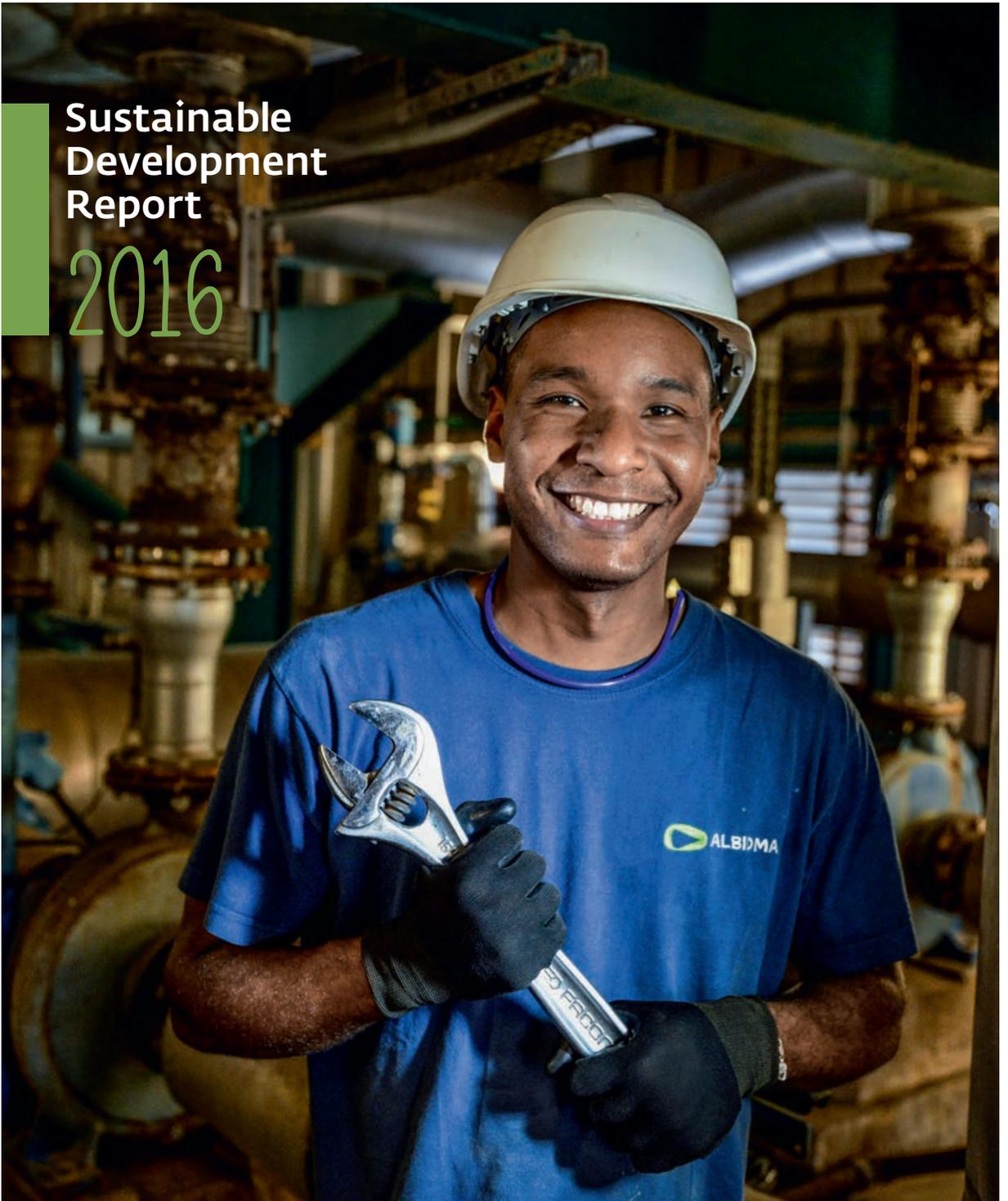


Sustainable
Development
Report

2016



ALBIOMA

OUR NATURE IS FULL OF ENERGY

02 | **Twin perspectives**
by Jacques Pétry and Frédéric Moyne

04 | The **strategic pillars**
of CSR

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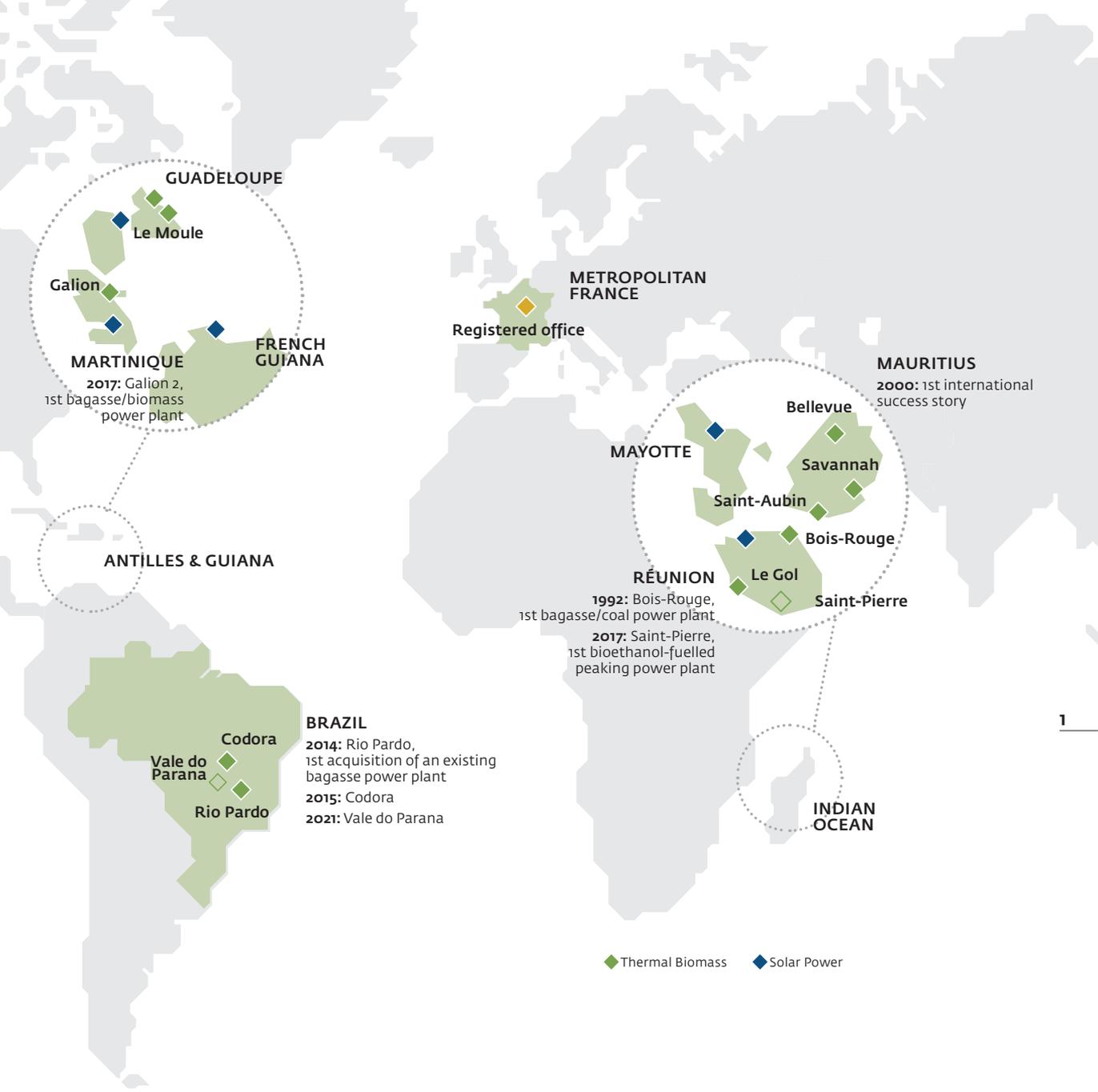
26 | **Key performance**
indicators

Albioma has been in the business of satisfying **energy** needs for nearly 25 years. The Group specialises in highly efficient waste-to-energy recovery of **bagasse**, a fibrous **sugar cane** residue obtained after the sugar has been extracted. This unique expertise makes Albioma a preferred partner for the sugar industry in Overseas France, Mauritius and, more recently, Brazil.

Taking full advantage of its presence in very sunny regions, the Group has also established itself as a **major player** in the production of **photovoltaic energy** in France's overseas departments and regions. With the commissioning of its first photovoltaic power plant with energy storage, Albioma demonstrated its ability to integrate new technologies with its traditional round-the-clock, year-round renewable power generation business.

Last but not least, through its anaerobic digestion business in Metropolitan France, the Group has an opportunity to extend the range of services provided to the sugar and ethanol production industry.

Deeply committed to **energy transition**, Albioma intends to increase the share of the Group's production derived from **renewable sources** to 80% by 2023, and is steering its development strategy accordingly.



THREE KEY FIGURES IN 2016

€131 MILLION
EBITDA

753 MW
Installed capacity

50%
Renewable energy as a share of total production

Strategic priorities aligned with the challenge of climate change

Our roadmap is consistent with the fight against climate change

J.P.: In September 2015, the United Nations adopted the new 2030 Sustainable Development Agenda for people, planet and prosperity. For the first time, all these items are being addressed in a single programme that aims to encourage grassroots initiatives, while acknowledging the decisive role of businesses in terms of implementation.

Albioma is already contributing to this effort, through its energy production facilities located close to consumers, making best use of the endogenous renewable resources found in the regions where we operate. We are aware of the progress still to be made, and have defined our roadmap, with a goal of producing 80% renewable energy by 2023.

F.M.: Our strategic priorities, for at least the next five years, reflect the challenges of climate change. Our major priority is to contribute to the energy transition in France's overseas



2



OUR GOAL FOR 2023 REFLECTS
THE INTERNATIONAL COMMUNITY'S
BROADER AMBITIONS. ”

—
JACQUES PÉTRY,
Chairman of the Board of Directors

departments and regions. Our effort is focused on two areas: replacing the use of coal in our existing bagasse-coal plants with new forms of sustainable biomass, and developing new all-renewable energy-producing facilities. Our second priority is to roll out our established business model and sugar cane expertise internationally, beginning in Brazil. Lastly, developing our solar power business is our third priority. Drawing on a decade of expertise in this area, we are targeting high-tech (and hence, high added-value) projects with integrated energy storage.



“

OUR IMPLEMENTATION OF OUR STRATEGIC PRIORITIES IS SHAPED BY OUR EXISTING CSR COMMITMENTS AS WELL AS ADDITIONAL MEASURES THAT WILL BE ANNOUNCED SHORTLY. ”

FRÉDÉRIC MOYNE,
Chief Executive Officer

3

Improved CSR outlook

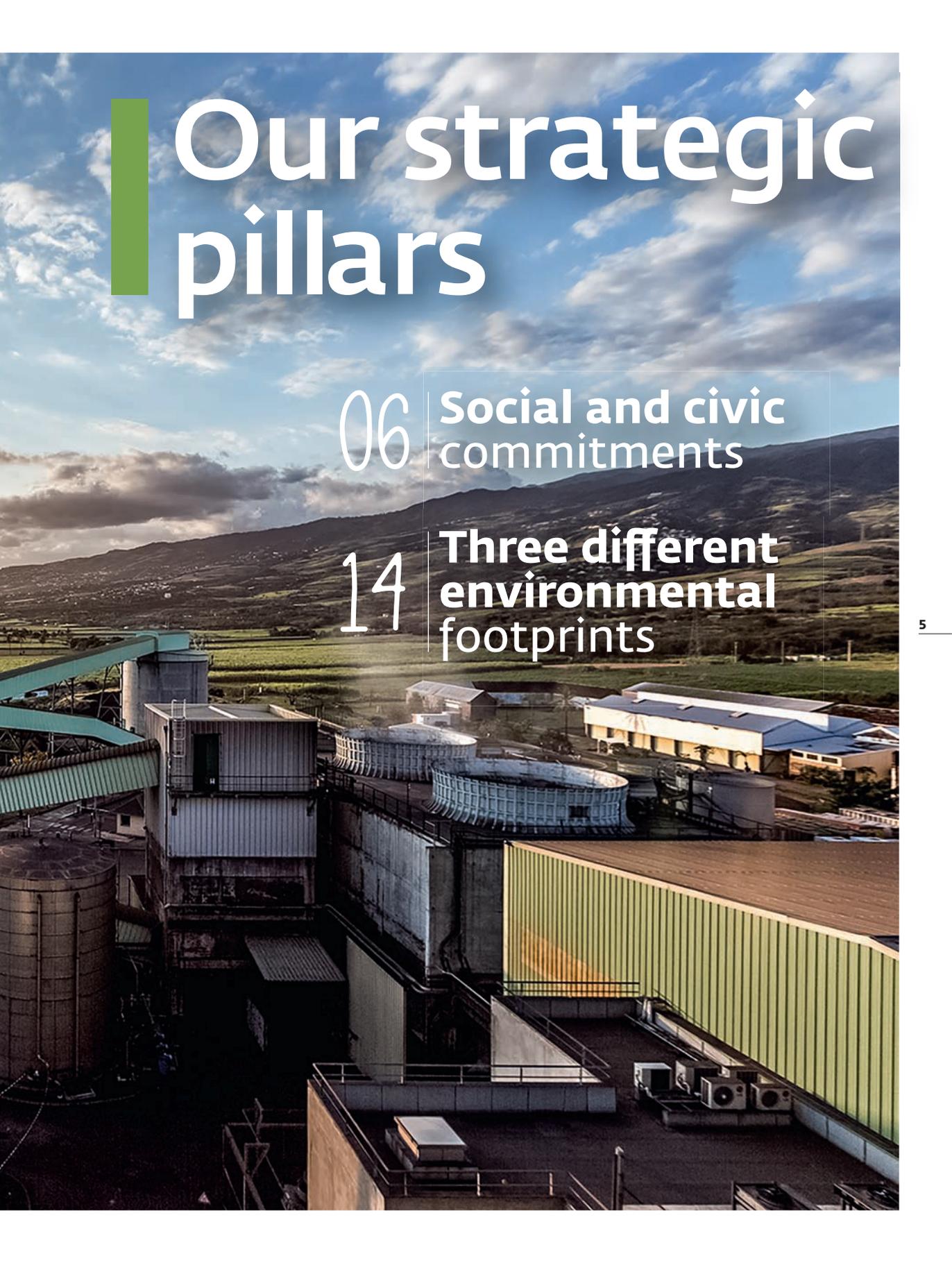
F.M.: In 2016, we continued our efforts to improve safety for our employees, provide training to support their career and personal development, and pass on our know-how to the younger generations.

We must redouble our efforts to achieve our stated goals. We support local economic development by employing local craftsmen at our work sites and developing projects that foster the emergence of local green industries.

Efforts to standardise our practices are also continuing; following on from our thermal power plants in the Indian Ocean, we obtained triple certification for our entire solar power business in 2016.

J.P.: In 2013, we launched an ambitious investment programme to modernise our energy production facilities, in order to drastically reduce our solid and atmospheric emissions, improve energy efficiency and preserve water resources. I am happy to report that this programme is on track and can confirm that it will be completed by the end of 2019. By tracking our environmental impacts and progressing towards our goal of producing more than 80% of our energy from renewable sources by 2023, Albioma ranks among the most dynamic, ethical and socially responsible players in the energy sector.





Our strategic pillars

06 Social and civic commitments

14 Three different environmental footprints

Maintenance operations
at a solar power plant
in the Caribbean.



SAFETY STATISTICS

18.7

Accident frequency rate*

0.6

Accident severity rate**

25 HOURS

of safety training
per employee

Keeping employees
and contractors safe is
a non-negotiable requirement.

Constantly enhancing workplace safety

The Safety master plan was definitively adopted in 2016. This plan was produced as part of the effort to intensify our safety programme in response to an upturn in accident frequency and severity rates observed in 2014. The plan is structured around six priority commitments that will drive the safety strategy over the next four years:

- enhance the level of commitment by management;
- upgrade and standardise requirements;
- foster active commitment by all workers;
- acknowledge and promote efforts and results;
- learn from mistakes and shortcomings, and capitalise on them;
- involve subcontractors and partners in upholding the Group's safety requirements.

Each of these focus areas is addressed through annual operational initiatives. In 2015, we wrote our Golden Rules for workplace safety. A number of other initiatives were also launched without waiting for the Safety master plan to be finalised, including ritualising safety breaks - safety briefings and management safety inspections - and providing five hours of annual voluntary safety training per employee at all sites.

Lastly, as part of the triple certification approach, the Group's Solar Power business was awarded ILO OSH 2001 certification in 2016. This certification covers the implementation of workplace health and safety management systems. Albioma Le Gol and Albioma Bois-Rouge have already been operating such systems for several years.

* The accident frequency rate is defined as the number of accidents resulting in more than 24 hours sick leave within a 12-month period, per million working hours.

** The accident severity rate is defined as the number of days of temporary incapacity, per 1,000 working hours.

Ensuring training and skills development

The Group's skilled, motivated workforce is a vital asset, contributing to employees' personal development while enhancing Albioma's competitiveness.

For more than two years, operational managers and the Human Resources department have been working together to weave occupational training into our business culture. Although still high in terms of total training hours, the share represented by job training has gradually decreased in favour of occupational efficiency, personal development and management skills training.

Qualification/certification-based courses are offered on a case-by-case basis to employees who move to new positions requiring new skills.

Experience-accreditation programmes have also been set up, to acknowledge upskilling by employees.

These initiatives have borne fruit, as, for the first time, the target of 35 hours of annual training per employee was reached and surpassed in 2016, with the Group reporting a total of 41 hours of training per employee. The relatively recent acquisition of the Brazilian plants, compared to the Group's other plants, accounts for the above-average training quota.

In France, our thermal and photovoltaic businesses both also contribute to this strong performance.

PERSONAL ACCOUNT



DAIANE CAMPOS DA SILVA
Boiler operator
at Albioma Codora Energia

The courses that have really made a difference for me covered loader operation, hot work, overhead work, work and rescue in confined spaces, and more specifically, training in chemicals handling and related risks. As well as enhancing my knowledge, this training has made me more confident in my ability to safely perform my everyday duties at the plant. I also feel that I am on an equal footing with my male colleagues.

SOCIAL AND CIVIC CHALLENGES

- + **Ensure** the safety of everyone entering our sites
- + **Support** skills development for our employees
- + **Pass** on our knowledge by taking on apprentices and interns
- + **Use** the services of local contractors
- + **Build & maintain** an open, regular dialogue with our partners



Evacuation drill conducted as part of a safety training course in Brazil.

Passing on our knowledge to younger generations

3.6%

of our workforce
were apprentices
or interns, on
31 December 2016

Each year, we renew our commitment to offer opportunities to gain quality work experience in a promising sector such as renewable energy.

By training interns and apprentices for existing and emerging professions, Albioma is playing its part in supporting the future generation of young workers as they enter the labour market. We offer assignments across the full spectrum of the Group's activities, including operational and technical positions relating to our industrial activities, as well as missions

in support functions (human resources, finance, legal affairs, etc.).

This role in training apprentices and interns is now an integral part of our way of doing business, as illustrated by our target, introduced in 2013, of having these categories represent 5% of total headcount.

I was welcomed at Albioma Solaire Guyane by a friendly, capable team who have passed on their knowledge relating to photovoltaic power plant operation.

For example, I realised that annual electric power output, and hence the plant's overall profitability, can be significantly impacted by the choice of current inverter.

I also learned that operating in such plants requires constant monitoring. As a result, we carry out daily checks on the various constituents of

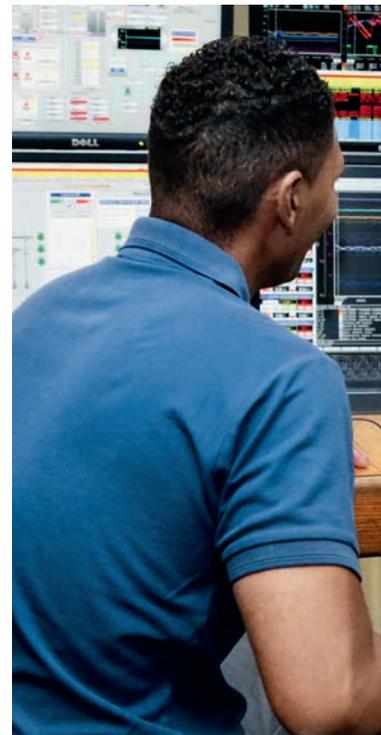
the photovoltaic array and transformers, and perform any necessary field repairs.

This period of work experience is an integral part of my studies for a vocational degree in energy management, electricity and sustainable development. By the end of the syllabus, I will have the necessary knowledge and experience to apply for a position as an assistant photovoltaic or environmental engineer, or as an electric power advisor within a local energy agency, for example.

PERSONAL ACCOUNT



FRANCINA LISERON
Work-study trainee
with Albioma Solaire
Guyane



PERSONAL ACCOUNT



MAXIME JAL
Participant in an international volunteer programme at Albioma Participações do Brasil

I joined Albioma Participações do Brasil in 2015. Thanks to my prior knowledge of the country and the local language, I was very quickly able to focus on my tasks. I subsequently joined the Codora Energia plant, where I soon developed a taste for solving challenges. Acquiring an existing plant entailed asking employees and partners to change their habits, in order to comply with new standards and achieve new goals. Dialogue is very important

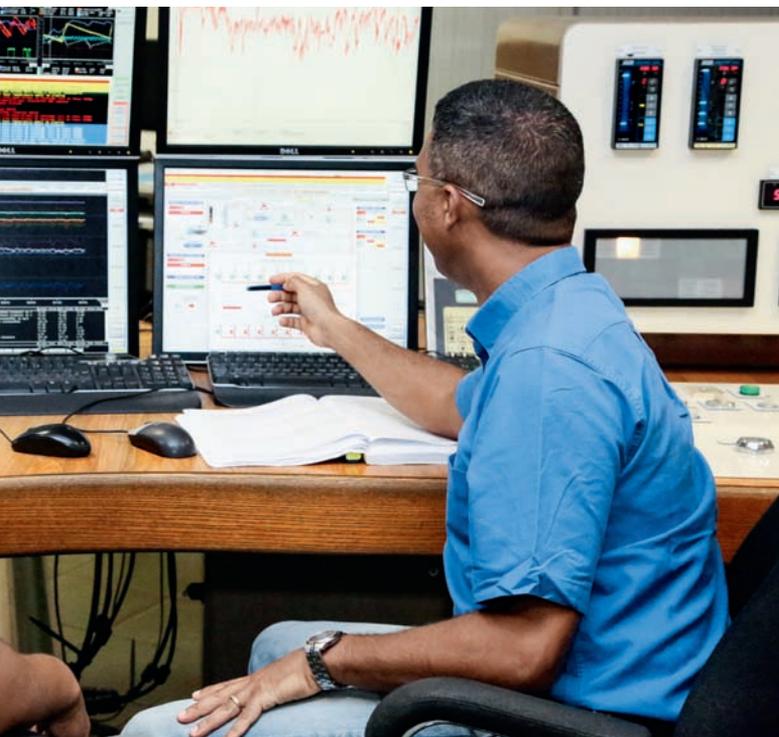
during this transitional phase, to enable the Group to communicate its vision while reassuring staff about their entitlements. My mission at Codora Energia centres primarily on improving the plant's operational performance and decreasing its environmental impact. This has enabled me to pick up practical industrial knowledge from Albioma's experienced personnel, and pass it on to field staff for future use. I am proud to be supporting change at this new plant.

PERSONAL ACCOUNT

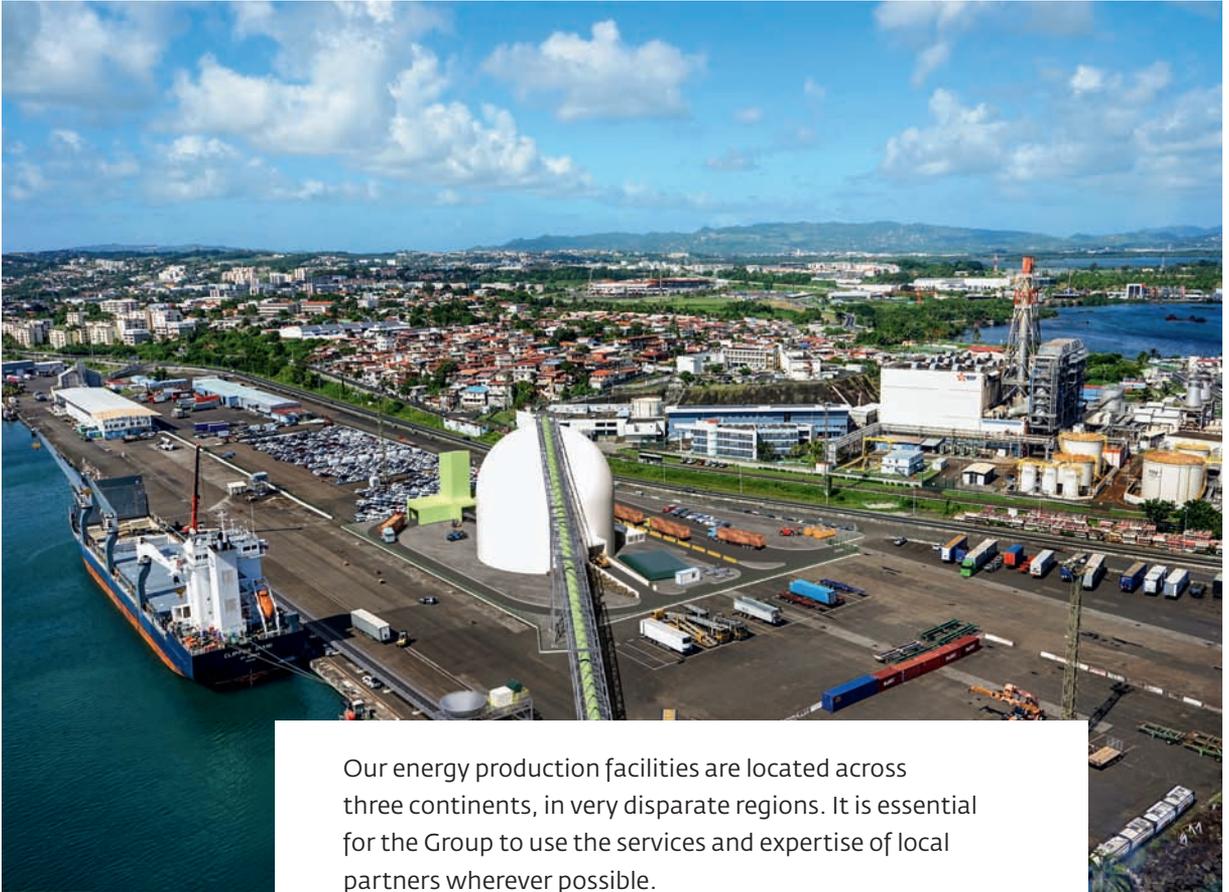


HUGO CERAULO
Commercial Law specialist

I joined Albioma for a six-month internship at the holding company near Paris. This experience gave me the opportunity to apply my basic training in commercial and finance law. My many interactions with employees at operational sites also gave me a clearer understanding of the energy production business. The varied tasks performed for co-workers and suppliers, government representatives and banks piqued my curiosity and helped me improve, with considerable support from my co-workers and supervisors. The experience was made all the more satisfying by the fact that I was offered employment after my internship.



View of the control room at one of our thermal power plants.



Port facilities in Martinique.

Our energy production facilities are located across three continents, in very disparate regions. It is essential for the Group to use the services and expertise of local partners wherever possible.

50%
of employees at the Galion 2 construction site are from Martinique (2016 figures)

Harnessing local skills

Plants in operation

Most employees at our energy production facilities originate from the regions hosting our plants. Their knowledge of local operating conditions, economic conditions and partners is invaluable for the Group's activities.

More generally, Albioma is a significant stakeholder in the economic fabric of the regions in which it operates. Our economic impact extends well beyond the

supply of energy to include areas such as port activities, road haulage, works and maintenance services. With this in mind, we systematically give priority to local suppliers, and support their efforts to comply with our corporate social responsibility requirements.

Several of the Group's operational entities also partner with sheltered workshops, which provide gardening and related services for example.

Galion 2 project in Martinique

Construction teams have been working since 2015 at the site of the Galion 2 power plant, a major project that when complete will supply Martinique with all-biomass energy. The Group decided from the outset to work in partnership with the local employment agency, to help Martiniquan workers find employment throughout the construction phase. This approach has borne fruit, as people from Martinique made up more than 50% of our workforce in 2016. As well as promoting local employment, we strive to improve diversity within the Group. In 2016, this effort resulted in an increase in the share of female employees. We have reached a new milestone by appointing the first female shift supervisor, at the Galion 2 plant.

Promoting the emergence of new green industries

Albioma's development projects foster the emergence of new industries supporting the production of local renewable energy.

In 2015, Albioma and the French National Forestry Office (ONF) entered into a framework agreement to develop a local wood-to-energy procurement network to supply the Galion 2 power plant. Already a team of two Albioma employees has been assigned full-time to developing local biomass procurement solutions in Martinique for the past two years. In June 2016, the Group stepped up its efforts to mobilise local partners by holding a steering committee meeting, attended by around forty participants, including representatives of French government agencies, Martiniquan authorities, the French environment and energy

management agency (ADEME), the French chamber of agriculture, the National Forestry Office, farming cooperatives, scientific and technical institutions and public trade unions. The rich dialogue underscored the progress and quality of the studies conducted to date.

On Reunion Island, the combustion turbine in Saint-Pierre, which is scheduled to begin operating in late 2017, has been designed to be part-fuelled by bioethanol. This plant will provide a commercial outlet for local production of this biofuel, helping to secure the future of the island's nascent bioethanol industry.



Presentation of Albioma's businesses to school students at the Valora fair in Martinique.

View of the Iris Hoarau school with its playground roof fitted with solar panels (on the right).



PERSONAL
ACCOUNT



ALEXIS POMÉRAT
Director of the Iris Hoarau association

In addition to the material and financial benefits, shifting our school to an on-site consumption model has real educational value for our students and their teachers... Subjects that benefit include science, environmental education, French and maths, via the data collected and displayed in real time by a dedicated software application.

As part of our corporate social responsibility approach, our efforts to build strong relationships with partners are gradually gaining traction.

Building the future with our partners

The Group has always maintained good relationships with its closest partners. The challenges and development prospects associated with the energy transition sought by the Group have given new impetus to the idea of assessing how we can more comprehensively address the expectations of civil society. In-house awareness-raising measures implemented both at head office and at our operational facilities were followed by an assessment of our partners, resulting in a clearer collective awareness of this issue.

Henceforth, engaging in dialogue with partners is going to be a systematic component of our project management strategy. Several plants have also introduced regular

open-day events, allowing people to tour our facilities. This type of initiative is beginning to bear fruit, as illustrated by the two feedback reports below.

Solar power-generating roof, installed in partnership with the Iris Hoarau school on Reunion Island

This solar power-generating playground roof is the result of a win-win partnership between Albioma and the Iris Hoarau school in Saint-Denis on Reunion Island. The project delivers twin benefits: implementing environmentally-friendly innovations while also cutting the school's electricity bills. It has been a win-win



OUR AIM IS TO ROLL OUT RENEWABLE ENERGY AND TO PROMOTE OUR SOLAR POWER ACTIVITIES THROUGH EDUCATIONAL INITIATIVES.



ANTHONY LUCAS

Head of the Group's Solar Power business

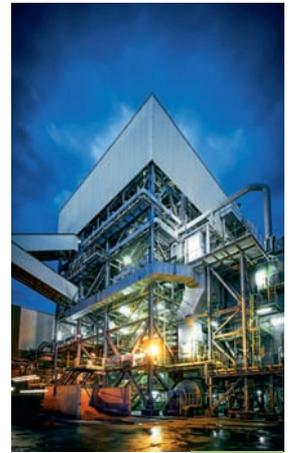
project, addressing two needs: raising students' awareness of renewable energy and energy savings. These are part of the Iris Hoarau school's educational mission and this project allowed Albioma Solaire Réunion to build its first solar installation generating power for on-site consumption. Albioma gifted this playground roof equipped with a 9kWp photovoltaic power plant, worth around €50,000. The roof will supply electricity to the school and allow children to shelter from the sun and rain.

Albioma takes part in the "Nuits sans Lumière" event

The Reunion Island National Park, working in partnership with the island's ornithological society, SEOR, has for several years organised annual blackout

campaigns under the "Nuits sans Lumière" banner to raise public awareness about light pollution and its negative impacts on ecosystems. A particular aim of these "lights-out" campaigns is to protect one of the island's endemic bird species, Barau's petrel. Fledgling petrels choose which direction to fly based on the reflections of stars in the sea. Albioma Le Gol has taken part in this initiative since 2015, and was joined in 2016 by Albioma Bois-Rouge. Almost all lights at the plants are switched off throughout the nesting season in April. Both plants have already indicated their intention to repeat the operation next year.

In addition to this blackout campaign, a programme to replace light fittings is being implemented, based on SEOR recommendations.



Limiting lighting at a power plant on Reunion Island.



Our goal of significantly reducing our use of coal while increasing the share of renewable thermal energy is based on expanding our procurement of biomass resources, a category that includes our traditional fuel, sugar cane bagasse.

Sugar cane field in Brazil.

14

50%
of our energy mix
from renewable
sources

Procuring renewable fuel

Sugar cane is one of the world's most widely grown crops. It is the number one agricultural resource in Overseas France and Mauritius. This plant's resilience to climate events makes it well-suited to tropical locations.

It even provides environmental benefits by protecting against soil erosion. Sugar cane is an integral part of the local heritage, lending character to the landscape and contributing to these regions' tourist appeal.

Overseas France is home to five sugar refineries, 23 distilleries and around 5,500 sugar cane-related agricultural businesses. The sector represents more than 7,000 full-time jobs, with average annual cane production totalling around 2,500,000 tonnes. The four sugar mills on Mauritius ground almost four million tonnes of cane in 2016.

For the past 25 years we have been operating our core business at these plants, namely,

the highly energy-efficient recovery of bagasse, a fibrous residue obtained when sugar cane is crushed to produce sugar or rum. Bagasse has long been used as a fuel, supplying sugar mills with part or all of the energy they need for their processes; small quantities of bagasse are also used as secondary animal feedstuffs. This special partnership that the Group has built with the sugar industry enables sugar refineries to outsource production of the energy they need for their sugar extraction processes, and sell the surplus power via the public electricity grid. In 2014, this unique know-how enabled the Group to roll out its original model in Brazil, a country consolidating its status as the world's leading producer of sugar and of ethanol obtained from sugar cane.

Our bagasse-to-energy core business is fully consistent with the circular economy

model, particularly as using this residue to produce energy does not conflict with other uses.

One of the specificities of cane growing in Overseas France and Mauritius is the activity's seasonal nature. The sugar harvest extends over a period of 4-6 months, during which our power plants produce energy using only bagasse as fuel.

As our plants help to produce a sizeable share of the electricity available in the public network in these regions, we require an alternative fuel with which to operate them during the remaining months of the year. Twenty years ago, the decision was made to use coal. In Brazil, on the other hand, the cane season is longer and our two plants are fuelled exclusively by biomass. ▶▶▶

SUGAR CANE INDUSTRY IN OVERSEAS FRANCE - KEY FIGURES

5 sugar refineries

23 distilleries

5,500 cane-related agricultural businesses

7,000 direct full-time jobs

2.5 MT cane harvested annually

Trucks loaded with cane entering a sugar refinery in Brazil.



1 tonne of sugar cane traps 543 kg of carbon dioxide per year, offsetting the carbon dioxide emissions of Reunion Island's entire vehicle fleet

1 hectare of cane traps eight times more carbon dioxide than a hectare of cereal crops in Metropolitan France

SUGAR CANE INDUSTRY IN MAURITIUS - KEY FIGURES

4 sugar mills

4 distilleries

4 MT cane harvested annually

SUGAR CANE INDUSTRY IN BRAZIL - KEY FIGURES

371 sugar refineries (with distillery businesses)

652 MT cane harvested annually

(Data source: Reunion Island sugar industry association, 2017)

ENERGY TRANSITION ACT

The French energy transition for green growth Act introduces multi-year energy plans for France's overseas territories. These plans are an effective energy policy management tool, setting ambitious growth targets for renewable energy as a share of the overall energy mix.

▶▶▶ Gradual phase-out of coal

The Group has a strategy to gradually phase out coal, replacing it with biomass at our existing biomass/coal thermal power plants.

To ensure that this substitution has a positive impact in terms of environmental protection and the fight against global warming, only sustainably-produced biomass will be used.

Consequently, priority is given to harnessing locally available biomass, while giving proper consideration to the issue of conflicts of use. The main potential sources are green waste, chipped used shipping pallets and cane straw. For example, 5,000 tonnes of straw, compressed into 11,000 bales, were burned to produce 4 GWh of energy in 2016 at the Terragen plant in Mauritius. In 2017, our goal is to increase this figure to 10 GWh. As straw was traditionally simply left standing in the fields rather than being harvested, we conducted agronomic research with our Mauritian sugar industry partners and research organisations, including CIRAD (the French agricultural research and international cooperation organisation working for the sustainable development of tropical and Mediterranean regions). It emerged that some of the straw could be harvested and recovered in a waste-to-energy process without depleting the

nutritional and organic matter content of the soils, or facilitating weed growth or erosion.

For the past few years, the Le Gol plant on Reunion Island has been conducting trials involving burning the ligneous portion of tree lagging waste. Converting the existing bagasse/coal plants on Reunion Island and in Guadeloupe not only addresses the desire in those regions to increase the share of renewables in their energy mix, but also represents a possible solution to the issue of managing these forms of waste locally and thereby creating jobs.

Galion 2

In the case of the Galion 2 project, the plant will operate exclusively using biomass from the outset. In addition to chipped green waste and used shipping pallets, other local biomass sourcing options are either being researched or are in the process of emerging, such as the partnership with the French National Forestry Office (ONF) to develop a wood-to-energy industry in

Sugar cane straw bales in storage at the Terragen power plant (Mauritius).



94.4 KWh of electricity exported per tonne of cane crushed



OUR MEDIUM-TERM GOAL IS TO RECOVER 25,000 TONNES OF CANE STRAW ANNUALLY, EQUIVALENT TO 15,000 TONNES OF COAL.

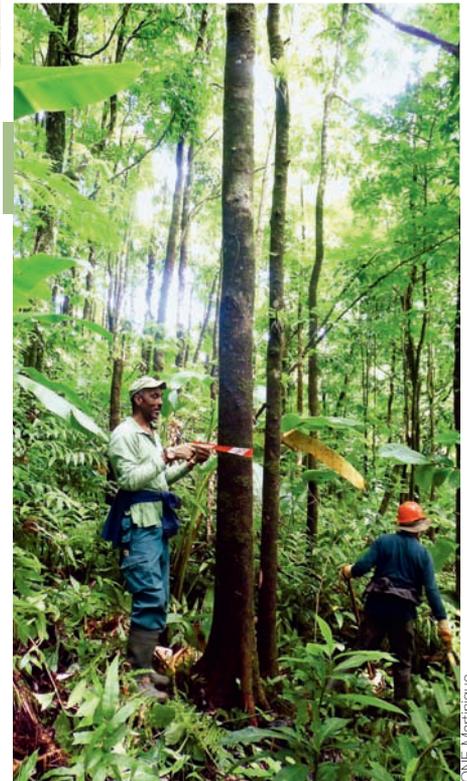


JEAN-MICHEL GÉRARD, Terragen Plant Manager

Martinique. This plant will also operate with imported biomass, sourced exclusively from the south-eastern United States. This will mostly consist of wood residues from tree lagging operations and sawmill production, together with low-grade roundwood unsuitable for use as timber, and wood from excessively slender trunks harvested during coppicing operations to encourage the growth of the trees left standing. This biomass will be imported to Martinique in pellet form for maximum transport efficiency. A greenhouse gas emissions analysis relating to these imports was conducted for Galion 2. This assessment found that the greenhouse gas balance of the imported pellets was more favourable than that of coal, oil and even gas. Additionally, resource traceability procedures are currently being rolled out; these procedures will ensure that all imported wood is legal. Lastly, the Group is committed to ensuring that its use of biomass is consistent with sustainable practices. Suppliers' practices will be governed by certification systems stipulated by the Group in its procurement agreements.



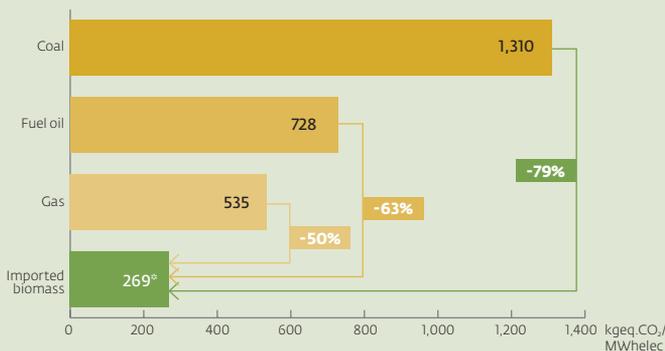
Sugar cane bagasse stockpiled in a storage shed on Reunion Island.



Trunks marked by the French National Forestry Office (ONF).

Comparison of the respective greenhouse gas impacts of the coal, fuel oil, gas and imported biomass industries in Martinique

(source: Greenflex)



Lifting the new fume scrubber into position at the Albioma Le Gol plant on Reunion Island.



Our initiatives to decrease our gaseous emissions are aiding the effort to combat global warming and improve air quality.

558

grams of equivalent
carbon dioxide
per kWh produced

Cutting our gaseous emissions

The Group's proactive strategy of progressively expanding the use of renewable fuels to decarbonise our energy mix has helped to decrease our greenhouse gas emissions. This strategy has made Albioma a stakeholder in the fight against climate change in Overseas France and elsewhere.

The other flagship measure of our investment policy covering the period 2013-2023 concerns the installation of

state-of-the-art gas treatment technologies at our French thermal power plants. The implementation of this programme began in 2015, at the Albioma Le Gol plant, and continued in 2016. The work involves installing a new fume scrubber at the plant, which will cut emissions by two-thirds from their current levels. The Group's other facilities will be similarly equipped, beginning in the second half of 2017, resulting in an effective decrease in pollutant emissions by 1 January 2020.

Continuing our waste recovery efforts

The main forms of waste produced by our thermal power business are furnace ash and slag.

Bagasse and cane straw ash have agronomic properties that make them suitable for use as soil amendments on agricultural land. This quality has been officially recognised since 2015 by the French agency for food, environmental and occupational health and safety (ANSES) at our plants on Reunion Island and in Guadeloupe.

For just over two years, we have been conducting scientific research to find ways to more effectively recover coal by-products for use in the construction and public works sector. The completion of the PhD thesis by Moustapha Sow at Paul Sabatier Toulouse III University was among the highlights of

2016. This thesis confirmed, at laboratory scale, the potential for recovering coal fly ash produced on Reunion Island and reusing it in cementitious materials. An industrial trial is among the next steps under consideration.

In late 2016 in Mauritius, the Group and our sugar refining partners commissioned a brand new carbon burn out unit, designed to reduce the quantity of carbon present in coal waste. This unit will be able to treat all of the coal by-products generated by our three Mauritian power plants, yielding an end product that can be mixed with cement for use in the construction industry.

ENVIRONMENTAL CHALLENGES FOR THE THERMAL BIOMASS BUSINESS

- + **Ensure** sustainable procurement of biomass resources
- + **Decrease** gaseous emissions
- + **Optimise** water use
- + **Prioritise** the development of waste recovery processes

430,000

tonnes
of combustion
by-products

Furnace raking operation.



Stored coal slag.

Well aware of the role of industry in conserving water and safeguarding water quality, we are committed to implementing measures to enhance our management of this resource at our facilities.

Preserving water resources

Water conservation ranks alongside climate change among the major challenges of the 21st century. One of the major measures implemented by the Group consists in optimising our water needs. At our plants in operation, this implies enhanced monitoring of the various sources of consumption. The results of these measures include a steady decrease in water consumption per unit of energy produced between 2014 and 2016. For our planned power plants, we are committed to optimising water consumption from the design stage. For example, at the Galion 2 plant currently under construction, air-cooled condensers will be installed, rather than conventional cooling towers. This decision to opt



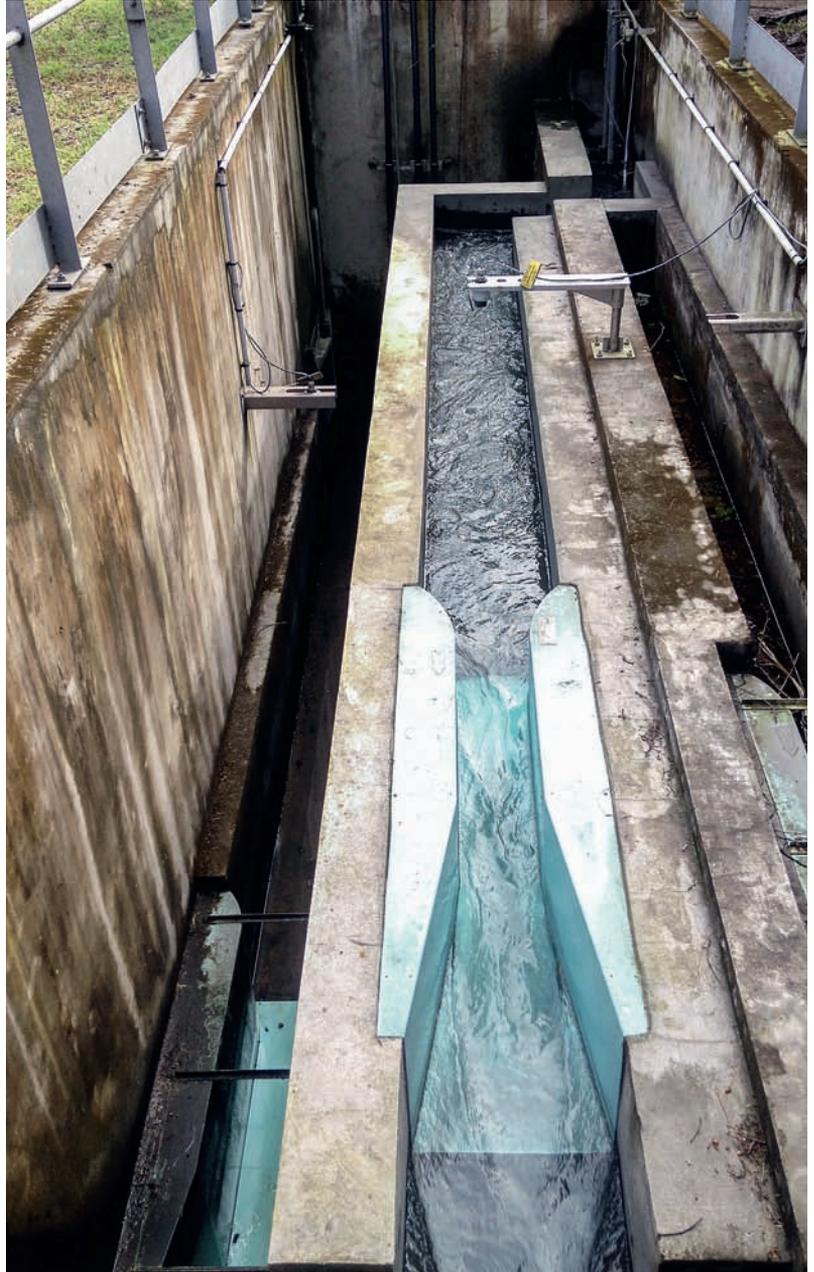
Collecting
a water quality
test sample.

2.03 M³
of water
per MWh produced

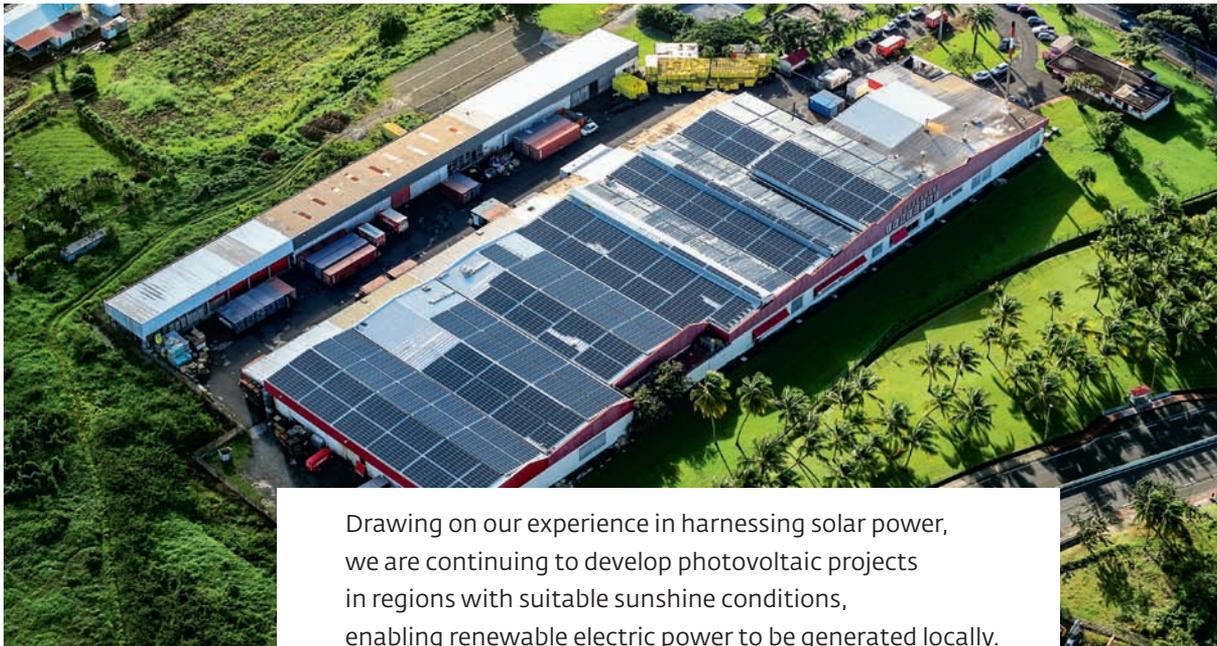
for air-cooled condensers totally eliminates the use of water for residual heat removal, once the steam required for electric power generation has been condensed.

Used water exiting our industrial processes is treated on-site. It is then subjected to a final quality check before being returned to the natural environment. At the Oteo Saint-Aubin plant on Mauritius, the use of water to cool by-products has been completely discontinued following the installation of a new post-combustion unit in 2015.

As a result, total water consumption at the site was reduced by 8% between 2015 and 2016.



Pre-discharge
water treatment
facility.



Rooftop solar installation in Lamentin (Martinique).

Drawing on our experience in harnessing solar power, we are continuing to develop photovoltaic projects in regions with suitable sunshine conditions, enabling renewable electric power to be generated locally.

Innovating for our Solar Power business

75 MW
installed capacity

98 GWh
generated in 2016, equivalent to the electricity consumption of more than 30,500 households

98.7%
availability rate

Since entering the solar power business in 2006, Albioma has become a key player in solar power generation in Martinique, Guadeloupe, Reunion Island, French Guiana and Southern Europe. To counter the inherently intermittent nature of this form of energy, the new generation of photovoltaic power plants designed by the Group include storage technologies, as exemplified by the Saint-Leu plant, which has been operating on Reunion Island since 2014.

Innovation with storage

After winning a 2016 call for tenders issued by the French energy regulator (*Commission de régulation de l'énergie - CRE*), Albioma is soon to break ground on three new photovoltaic plants with integrated storage: two rooftop facilities on Reunion Island

and a ground-array plant in Guadeloupe. These installations are scheduled to begin operating in 2018 and 2019.

Storage technology is being implemented to mitigate the intermittent nature of solar energy. Power generation is inherently dependent on sunshine conditions. Consequently, equipping solar power plants with batteries that are able to store energy during sunny periods and subsequently redistribute it to the grid enables power plants to anticipate lulls in electricity production and inject a constant signal to the grid. Albioma is well aware of the potential environmental impact of end-of-life storage batteries. We are therefore careful to ensure that, like photovoltaic panels, they are disposed of through appropriate channels, enabling them to be recycled.

Triple certification to standardise best practices across the business.

Triple certification (ILO OSH 2001, ISO 9001 and ISO 14001) was obtained across the whole Solar Power business in 2016. Through this triple certification, Albioma ensures its compliance with strict environmental, occupational health and safety and quality management standards.

Special focus on land use

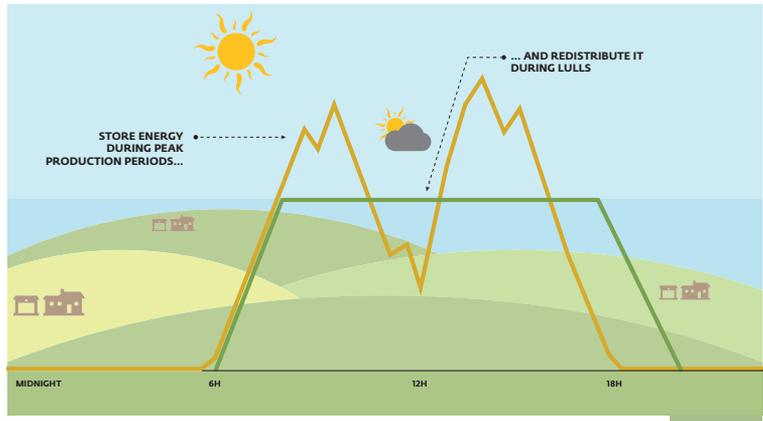
Albioma operates a photovoltaic fleet split evenly between rooftop and ground-array power plants. Particular attention is given to blending these projects into their surroundings and managing potential conflicts in terms of land use. One of our levers for action consists in building our power plants on land subject to restrictions on use; this is the case of one of our projects that won the call for tenders issued by the French energy regulator (CRE) in 2016, which will be built in a restored area of

a landfill waste disposal facility. Another lever consists in enabling ground-array power plants to co-exist with other uses.

Following the sheep farming activity introduced a few years ago at the power plant on the islet of Bethléem, Reunion Island, a honey production business has now been set up in partnership with a beekeeper.

ENVIRONMENTAL ISSUES RELATING TO SOLAR POWER

- + **Innovate** with energy storage technology
- + **Respect** land use constraints



Solar power with integral storage - operating principle.



TRIPLE CERTIFICATION ENABLES US TO STANDARDISE BEST PRACTICES AT EVERY STAGE OF THE PRODUCTION PROCESS. WE HAVE INTRODUCED A CONTINUOUS IMPROVEMENT SYSTEM FOR OUR OPERATIONAL PRACTICES.



FRANCK DUPONT,
QSE and Logistics Manager for the Solar Power business on Reunion Island



Maintenance work on a rooftop solar installation on Reunion Island.

Contributing to a local circular economy via anaerobic digestion

2 MW

installed capacity

20 GWh

produced in 2016

69,500

tonnes of digestate produced and recovered

This technique perfectly illustrates the circular economy model, by recovering organic waste as energy and materials.

Our anaerobic digestion units break down farm and other organic waste (such as damaged fruit and vegetables and manure) to produce biogas. This gas is recovered by burning it in a cogeneration process to produce a combination of: electricity, which is injected onto the grid, and heat, which is supplied to a local industrial partner.

spreading it on farmland. Its agronomic qualities are superior to those of untreated biomass, due to the greater availability of fertilising elements (nitrogen, phosphor and potash) and its role in increasing the humus content of soil.

Albioma's expertise in this area in Metropolitan France has enabled us to provide our offering aimed at the sugar and ethanol production sector.

The residue of this decomposition process, known as digestate, is recovered by



Illustration of the constituent elements of a collective agricultural anaerobic digestion system.



Anaerobic digestion unit operated by Albioma in France's Deux-Sèvres department.



Digester spreading for a guaranteed return-to-earth.



Farm in the Deux-Sèvres department.

Limiting emissions

Our anaerobic digestion units are equipped with engines that generate electricity from the produced biogas. They release nitrous oxide and small amounts of sulfur oxides and particulate emissions into the atmosphere. Sterilisation-based processing of abattoir waste and slurry storage for use in the anaerobic digestion business can be a source of odour nuisance. We take limiting this odour impact very seriously.

As a result, all our plants are equipped with odour extraction and treatment systems, together with organisational measures to keep loading rooms closed. At the Tiper Méthanisation plant, research is currently being conducted to improve this system

and minimise inconvenience attributable to diffuse emissions.

Waste recovery

Digester is suitable for use as a fertiliser on farmland, either in addition to or as a replacement for mineral fertilisers. Digester enriches the soil and efficiently stimulates crop growth. This assessment has been confirmed by the trials conducted on test plots over the past few years. These trials are enabling digester doses to be optimised, resulting in improved yields that enable farmers' dependency on chemical fertilisers to be limited and in some cases eliminated. Lastly, digester from certain plants is compatible with organic production processes.

ENVIRONMENTAL CHALLENGES FOR ANAEROBIC DIGESTION

- + Limit emissions
- + Return anaerobic digestion digestates to the earth

A ROLE IN ENERGY TRANSITION

Renewable energy	Unit
Renewable energy as a share of production	%

EFFICIENT USE OF RESOURCES

Efficient	Unit
Recovered biomass	millions of tonnes
kWh exported per tonne of cane crushed	kWh per tonne of cane
Thermal plant availability	%
Water intensity of produced energy	m ³ per MWh

ENVIRONMENTAL IMPACT MANAGEMENT

Recovery & Environment	Unit
CO ₂ intensity of energy production	g eq.CO ₂ /kWh
Quantity of combustion by-products (coal and bagasse) generated	thousand tonnes
Anaerobic digestion digestate produced	thousand tonnes

SOCIAL AND CIVIC RESPONSIBILITY

Safety	Unit
Number of occupational accidents	#
Occupational accident frequency rate	%
Occupational accident severity rate	%

Labour relations	Unit
Group workforce	#
Number of hours of training per employee	h/yr/employee
Percentage of apprentices and interns	%
Women as a percentage of total workforce	%
Number of indirect jobs generated	employment

Civic responsibility	Unit
Number of households supplied with electricity	thousand households

2015	2016	Scope
50	50	Group

2015	2016	Scope
2.4	2.3	Group
91.5	94.4	Thermal Biomass
88	91	Thermal Biomass excluding Brazil
2.0	2.0	Thermal Biomass

2015	2016	Scope
561	558	Group
420	430	Thermal Biomass
62	69	Anaerobic digestion

2015	2016	Scope
21	21	Group
20.8	18.7	Group
0.5	0.6	Group

2015	2016	Scope
624	615	Group
32	41	Group
4.6	3.6	Group
13	14	Group
297	296	Group, excluding Mauritius and Brazil

2015	2016	Scope
1,072	1,112	Group



Galion 2, an all-biomass power plant supporting the energy transition in Martinique. Model showing how this power plant under construction blends into its environment (2016).



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For more information, refer to the 2016 Reference Document
and other Albioma publications on the Group's website at www.albioma.com.





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