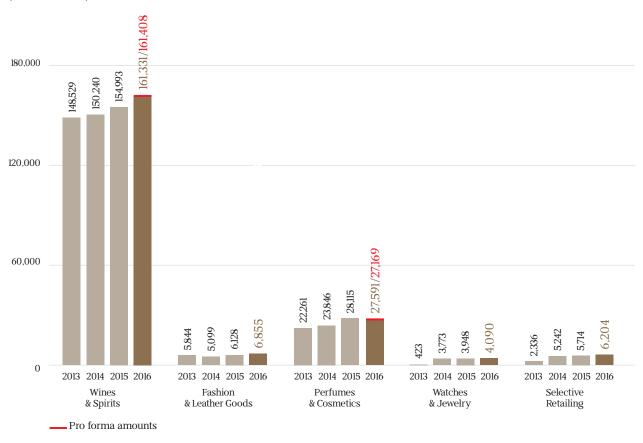
reducing the use of plastic, while increasing the use of paper and cardboard that are FSC-certified, i.e. that come from sustainably managed forests. By the end of 2019, these should account for 75% of its paper and cardboard purchases. Furthermore, Bylgari is encouraging the re-use of packaging, for instance by eliminating the use of glue and facilitating the dismantling of its components in order to make sorting and recovery easier. Other Maisons, such as Céline, Newton, Cape Mentelle, Terrazas de Los Andes and Chandon also implemented similar initiatives in 2016.

#### From training to action

LVMH also relies on training to develop eco-design. For instance, about 30 employees from LVMH Fragrance Brands attended a session on eco-design and environmental communications in 2016. Loewe organizes training on materials with an attractive environmental performance for its teams responsible for designing and developing products. Meanwhile, the Louis Vuitton Maison continues to roll out the "Designing Differently to Innovate Tomorrow" program launched in 2014. The session takes two days and is open to all its employees. Attendees learn how to measure the value-added provided by eco-design in their businesses

and to use it to innovate by relying on the life cycle of products. This policy is bearing fruit, as shown by the increasing number of eco-designed products within the Group. The significant achievements in 2016 include the new Krug box, for instance (see p.33), and the new packaging range for customers in Louis Vuitton stores, which is made out of FSC-certified paper that includes over 40% of recycled fibers. Although this paper, which is thicker, with bag handles made from cotton ribbon that has replaced polyester, offers greater strength when carried, the new gift box formats fold down flat, thereby substantially reducing the CO<sub>2</sub> impact of distributing them to the stores, while offering a better service to customers, who can now slip them into their luggage more easily. The light colors and insides of the packaging evoke the shade of natural leather, which has been used by the Maison since 1860, including for the handles and labels of bags, luggage and trunks. The way in which the Louis Vuitton teams work also illustrates the increasing sophistication of eco-design within the Group. The Maison aims to include respect for the environment at a very early stage, starting with the marketing briefs, and intends to rely on life-cycle assessments in order to identify environmental opportunities.

### CHANGE IN THE PACKAGING GIVEN TO CUSTOMERS BY BUSINESS GROUP (in metric tonnes)

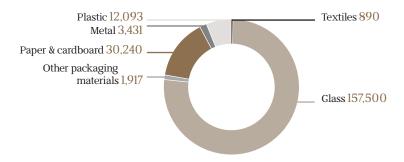


This is the method that enabled it to reduce the weight and maximize the internal volume of its new Horizon luggage, for instance, as well as to guide certain decisions involving design or raw materials. Furthermore, the Louis Vuitton teams use digital models and 3-D printing, from the design stage to the industrial manufacture of the products. By offering the opportunity to view the many different possible arrays of colors and materials in a realistic manner, these tools fine-tune the preselection of the models to be prototyped and enable savings on materials. Accordingly, 2,500 digital models were created at Louis Vuitton over five months in 2016, while the Maison's projects completed using digital design doubled during the year. The benefits of eco-design are tangible: for instance, by eliminating the external packaging and altering the materials for its new face mask launched in 2016, Sephora avoided emitting 51 metric tons of CO<sub>2</sub> into the atmosphere. Sephora has also set up a working group on the life cycle of products in the United States. First, the Maison quantified the environmental impact of its Sephora Collection *Rouge Cream Lipstick Rouge* lipstick range. Then it assessed the results, again relying on experts, in order to identify avenues for improvement. Thanks to this study, Sephora US knows that it must focus its efforts on the ingredients used in manufacturing its lipsticks, and on their packaging and sale as a priority.

#### Improving product lifespan

Another aspect of LVMH's environmental performance is improving the lifespan of products, which enables savings in terms of natural raw materials and helps to make responsible consumption practices more widespread. LVMH has a major advantage in terms of meeting this challenge, i.e. its extremely high quality standards, which are intrinsic to the luxury goods

#### PACKAGING GIVEN TO CUSTOMERS IN 2016 (in metric tonnes)



#### GUERLAIN INNOVATES, THANKS TO ECO-DESIGN

Guerlain was a member of the "Pack in Green" jury for the fifth year running in 2016. This jury rewards the best ecodesigned innovation in terms of packaging in the luxury goods sector during the year. Eco-design is actually a constant source of innovation for the Maison: it drives the teams' creativity and enables them to think differently about the luxury of the future, in a more responsible and sustainable manner. Guerlain is developing its products while limiting their environmental impact at each stage of their life cycle. It has decided to calculate the EPI for each new product release in order to align itself with an ongoing improvement approach. The Maison wants all its products to be

eco-designed by 2020. Its Chief Operating Officer and its Marketing and Communications Director have been appointed as the sponsors for this objective. They perform quarterly reviews with the teams within a Sustainable Innovation Committee.

#### Reducing, recycling and re-using

Guerlain has already saved 35 metric tons of cardboard every year, thanks to this approach, by redesigning its perfume boxes in order to reduce their size by 15%. It shopping bags are now entirely recyclable, while all its pouches are FSC-certified, and its Bee bottles can be refilled indefinitely, thanks to the perfume fountains installed in its boutiques.

Guerlain is also very proud of the development of its new cream, Orchidée Impériale, which was launched in 2017. This cream was designed by applying the rule of the three "Rs", i.e. reducing, recycling and re-using. The packaging was worked on with marketing experts and developers in order to combine design, quality of execution and respect for the environment. The size of the pot was also adjusted to its contents, and its weight was decreased by 60%. Meanwhile, the size of the box was reduced by 40%, and it was made 100% recyclable. These efforts enabled the Maison to decrease the project's carbon footprint by 58% on an overall basis.

sector and are an essential aspect of the Group's activities. The Louis Vuitton Maison has therefore undertaken to offer its customers items that are timeless from the outset. It manufactures products with a very long lifespan, and which are easy to repair, and has set up a very high-quality after-sales service, where 50% of the services are performed by its repair workshops, while the other 50% are carried out directly in store. High quality standards also convinced Loewe to introduce a maintenance and cleaning service for ready-to-wear and leather products. "Refills" are also another way for LVMH to extend the lifespan of its products. For instance, Parfums Christian Dior has been developing this concept for many years. The Maison began by applying it to its premium ranges. Nowadays, 80% of the serums and creams that it launches are refillable. This factor is reflected in the saving of 600,000 liters of water and about 11.6 metric tons of waste every year for the Capture Totale cream alone. Parfums Christian Dior pursued this initiative in 2016, when it marketed its new DreamSkin Perfect Skin Cushion cream in refillable packaging.



SECURING ACCESS TO STRATEGIC RAW MATERIALS AND PROTECTING BIODIVERSITY FROM THE OUTSET

LVMH has, for several years, been implementing a responsible procurement strategy that protects raw materials which are particularly key for the design and manufacture of its products. In fact, these products are made out of a wide variety of raw materials, including grapes, cereals, wood, beets, leather and

natural textile fibers from animals or plants, stones and precious metals, etc. LVMH's high dependency on nature and on living processes, such as wine-making, as well as its aesthetic and heritage values drive the company to limit its impact on the environment to the extent possible, and to refuse to use any products from non-sustainable sectors. The Group pays great attention to complying with the regulations arising from the implementation of the Nagoya Protocol in the case of its research and development activities, from the CITES Convention in the case of trade in certain exotic plants and leathers, from the European Union Timber Regulation (EUTR) of 2013, and from its environmental obligations relating to the Common Agricultural Policy in the case of cognac. However, LVMH goes well beyond regulatory compliance where biodiversity is concerned. The Group has set itself the objective of rolling out the highest standards in 70% of its procurement chains in order to reach 100% by 2025 This objective is being rolled out in each business group:

- in the case of Wines & Spirits, the roll-out of sustainable wine production is the focal concern;
- in the case of Perfumes & Cosmetics, a very large number of ingredients and raw materials are used. The Maisons have been provided with a system for assessing their suppliers. They audit them regularly and quantify their progress. Particular attention is paid to star ingredients resulting from ethnobotany initiatives and to strategic ingredients such as plantbased glycerin or beet alcohol. The Perfumes & Cosmetics Maisons use palm oil derivatives and have set themselves the objective of using 50% of palm oil derivatives certified by the RSPO (Roundtable on Sustainable Palm Oil);
- in the case of the Watches & Jewelry Maisons, the roll-out of RJC (Responsible Jewelry Council) certification is a major part of their strategy. Almost all the Maisons are RJC certified.
   Bylgari extended the process by becoming the first company in the sector to be awarded Chain of Custody - CoC-certification for its gold jewelry production lines in June 2015. This

#### LORO PIANA'S EXCEPTIONAL RAW MATERIALS

As the absolute standard setter in clothing excellence, Loro Piana has unparalleled know-how in terms of searching for the most precious fibers, including the unique cashmere and baby cashmere from northern China and Mongolia, vicuna from Peru and Argentina, and extra-fine merino wool from Australia and New Zealand. To retain the unique properties and superior qualities of the fibers, the Maison works in partnership with govern-

ment authorities and livestock farmers in the countries of origin for its raw materials, and invests in research. For instance, it has achieved an exceptional quality of cashmere by prioritizing a selective breeding model which contributes to the equilibrium between the local populations, the animals and the habitat. This interest in natural raw materials is the source of many pioneering initiatives. Accordingly, Loro Piana helped save vicunas from

extinction in Peru by creating a nature reserve, where 2,000 of them are reared in accordance with traditional methods. The Maison even discovered treasure in Burma: the fiber extracted from lotus flower stalks. Around 40 jackets are made every year from this aquatic plant harvested in the waters of Lake Inle and worked exclusively by hand.

process will gradually be extended to the other Maisons. LVMH also takes part in international work aimed at implementing best practices in the colored stones sector;

- there are a large number of issues for the Fashion & Leather Goods Maisons:
- in the case of leather, LVMH has set itself the objective of using 70% of leather from LWG-certified tanneries by 2020;
- in the case of cotton, some of the Group's Maisons use BCI (Better Cotton Initiative) cotton; the Group is set to accelerate this initiative and roll out this sector more extensively. Some Maisons also use organic cotton, like Céline, which uses it for the cotton lining of its leather goods;
- where sheep's wool is concerned, LVMH has decided to encourage two initiatives in the supply chain: the best practices determined by the IWTO as well as the Responsible Wool Standard (RWS);
- animal well-being is the focal point of its concerns and involves several raw materials such as leathers, wools and fur (see p.41).

#### Adjusting to climate change

The Group has reviewed the various challenges involved in adapting to climate change. The production of the raw materials required to make the Maisons' products emerged as the most sensitive stage. In the medium term, changing viticulture practices is the main component of the Group's adaptation strategy. Several responses are possible where the European vineyards are concerned, depending on the magnitude of the climate change observed, from changing the harvest dates, changing the methods for managing the vines (widening the rows, increasing the size of the vines and using irrigation in some countries, etc.) to trialing new grape varieties. In the case of vineyards located in Argentina and California, the main challenge is the availability of water (see p.52). Lastly, in view of current scientific knowledge, vineyards located in New Zealand or Western Australia are the least sensitive to climate change.



#### 3 QUESTIONS FOR...



CLAUDE MARTINEZ,
CHAIRMAN OF PARFUMS CHRISTIAN DIOR

#### How do you see your Maison's environmental responsibility?

Since the start of its story, the concept of "naturalness" has been at the heart of what we do at the Maison of Dior. Dior is, and has always been, synonymous with a love of beauty and the supremacy of nature. It has forever been manifest everywhere, irrepressible in the Couture collections, sparkling in the fragrances which honor scented flowers and, finally, providing the most innovative and cuttingedge natural ingredients for beauty care products, all thanks to the Jardins de Dior. Today, this love of and respect for nature are opening new perspectives. Modern luxury must rhyme with sustainability, and over the past few years the attitude of the Maison of Dior to eco-responsibility has become increasingly sophisticated and more demanding.

Our customers expect us to be irreproachable in all respects, and particularly therefore, in terms of the environment. The luxury goods sector aims for the

ideal of excellence, which cannot be achieved without this form of responsibility. This is not an option.

A luxury cosmetics house such as ours must rise above the mass consumer approach by offering products which are all at once beautiful, desirable and sustainable.

#### What is the main challenge and top priority for your Maison in this field?

The major challenge for the Maison of Dior is to reduce its world-wide environmental footprint. To meet this challenge, we have decided to introduce a strategy based on four equally priority areas, with tangible applications.

The aim therefore is to improve the environmental performance:

 of our products: by applying the rules of eco-design and increasing the number of refillable products.

Dior's *Capture Totale, Prestige* and *L'Or de Vie* beauty care ranges and our new *Cushion* beauty care compacts

and make-up are all refillable. The *Capture Totale* refill system alone enables 600,000 m<sup>3</sup> of water (the equivalent of 250 Olympic swimming pools) to be saved each year during the manufacturing process, and the waste generated to be reduced by 11.6 metric tons.

In terms of sourcing, our strategic raw materials, such as alcohol which accounts for 90% of our perfume essences, or glass, which accounts for over 20% of our packaging purchases, have been audited on their environmental performances;

 of our sales outlets: by working on the design of the furnishings or choosing the most efficient lighting or airconditioning solutions.

Like the new Dior boutique opened in Warsaw, our new sales outlets are being fitted with cutting-edge LED lighting (70% reduction in consumption compared with halogen lighting). The teams are working with local suppliers to minimize the environmental impact associated with transport;

 of all our other sites: whether they be administrative or production sites, by using cutting-edge and precisely accurate systems to manage energy, water and waste.

100% of the electricity consumed at our manufacturing sites and head offices in France comes from renewable sources. In terms of  $\mathrm{CO}_2$  impact, this represents a 90% reduction on an equivalent consumption basis. At our production site in Saint-Jean-de-Braye alone, this represents savings equivalent to travelling around the world 300 times by air;

 of our transport systems: by including timing restrictions, compatible with less polluting shipment methods such as river or sea transportation, into our development processes.

In 2016, the air-sea ratio improved by 11%. All our deliveries to Central Paris are by gas powered truck, which represents a 20% decrease in the consumption of  $\rm CO_2$ , an 80% decrease in nitrous oxide and a 99% decrease in particles.

# Does taking account of environmental challenges require a specific management system, in your view?

Taking account of environmental challenges requires everyone to be involved. Everyone needs to become more responsible in order to take our environmental challenges into account.

The role of Senior Management is to drive the Maison's strategic approach and also to ensure that genuine challenges are included at the very heart of the different businesses on a day-to-day basis. Our young employees are all convinced about the importance of the environment, although not all of them know how to put this into practice. The aim, therefore, is to provide them with fuel for thought and train them on the best practices in their trades and business activities. We also need to know how to remain flexible and to adapt our organizational structures to these new practices.

It is therefore thanks to the total involvement of management that the Maison

of Dior's environmental policy will remain viable, sustainable and a source of innovation.

#### Sustainable viticulture

Sustainable viticulture ensures the long-term future of vines, with the greatest respect for the regions of origin and the environment. This is a key aspect of LVMH's sustainable procurement policy. For instance, the Champagne Maisons are highly committed to the field of sustainable viticulture, which ensures the sustainability of the vines by promoting biodiversity and reducing the use of plant-health products. They have adopted a wide variety of best practices such as the technique of growing grass between rows of vines which improves the quality of the soil and enables the prevention of erosion, or sexual confusion, which significantly reduces the use of insecticides. In fact, this approach earned the Champagne Maisons dual Sustainable Viticulture and High Environmental Value (HEV) certification for all their vineyards in 2015, which was a major first in the Champagne region. To guarantee the quality of their supplies, the Maisons began rolling out this new benchmark with their grape suppliers in 2016. Eight training sessions were organized for 90 winegrowers. The percentage of the Champagne vineyards that has been awarded sustainable viticulture certification has therefore increased from 7% to 10% in one year, i.e. the highest increase recorded in terms of agricultural certification.

The Hennessy Maison, which has been involved in a proactive environmental approach for almost twenty years, has made sustainable viticulture a priority. Hennessy has been a member of the DEPHY Network for over five years. This network is responsible for introducing farming systems that reduce the use of treatment products. The area of its vineyard included in DEPHY benchmark farms increased from 12.5 to 30 hectares in 2016. Optimizing the treatment strategy is a commitment that is applied via several alternative and innovative measures. Accordingly, the Maison now exclusively uses confined pulverization via a machine fitted with recovery panels, thereby avoiding propagation in the atmosphere and the soil, and protecting the environment and the neighborhood from nuisances. It has also tested new techniques such as sexual confusion in order to replace insecticides. Its efforts in the sustainable viticulture area earned it the award of High Environmental Value certification, option A at level 3 in February 2016. The Maison is also involved with BNIC in this field and worked on implementing a digital sustainable viticulture benchmark intended for all the winegrowers in the production region in 2016.



The Rose of Granville by "Jardins de Dior".

#### Perfumes and Cosmetics close to nature

The Maisons in the Perfumes & Cosmetics business group have been committed to biodiversity for a long time because they are also very close to nature, which provides them with many of the essential ingredients for the manufacture of their products. They regularly launch sector audits, such as those carried out on roses, jasmine, orange trees and bergamot since 2013, in order to assess their compliance with the Nagoya Protocol practices. They are also developing ethno-botany. Guerlain even became the first Group Maison to be awarded "Commitment to Biodiversity and the Climate" certification by Ecocert in 2015. The Maison has set up several sustainable sectors, e.g. for vetiver in India, lavender in France and sandalwood in Asia. Guerlain has also dedicated to one of its symbolic raw materials, orchids, a research center like no other in the world: the Orchidarium. It includes a fundamental research laboratory in France, and an experimental garden at Geneva, in Switzerland. It is supplemented by a partnership focusing on sustainable development entered into for a period of ten years with the Tianzi Reserve in China, where about 10,000 orchids have been replanted since 2009. Like Guerlain, Parfums Givenchy have launched a program based on growing vetiver. This program, which is being rolled out in Haiti with the support of the Man & Nature NGO, aims to prevent soil erosion, restore damaged areas and provide additional income to poor families.

#### Animal well-being

Animal well-being is the focal point of the Group's concerns, and involves several raw materials such as leathers, wools and fur. LVMH shares the aim of improving animal well-being with civil society, and is the source of significant progress. The Group has introduced written rules that commit its Maisons and their suppliers. The aim is to improve the quality of the products used by the Maisons and to enable progress in our suppliers' production methods. Accordingly, LVMH took part in drafting

the new version of the BSR's "Animal Sourcing Principles" in 2016; this document sets out general principles focusing on animal well-being in supply chains. It is gradually being shared with all the suppliers concerned.

In the case of tannery products, better upstream breeding conditions for both the breeders and the animals mean higher-quality products downstream. This is why LVMH has been playing a leadership role in improving and monitoring breeding practices for many years. This is a significant long-term investment aimed at ensuring social, ethical and sustainable development, which protects livestock breeders and animal species that may otherwise be threatened. The approach is always participative with the professional organizations concerned in order for the improvements to be shared, monitored by scientists, and to ensure that "low-level" competition, which uses poor practices, is avoided. For instance, LVMH takes part in the work performed by the Leather Working Group and Textile Exchange organizations, which aim to determine best practices in the sheep and cattle sectors.

Fur is a key raw material for LVMH. The fashion houses – and especially Fendi, the historic market leader for fur – comply with all the local and international regulations regarding the fur trade. LVMH is aware that fur is a sensitive subject and is the focal point of numerous debates. The Group is committed to respecting everyone's choice. The Group's intention is to provide customers who want to wear fur with a product that has been made in the most responsible and ethical manner possible. The Group's Maisons are committed to not using furs from threatened species. Accordingly, LVMH works hand in hand with its European and North American suppliers, and assigns absolute priority to certified pelts from farms that are regularly audited in accordance with recognized standards, and checked by independent third parties.

Exotic leathers, including crocodile leathers, are also the subject of particular attention. LVMH owns an exotic leather tannery

#### DIOR'S PERFUMED GARDEN

Parfums Christian Dior's formulae contain over 60% of plant-based ingredients. The Maison ensures that its procurement is sustainable in order to protect this essential asset. Together with the LVMH Perfumes & Cosmetics Department, which is dedicated to ethno-botany, it has, for instance, created "Jardins de Dior", which are plots carefully selected for the quality of their soil, their irrigation and their climate. Exceptional flowering plants, such

as Rosa Granville, are cultivated in the gardens with the greatest care for the environment, and then form part of the composition of over 220 Dior products. The Maison is also involved in revitalizing the Grasse region in France, based on growing scented flowers. Ten years ago, it formed exclusive partnerships with young local producers who reserve for the Maison their entire rose and jasmine harvests in May. Working together with

these producers, François Demachy, Dior's perfume creator, is designing a Rosa Centifolia and a Jasmine Grandiflorum tailor-made for Dior fragrances. The Maison's commitment to the region is likely to increase further thanks to the new "Les Fontaines Parfumées" creation workshop, which was inaugurated in the center of Grasse in 2016 (see p.22).

and several crocodile farms. LVMH has determined a best practice matrix, working with recognized independent experts, which is used as a benchmark during the audits conducted at the farms.

Lastly, LVMH also pays attention to animal well-being in the sheep's wool sector, including muzzling practices. The Group is working on developing alternative methods with the IWTO and is also encouraging the roll-out of the Responsible Wool Standard.

#### Collective momentum

Whatever their business activities, the organization of environmentally-friendly procurement sectors has become one of the cornerstones of the environmental policy adopted by the LVMH Group's Maisons. Their commitment in this field was far from disappointing in 2016. For instance, Thomas Pink exceeded its BCI<sup>(1)</sup>-certified sustainable cotton procurement goals. The Maison, where 80% of the collections are made from cotton, adhered to the Better Cotton Initiative in 2014. This initiative has developed best practices aimed at encouraging measurable improvements in the main effects of cotton growing on a world-wide scale. Thomas Pink hoped to use 50% of BCI cotton by 2019. Thanks to the work performed with its main suppliers, the Maison has already done much better, and over 60% of the cotton for its men's collection came from BCI cotton fields at the end of 2016. Marc Jacobs has followed Thomas Pink's example by adhering to the Better Cotton Initiative in turn, and has committed itself to similar initiatives for other raw materials, including wool. Bylgari has adopted the measures aimed at ensuring that all the palm oil derivatives included in the composition of its products come from a sustainable supply by the end of 2017. Meanwhile, the Belvedere Distillery has designed a program dedicated to raw alcohol with suppliers and scientists in Poland. The aim is to secure and improve the quality of its procurement by guaranteeing the local origin of the alcohol and environmentallyfriendly farming practices.

(1) Better Cotton Initiative.



LVMH pays considerable attention to the traceability and compliance of all the materials and substances used to manufacture the products marketed by its Maisons. This attention, which is part of the overall management of its risks, enables any harm to consumers' health and the environment to be avoided. It relies on compliance with the regulations, the opinions of scientific committees and the recommendations issued by professional organizations, both in Europe and throughout the world, and on constant efforts to raise the awareness of and train the employees. LVMH also complies with stringent internal rules on the development of new products, which it also makes its suppliers apply. As regulatory pressure has become more intense in the past few years, the Group has strengthened this approach by establishing a virtuous circle: its experts identify the most restrictive regulations and help the Maisons to gradually adopt them by involving their partners. For instance, all new suppliers receive the REACH Letter, which was created following the adoption in 2006 of the European regulations that rationalized and improved the European Union's former regulatory framework on chemical substances. By signing this Letter, they commit to complying with the requirements of the REACH (Restriction, Evaluation, Authorization and Restriction of Chemicals) regulations, or with similar regulations such as Proposition 65 in California. The Environment Department of LMVH has added to this system by setting up a network of 150 REACH representatives in each Maison. It brought these representatives together in June 2016, as it has done every year, in order to exchange information and best practices, and to encourage substitution or innovation projects.

#### An ambitious risk management policy

LVMH has gone further in the case of the Maisons in the Fashion & Leather Goods and Watches & Jewelry business groups by opting for a genuine risk management policy. It has drawn up a comprehensive program focused on a new internal standard, the LVMH RSL (Restricted Substances List), which prohibits or restricts the inclusion of certain substances in the items brought to market, or their use by suppliers. The Group began training its teams on how to use the RSL in 2016, which will help the Maisons to adopt a continual improvement approach. Another in-house tool, the LVMH Testing Program, strengthens the audit system for the Maisons in the Fashion & Leather Goods business group: it enables them, at five partner laboratories, to test substances considered the most at risk, depending on the materials. LVMH's Environment Department has also prepared

and distributed specific technical handbooks in order to help suppliers to eliminate certain substances and use alternatives. At the same time as these initiatives, the Group is continuing its discussions with other operators in the luxury goods sector and professional organizations in order to develop best practices.

#### An integrated problem

LVMH has achieved genuine maturity in managing the products and substances included in its products. The Maisons have focused on the subject over time and have significantly increased the number of tangible measures and gained experience. They now address this subject at a very early stage with their suppliers, they increasingly use the tools made available to them by the Group and feel free to take initiatives themselves. For instance, TAG Heuer developed its own risk assessment method in 2016. Loro Piana supported the filing of an amendment by the Peruvian Government aimed at ensuring that there is only one label for trademarking the origin of vicuna fibers, which will enable better traceability. Meanwhile, the Louis Vuitton Maison continue to roll out its Innocuousness Plan, which was launched in 2014, in order to boost its policy for controlling regulated substances. This plan extends the list of undesirable substances in products by setting thresholds to zero, i.e. below the most restrictive regulatory thresholds. It also provides for a program of extensive tests on raw materials (555 tests were performed during 2016), and introduces the monitoring of the rate of suppliers' replies to the REACH Letter. Louis Vuitton included a paragraph regarding the security of products in 2016, which refers to the Innocuousness Plan and to the LVMH RSL in the technical specifications for new or altered materials used to manufacture its products. The Maison has also made progress in terms of eliminating chemical substances that are not compliant with the LVMH RSL, by specifically targeting hexavalent chromium in its leathers, lead in its metal accessories and alkylphenols in textiles.

#### A forward-looking approach

To make progress on the question of the compliance of materials and products, LVMH is developing a forward-looking approach that aims to anticipate changes in international regulations. Its experts regularly attend the working groups organized by national and European authorities, and perform a watch on all new regulations, as well as on changes in scientific knowledge. Accordingly, LVMH can prohibit the use of certain substances in advance and work on re-formulating certain products at a very early stage. The Group also relies on complaints from consumers, which are gathered by the Customer Relations Departments. All of the complaints are carefully assessed by a team of specialists. The Maisons also have a European network of health professionals at their disposal; this network is capable of taking action quickly if required, for instance in order to care for people who have been affected by an intolerance to one substance or another. This "cosmetic vigilance" provides LVMH with avenues for improving the quality of its products.

#### The safety of consumers and respect for animal life are an imperative

The LVMH Group's policy on the sensitive subject of using animal-testing as part of assessing the safety of finished products has always been clearly defined: the aim is to ensure the safety of our products' consumers, while taking respect for animal life into account. This is why the Perfumes & Cosmetics Maisons have not performed tests on animals for products that they bring to market since 1989, which was well before the official ban in the European Union, which only dates back to 2004. Since then, the development of alternative methods to animal testing remains a genuine scientific challenge, while the LVMH Group remains very actively involved.

The LVMH Group is particularly vigilant in terms of complying with regulations, the opinions issued by scientific committees, and the recommendations of professional organizations, both in Europe and throughout the world. It also abides by strict internal rules for the development of new products, which are also imposed on its suppliers.

The Group has held true to this commitment for several years and supports this policy via an approach designed to anticipate changes in international regulations. This anticipation is made possible thanks to the efforts of the Group experts, who regularly take part in the working groups set up by French and European authorities, and are very active in professional organizations. The work performed by the Group experts in terms of monitoring new regulations and changes in scientific knowledge regularly leads the LVMH Group to ban the use of some substances and to work on reformulating certain products.

This level of standards enables LVMH to guarantee the safety of the Maisons' cosmetic products when they are brought to market. The LVMH Group brands make customer relations services that enable the assessment of any complaint, including those relating to undesirable side effects, available to consumers, with a view to controlling the quality of the products once they have been marketed. This activity, which is known as cosmetic vigilance, is carried out by a specialized team that makes available to the brands a European network of health professionals who are capable of intervening rapidly with consumers in the event of secondary effects. A similar approach is currently under development in China. This post-marketing follow-up of products enables new research avenues to be explored, and the quality and high tolerance of the products to be improved on an ongoing basis.



LVMH has set itself the objective of rolling out the highest standards in 70% of its procurement chains, in order to reach 100% by 2025. This objective, which applies to raw material production, farming, livestock rearing and extraction, also concerns the Group suppliers' production sites. In fact, LVMH's environmental performance is closely linked to its ability to carry its suppliers and subcontractors along with its approach and involve them in its sustainable purchasing policy. This is the reason why LVMH introduced a Supplier Code of Conduct in 2008, even before adopting an internal Code of Conduct to simplify the application of its Environmental Charter by its employees in 2009. This document recalls the importance of responsible practices, and determines the basic requirements that the Maisons must communicate to the companies with which they work, while specifically insisting on compliance with regulations and standards, the use of environmentally-friendly technologies and the introduction of an environmental management system. LVMH has also developed supplier audit matrices and has organized a large number of training sessions for buyers.

#### Compliance audits

The Supplier Code of Conduct gives the Maisons the right to conduct compliance audits at any time, with no notice, to check that the guiding principles issued by LVMH are properly complied with. A large number of audits are launched every year, and their results are published online on the SEDEX platform, as well as in an internal database, in order to share and pool the information. In 2016, 1,255 social and/or environmental audits were carried out. In France, Hennessy continued to assess the environmental performance of all its dry materials suppliers

and of several external service providers. Bylgari scheduled 46 audits during the year, which covered all its business activities (jewelry, perfumes, watches and accessories) as well is its packaging. The Maisons in the Perfumes & Cosmetics business group had 60 environmental audits on suppliers carried out on an overall basis. For instance, all the division's alcohol and glass suppliers were assessed. Parfums Christian Dior was therefore able to ensure the environmental performance of two strategic sectors. In fact, alcohol actually accounts for about 90% of the Maison's essences, while glass accounts for over 20% of its purchases of materials used in the manufacture of packaging. In 2016, Fendi assessed 130 suppliers, compared with 15 in 2015, thus significantly broadening the scope covered by these audits. After auditing its three most strategic tanneries in 2016 in accordance with the Group's objective to roll out LWG certification, Loewe will extend the audits to its "top five" tanneries as from 2017. Meanwhile, Sephora has planned to audit, by 2020, all its high-risk suppliers, which have been identified via a methodology designed in-house. Thanks to these audits, the Maisons can include environmental criteria into their choice of partners, as well as help their suppliers to improve their environmental profile and monitor their progress. For instance, Hennessy shared its paperless "Guide to Environmental Best Practices, Food Safety and Security" with over 150 service providers in 2016. While conducting 50 new environmental audits on suppliers, Sephora Europe carried out about 15 audit follow-ups on those who had been audited in 2015. Guerlain, which had assessed 121 suppliers at the end of 2015, 30% of whom were assessed twice, was able to record a 20% improvement in results. To take this further, the Maison has set itself new objectives for the period between 2016 and 2018 in each category of purchases.

#### ASSESSING SUPPLIERS, ACCORDING TO LOUIS VUITTON

Louis Vuitton has introduced an assessment system to manage the environmental risks relating to its suppliers. The Maison has formally set down a highly-detailed audit protocol and has opened a shared space dedicated to this subject on its internal server, which specifically features all the audit reports. It has designed in-house assessment tools and has had complementary external tools

approved. This system is strengthened in every year. For instance, Louis Vuitton continued to raise the awareness of all its teams in 2016 in order to make progress in rolling out audits. This enabled it to add the audits performed on shoes or perfumes to the audits on leather goods suppliers, and then to determine audit programs with each "business unit" for 2017. The year was also characterized by

the creation of a training program on the Environmental Assessment of Suppliers, which is intended for all the Maison's employees in contact with suppliers, buyers, developers and quality experts, etc. The pilot session, which was organized in November and December 2016, included eight attendees.



Combating climate change is one of the priority aspects of LVMH's environmental policy. LVMH has prepared carbon reports for its main Maisons for over fifteen years, and every year it ranks the greenhouse gas emissions produced by the

CHANGE IN GREENHOUSE 322,972/289,378 GAS EMISSIONS (in CO2 equivalent metric tons) 344,336 400,000 324,079 307,552 300.000 200.000 62,657 64,468 100 000 0 2013 2014 2015 2016

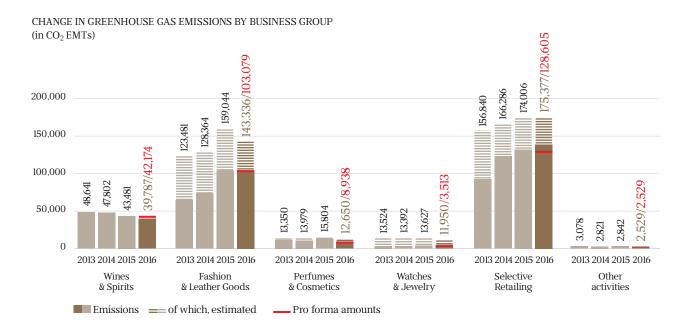
Indirect greenhouse gas emissions in CO<sub>2</sub> eq metric tonnes
 Direct greenhouse gas emissions in CO<sub>2</sub> eq metric tonnes
 Estimated indirect greenhouse gas emissions in CO<sub>2</sub> eq metric tonnes

— Pro forma amounts

energy consumption of Group sites and by the transportation of products. A specific study assessing the environmental impact of the production of raw materials and the supply chain was performed in 2016. Half the emissions across the Group's quantified value chain are generated by the production of raw materials, and 30% by upstream and downstream transportation. These are followed by emissions produced by the Maisons' manufacturing sites, logistics centers, offices, and stores (20%), whether these emissions are direct (scope 1) or indirect (scope 2).

The Group has confirmed this priority by setting itself the objective of reducing its greenhouse gas emissions relating to energy consumption (scope 1 and scope 2) by 25% between 2013 and 2020.

The basis for this approach is the ability to measure the emissions. In this way, it will be possible to make progress and determine where to take action as a priority. In 2016, LVMH continued to assess its carbon footprint: the Group emitted 298,366 equivalent metric tons of CO<sub>2</sub> (scope 1 and scope 2) This amount was supplemented by the 87,260 equivalent metric tons of CO<sub>2</sub> generated by 29% of the sales floor areas that are not included in the accounting consolidation process. The Maisons are fine-tuning their assessments over time in order to increase their effectiveness. For instance, Guerlain has prepared a detailed item-by-item carbon report since 2008, which has enabled it to identify its three activities that emit the most CO<sub>2</sub>, namely freight, packaging and promotional materials at sales outlets. The Maison determines its priorities and draws up its action plans on this basis. Meanwhile, after preparing a second carbon report in 2014, which covered all its stores and head offices, Sephora identified the 10 most relevant measures to implement to reduce its overall carbon impact. The Maison



extended this initiative in 2016 by estimating the costs and benefits of each one of these measures. LVMH has also performed a study on its exposure to climate change and adaptation challenges (see p. 37).

#### The LVMH carbon fund

LVMH is exploring new avenues in order to achieve its goals by 2020. For instance, the in-house carbon fund is a new tool helping to reduce greenhouse gas emissions by 25%. The Group wanted to create a virtuous circle in order to boost the effectiveness of its environmental policy by introducing the tool. In November 2015, a few weeks before COP21 (the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change - UNFCCC) opened in Paris, the Group provided further proof by setting up this carbon fund. This innovative initiative in the luxury goods sector is based on the idea that assigning a price to carbon, by valuing the cost of business activities that emit greenhouse gases, may encourage a change in behavior. Carbon contributions are calculated in proportion to the greenhouse gas emissions generated by their activities, and more specifically to the energy consumption of the production sites and the stores; the Maisons are then responsible for releasing an investment amount that is at least equal to the contribution. This provides a Maisons with an "additional right to invest" in projects that reduce emissions. The price of a metric ton of greenhouse gas, which may be reviewed every year, was set at €15 in 2016. It was decided that the amounts invested would be dedicated to financing three kinds of projects: investments in equipment that enables a reduction in energy con-(1) Light emitting diode.

sumption, studies aimed at improving the understanding and monitoring of energy consumption, and investments in the production of renewable energy.

The bet was successful since, one year later, eligible projects amounting to €6.7 million were selected, instead of the €5 million initially planned. The Maisons were heavily involved and contacted the fund to finance 28 projects, 70% of which relate to the stores. The projects were selected on the basis of five criteria: the carbon impact (what do the CO<sub>2</sub> emissions avoided represent compared with the site's emissions?), the carbon-efficiency of the investment (what is the amount invested in order to avoid the emission of one metric ton of CO<sub>2</sub>?), the trigger effect (is the project feasible without financing from the fund?), the exemplarity of the project (does it provide a strong sign of the Maison's commitment?) and its innovative nature (does it rely on new technology, or does it represent a pilot project within the Group?). LVMH's in-house carbon fund proved its effectiveness as from its first year of implementation and encouraged the Maisons to involve themselves in new initiatives.

fourteen projects aim to roll-out LED<sup>(1)</sup> lighting in stores, including the stores belonging to Loewe, Sephora North America and Sephora Europe, and at the Loewe, Glenmorangie and Loro Piana production sites, etc. The fund will also contribute to financing insulation projects for buildings that belong to the Louis Vuitton Maison, with a view to reducing greenhouse gas emissions by between 5% and 45%. Other projects relate to improving the monitoring of consumption via systems that meter consumption virtually in real time, and break it down depending on the use. Lastly, some projects such as the Louis

BREAKDOWN OF DIRECT AND INDIRECT EMISSIONS PER YEAR (in  ${\rm CO_2}$  equivalent metric tonnes)

	2016			2015		2014		2013				
	TOTAL	% of direct emissions	% of indirect emissions		% of direct missions e	% of indirect emissions		% of direct missions en	% of indirect missions	TOTAL 6	% of direct emissions	% of indirect emissions
Wines & Spirits	39,787	68	32	43,481	68	32	47,802	67	33	48,641	68	32
Fashion & Leather Goods	143,336	17	83	159,044	15	85	128,364	4	96	123,481	6	94
Perfumes & Cosmetics	12,650	50	50	15,804	39	61	13,979	40	61	13,350	45	55
Watches & Jewelry	11,950	16	84	13,627	13	87	13,392	10	90	13,524	8	92
Selective Retailing	175,377	2	98	174,006	2	98	166,286	2	98	156,840	1	99
Other activities	2,529	29	71	2,842	32	68	2,821	29	71	3,078	31	69
TOTAL	385,629	17	83	408,804	16	84	372,644	13	87	358,914	14	86

Vuitton and Bon Marché projects, will increase the use of renewable energy, and result in a decrease in  $\rm CO_2$  emissions of between 15% and 60%. For instance, Louis Vuitton intends to roll out an innovative heat recovery system at one of its sites. Overall, thanks to the carbon fund, LVMH is set to significantly reduce its carbon footprint by avoiding the emission of several thousand metric tons of greenhouse gas into the atmosphere.

#### Improved energy management

To reduce greenhouse gas emissions, LVMH and its Maisons are specifically working on improving their management of energy. The aim is to reduce overall energy consumption, i.e. the total amount of primary energy (heating oil, butane, propane and natural gas) and secondary energy sources (electricity, chilled water and steam), which are primarily used to carry out manufacturing processes and to provide air conditioning, heating and lighting for sites and stores. Here again, LVMH's progress will be based on an assessment of its energy consumption. The

Group's subsidiaries included in the reporting scope consumed 974,106 MWh in 2016. The 29% of the sales floor areas that were excluded from the reporting scope consumed 174,460 MWh. The Fashion & Leather Goods business group Maisons consumed the most energy (36%), followed by those in the Selective Retailing (34%), Wines & Spirits (17%) and Perfumes & Cosmetics Maisons (8%) groups. Electricity accounted for 57% of the total energy consumed, while natural gas accounted for 19% and renewable energy for 17%. The Maisons use energy assessments broken down by type of use and are assembling tools for monitoring the trend in their consumption in real time. For instance, Sephora North America has been rolling out an energy management system at its stores since 2007. Over 300 sales outlets were equipped with the system at the end of 2016, and all outlets will be equipped with it by 2018. The Maison is now preparing the nest stage: the introduction of smart technologies such as smart thermostats to optimize energy management in the boutiques.

#### SEPHORA'S SMART AIR CURTAIN

Sephora tried out a new energy-saving technology at a store in Alicante, Spain in 2016, i.e. smart air curtains, which create an indivisible door between a building's indoor and outdoor atmosphere, without hindering the movement

of people. After an entire year of energy monitoring, the Maison is now aware of what this solution can provide. The smart air curtain has not only improved the thermal comfort of customers and staff, and the shelf-life of make-up products

during the summer season, it has also reduced the energy consumption of the store's air conditioning by 10%. Sephora is now planning to roll it out at all its sales outlets in European city centers.

#### THE FIRST LVMH STORE ENVIRONMENT AWARDS

About 80% of LVMH's greenhouse gas emissions are linked to the energy consumption of the stores, which cover over one million square meters throughout the world. The Group is committed to combating climate change and has therefore made improving the energy efficiency of its sales areas a priority. It launched the LVMH Store Environment Awards in 2016 in order to recognize the efforts and drive the progress made in this area. The aim of the awards is to reward environmental best practices implemented by the Maisons and their stores, to encourage their dissemination. These awards rely on guidelines that summarize eight of the best-known

global benchmarks (such as LEED\* in the United States, or HQE\* in France), and aim towards a common goal, namely including environmental challenges into all the boutiques' projects at a very early stage as from the design brief.

#### Six Maisons were recognized

The first LVMH Store Environment Awards event recognized six Maisons. Loewe received two awards for its Madrid Goya boutique: one for the restoration, which included a high level of insulation; and the other for transporting a portion of the building materials by train. Louis Vuitton was also recognized twice: its store in Santa Monica, California,

was selected for its management of air quality, and for limiting VOCs(1) in the air inside the store. Bylgari received an award for installing a system that enables consumption to be managed remotely at its store in New Bond Street, London. Sephora was recognized for the very low power per square meter of its Huntington Beach store in California, while Bon Marché was recognized for installing 16 waste management channels. A special lighting prize was also awarded to the T Galleria Beauty by DFS store in Causeway Bay in Hong Kong, which holds the record for the lowest lighting power per square meter.

(1) Volatile organic compounds.

#### New lighting technologies

LVMH relies on the LVMH Lighting program in order to optimize its energy consumption. This program was introduced in order to develop the use of new lighting technologies within the Group, and particularly of the LED technology, which reduces electricity consumption by 30% on average, avoids a considerable amount of maintenance and provides high-quality and reliable light. The "LED culture" has spread throughout the company in a few years, driven by constant information, awareness-raising and training efforts. For instance, LVMH organized three "LED Exhibitions" in Paris, New York and Hong Kong in 2016. As LED technology is still recent and relatively non-standardized, the Group also published an e-commerce website online, lymhlighting.com, in 2014, which offers the Maisons and their lighting installers the most innovative, effective and low-cost solutions for fitting themselves out. LVMH rolled out a new version of the website in 2016, and two Maisons, Louis Vuitton in France and Sephora in Portugal, have begun using it to maintain their electrical systems on an experimental basis. The company is also pursuing innovations with its industrial partners. For instance, it has designed a shelf-lighting solution and a miniature lighting module, the LVMH Light Engine, with three specialist manufacturers. This product, which did not exist on the market, provides the same amount of light as a 40-watt bulb while consuming only 12 watts. It was made available to all the lighting manufacturers working for LVMH in 2016.

The percentage of square meters lit with LED lighting is increasing every year, thanks to the LVMH Lighting program. The Maisons install it in their stores as a priority; these stores amount to over 1 million square meters throughout the world and are responsible for 70% of the Group's scope 1 and scope 2 greenhouse gas emissions. All of Sephora's sales outlets in the United States will therefore be lit using this technology by the end of 2016. The Maison also launched a major European program to replace its spotlights in Europe in 2016. Several DFS stores also switched to LED lighting during the year, in Japan, Hawaii and Hong Kong. LVMH is gradually extending its initiative to other kinds of buildings. An in-house working group was set up with about 12 Maisons in May 2016 in order to discuss lighting at production and storage sites. Initiatives on the ground are increasing rapidly. For instance, Make Up For Ever used LED lighting to light the warehouse at its Gennevilliers facility, while Loewe is planning to do likewise at its production site in Madrid. Administrative sites are also involved. Thus, Marc Jacobs took advantage of the renovation of two floors in its New York offices to install LED lighting in 2016. The generalization of environmentally-friendly lighting is enabling LVMH to improve its energy-efficiency. For instance, LVMH Fragrance Brands has estimated the annual electricity savings generated thanks to replacing the traditional lighting in its workshops and warehouses in Vervins, France by LED lighting at 114 MWh. In Poland, Parfums Christian Dior chose LED lighting to light its new boutique that was opened in Warsaw in 2016. This will enable the Maison to make energy savings of 70%

without losing lighting quality. To reinforce this trend, LVMH has just teamed up with two organizations: the LED and Customer Club (CCFL), and Certiled, a forum for dialog with manufacturers about issues relating to LED that have not yet been standardized. This is the way in which LVMH intends to contribute to the development of high-quality solutions where the performance is proven, and which are easy to maintain, on this fast-changing market. The Group and its Maisons are exploring avenues for saving energy at the same time, regardless of whether they involve tools or best practices. For instance, Make Up for Ever has combined LED lighting with motion detectors in Gennevilliers. Meanwhile, at COP21 in 2015, Louis Vuitton committed to turning out the lights in its store windows throughout the world between midnight and 7 am.

#### Increasing use of renewable energy

LVMH is increasing its use of renewable energy at the same time as implementing measures aimed at reducing its consumption of fossil fuels. This policy reached an important stage in 2015 since the Group signed a framework agreement to provide exclusively green electricity to the 450 sites owned by 27 Maisons based in France. A similar agreement was signed in 2016 in order to supply energy to the sites of several Italian Maisons, while LVMH began working on extending this initiative to Spain and the United States. Thanks to such initiatives, the percentage of renewable energy in the Group' energy mix is constantly increasing, and reached 17% in 2016. Accordingly, Louis Vuitton has fitted its store on the Island of Guam, its workshops in Marsaz in France, in San Dimas in the United States, in Fiesso in Italy, in Somarest in Romania, in Barbera in Spain, the Shoe Manufacturing Workshop in Italy, its "La Fabrique du Temps" watchmaking workshop in Switzerland and its Europa warehouse in Cergy-Pontoise with solar photovoltaic panels (for the production of electricity) or solar panels (for the production of hot water). In San Dimas for instance, photovoltaic solar panels were installed on the roof of one of the Maison's two workshops. They now meet 31% of the site's electricity requirements. Louis Vuitton also uses geothermal power, as it does at Cergy in its EOLE workshop for heating and cooling the staff's common rooms and offices, at the Shoe Manufacturing Workshop in Fiesso, and even in urban areas, at its historic workshop in Asnières and the Saint-Germain store in Paris. Other Maisons, such as TAG Heuer, Terrazas de los Andes, Bylgari, Sephora, Veuve Clicquot, Loro Piana and Hublot, are also banking on green energy.

#### Transport and logistics

To help combat climate change, LVMH and its Maisons are also focusing on another item that emits a large amount of greenhouse gases, namely transport and logistics. The Group's goal is to manage to transport its raw materials and goods by combining operational efficiency and environmental excellence. Even though long-distance transportation is not directly

performed by the company, it is nonetheless subject to specific measures, such as the preference granted to local procurement, or the choice of methods with the best carbon footprint. This is how the average air-sea ratio of LVMH Fragrance Brands, which systematically prioritizes the transportation of its products by sea rather than by air, increased from 56.6% in 2014 to 67.7% two years later. Hennessy achieved a sea and rail shipment ratio of 93% in 2016. Currently, the Hennessy Maison sends its business group, every quarter, a document monitoring the  $\rm CO_2$  indicators per metric ton transported and the methods used (sea, rail, road, and air). All its carriers have been audited in terms of their drivers' safety and environmental-friendliness. Furthermore, after transporting 2,000 containers from Cognac to

### BREAKDOWN OF THE GREENHOUSE GAS EMISSIONS GENERATED BY UPSTREAM TRANSPORTATION IN 2016 (in CO<sub>2</sub> equivalent metric tonnes)

	Road	Air	Sea	TOTAL
Wines & Spirits	3,394	702	947	5,043
Fashion & Leather Goods	3,017	5,538	16	8,571
Perfumes & Cosmetics	9,983	24,771	520	35,274
Watches & Jewelry	3	1,861	4	1,868
Selective Retailing	=	-	-	-
TOTAL	16,397	32,872	1,487	50,756

Le Havre by road and rail in 2015, the Maison trialed a return journey by rail with a supplier in March 2016. The experiment, which was part of a circular economy project involving about 50 trucks, was conclusive from an operating standpoint. Louis Vuitton went even further in 2016: the Maison, which had already achieved a world first (obtaining ISO 14001 certification for its Leather Goods and Accessories procurement chain in 2013), innovated once again with its "Transporthon". After launching a world-wide call for tenders to select its carriers, it performed an initial selection in December solely on the basis of environmental criteria, which was carried out by a team of in-house environmental experts gathered for the occasion, before ranking the finalists in accordance with conventional criteria. To further reduce the environmental impact of its supply chain, Sephora has banked on its organizational structure: its new Polish warehouse, which opened in 2016, now separates the packaging of the advertising materials it uses in the stores, which are then repackaged on a store-by-store basis. This process enables the number of pallets transported to the boutiques to be reduced by a factor of two, resulting in 30% fewer trucks on the roads. The Maisons are increasingly prioritizing electric transport for short distances. This is the case of Guerlain for instance, which has been supplying its Paris stores via a zero-emission road route since 2014, in partnership with Speed Distribution Logistique and Renault Trucks: these city rounds regularly cover over 200 kilometers in fully electric 16-metric-ton trucks. This initiative - a world first - enables the Maison to avoid emitting seven metric tons of CO<sub>2</sub> into the atmosphere every year. Sephora has also chosen electric transport. The Maison has opted for lastmile delivery via electric truck to supply its French stores, 80% of which are located in city centers. This best practice, which combines environmental and economic efficiency, is spreading

#### BREAKDOWN OF THE GREENHOUSE GAS EMISSIONS GENERATED BY DOWNSTREAM TRANSPORTATION IN 2016 (in ${\rm CO}_2$ equivalent metric tonnes)

	Road	Rail	Air	Sea	River barge	Electric vehicle	TOTAL
Wines & Spirits	20,762	754	36,231	17,003	179	-	74,929
Fashion & Leather Goods	1,714	9	102,405	441	4	-	104,573
Perfumes & Cosmetics	2,221		148,424	1,923		-	152,568
Watches & Jewelry	105		32,582	121		-	32,808
Selective Retailing	2,827		12,621	193		87	15,728
TOTAL	27,629	763	332,263	19,681	183	87	380,606

internationally: after exporting it to China in 2015, Sephora rolled it out in Italy in 2016, in collaboration with FM Logistics. Its delivery trucks now switch to fully electric mode as soon as they enter Rome and Milan, two of the main urban areas on the Italian Peninsula. Louis Vuitton uses the same system to deliver to its stores in Shanghai, China.

Sustainable transport does not just concern the transportation of goods. For instance, Moët & Chandon has invested in an innovative technology, i.e. the Kremer T4E electric straddle tractor, which it has been testing in its vineyards for the past four years. A study conducted by the Maison with three partners confirmed the benefits of these vehicles in 2016. Moët & Chandon has therefore decided to add to its fleet, and to increase the number of straddle tractors from 5 at the current time to 25 by 2020. The Maison hopes to reduce its greenhouse gas emissions by 2,000 metric tons per year by doing so.



# IMPROVING ENVIRONMENTAL PERFORMANCE AT LVMH'S SITES AND STORES

The LVMH Group has set itself the objective of reducing at least one of the following three indicators by 10% by 2020: water consumption, energy consumption and waste generation. 2013 will be used as the benchmark year, as it is for the objective to reduce greenhouse gas emissions by 25%. However, most of the Group's industrial sites did not wait until 2013 to improve their performance. To supplement this series of objectives, the Group has also committed to reducing its stores' energy consumption per square meter by 15% over the same period.

#### Saving water and preventing water pollution

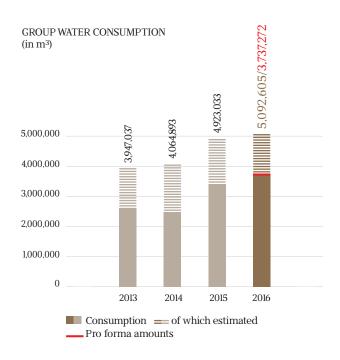
Improving the environmental performance of LVMH's sites necessarily involves initiatives aimed at protecting water, which is an essential resource for the Group. Its Maisons consumed 4,507,022 m³ for agricultural purposes, and 5,092,605 m³ to manufacture their products in 2016. Meanwhile the consumption of the 79% of sales floor areas that are not included in the reporting process amounted to 1,365,316 m<sup>3</sup>. Accordingly, LVMH attaches great importance to managing water and is focusing on reducing consumption as well as on preventing pollution. An in-depth assessment of sensitivity to local restrictions was conducted for all the Group's Maisons in 2013, using the 2009 Pfister Index and the 2012 Aquastat database. This assessment was based on evaluating each geographical region's sensitivity by comparing the consumption of water to available resources on a local basis. Four Maisons that consume significant amounts of water at the Group level are located in regions where water

#### SUSTAINABLE TRANSPORT. INCLUDING EMPLOYEES

LVMH's sustainable transport policy extends to its employees' travel. In 2016, Hennessy continued to roll out its fleet of electric cars and vans, one of the largest private fleets in France that currently includes 74 vehicles. The Maison has also set up an in-house car-pooling website, on which over 100 employees have registered. Meanwhile, LVMH Fragrance Brands has introduced an electric shuttle, in order to cater for its teams' daily trips between the Vervins plant and the new warehouse for storing packaging items,

which is at a distance of five kilometers. In Italy, Céline has replaced two diesel cars by electric vehicles, which are used to drive in Florence and in the surrounding area. Hublot continued to encourage its employees to use soft transport methods by relying on a variety of measures, such as covering half of the price of public transport network season tickets. Bylgari has planned to do the same thing for the occupants of its future workshop in Valenza. Meanwhile, the Maison has teamed up with the Car2go company

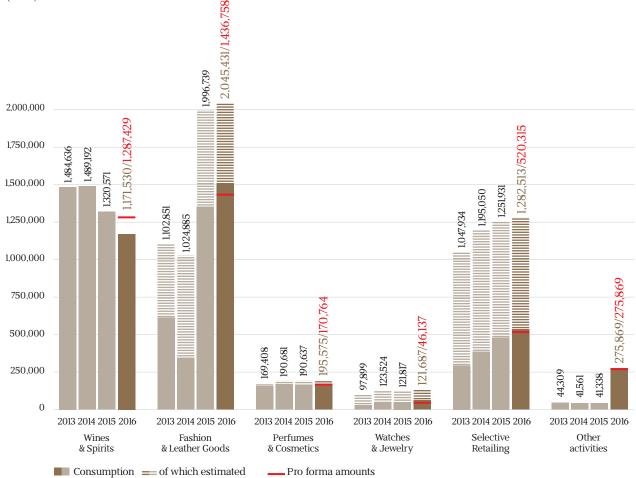
to offer free car-pooling services to its employees in Rome. Sephora took advantage of moving its Orléans head office to roll out a corporate travel plan, which includes 10 solutions providing an alternative to personal cars. Meanwhile, Loewe has opted for another solution than soft transport modes, i.e. significantly increasing the number of videoconferences in order to limit its employees' trips between Madrid and Paris!



#### COD AFTER TREATMENT (in metric tonnes per year)

Sector	2016	2015	2014	2013
Wines & Spirits	3,195	3,259	4,021	3,590
Fashion & Leather Goods	152	152	138	155.2
Perfumes & Cosmetics	7	7	14	18.8
TOTAL	3,354	3,418	4,173	3,764.1





stress is close to 100%, i.e. regions where the water requirements are at similar levels to the available resources:

- the Cheval des Andes and Terrazas de los Andes vineyards, which account for 70% of the Group's agricultural water requirements;
- the Domaine Chandon California and Newton vineyards, which account for 8% of the Group's agricultural water requirements.

#### Better water management

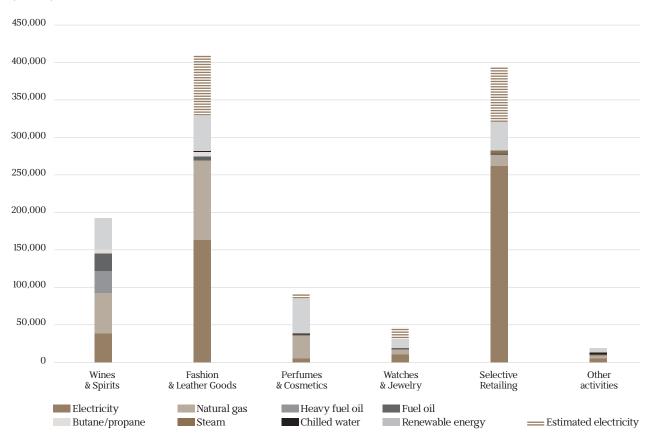
LVMH's commitment to sustainable water management did not falter in 2016. Hennessy continued installing remote metering systems on water meters in order to monitor its consumption on a daily basis and to rapidly identify leaks. Accordingly, the La Bataille and Le Peu sites were fitted with the system in 2016, thereby joining the Bagnolet and La Touche sites. At the same time, to promote the framework agreement on water, the Hennessy Maison entered into a partnership with the Charente and Charente-Maritime Chambers of Agriculture in order to help its wine-growing partners to finance the assessment that precedes measures to ensure compliance in terms of managing discharges. Ten half days of training on environmental best

practices were provided in order to continue supporting its delivery drivers. Environmental audits were also performed on the estates. The Numanthia Vineyard in Spain installed a rainwater recovery system: this system will ultimately enable 1.4 million liters of water to be collected every year, which will be used on-site for irrigation. The initiatives implemented during the year were not limited to viticulture. For instance, Céline finalized its water recycling system, while LVMH Fragrance Brands installed steered dam valves on the waste water and river water networks that leave its Beauvais facility.

#### Improving energy management

Energy management is one of LVMH's main areas for action in order to reduce its greenhouse gas emissions, and many initiatives have been implemented as part of the roll-out of the LVMH carbon fund (see p.46) and the LVMH Lighting program (see p.48). Other initiatives were implemented in 2016. Hennessy has therefore introduced several measures at its Bagnolet facility: the air compressors were replaced by a less energy-intensive cooling system, while several air burners were replaced with innovative forced draft burners, which enable gas consumption at the distillery to be reduced (a saving of 30 metric tons

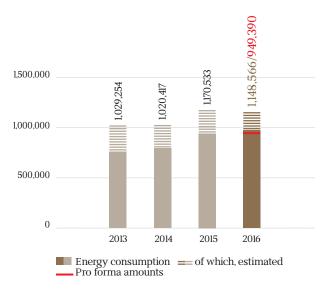
#### ENERGY CONSUMPTION BY SECTOR AND BY SOURCE IN 2016 (in MWh)



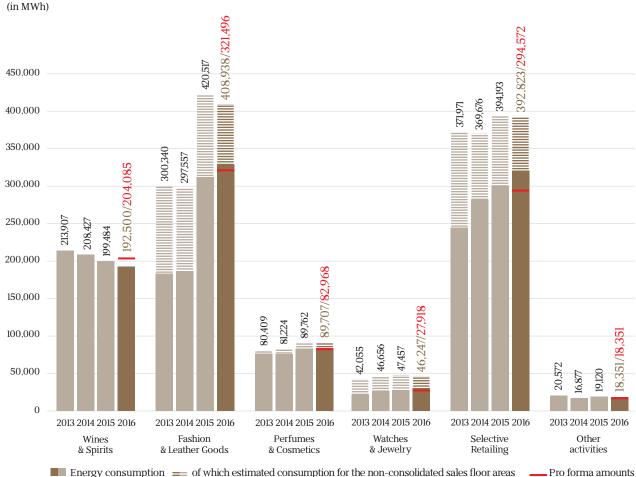
of  $\rm CO_2$  in 2016). This project, which was launched in 2016 and is supported by the LVMH carbon fund, will continue until 2021 and involve the gradual replacement of all the distillery burners, which will ultimately lead to the avoidance of 243 metric tons of  $\rm CO_2$ . Meanwhile, the Belvedere distillery continued to improve its distillation process. The Maison reduced its gas consumption by 3.7% in one year, thanks to a modernized heating system and a heat recovery system, thereby avoiding the emission of 111 metric tons of  $\rm CO_2$  into the atmosphere. Belvedere will continue along this path in 2017, with the aim of further reducing its gas consumption by 7%.

Construction and sustainable renovation practices are also a catalyst for improvement. LVMH continues to use existing standards such as LEED, BREEAM or HQE at its construction sites (see p.22). These standards have also been used as a benchmark for drafting the "LVMH Store Guidelines". LVMH has committed to all new stores having a minimum energy performance of 50/100 (maximum rating) as from 2020, as part of the construction and renovation of new stores.

#### CHANGE IN THE GROUP'S ENERGY CONSUMPTION (in MWh)



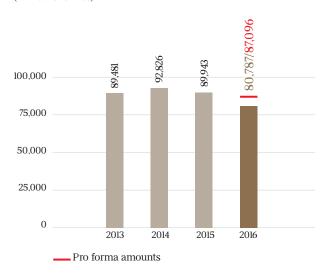
#### CHANGE IN ENERGY CONSUMPTION BY BUSINESS GROUP



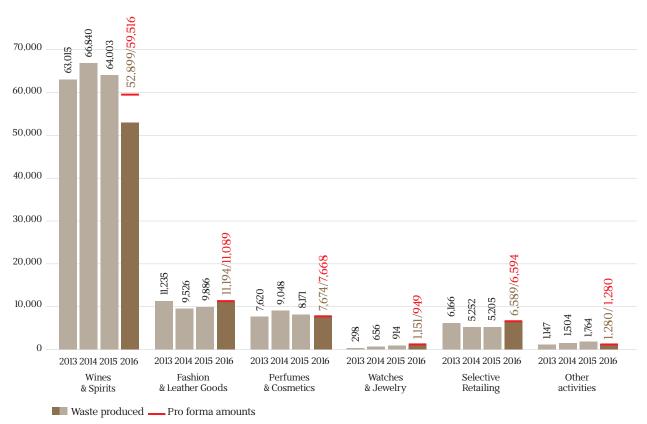
#### Reducing and recovering waste

Reducing and recovering waste is another working priority for LVMH, which is increasingly focusing on the circular economy. 86% of the 80,787 metric tons of waste generated by its business activities in 2016 were recycled, recovered as energy or re-used. The Maisons primarily focus on limiting their generation of waste to the maximum extent possible: for instance, for the past year, Louis Vuitton has been using salpa, a type of reconstituted leather, to produce some of the models for its leather good products, which enables it to avoid using real leather. At the same time, the Maisons are rolling out programs to manage their waste and are developing treatment and recovery centers. For instance, the Champagne Maisons gave a new life to 227 mobile telephones in 2016, thanks to a new recovery center set up with Orange. Mobile phones that still work are reconditioned and resold in emerging countries, where the second-hand mobile market is constantly expanding. Orange passes on all the profits from the sales to Emmaüs International. Mobile phones that no longer work are recycled by a subsidized employment creating company in France: the hazardous materials are treated, and the metals are recycled as raw materials. This sustainable waste management policy is bearing fruit. LVMH Fragrance Brands has managed to keep the recovery rate for waste at its Beauvais and Vervins sites at above 96% for the past several years thanks to this policy. Meanwhile, Bylgari increased the recycling rate for its perfumes from 0% to 41% between 2012 and 2015.

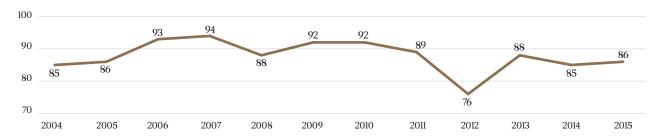
#### CHANGE IN THE GROUP'S WASTE PRODUCTION (in metric tonnes)



#### CHANGE IN THE WASTE PRODUCED BY EACH BUSINESS GROUP (in metric tonnes)



#### PERCENTAGE OF WASTE VALUE



#### RECOVERY OF THE WASTE PRODUCED BY THE LVMH GROUP FACILITIES IN 2016

(% of recovered waste)	Re-used	Recovery of materials	Waste-to-energy recovery	TOTAL AMOUNT RECOVERED
Wines & Spirits	10	75	5	90
Fashion & Leather Goods	4	40	23	67
Perfumes & Cosmetics	2	71	24	97
Watches & Jewelry	1	46	15	62
Selective Retailing	17	39	21	77
Other activities	-	64	28	92
TOTAL	9	66	11	86

#### CHANGE IN THE HAZARDOUS WASTE PRODUCED BY EACH BUSINESS GROUP (in metric tonnes)

	2016	2015	2014	2013
Wines & Spirits	573	642	441	251
Fashion & Leather Goods	1,091	1,016	885	573
Perfumes & Cosmetics	1,422	1,477	1,424	1,190
Watches & Jewelry	151	141	124	33
Selective Retailing	39	67	113	155
Other activities	78	118	139	154
TOTAL	3,354	3,461	3,126	2,356

#### CEDRE, A JOINT WASTE-RECOVERY PLATFORM

To recover a portion of its waste, LVMH uses the CEDRE (Environmental Center for Environmentally-Friendly Packaging Elimination and Recycling) platform, which is managed by a partner in Pithiviers. Thanks to various selective sorting channels, the waste gathered at the site is treated in accordance with the specific features of its recovery process, which can therefore be comprehensive. CEDRE

treated and recycled 2,023 metric tons of extremely diverse waste in 2016. The Maisons in the Perfumes & Cosmetics business group, as well as Sephora and Louis Vuitton, sent packaged items to the platform, including out-of-date alcoholbased products, advertising materials and testers used in the stores, as well as empty packaging returned by customers, etc. Furthermore, Louis Vuitton, Berluti,

Christian Dior Couture and Kenzo Mode used the platform to recycle textiles. The platform has continually boosted its recovery capacity over the years, while the amounts and types of waste sent to Pithiviers are increasing. For instance, the platform introduced a new system that improves the recycling of creams in 2016.



LVMH took action to meet another challenge in the LIFE Program in 2016, namely preserving and passing on critical skills. A large number of the traditional processes and gestures used by its Maisons or their partners first appeared centuries ago. Some of these skills, such as tanning, ethno-botany or sustainable viticulture, have a direct link with natural resources. All of them are key to the Group's success. Accordingly, LVMH takes care to ensure their long-term future, while continually innovating in order to constantly improve the quality of its products and their environmental profile. For instance, it is by combining ultramodern tanning processes with the centuries-old know-how of tanners in the Cordero Entrefino Region in Spain that Loewe obtains incomparably supple and soft leathers. Likewise, Cha Ling is determined to protect the oldest tea in the world, namely Pu'er tea. The Maison gets its supplies from the thousand-yearold forests in Yunnan, China's green lung. The plots are farmed using no fertilizers or pesticides, and harvested in accordance with traditional techniques. Cha Ling designs beauty care products that are created from this exceptional raw material in LVMH's advanced research laboratories, in accordance with a stringent environmentally-friendly charter. The Cha Ling products are then manufactured at La Ruche, the site opened by Guerlain in Chartres, which combines performance, quality and sustainability. LVMH's efforts to protect its critical skills have an impact beyond the Group: for instance, they contributed to UNESCO's decision to include the vineyards, Maisons and cellars in the Champagne region - where a large number of the Group's employees work in the World Heritage List in 2015.



Questions about the environment, which its stakeholders ask LVMH is increasing. The Group and its Maisons anticipate the requests that may be made to them every year by providing a substantial amount of information on their environmental initiatives (see p.30). At the same time, they reply to questions in accordance with a shared and constant standard of transparency and accuracy. Most of the Maisons rely on their employees, who have become ambassadors for their environmental policy thanks to training.

#### VOC EMISSIONS

LVMH has also focused on another kind of polluting emissions: volatile organic compounds (VOCs). The Maisons in the Wines & Spirits business group are particularly concerned by VOCs, which appear when their products are aged

in barrels. The Maisons in the Perfumes & Cosmetics and Fashion & Leather Goods business groups are also concerned, albeit to a lesser extent, since they may use volatile substances such as glues and solvents to manufacture their products.

Louis Vuitton and many fashion Maisons have therefore decided to primarily use solvent – free glues and to increasingly broaden their communications on these subjects.

# SUMMARY STATEMENT OF THE INFORMATION COVERED BY THE DECREE OF APRIL 24, 2012

THIS 2016 ENVIRONMENTAL REPORT AND THE 2016 REGISTRATION DOCUMENT, WHICH ARE AVAILABLE ON THE GROUP'S WEBSITE, PROVIDE INFORMATION ON THE ENVIRONMENTAL SUBJECTS AND INDICATORS SPECIFIED IN THE DECREE OF APRIL 24, 2012, IMPLEMENTING ARTICLE 225

OF LAW NO. 2010-788 OF JULY 12, 2010 REGARDING THE NATIONAL COMMITMENT TO THE ENVIRONMENT (ALSO KNOWN AS THE GRENELLE II LAW).

THE VERIFICATION OF INCLUSION OF THE ENVIRONMENTAL INFORMATION IS THE SUBJECT OF A REPORT ISSUED BY AN INDEPENDENT THIRD-PARTY ORGANIZATION IN ACCORDANCE WITH THE DECREE OF MAY 13, 2013.

#### ITEMS COVERED BY THE DECREE OF APRIL 24, 2012

#### RELEVANT CHAPTERS AND PARAGRAPHS IN THE 2016 ENVIRONMENTAL REPORT

<ul> <li>Chapter entitled "Structuring the Approach with the LIFE Program", p. 12</li> <li>Chapter entitled "Employees who are Involved", p. 10</li> </ul>
Chapter entitled "Certification Initiatives", p. 21
Chapter entitled "Employees who are Involved", p. 12
<ul> <li>Chapter entitled "Protecting Essential Capital", p. 07</li> <li>Chapter entitled "Managed Risks", p. 20</li> </ul>
Chapter entitled "Protecting Essential Capital", p 07
Chapter entitled "LIFE 7: Improving Environmental Performance at LVMH's sites and Stores", p. 50
<ul> <li>Chapter entitled "LIFE 6: Reducing the Impact of Business Activities on Climate Change", p. 44</li> <li>Paragraph entitled "VOC Emissions", p. 56</li> </ul>

Discharges into water	
Discharges into soil	<ul> <li>Paragraph entitled "Saving Water and Preventing Water Pollution", p.</li> </ul>
Measures aimed at preventing, recycling, and eliminating waste	• Paragraph entitled "Reducing and Recovering Waste", p. 54
Taking account of noise nuisance and any other form of pollution specific to a business activity	Paragraph entitled "VOC Emissions", p. 56
b-2) Sustainable use of resources	
Water consumption and water supply depending on local constraints	<ul> <li>Paragraph entitled "Saving Water and Preventing Water Pollution", p. 50</li> </ul>
Consumption of raw materials and measures taken to improve the effectiveness of their use	<ul> <li>Chapter entitled "LIFE I and LIFE 8: Taking account of the Environment from the Product Design Stage" p. 33</li> <li>Chapter entitled "LIFE 2: Securing Access to Strategic Raw Materials and Protecting Biodiversity from the Outset", p. 36</li> <li>Paragraph entitled "Significantly Increasing Professional Collaboration", p. 24</li> </ul>
Energy consumption	Paragraph entitled "Improving Energy Management", p. 52
Measures taken to improve energy efficiency	<ul> <li>Paragraph entitled "Improving Energy Management", p. 52</li> <li>Paragraph entitled "Better Energy Management", p. 47</li> </ul>
Use of renewable energy	• Paragraph entitled "Increasing Use of Renewable Energy", p. 48
Land use	<ul> <li>Paragraph entitled "Naturalness at the Heart of Perfumes and Cosmetics", p. 41</li> <li>Paragraph entitled "Sustainable Viticulture", p. 40</li> <li>Paragraph entitled "Other Standards Play a Supporting Role", p. 21</li> </ul>
c) Climate change	
Significant items in terms of the greenhouse gas emissions generated as a result of the company's business activities, including via the use of the goods and services produced by the company	<ul> <li>Chapter entitled "LIFE 6: Reducing the Business Activities' Impact on Climate Change", p. 44</li> <li>Chapter entitled "A Sustainable Construction Policy", p. 22</li> </ul>
Adjusting to the consequences of climate change	Paragraph entitled "Adjusting to Climate Change", p. 37
d) Protection of biodiversity	
Measures taken to preserve or develop biodiversity	<ul> <li>Chapter entitled "LIFE 2: Securing Access to Strategic Raw Materials and Protecting Biodiversity from the Outset", p. 36</li> <li>Paragraph entitled "Naturalness at the Heart of Perfumes and Cosmetics", p. 41</li> <li>Paragraph entitled "Sustainable Viticulture", p. 40</li> <li>Paragraph entitled "Making a Commitment to the Outside World", p. 07</li> </ul>

INFORMATION RELATING TO SOCIETAL COMMITMENTS AIMED	O AT PROMOTING SUSTAINABLE DEVELOPMENT
a) Regional, economic and social impact of the company's busine	ess activities
On the neighboring or local population	<ul> <li>Chapter entitled "Communication", p. 30</li> <li>Chapter entitled "Environmental Corporate Sponsorship", p. 30</li> <li>Chapter entitled "LIFE 7: Improving Environmental Performance at LVMH's sites and Stores", p. 50</li> </ul>
b) Relations with persons or organizations interested in the compeducational institutions, environmental protection organizations,	any's business activities, including social inclusion organizations, consumer organizations, and the neighboring population
The conditions for dialog with these persons or organizations	<ul> <li>Chapter entitled "Professional Exchanges", p. 24</li> <li>Chapter entitled "Research Projects and Partnerships", p. 26</li> </ul>
Partnership or corporate sponsorship initiatives	<ul> <li>Chapter entitled "Environmental Corporate Sponsorship", p. 30</li> <li>Chapter entitled "Research Projects and Partnerships", p. 26</li> </ul>
c) Subcontracting and suppliers	
Taking environmental issues into account in the purchasing policy	• Chapter entitled "LIFE 3: Ensuring the Traceability and Compliance
Importance of subcontracting and taking suppliers and subcontractors' environmental responsibility into account in relationships with them	<ul> <li>of Materials and Products", p. 42</li> <li>Chapter entitled "LIFE 4: Increasing the Responsibility of Suppliers and Subcontractors", p. 44</li> </ul>
d) Fairness of practices	
Measures taken to safeguard consumers' health and safety	<ul> <li>Paragraph entitled "The Safety of Consumers and Respect for Animal Life are an Imperative", p. 43</li> </ul>

La Grande Épicerie de Paris has several fresh food production workshops where fresh food is concerned. The Maison has developed an accurate sales forecasting system in order to adjust production to production volumes on a daily basis. A partnership has been entered into with the French Red Cross, which collects the unsold production every day.

# NOTE ON THE METHODOLOGY OF ENVIRONMENTAL REPORTING

THE LVMH GROUP HAS BEEN CONSOLIDATING ITS ENVIRONMENTAL INDICATORS SINCE 1999, AND HAS BEEN PUBLISHING THEM SINCE 2001.
THEY HAVE BEEN VERIFIED BY ONE OF THE STATUTORY AUDITORS' SPECIALIST TEAMS SINCE 2002. THESE INDICATORS ARE PUBLISHED IN THE REGISTRATION DOCUMENT AND IN THE GROUP'S ENVIRONMENTAL REPORT.

#### PROTOCOL

All consolidation and calculation rules are defined in the LVMH environmental reporting protocol, which is updated annually and is made available for public consultation by the Environment Department. Any request to consult the document may be sent to the following address: environnement@lvmh.fr.

#### SCOPE

Reporting on the environmental indicators covered the following scope in 2016:

#### PRODUCTION, WAREHOUSE AND ADMINISTRATIVE SITES (in number)

	2016
Covered sites	247
Uncovered sites(1)	122
TOTAL NUMBER OF SITES	369

(1) Of which, mainly: certain regional administrative sites for Louis Vuitton and Moët Hennessy, as well as the administrative sites of Acqua di Parma, Marc Jacobs and Donna Karan.

The production sites are covered up to 97%. The industrial, logistics and administrative sites that are not covered by the environmental report are essentially excluded for operational reasons, and are not material. A plan to gradually include them is underway.

#### Sales floor areas included in the scope, per indicator

The surface areas included in the calculation of energy consumption, greenhouse gas emissions and water consumption are as follows, presented as a percentage of the Group's total sales floor areas:

#### GROUP'S TOTAL SALES FLOOR AREAS (in %)

		nsumption house gas missions <sup>(1)</sup>	Co	nsumption of water <sup>(1)</sup>
	2016	2015	2016	2015
GROUP TOTAL	71	64	21	17

(1) The scope of reporting does not include the franchise stores operated by the Fashion & Leather Goods, Perfumes & Cosmetics, and Watches & Jewelry business groups.

The surface areas of the main Maisons included in the calculation of energy consumption, greenhouse gas emissions and water consumption, as a percentage of each Maison's total sales floor area, are as follows:

#### EACH MAISON'S TOTAL SALES FLOOR AREA (in %)

	Consumption and greenhouse gas emissions		Consumption of water	
	2016	2015	2016	2015
DFS	83	70	63	52
Louis Vuitton	70	68	-	=
Sephora North America and Latin America	70	6l	16	11
Sephora Europe, Middle East, and Asia	84	80	16	19

The following are also taken into account for calculating the energy consumption and greenhouse gas emissions: all the French stores owned by Berluti, Givenchy, Guerlain, Kenzo, Le Bon Marché and Make Up For Ever, and some stores owned by Acqua di Parma, Benefit, Bylgari, Céline, Chaumet, De Beers, Fendi, Hublot, Loewe, Loro Piana, Marc Jacobs, Parfums Christian Dior, TAG Heuer and Thomas Pink.

The following are also taken into account for calculating water consumption: certain Berluti, Bylgari, Chaumet, Fendi, Guerlain, Kenzo and Le Bon Marché stores.

Where the production of waste is concerned, only the DFS, Le Bon Marché and some Berluti, Bylgari and Fendi stores are included in the scope. The Group has about 4,000 stores, and some environmental data are hard to obtain for small stores. However, the Group has set itself the objective of gradually including those stores.

#### REPORTING TOOL AND METHODOLOGY

The system used for the environmental reporting process is an in-house tool consisting of two kinds of questionnaire:

- one questionnaire for compiling corporate data: training, packaging, etc;
- one (or several) questionnaires for compiling data specific to the manufacturing sites: water and energy consumption, waste generation (quantity and types of waste), the treatment of waste, etc.

In all, about 50 kinds of information is gathered from each Maison. The data are then checked and automatically consolidated in a central file. This file has many control and warning mechanisms (abnormal data and consistency problems, etc.).

#### INTERNAL AND EXTERNAL ASSESSMENTS

Consistency controls are performed by the sites (the data is compared with the data for the previous year) and when the data is being consolidated by the LVMH Environment Department (abnormalities and comparisons with the previous year etc.)

Some environmental indicators are also verified externally by one of the Group's Statutory Auditors, whose conclusions are presented in their reasonable assurance opinion on certain environmental indicators.

# CHOICE AND APPROPRIATENESS OF THE INDICATORS

The purpose of the published environmental indicators is to report to stakeholders on the Group's annual environmental results. They provide information on the environmental subjects and indicators specified in the Decree of April 24, 2012, implementing Article 225 of Law No. 2010-788 of July 12, 2010 regarding the national commitment to the environment (also known as the Grenelle II Law).

The information set out in this document also reflects the guidelines in Version 4.0 of the Global Reporting Initiative. The GRI information and environmental indicators presented in this report are as follows:

Strategy		Environment Category	
G4-1	p. 03 to 05	G4-EN1	p. 34 and 35
G4-2	p. 07 to 13	G4-EN3	p. 52 and 53
		G4-EN4	p. 49
Profile of the organisation		G4-EN8	p. 51
G4-3 to G4-16		G4-EN9	p. 51
The information is available		G4-EN13	p. 26 and 36
in the LVMH 2016 Annual		G4-EN15	p. 45 and 46
Report, which can		G4-EN16	p. 45 and 46
be downloaded from		G4-EN17	p. 45 and 49
the Group's website.		G4-EN22	p. 51
		G4-EN23	p. 54 and 55
Relevant aspects		G4-EN27	p. 33 to 35
and scopes identified		G4-EN30	p. 49
G4-17 to G4-23 p. 10, 11 et 60		G4-EN31	p. 07
		G4-EN32	p. 44

#### Profile of the report

G4-28 to G4-31 p. 60 to 63

#### Water consumption

Water consumption is expressed in metric tons. This indicator enables the quantities of water consumed to be assessed by distinguishing between the following two requirements:

- agricultural requirement: measurement of the quantities of water used for irrigation (banned in France), and for sprinkling the vines (to prevent frost, etc.). The water volumes used are either measured directly or, more usually, estimated;
- processing requirement: this is the measurement of all nonagricultural requirements (industrial and sanitary processes, cleaning, the watering of green spaces, etc.). These types of water consumption are almost always measured.

#### Water pollution

Water pollution is expressed in metric tons of COD (Chemical Oxygen Demand). This indicator reflects the total annual flow discharged into the natural environment by the sites, after treatment either at, or downstream from, the site.

The only sectors concerned by this parameter are Wines & Spirits and Perfumes & Cosmetics, where the discharges of organic matter and other pollution from effluents are significant and directly related to their operations.

#### Production of waste

All the waste produced is measured in metric tons. The waste taken into account is the hazardous and non-hazardous waste removed from the sites during the reporting period. The treatment method for each kind of waste is also identified so as to calculate a recovery ratio.

The various channels for recycling waste are:

- re-use: using the waste for the same purpose as the one for which the product was originally intended (e.g. Wines & Spirits Division: bottles resold to third parties);
- the recovery of materials, which includes:
- recycling: waste is directly reintroduced into the production cycle from which it came, in order to partially or completely replace virgin raw material, e.g. paper and cardboard, and some plastics, etc,
- organic recovery: composting and controlled spreading of organic waste in order to fertilize soil, etc.
- energy recovery: incinerating and recovering the energy generated by the combustion process in the form of electricity or heat.

#### Energy consumption

Energy consumed is expressed in MWh, and represents all the types of energy used by the company's sites (electricity, natural gas, heating oil, heavy oil, steam and butane-propane) and vehicles.

#### Greenhouse gas emissions

This indicator is expressed in equivalent metric tons of  ${\rm CO_2}$  and corresponds to the greenhouse gas emissions relating to the energy consumed by the sites. It covers direct and indirect greenhouse gas emissions.

#### Upstream and downstream transportation

This indicator is expressed in metric tons per kilometer and in equivalent metric tons of CO<sub>2</sub>. A distinction is made between upstream and downstream transport:

- upstream transport: this is the number of kilometers traveled by the raw materials and components from the final supplier site to the first delivery site. At the very least the assessment is performed on the main components and products:
  - Wines & Spirits: bottles, cases, and caps, etc,
  - Perfumes & Cosmetics: bottles and pouches, etc,
  - Fashion & Leather Goods: leathers, metal parts, packaging, and ready-to-wear, etc.
  - Watches & Jewelry: pouches, boxes, and cases, etc,
  - Selective Retailing: store bags, envelopes, and boxes, etc;

 downstream transport: this concerns the number of kilometers traveled by all finished products from the manufacturing site to the first platform belonging to the wholesale customer or to the stores (for the selective retailing businesses and for the brands that own stores).

#### Packaging introduced to the market

This indicator is expressed in metric tons of material. It includes the primary and secondary packaging introduced to the market by all the Group's Maisons. The packaging used for shipment during transportation is excluded from this indicator.

#### Training and awareness sessions

This indicator is expressed in hours. It includes all training and awareness-raising sessions fully or partly dedicated to the environment, specifically:

- training employees to reduce their impact on the environment (energy consumption, handling of hazardous products, training on environmental regulations, training for health, safety and environment officers, training on environmental audits, water management, waste management, sustainable viticulture, etc.);
- training on, and/or raising general awareness of, the environment (the major challenges include greenhouse gases, biodiversity, and raising the awareness of grape harvest workers, etc.) or on environmental management systems (ISO 14001, etc.);
- training provided by the holding company (orientation seminar for new managers, attendance at the Environmental Committee, and involvement of the LVMH Environment Department in Executive Committees or other meetings, etc.).
- the hours spent by in-house environmental trainers (Sustainable Development Week, World Water Day, and health and safety and environment officers who conduct training/awareness sessions, etc.).

#### Percentage of sites subject to an environmental audit

This indicator shows the number of sites that have been the subject of an internal or external environmental audit during the year, out of the total number of sites.

The audits included in the scope of this indicator must address:

- environmental performance (waste, atmospheric, water and soil discharges; energy and water consumption, and noise, etc.);
- an assessment of environmental risk (flooding, fire, etc.);
- the company's regulatory compliance;
- an assessment of the environmental management system (inspection audit, internal audit, or certification audit, etc.)

and/or of the performance of the environmental management system.

These audits are approved by a written audit report that sets out recommendations.

The sites included in the scope of this indicator are the production sites, warehouses and administrative sites owned and/or operated by companies controlled by the Group. The boutiques are not covered by these audits.

#### Expenses incurred in order to prevent the effects of business activity on the environment

This indicator is expressed in thousands of euros. It includes the following expenditure incurred, and investments made, to avoid a business activity having an impact on the environment:

- expenditure on the protection of the ambient air and the climate:
- expenditure on the management of waste water;
- expenditure on the management of waste;
- expenditure aimed at preventing noise and vibrations (not including the protection of the workplace);
- expenditure aimed at protecting biodiversity and the landscape:
- research and development expenditure;
- ${\mathord{\text{--}}}\xspace$  expenditure on other environmental protection activities.

# REPORT BY THE INDEPENDENT THIRD-PARTY BODY ON THE CONSOLIDATED SOCIAL, ENVIRONMENTAL AND SOCIETAL INFORMATION PROVIDED IN THE MANAGEMENT REPORT

In our capacity as an independent third-party body accredited by the French Accreditation Commission (COFRAC) under no. 3-1050, and a member of the network of one of the Statutory Auditors for LVMH Moët Hennessy – Louis Vuitton, we hereby present our report on the consolidated social, environmental and societal information (hereinafter the "CSR Information") for the financial year ended December 31, 2016, as presented in the Management Report, pursuant to the provisions of Article L. 225-102-1 of the French Commercial Code.

#### The company's responsibility

The Board of Directors is responsible for drawing up a Management Report including the CSR Information provided for in Article R. 225-105-1 of the French Commercial Code, prepared in accordance with the procedures applied by the company (hereinafter the "Standards"), a summary of which is provided in the Management Report and is available from the Group's Environment Department and Human Resources Department on request.

#### Independence and quality control

Our independence is defined in the regulations, our professional Corporate Conduct Code, and the provisions specified in Article L. 822-11 of the French Commercial Code. Furthermore, we have introduced a quality control system that includes documented policies and procedures aimed at ensuring compliance with corporate conduct rules, professional standards and the applicable laws and regulations.

#### Responsibility of the independent third-party body

It is our responsibility, on the basis of our work:

- to certify that the required CSR Information is included in the Management Report, or that any omission is explained pursuant to sub-paragraph 3 of Article R. 225-105 of the French Commercial Code (Certificate of inclusion of the CSR Information):
- to express an opinion of reasonable assurance that all significant aspects of the CSR Information, taken as a whole, are presented in a fair manner, in accordance with the Standards (Reasoned opinion on the fairness of the CSR Information);
- to express, at the company's request, an opinion of reasonable assurance that the information selected by the Group (hereinafter the "Selected Environmental Information") has been prepared in accordance with the Standards, where all its material aspects are concerned.

Our work involved the skills and expertise of six people and took place between October 2016 and the date when our report was signed over a total period of activity of about twelve weeks. We performed the work described below in accordance with the professional standards applicable in France, and with the Decree of May 13, 2013 setting out the conditions under which the independent third-party body performs its assignment, and with the ISAE 3000 international standard where the reasoned opinion on fairness and the reasonable assurance report are concerned.

#### 1. CERTIFICATE OF INCLUSION OF THE CSR INFORMATION

#### Nature and scope of the work

We familiarized ourselves with the presentation of the sustainable development strategy in accordance with the social and environmental impact of the company's operations, the company's social commitments and, where applicable, the resulting initiatives or programs, on the basis of meetings with the managers of the departments concerned.

We compared the CSR Information set out in the Management Report with the list provided for in article R. 225-105-1 of the French Commercial Code.

If any consolidated information was missing, we checked that explanations had been provided pursuant to sub-paragraph 3 of article R. 225-105 of the French Commercial Code.

We checked that the CSR Information covered the consolidation scope, i.e. the company and its subsidiaries as defined by article L. 233-1 of the French Commercial Code, and the companies that it controls as defined by article L. 233-3 of that Code, within the limits specified in the introduction to the chapters entitled "LVMH and the Environment" and "Human Resources" of the Management Report.

#### Opinion

Based on this work, and given the limits set out above, we hereby certify that the CSR Information required is included in the Management Report.

# 2. REASONED OPINION ON THE FAIRNESS OF THE CSR INFORMATION

#### Nature and scope of the work

We held about 10 meetings with the individuals responsible for preparing the CSR Information at the departments in charge of gathering the information and, where applicable, with the individuals responsible for the internal control and risk management procedures, in order to:

- assess the appropriate nature of the Standards in terms of their relevance, completeness, reliability, objectivity, and comprehensible nature, taking best practices in the sector into consideration, where applicable;
- ascertain that an information-gathering, compilation, processing and control procedure had been implemented, with a view to the completeness and consistency of the Information, and to familiarize ourselves with the internal control and risk management procedures relating to the preparation of the CSR Information.

We determined the nature and extent of our checks and controls in accordance with the nature and significance of the CSR Information, in view of the company's specific features, the social and environmental challenges posed by its business activities, its sustainable development strategy, and best practices in the sector.

For the CSR information that we considered to be most relevant:

- at the level of the consolidating entity, we consulted the documentary sources and held meetings to corroborate the qualitative information (organization, policies and initiatives), implemented analytical procedures on the quantitative information, checked the calculation and consolidation of the data on the basis of spot checks, and ascertained that they were coherent and consistent with the other information provided in the Management Report;
- at the level of a representative sample of entities that we selected on the basis of their activities, their contribution to the consolidated indicators, their operating location and a risk assessment, we held meetings to ascertain the correct application of the procedures, and performed detailed tests on the basis of samples, which consisted in checking the calculations performed and cross-checking the data with the supporting documents. The sample selected in this way represents 15% of the employees, on average, and between 30% and 85% of the quantitative environmental information presented.

For the other consolidated CSR information, we assessed its consistency by comparison with our knowledge of the company.

Lastly, we assessed the appropriateness of the explanations regarding the total or partial omission of specific information, by taking professional best practices into account, where applicable.

We believe that the sampling methods and the size of the samples that we selected by exercising our professional judgment enable us to form an opinion expressing moderate assurance; a higher level of assurance would have required more extensive audit work. Given the use of sampling techniques and the other limits inherent to the operation of any information and internal control system, the risk of a material misstatement not being identified in the CSR Information cannot be completely eliminated.

#### Opinion

Based on this work, we did not observe any significant misstatement likely to call into question the fact that the CSR Information, taken as a whole, is presented in a fair manner, in accordance with the Standards.

# 3. REASONABLE ASSURANCE REPORT ON A SELECTION OF CSR INFORMATION

#### Nature and scope of the work

In the case of the Selected Environmental Information, we performed work of the same kind as that described in paragraph 2, above, for the CSR information considered as most important, but in a more thorough manner, particularly where the number of tests was concerned.

The selected sample represented, on average, 61% of the Selected Environmental Information.

We believe that this work enables us to express reasonable assurance with regard to the Selected Environmental Information.

#### Opinion

In our opinion, the Selected Environmental Information presented by the company was, in all respects, prepared in accordance with the Standards.

Paris-la Défense, on February 6, 2017

The independent third-party body ERNST & YOUNG et Associés

Éric Duvaud Bruno Perrin Sustainable Development Partner Partner

#### Photographs

Cover: Casa Loewe store in Madrid, double awarded at the LVMH Store Environment Awards - Illustrations: Kasiq Jungwoo -Other photographs: © Louis Vuitton Malletier / Thomas Lohr -LVMH and Group Maisons' photo libraries.