



# ACTIVITY AND SUSTAINABLE DEVELOPMENT REPORT 2015

# Improving well-being by offering the best of nature

A family-owned group serving customers globally, Roquette is specialized in the processing of plant-based raw materials.

The developed products and solutions deliver proven technological, nutritional and health benefits precisely tailored to the **pharma, nutrition, food** and selected **industry markets**.

As one of the world's **five leading starch manufacturing groups**, Roquette processes corn, wheat, potatoes and peas. Since its foundation over 80 years ago, the Group's growth has been based **on innovation, a passion for the job and a commitment to achieve**.

Roquette operates in over 100 countries, has a turnover of 3.3 billion euros and currently employs 8,000 people worldwide.

## Activity and Sustainable Development Report

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# Editorial

*“The exceptional potential of the plant-based resources we use is the basis of our entrepreneurial ambition.”*

► **Your family-owned Group is more than 80 years old. What makes you special?**

**ER :** The exceptional potential of the plant-based resources we use is the basis of our entrepreneurial ambition. We have been facing this same exciting challenge since the company began. Roquette is deeply committed to offering the best of nature in healthcare and nutrition solutions. In 2015, our independent Group, with its solid family roots, was able to maintain this unique approach, its ability to take a long-term view in its actions while maintaining strict standards in operating performance, thanks to the devotion of our teams. Our identity enables us to launch innovation and development projects for the short and medium terms.

► **You specifically mentioned health and nutrition. Is Roquette changing its focus?**

**JMG :** The nutritional and pharmaceutical solutions Roquette develops help improve people's well-being. Every study shows that diet has a major impact on our health, and we strongly believe it. By supplying such a broad range of ingredients and solutions that offer specific nutritional benefits, Roquette is contributing not only to healing, but also to preventive health.



**Edouard ROQUETTE**  
Chairman

Through its constant innovations, the Group has become a key supplier in the health and food sectors.

**ER :** We refocused on these priorities in 2015 and will continue to do so for the next five years. Pharma and nutrition are increasingly high-stakes sectors, and the expertise we have accumulated over 80 years gives us considerable advantages in those fields. The Group has solid foundations. It has competent teams, reliable, extremely high-performance and competitive industrial equipment, as well as enviably solid finances.

► **You mentioned the exceptional potential of plant-based solutions. Are there many more discoveries to be made?**

**JMG :** The potential in our raw materials is considerable. We haven't discovered everything yet. These hidden nuggets will enable us to create value for our customers. In 2015, we defined vectors for sustainable growth and decided to concentrate our R&D efforts for the next five years on those priorities. The aim is to focus on these sources of development, which support growth and profitability, everywhere the Group is present.



**Jean-Marc GILSON**  
CEO

### ► Roquette created global functions in 2015. For what purpose?

**JMG :** Roquette's organization was decentralized, with a number of separate legal entities. There was no strong global coordination. Organization, however, is a decisive factor in achieving our growth objectives. We updated our organization to completely reflect our customer-driven approach.

This approach is based on Global Business Units (GBUs) serving our customers and related to our markets, alongside global functions that enable us to act as "One Roquette" by harmonizing our processes, practices and working methods across the entire Group – without inhibiting creativity, of course.

### ► Is sustainable development an issue of real importance or just a passing fad?

**ER :** It's crucial. The three dimensions of sustainable development, "People, Planet, Profit," underpin our entrepreneurial ambition. Our projects embody our commitment to sustainable development.

**JMG :** Sustainable development is built into Roquette's genes, since our business relies on plant-based resources! We already achieve exceptional raw material recovery rates of nearly 100%. Energy is our second major priority. We are making progress, for example by reusing

energy whenever possible, improving our energy performance and developing renewable energy sources. We firmly believe that those in our business who have not managed to maximize their production while optimizing their use of water and energy will be the first to be pushed out of the system.

### ► For the first time, this report contains comments from the entire Executive Office. Why?

**JMG :** To help the company grow, you need to listen to as many people as possible. We wanted to demonstrate everyone's commitment, and show the continuity between the Board of Directors, CEO, Executive Office and all the teams. Our employees should be proud of the company they work for. We have a lot going for us, and we're confident and positive about the future.

**ER :** As Seneca said, "It is not because things are difficult that we do not dare, it is because we do not dare that things are difficult." In a constantly changing world, the Roquette Group is changing too, and we believe in our future.

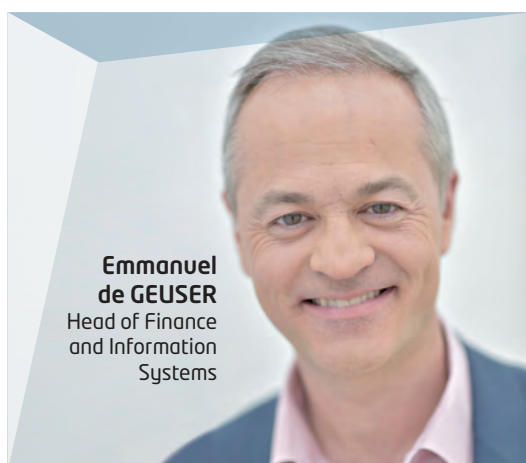
## ZOOM

### Executive Office members :

**Jean-Marc Gilson** - CEO

- **Sophie Ancelin** - Human Resources
- **Jeremy Burks** - Commercial
- **Emmanuel de Geuser**  
Finance and Information Systems
- **Nathalie Joannes** - Legal
- **Denis Maître** - Manufacturing
- **Thierry Marcel**  
Research and Development
- **Gianfranco Patrucco** - Supply Chain

# Key figures 2015



## ► What was the Group's economic environment in 2015?

Europe represents more than half our turnover. The region has a mature economy with relatively low growth rates, around 1% to 1.2%. But we are lucky enough to have a growing proportion of customers in the pharmaceutical and nutrition sectors, which are growing much more rapidly,

**“Roquette continues to grow.”**

### Global situation

**1<sup>st</sup>** Starch company  
in India and France

**2<sup>nd</sup>** European  
starch industry

**5<sup>th</sup>** World starch  
industry

# €3,3

billion of global turnover

10 % of turnover devoted to R&D  
and industrial capital

by as much as 10 points more in certain segments. The American market remains clearly ahead, with a 2% growth. The Asian markets are less mature and still heavily focused on our commodities, but with very dynamic growth rates.

## ► What external parameters had an impact on the Group?

2015 saw a return to normal for the euro, which had long been overvalued in comparison with the dollar. The current balanced state, which will likely persist for the next two or three years, more accurately reflects the economic situation. For both raw materials and energy, the past year was characterized by a bearish environment.

Our turnover was €3.3 billion for 2015, including a change in scope due to the inclusion of Lithuanian company Amilina. The Group's performance also benefited from the results achieved by our competitiveness programs. In 2016, we will be able to fully deploy the Group's strategy and take advantage of the newly implemented organization.



Sites, agents, distributors, etc. A presence in more than **100 countries**.  
More than **300 R&D staff**.





# ROQUETTE

## offering the best ingredients and formulations

Naturally, customers are the Group's priority. That's why Roquette tries to anticipate their needs as much as possible and deliver the best solutions. What are they?

We supply more than 700 products with proven effectiveness, perfectly tailored to our markets around the world in the pharmaceuticals, nutrition, and food sectors as well as certain industrial sectors.



These solutions offer demonstrated benefits in terms of technology, nutrition and health. Our raw materials, all renewable and possessing surprising properties, are corn, wheat, potatoes and peas. These high-potential natural resources were carefully selected to create our unique range of proteins, fibers, maltodextrins, polyols, native and modified starches, dextrose and glucose syrups.

The Group's extensive industrial know-how and intensive experience with its biorefineries, as well as Roquette's well-known tradition of research and innovation, ensure that our customers receive the high-quality products and services they have come to expect.





## PHARMA

- Oral dosage, solid and liquid forms
- Injectables
- Biopharmaceutical products, vaccines & therapeutics solutions

With...

The quality and reliability demanded by pharmaceutical companies and today's consumers.



## FOOD AND NUTRITION

- Bakery
- Savoury
- Confectionery
- Specialized nutrition
- Dairy
- Beverages
- Petfood
- Feed specialties

With ...

Nutritional and functional ingredients to meet today's and tomorrow's food challenges.



## INDUSTRY

- Paper-cardboard
- Performance materials
- Chemicals
- Bioindustry
- Water treatment

With ...

Plant-based solutions for industrial customers demanding sustainability, high performance and innovation.





# Committed and responsible governance

Founded in 1933 by brothers Dominique and Germain ROQUETTE, the company is now a global leader in its sector. Its shareholders now total more than 200 family members, descendants of the founders and their spouses. Company governance favors corporate spirit, leadership, and sustainable performance.

The Roquette Frères company is a public limited company with a Board of Directors. The Board of Directors is responsible for the implementation of good operating practices. This includes ensuring that **responsibilities are clearly defined** at each level of decision-making and that general behavioral expectations are in place across the entire Group.

As recommended by best practices for governance, the positions of Chairman and CEO are separate and held respectively by Edouard Roquette, a third-generation family shareholder, and Jean-Marc Gilson, neither a shareholder nor a family member.

*“The company’s Board is made up of ten members : five family shareholders and five independent members, including 20 % women.”*

**The Board deliberates over every major issue affecting the life of the Group.** As such, it defines the strategic objectives. It controls the Group’s management, analyzes its budget and mid-term plan and, while maintaining commercial secrecy, verifies the quality of the information provided to shareholders on finances and important events.

The Group’s main executives are responsible for running everyday activities, under the supervision of the CEO. In 2015, the Executive Office that guides all operating activities was gradually reconstructed.

In order to meet its goals, the company’s Board of Directors has adopted an approach that ensures informed decision-making **by setting up four specialized committees** that investigate topics before Board meetings and issue recommendations or proposals.



**Left to right:** Marc Roquette, Stéphane Baseden, Jean-François Rambicur (Vice-Chairman), Edouard Roquette (Chairman), Sonia Artinian, Pierre-Emmanuel Lepers, Denis Delloye, Didier De Menonville  
**Seated:** Christophe Roquette, Carole Lajous

## Roquette Frères Board of Directors

### Strategy Committee

- Analyzes the major strategic orientations for the development and the future of the Group.
- Examines investment projects prior to their presentation to the Board of Directors.
- Does the preparation work for the Board on subjects of major strategic interest (growth, areas of development, financial strategy, etc.).

*Stéphane Baseden (Chairman), Denis Delloye, Jean-François Rambicur, Edouard Roquette*

### Audit Committee

- Monitors the processes for reporting financial information.
- Ensures the efficiency of the company's systems of internal control and risk management.
- Steers the effectiveness of internal audits.
- Monitors the legal control of annual and consolidated accounts.
- Ensures the independence of external auditors.

*Carole Lajous, Didier De Menonville, Christophe Roquette (Chairman)*

### Appointments and Salaries Committee

- Examines questions related to the composition, organization and functioning of the Board of Directors and the Group's General Management.
- Remains informed of the remuneration policy applied throughout the Group.
- Delivers recommendations concerning the remuneration of corporate officers.
- Oversees the proper functioning of the bodies of governance.

*Sonia Artinian, Jean-François Rambicur (Chairman), Christophe Roquette, Edouard Roquette, Marc Roquette*

### Ethics and Sustainable Development Committee

- Examines the Group's health, safety and environmental policies and the annual Sustainable Development and Activity Report.
- Analyzes the mapping of extra-financial risks (CSR) and the action plans that arise from this.
- Ensures the company is able to guarantee that the rules of good conduct are respected, in connection with the Group Ethics Committee.

*Denis Delloye, Carole Lajous, Pierre-Emmanuel Lepers, Didier De Menonville, Marc Roquette (Chairman)*





12 Major events

# Major events of 2015



## Roquette at the heart of the greater Lille area

**In March 2015**, the General Management and some of the global functions moved to offices in La Madeleine, France. This new site, located in the Euralille business district at the crossroads of three capitals (Brussels, Paris, and London), facilitates international access and strengthens the Group's position as a leader and trusted partner to its customers around the world.

France

## Launch of the world's largest isosorbide production unit

**In April 2015**, on its site in Lestrem, France, Roquette opened a new POLYSORB® isosorbide production unit, confirming its ambition to become a preferred supplier for the performance plastics markets. The new unit uses the highest performance technologies to produce a highly pure isosorbide, meeting the expectations of its most demanding customers.

France



## From fast food to "fast good"

In collaboration with Michelin-starred chef Marc Meurin and driven by a desire to create a new mode of sustainable snacking, Roquette has created the first "fast good" menu. This menu offers a unique sensory experience thanks to NUTRALYS® T70S, a new 100% plant-based textured protein solution derived from peas.

**In December 2015** at FIE (Food Ingredients Europe), the Group received an award for most innovative product in its category and earned recognition from the food industry.

France







### New pea protein production unit

**In September 2015**, Roquette opened a NUTRALYS® pea protein production unit on its site in Vic-sur-Aisne, France. This €40 million investment consolidates the Group's position as a global leader in plant-based proteins for the food, nutrition and healthcare sectors. Developing its pea sector helps Roquette further its innovation strategy while offering consumers healthy, sustainable and delicious products.

 **France**

### Roquette boosts its capacity in India

To meet the demand of its food industry customers, the Roquette Group expanded its industrial potential on the Gokak and Pantnagar sites in India **in 2015**. Capacity on the Pantnagar site increased by 60%, and a new cogeneration unit was installed to limit CO<sub>2</sub> emissions into the atmosphere. While striving for industrial excellence, the company aims to remain number one in India, for the benefit of its customers.

 **India**



**At the COP21**, Roquette spoke about its initiatives to fight climate change on the Beinheim site in France. These included various past and future investments to replace fossil fuels with renewable energy (effluent methanization, industrial use of geothermal, etc.). These investments will reduce emissions by approximately 110,000 tons of CO<sub>2</sub> equivalent per year, the same amount that would be produced by a small car driving around the world 41,200 times.

 **France**

### Roquette's commitment to the climate

### Three Roquette sites rewarded for their safety results

**For the first time in 2015**, the European Starch Industry Association (Starch Europe) gave out safety awards to reward the top-performing industrial sites. The sites in Beinheim (France), Benifaió (Spain) and Corby (England) were among the 15 European plants rewarded for their commitment and the absence of lost time accidents for an entire year.

 **Spain**  **France**  **UK**



## 14 A new code of conduct



Nathalie  
JOANNES  
Global General  
Counsel

### ► What is the role of your global legal division?

My job is to strengthen the legal department and merge it with the patent, regulatory affairs, watch, and documentation departments. My vision

**“Corporate lawyers are true business partners.”**

is to place a corporate lawyer within each division, as part of the company's organization

into Global Business Units. This way, the lawyers can become real partners in business. They add value not by producing reams of contracts in as little time as possible, but by working on risk management. Understanding difficulties at the source, when a new project begins, allows for greater efficiency.

### ► Can you give us an overview of the Group's new code of conduct released in 2015?

The goal was to simplify the message and bring it to life. Often, you have either two pages of general principles that don't help anyone in practice, or 50 pages that no one reads. We have developed a practical and approachable tool, with a summary and key ideas for each topic. It was also launched by the CEO, which helps employees adopt it. And it was shared with our customers and suppliers. It should help all employees

identify and report problems of all sorts, from discrimination to collusion or conflicts of interest. A hotline is available, and we strive to rule out malicious intent but also to take immediate action. Very often, when things are left unsaid, they get worse. Corporate lawyers are the ambassadors of ethics, in a sense.

### ► On this subject, an anti-fraud committee was formed in 2015, and an ethics committee will be soon. For what purpose?

To complement our governance.

The Board of Directors already has four dedicated committees, including one on ethics and sustainable development. The general management wanted to mirror that organization with committees composed of employees. Our aim is to have the best possible information to hear problems, stay up to date and facilitate decision-making.

#### ZOOM



### The Compliance and Anti-Fraud Committee

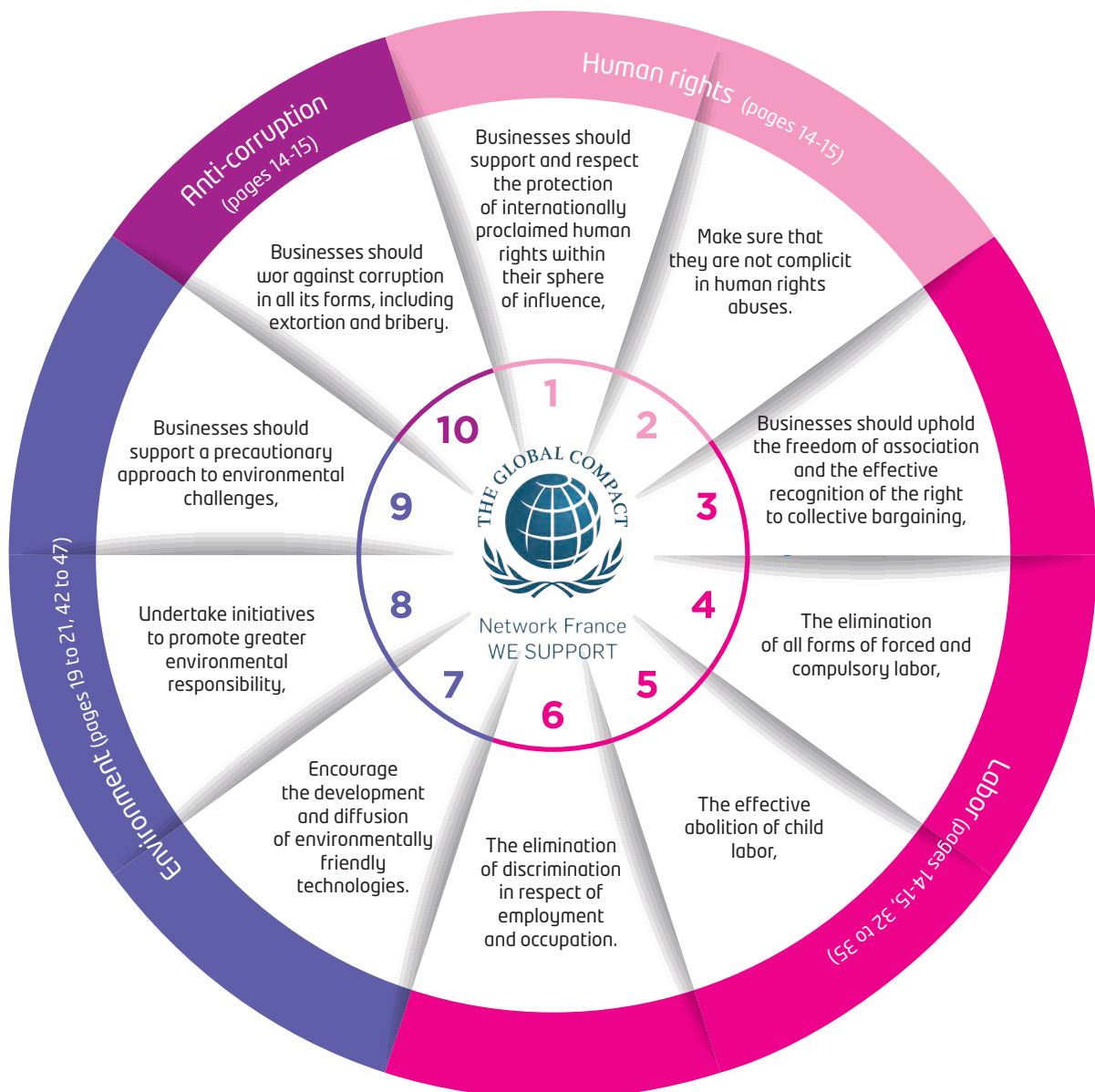
In an effort to constantly improve our fight against fraud (in the broad sense, including corruption), the Group formed a Compliance and Anti-Fraud Committee in 2015 at the highest level of management. Its mission is to handle every aspect of fighting fraud, from analysis to training, investigations and communications on the topic. It is made up of the Finance, HR, IT, Legal, Internal Audit, Risk Management and Safety functions. Many training initiatives have also been conducted, including sessions to raise awareness about fraud: 254 employees in 5 countries received this training in 2015.



# Respecting the Ten Principles of the Global Compact

Since 2009, Roquette has been a member of the UN Global Compact. The Global Compact, the primary global initiative for responsible corporate citizenship, asks companies to adopt, support and apply, within their respective spheres of influence, a set of fundamental values (concerning human

rights, labor law, the environment and the fight against corruption). Every year, this Activity and Sustainable Development Report gives us an opportunity to describe our actions in support of these ten principles.





## OUR COMMITMENTS

1

### **Source sustainably**

By encouraging local supply and optimizing means of transportation to combine economic profitability and low environmental footprint.

2

### **Improve continuously our raw material quality**

By clearly specifying our needs, strictly selecting our suppliers and reinforcing quality control chain from fields to bio-refineries.

3

### **Strengthen relationship with our raw materials suppliers**

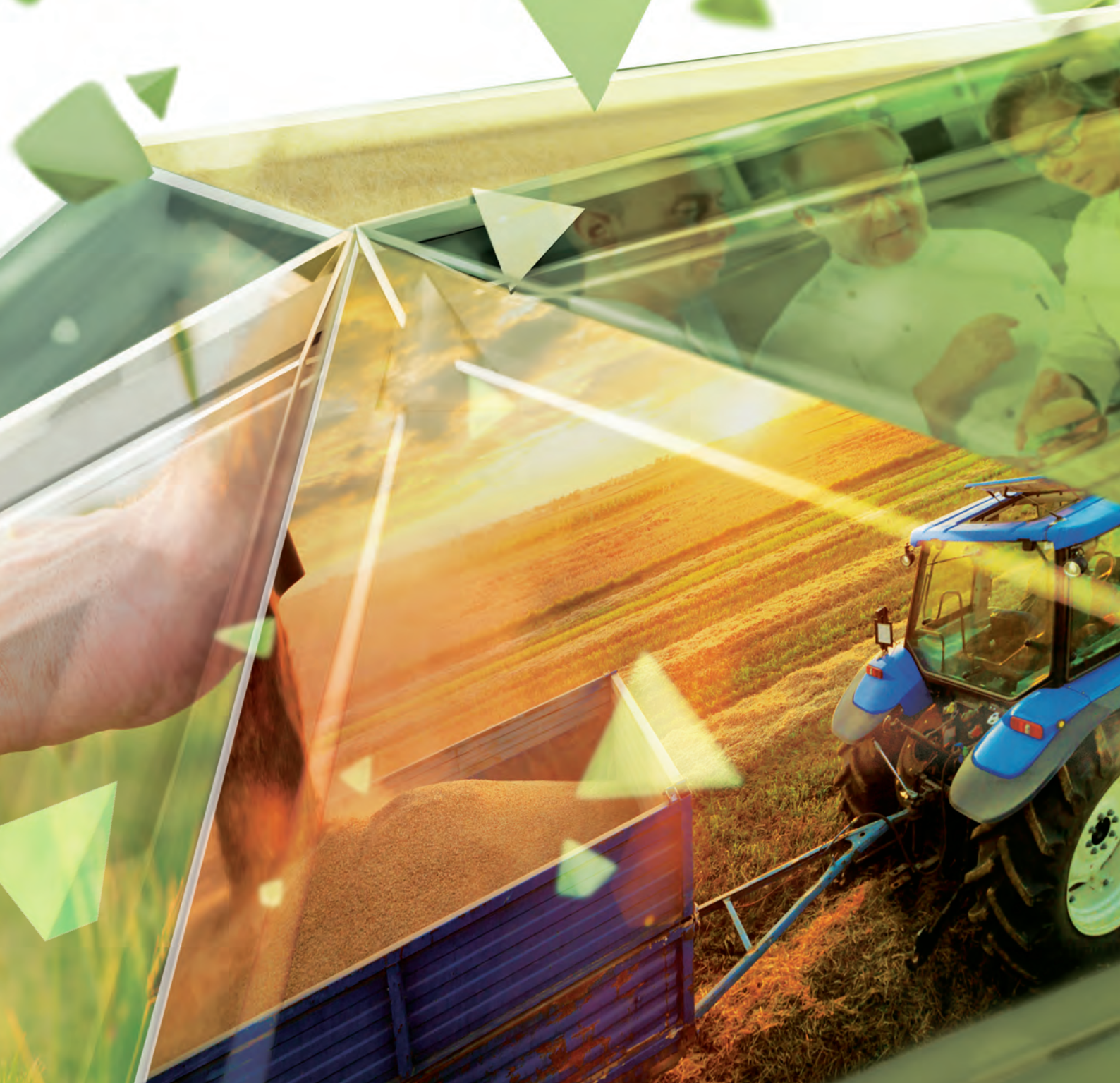
By building partnership with breeders and farmers to select and use the more suitable agricultural resources.







# Sourcing sustainably





► **You are in charge of the new Supply Chain. What new challenges are you facing?**

Sourcing, logistics, and planning activities have always been around, of course. The challenge now is to meet larger, Group-level targets, to accelerate its process of internationalization and its responsiveness in order to serve customers in the same way around the globe. In other words, streamlining and harmonizing our practices.

► **Is it also a question of performance?**

The global Supply Chain is a central economic issue. In addition to improving customer service in a faster paced environment, we need to optimize costs starting

*“Creation of value that we can share with customers.”*

with our inputs, using a planning approach that brings together our production tools, all the way to delivery to the end customer. This creates value that we can share with customers.

Historically, we come from a “geographical” model in which sites had a certain autonomy, within markets that were developing in different ways. Today, these markets are evolving, and consumption trends are essentially the same all over the world. There is a need to create a corporate component to every activity, centralize whatever can be centralized, but still leave specific local issues to be handled locally. We serve different market segments with different qualitative functional requirements for food safety. But we have a very high upstream qualitative standard to allow for diversification as far downstream as possible. This is one of the main principles of an efficient Supply Chain.

► **How do you integrate sustainable development into the supply chain?**

It combines very well with our economic goals. The fact that our plants are organized within agricultural production regions, where the raw materials come from, is historical evidence of this fact. Our supply chain is as short as possible, which reduces energy consumption,

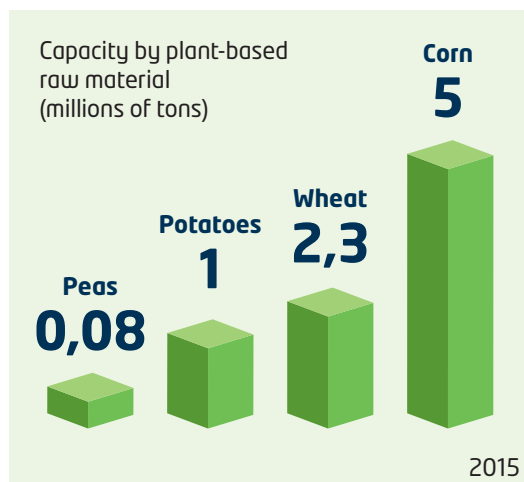
transportation, and thus our carbon footprint. Upstream, we strive to reduce the impact from crops, adapt the best varieties to the terrain, strike the best agronomic balance, and form long-term partnerships.

We’re also working on other opportunities like recyclable pallets and packaging with durable yet lighter materials to ultimately reduce waste.

► **Is there still room to improve your modal organization?**

90% of our procurement already targets a very small radius around our plants. For the remainder, we choose the most environmentally friendly modes of transport possible. Some plants, like Lestrem, have moved almost entirely to rail transport. For plants located near rivers, we are developing not only procurement but also delivery of finished products by barge.

We are always interested in the development of multimodal transportation to better serve customers while reducing our environmental impact.







# Committing to sustainable, responsible procurement

Roquette, which processes more than 8 million tons of plant-based raw materials each year, creates value for 1 million hectares of farmland and reduces the environmental impact of its supply chain.

## Peas

### An exemplary raw material

Several years ago, the Roquette Group was able to expand its product line by processing a new raw material: protein peas. This addition took its place alongside wheat, corn, and potatoes. The Vic-sur-Aisne starch plant in France was converted into a pea starch plant in 2007, with an annual capacity of 80,000 tons of peas. The sector has developed since then as pea protein has gained in popularity, and a new unit was inaugurated in 2015.

Like all leguminous plants, peas are capable of removing nitrogen from the air. **This means that the crop does not require nitrogen fertilizers.** In the context of crop rotation, this ability also benefits the grain planted next: for example, wheat grown in the same field will require less fertilizer. Life cycle analysis shows that growing peas in-between two wheat crops reduces energy consumption by 11% and greenhouse gases by 14%. (Source: 2015 INRA study on leguminous plants for sustainable food and farming systems).

*“All the constituents of the pea (protein, starch, fiber, etc.) are used in a wide variety of application sectors including everyday food, human nutrition animal nutrition, and the paper-board industry.”*

**Céline CAPDUPUY**  
Vic-sur-Aisne Site Director



In addition, farmers often use irrigation to avoid the harmful effects of a prolonged drought, and **peas require less water** than other irrigated crops.

Unlike garden peas, which are harvested and eaten fresh, yellow peas are harvested when mature and can be stored for long periods. Containing nearly 40% to 50% starch, the pea seed has almost as much energy value as a grain. It contains more than 20% raw protein on average.

Finally, peas are a product that perfectly meets the needs of both industry and consumers seeking **healthy, sustainable, delicious products with an appealing texture.** Pea protein is derived from non-GMO seeds. It is non-allergenic and has remarkable nutritional properties. It is a perfect fit for the everyday food and specialized nutrition markets, including the diet sector as well as that of food for athletes. Cultivating protein peas has made Roquette a leader in plant proteins for the food, nutrition, and healthcare sectors.



# Innovating in everything, down to the delivery of raw materials

For Roquette, which uses more than eight million tons of plant-based raw materials each year, logistics are a crucial issue. This is why the Group forms partnerships to stay on the cutting edge of transportation.

For example, Roquette leases a fleet of grain cars to supply its plants in Lestrem and Beinheim, France, as well as Cassano, Italy. The Group has made a long-term commitment with railcar leasing company Ermewa to develop innovative solutions suitable for transporting its products. More specifically, Roquette worked with Ermewa and Titagarh Wagons AFR to develop railcars that facilitate handling by the logistics teams. This initiative improved **safety conditions while reducing loading and unloading times and preserving quality.**

The project reached a meaningful milestone in 2015, with the 400th large-capacity 101 m<sup>3</sup> grain car rolling off the manufacturing line mid-year.



Supplies are brought to Roquette's plant in Lestrem by approximately five daily trains loaded at silos located mainly in northern, central and eastern France. The new railcars are in the process of being gradually rolled out.

ZOOM

acolyance  
Territoires d'avenir

## A productive partnership

In late 2015, Acolyance, a French farming and wine cooperative group made up of more than 3,500 farming members and 7,000 wine-makers, wanted to educate farmer suppliers about customer specifications during its annual general meeting. To that end, they filmed testimonials from their malt, starch and milling clients.

As a trusted partner, Roquette participated in the initiative to explain its priorities, including quality, safety, and traceability in its procurement of plant-based raw materials (corn, wheat, and peas). The Group also shared the new stricter standards and requirements, particularly in terms of regulations and standards, emphasizing the expectations for environmental and social responsibility.

This video gave the Group an opportunity to talk directly to farmers **about the importance of establishing lasting relationships** in order to meet all the requirements of its own customers and thus provide full satisfaction to end consumers.





# Green waste management

Part of the Supply Chain's job is to protect the products the company manufactures by packaging them.

Using environmentally friendly materials, expanding the use of recycling, recovering reusable packaging from customers, choosing

suppliers based on location, making packaging lighter without sacrificing durability, and reducing the number of pallets used are all initiatives the Supply Chain Division has launched to **meet environmental challenges**.

## ZOOM

### Local procurement in Gokak

For years, the site in Gokak (India) procured its packages and other purchased products from the Gujarat region, nearly 1,000 km from the plant. The Supply Chain team conducted a search for suppliers closer to the site, thus reducing the environmental impact from transporting purchased materials. For example, the distance for transport

was reduced by more than 90% for plastic and paper packaging.

This optimizes transportation-related costs, reduces supply times and also **decreases the site's carbon footprint** and consequently its impact on climate change.

 **India**



Plant of Gokak, India

## OUR COMMITMENTS

### 1 **Understand customers' needs and anticipate consumers' expectations**

By developing pharma, nutrition, food and industrial innovative solutions that help improve our consumers' health and well-being.

### 2 **Develop a sustainable development journey inspired by customers' expectations**

By offering them environment-friendly, innovating, sustainable and competitive solutions.

### 3 **Strengthen sustainability in our innovation processes**

By including sustainable development criteria as key element in our innovation projects.





Innovating 23



# Innovating sustainably





**Thierry  
MARCEL**  
Head of R&D



**Jeremy BURKS**  
Head of GBUs  
& Commercial

► **What are the priorities of Roquette R&D?**

**TM :** They are conditioned by the needs of the markets, which are focusing more and more on nutrition and healthcare, an area in which we have enormous advantages. Customers are looking for public health nutritional benefits to address issues such as excess weight, obesity, and diabetes.

This is true not only in Europe and North America, but also in other regions such as Asia. One of the main trends for the future is replacing some of the sugar or fat in a product while maintaining its qualities. We have always taken a forward-looking approach. As a family business, Roquette has a long-term mindset that enables us to simultaneously innovate in multiple time frames, from providing instant solutions to conducting long research cycles to meet all the specific needs of our customers.

*“We are a stakeholder in our customers’ sustainable business.”*

► **How is Roquette’s relationship with its customers evolving?**

**JB :** Roquette’s development is based on a long history of technology and expertise, and equally on its long-term partnerships with customers. In 2015, during my first months at Roquette, I spoke to many customers who all told me how much they appreciated the product quality, knowledge and expertise the Group offers. Customers who go round the plants and laboratories and meet our teams recognize that the more time they spend with Roquette, the more they want to work with us. We start by listening to understand their business, their goals and

their challenges before recommending appropriate solutions and working to meet those challenges with them.

► **Would you describe the process of meeting these challenges as co-development?**

**JB :** Absolutely. Especially in an environment where the pharmaceutical and food industries are under pressure (in terms of regulations, nutritional quality, price, etc.). Customers are very interested in innovations that meet their technical and sales requirements without making their costs skyrocket.

It’s a real challenge. There are opportunities for adding value, particularly for customers who position themselves as offering disruptive products; vegetable proteins, for example, are a very sustainable and attractive way of supplying proteins. The market is large and growing, and Roquette is a global leader in pea protein for the food, nutrition and healthcare sectors, and particularly well positioned to offer solutions.

► **You work in Business to Business. Are you still interested in end customers?**

**JB :** Of course! We need to understand our customer’s customer. Changes in demand or in trends can help us anticipate the future. Our customers are in direct contact with consumers, which makes them very sensitive to consumer opinion; they are focusing more and more on their raw material procurement and long-term policies.





# Meeting the challenges of today and tomorrow

in food and nutrition by developing high-value nutritional ingredients

## So Softy: confectionery innovation

The “So Softy” concept, born out of the expertise of Roquette’s development teams, is a sugar-free, gelatin-free chewable candy.

Half chewing gum, half chewy sweet, it offers a surprising sensory experience. Roquette’s texture innovations give So Softy characteristics similar to gelatin in terms of its elasticity, as well as the way it melts and releases flavors. **So Softy has significant potential for vegetarians** and those seeking Halal or Kosher confectionery, and it is still a delight for the taste buds. Moreover, **So Softy is easy to produce**, not



requiring all the equipment needed to produce chewing gum. The majority of confectionery producers can produce So Softy without any special investment. This technical feat was made possible by the synergies between several Roquette ingredients (SweetPearl® maltitol, LYCASI®<sup>®</sup>, and a new combination of starch-derived ingredients) and the expertise of the Group’s development teams. The manufacturers attending Food Ingredients Europe (FIE) showed a keen interest in this innovation.

In addition to the nutritional, sensory and technical benefits of So Softy, **it has a low environmental impact**, because the use of water-insoluble gum base is substantially reduced.



## Fast Good: innovation in gastronomy

The Roquette teams and two Michelin star chef Marc MEURIN have developed the first Fast Good menu, **inspired by a common desire to create a new, healthier, tastier alternative to fast food** that can find a long-term place in people's eating habits. The 100% plant-based menu showcases Roquette's latest innovations. It contains mainly gluten-free, allergen-free products and offers a range of new taste sensations.

The Veggie Burger, the star of the Fast Good menu, includes a vegetable steak rich in proteins and fibers, containing **four times less saturated fat** than a traditional beef hamburger.

The secret? NUTRALYS® T70S, a new, 100% plant-based texturizing ingredient. It is produced solely from yellow peas. It offers a unique texture and exceptional water retention qualities.

An extruded ingredient, it reveals its fibrous texture after re-hydration.

### ZOOM

#### NUTRALYS® T70S

By 2050, there will be more than 9 billion mouths to feed in the world. Plant-based resources have a major role to play in meeting this very real food challenge. For this reason, the Roquette Group is consolidating its position as a key player in the development of plant-based protein sources. Roquette has just developed a new, innovative and allergen-free alternative to meat to compete with the current soy- and wheat-based solutions. For its unique features, major economic potential and environmental benefits, NUTRALYS®

T70S was nominated for the FIE Awards and won Innovative Ingredient of the Year 2015 in the Culinary Products category.

**A sustainable, environmentally-friendly product that meets customer expectations.**

NUTRALYS® T70S also owes its success to the fact that it contributes to a policy of sustainable development.

Yellow peas are produced in France, which reduces the carbon footprint from transportation. It contains no allergens, GMOs or additives, is certified Kosher and Halal, and is safe for a gluten-free diet. A good source of fiber, low in fat and cholesterol-free, it also has a high protein content. It is compatible with organic certifications according to European and American standards, and producing it requires little energy, which reduces its impact on global warming compared with soy protein isolate.

#### Easy production and flexible use.

With neutral taste and color, NUTRALYS® T70S can be used to develop finished products with flexible proportions, different flavors and a wide variety of colors. The fibrous texture and flexibility of use make NUTRALYS® T70S an ideal ingredient for vegetarian substitutes for beef, chicken breast and sausage. With its fibrous texture, similar to meat, and light beige color, it can be used in products with a variety of colors and appetizing appearances. Its texture requires no additives (such as sulfites).



## Interview with Marc MEURIN, Michelin-starred chef



### ► What are you most proud of in the Fast-Good menu you designed with Roquette?

**M.M. :** I'm most proud of being able to surprise people with simple dishes. I find every component of the Veggie Burger quite impressive: the bun, steak, slice of cheese, sauce, all prepared without any animal-derived products whatsoever. Vegetarians are going to love it! As a chef who's passionate about my work, I find the flavor and texture of the dish truly inspiring.

### ► You seem fascinated with the Veggie Burger. Which characteristics of the dish do you find most satisfying?

**M.M. :** When the Roquette team told me they wanted to eliminate all animal-derived ingredients and replace them with a pea-based product, I thought they were joking! But when I re-hydrated the NUTRALYS® T70S, I immediately saw the potential of the innovation. It's even allergen-free. It's produced in Picardy, France and offers complete traceability and reliability.







# Quality and reliability in Pharma



## A new certification for our pharmaceutical excipients

For decades, Roquette has been listening closely to the needs of its pharmaceutical customers. Through its constant innovations, technical expertise and industrial capabilities, the Group has become a **supplier of choice for excipients and active substances**, the two key components of medications. Roquette has harnessed the rich properties of plant-based raw materials to develop and offer many solutions for all dosage forms: syrups, drinkable solutions, tablets, gel caps, powders, etc.

The excipients produced by Roquette cover a **wide range of pharmaceutical applications** and make it easier for patients to take their medications (from babies and young children to adults and the elderly, etc.).

As a global supplier of solutions for the pharmaceutical markets, Roquette is committed to offering high-quality products and constantly strives to improve them in order to enhance health and well-being around the world.

In this context, Roquette's site in Lestrem, France has just received the **EXCiPACT™ certification** for some of its excipients. This internationally recognized certification is becoming a benchmark for quality and best practices specific to pharmaceutical excipients. Roquette is the first starch company to earn the EXCiPACT™ certification, which guarantees its implementation of Good Manufacturing Practices (GMP). This recognition marks a crucial new phase for the Roquette Group, consolidating its position among the global leaders offering pharmaceutical excipients.

In addition to confirming an extremely high-performance level of quality across the supply chain, the EXCiPACT™ certification also gives customers access to the company's **certification audit report** upon request. This means that Roquette's customers can quickly assess its quality system, which saves them time and money while ensuring that the products meet the very highest standards.

Roquette is constantly listening to the market's needs in order to develop the best solutions and is fully committed to meeting its customers' expectations. **This new certification is further evidence of its desire to build lasting partnerships.**





# Plant-based solutions to serve the industry

Roquette combines durability, high performance and innovation to meet the needs of its customers.

## A new biosourced coagulant for water treatment

As part of its water treatment project, since October 2013, the Lestrem plant in France has been using NAIACLEAR® 260 FBP, a biosourced coagulant developed and produced by Roquette with a patent pending. As Aude Revel, manager of the water treatment and purification plant on the Lestrem site, explains, «Trials were set up and monitored by a multidisciplinary team. With everyone's involvement and cooperation, we were able to obtain conclusive results within just a few weeks.»

### NAIACLEAR® 260 FBP offers many advantages:

- Ease of **implementation** (can use the equipment already in place)
- Reduction in the production of **sludge**
- **Non-toxic** product does not harm living organisms

The **environmental benefits** are remarkable: using this biosourced coagulant eliminates the need for either Polyacrylamide (PAM) or iron chloride, which reduces the metal content of the treated water.

## A biosourced diol used to produce a plastic

For the first time in the world, a **biosourced product** by the Roquette Group has been added to the composition of a plastic used in manufacturing a smartphone screen.

The properties of this plastic that contains a large quantity of POLYSORB® isosorbide, a diol produced by Roquette, make the screens more durable. As an additional benefit, it also resists yellowing. On top of the technological innovation in terms of ability to withstand heat, impact and scratching, this polymer contributes to a **policy of sustainable development** because it can be colored in bulk, eliminating the use of paint for automotive parts.

Unlike traditional plastics, it is also **derived from renewable sources**, which makes this polymer an extremely promising non-toxic alternative to bisphenol A. The new **POLYSORB® isosorbide industrial unit** built on the Lestrem site (France), inaugurated in 2015, is therefore becoming a major advance in the development of performance materials using isosorbide.





## OUR COMMITMENTS

1

### **Put Health, Safety and well-being at the heart of our concerns**

By continuing the implementation of world-class HSE (Health, Safety, Environment) management system and developing a culture in which people safety is a core value.

2

### **Empower employees**

By promoting dialogue, fostering engagement and developing skills.

3

### **Build on our diversity**

By valuing our differences and promoting the sharing of best practices in a multi-cultural network.

4

### **Develop our activities with the local communities**

By partnering with our local communities and contributing to their development through sustainable relationship.







# Acting sustainably





Sophie  
ANCELIN  
Head of HR

► **The Group adopted some fundamental changes to its organization in 2015. To what end?**

Roquette has objectives for both organic and external growth. The world is changing, and we needed to adapt to be able to seize opportunities. One major decision was to more systematically refocus on the customer's needs to become completely customer-driven.

The new organization announced in April 2015 reflects this strategy.

The commercial function is on the front lines, and we are adopting a global organization of Global Business Units in our food/nutrition and pharmaceuticals markets, as well as our other industrial sectors.

The new organization was implemented in phases and explained to our teams worldwide. We even sent a member of the Executive Office to each site for "Horizon" meetings. The organization was scheduled to come into effect in January 2016, and we met that challenge. The next one is to demonstrate that it works!

► **In 2015, you also implemented a plan to support employees at the end of their career in France, and to recognize employee commitment. How did it go?**

That was a very positive textbook case of productive dialogue between management and staff, and a first for the company. Starting in 2014, the Management and labor unions began talking about implementing a program that would include investments and a voluntary end-of-career transition plan.

The discussions concluded in April 2015 with an agreement signed by all the labor unions. The first retirements took place in September 2015, and they will continue through early 2016.

We prioritized internal movements, with a training program and participation by the management on all sites, in order to implement better organizations.

In addition, to support the Group's growth, we had an opportunity to welcome some people with different backgrounds.

► **Roquette is also involved with its local communities. In what form?**

This is part of the Group's values and tradition. The initiatives are essentially conducted at the local level where we interact the most with our communities, including in fields like nutrition and healthcare that are especially important to us. In India, for example, we have initiatives with nearby schools and communities about water use and potability.

In France, we are involved in providing jobs to persons with disabilities. Finally, we support sports initiatives, like marathons and other sporting events, which are positive for the community and also in terms of the team spirit they build for our employees.







# A corporate strategy built on everyone's contribution

## Roadshows around the world

Every year since 2010, **"Horizon" meetings** have been held within the Group.

These are an opportunity to look back on the past year, share the Group's strategy and plans, and answer questions from employees. This makes them **a perfect opportunity to bring together all the company's staff** to meet the objectives.

For two years, nearly 50 meetings have been held in some 20 countries to reach all employees.

To take place, the meetings require effective teamwork between organizers and speakers. In 2015, when the new organization was implemented, each Horizon meeting was a very important occasion for the employees.

At each event, the employees were able to meet a member of the Roquette Group's Executive Office. To achieve this, a two-month roadshow traveled from site to site building close, trust-based relationships with all 8,000 employees, strengthening their **desire to become full contributors** to the Group's performance.



Horizon in Corby (UK)

In surveys conducted after these meetings, the high levels of satisfaction show how enthusiastic employees are about participating in events like these, and also how important it is to regularly update them about the Group's plans and **offer opportunities for dialogue with the Management.**



Horizon in Lestrem (France)



Horizon in Liangungang (China)





## Launch of Performance Management, a key component in implementing the Group's strategy

In 2015, Roquette initiated a new approach to performance management.

This approach is a continuous process of setting targets, evaluating progress and providing constant feedback to ensure that **employees meet their targets** within the framework of the company's strategy and culture, and **recognizing them for doing so**.

The new process helps translate Group-level priorities into individual objectives and develop skills to ensure the company's growth. This in turn helps the company complete all of its projects within the desired time frame and with the expected quality.

The overarching principles were defined by the Executive Office, and then the process was established and shared with the Human Resources teams before being rolled out to the entire Group. By late 2015, Roquette had already held more than **70 training sessions**, and more than **600 managers** within the Group had been trained. Online training material were also produced to facilitate and continue the learning process for everyone.

By supporting the company's development with the implementation of common practices worldwide, performance management will be a key component in the success of the Group's strategy starting in 2016.



"Performance management" training in Nanning (China)

## Training: a strong commitment to future generations

Training is a key carrier of development for both companies and employees. As a company's performance improves, the employees develop, enrich their knowledge and skills, and enhance their ability to progress.

In 2015, several training programs to support the company's development and evolution were conducted on the Roquette site in Cassano, Italy. These programs covered topics such as **safety, excellence in manufacturing, languages and corporate management** (economic and financial analysis).

In the United States, employees were able to take various training sessions on the subject of continuous improvement in order to contribute **to organizational performance and skills development**.

Roquette has been particularly active and innovative in Asia since launching Roquette Asia University in 2012, developing self-learning modules (e-learning courses) that provide better access to in-house training and allow employees **to learn, progress, and promote their own career development**. In this context, Roquette has been working with one of the leading business schools in Asia (CEIBS, China Europe International Business School) to develop training modules that increasingly reflect the needs of employees.

In addition to traditional learning methods, employees can now install apps on their mobile phones to access courses anytime, anywhere! By the end of December 2015, **more than 95% of employees had begun their online learning**, a key component of performance for the company and development for employees.



## Diversity: an asset for everyone

Promoting and encouraging diversity means recognizing and valuing individual differences.

Achieving gender equality in the workplace, hiring seniors, offering jobs to persons with disabilities and blending cultures are all ways to make the company richer.

With this approach, **the characteristics that make every individual unique or different are seen as adding value** to the company's performance.



ZOOM



Roquette employees meet with "Som i Estem" in Benifaió, Spain

### Disabilities

Since 2008, in France, a task force of about 15 employees called SACHa (a French acronym for "supporting every disability") has been meeting regularly to raise awareness, work with companies in the protected sector, and help persons with disabilities keep their jobs and enjoy the same opportunities in the recruitment process.

In Spain as well, the company strives to educate its employees, and society in general, in order to break down the barriers that

persons with disabilities must currently face every day. To do this, Roquette has joined forces with a non-profit called "Som i Estem," holding various events on its behalf (such as a half-marathon, shadowing days with association members and Roquette employees, etc.). The company and association also partner to produce and sell an annual calendar.

Profits go to support the activities of "Som i Estem" throughout the year.



# Taking action for local communities

## ASIA: Our oceans, our responsibility

Protecting our natural resources and environment is a top priority for the Roquette Group.

In September 2015, in honor of International Coastal Cleanup Day, Chinese employees were invited to participate in a massive coastal cleanup.

Thanks to the dedication of Roquette's teams, **more than 400 volunteers** from different sites participated in the event. Industrial and household waste is continuing to increase, posing a threat to the planet's health. In the oceans and seas in particular, many marine species die each year due to pollution.

Beyond simply cleaning up, Roquette is helping promote **greater awareness among local populations and employees** about the environment, health, preserving the marine ecosystem and protecting resources.



## UNITED STATES: Initiatives to promote well-being

The winter holidays bring people together, promoting a sense of warmth and family... But unfortunately, this is not true for everyone.

Roquette works alongside local communities, considering it **a duty as a responsible corporate citizen to help those who are left out.**

That is why the company's Keokuk site helped provide free meals to the poor for Thanksgiving. Employees were able to get involved by packing up 200 meals, each including a gift card to a local supermarket.

Roquette donated the meals to the Lee County Health Department, which then distributed them to hospitals, nursing homes and families, to the delight of all.





## INDIA: Improving learning conditions in schools

Roquette strives to improve the lives of the people and communities around. **The Group firmly believes that its responsibilities extend beyond its industrial activities.**

This year, Roquette Riddhi-Siddhi in India launched a program to improve hygiene conditions and access to water in schools. The company helped build sanitary facilities for students at rural schools. Access to water is another crucial element in keeping children in school, which is why Roquette installed drinking water facilities at four schools.

To complement this initiative, the Group donated books and supplies to two new school libraries.

## FRANCE: Our employees are always ready for a triathlon in the country

Roquette is a founding member of DigestScience, a French public-interest organization dedicated to fighting illnesses of the digestive system.

DigestScience was founded based on the belief that nutrition is an essential field of research for improving human health. For nearly 10 years, it has been raising funds to develop research, support patients, train carers, and increase knowledge and awareness of these diseases internationally.



Every year, it holds the Testathlon, a public sporting event that brings together participants from a wide variety of backgrounds for a triathlon in the country. For the 10<sup>th</sup> race in 2015, the event attracted more than 2,000 people; over its 10 years, **the event has raised more than €100,000**. Roquette is heavily involved in the Testathlon and proud of its many employees who race each year without fail.





# Health and safety, our priorities

## Objective: zero accidents

Thanks to the efforts of all its employees in 2015, Roquette achieved excellent safety results. The frequency rates of accidents with and without lost time (FR1 and FR2) were the lowest to date, **a historic record since the Group was founded**. Some sites were even recognized by the European Starch Industry Association (Starch Europe) for their safety performance.

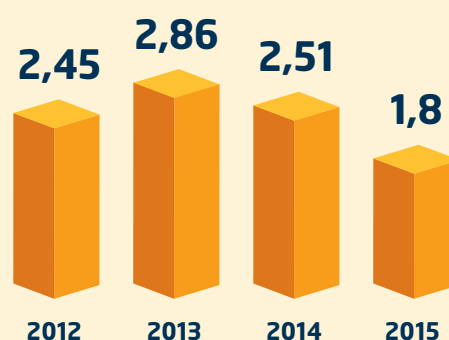
Indeed, remarkable progress was made, with many accidents avoided: the decrease in the number of lost-time accidents for our employees fell by approximately 30% between 2014 and 2015. Still, in 2015, 25 Group employees suffered physical injuries severe enough to require them to take time off work.

Starting in 2016, now that a dedicated global organization has been implemented, the next steps will be to develop and roll out the safety management system, best practices and standards. **The Group will also be adopting new tools and indicators.** The entire approach will help the Group meet its safety targets. Achieving these results will require profound changes. **Every employee will need to take responsibility for improving his or her own safety and that of others.**

*“Although we have made significant progress, we can’t afford to stop now. Our ambition is to make the Group one of the best in the world when it comes to safety. We must strive for excellence, and achieve a rate of zero lost-time accidents, for 100% of our employees, for good.”*

**JL GRIBOT**  
Head of Global HSE

Frequency rate of lost-time accidents  
(per million hours worked)



The Group's goal is to stay permanently below 1 by 2020.

But anything is possible, as the Group's progress over the past 10 to 20 years clearly demonstrates. When it comes to safety, Roquette's system, habits, behaviors, indicators, beliefs, leadership and commitment are all converging towards the zero accidents. "The Group's safety culture is evolving, and we will all benefit directly," JL GRIBOT concludes.





## ZOOM



### **For all Starch Europe members, keeping employees safe is an absolute priority.**

For the first time, the European Starch Industry Association (Starch Europe) decided to reward the plants with the most effective safety management. Prizes were awarded

to plants that had recorded one million consecutive hours with no work-related lost-time accidents or deaths, either for an employee or another person not employed by the company. 41 of the 78 European Union plants participated in the program. The participating plants sent a quarterly report to an external firm responsible for checking the consistency and validity of the data, and containing the number of hours worked along with all lost-time accidents during the period in question. The sites in Beinheim (France), Benifaió (Spain) and Corby (UK) were among the 15 European plants that received the 2014-2015 Safety Award, given by the European Industrial Director.

 **Spain**  **France**  
 **UK**

## **Health: everyday initiatives**

For more than 80 years, the Roquette Group has been based on a set of strong values. Every day, we are committed to working in harmony with the communities around us. Protecting the environment, preserving natural resources and promoting individual well-being are essential priorities for the company.

Reflecting these priorities, Roquette conducted many initiatives in 2015 to improve the health of its employees.



The Group was very active in India, launching a campaign on health. To promote a healthy lifestyle and educate employees about the importance of prevention, health checks were offered for five days in June 2015, in cooperation with a diagnostic center in Mumbai. More than 450 employees were able to receive complete medical exams.

Roquette's commitment was also particularly visible in Italy. Meetings with a nutritionist kicked off the year. Then, talks on topics such as "a healthy diet" or "food safety" were offered. Another initiative was launched on March 8<sup>th</sup>, in honor of International Women's Day. Every female employee had the opportunity to visit a specialized center for a preventive melanoma check-up. Over the summer, the company offered health checks for its managers in Milan.

The end of the year saw the usual flu vaccination campaign, which occurs at many of the Group's sites.





## OUR COMMITMENTS

1

### **Optimize our energy consumption**

By installing energy-efficient solutions and using relevant renewable energies.

2

### **Preserve water**

By optimizing our processes to minimize consumptions and installing efficient treatment technologies.

3

### **Further reduce other environmental impacts**

By implementing the most relevant solutions based on local specificities.



# Biorefining sustainably







**Denis MAÎTRE**  
Head of Global  
Manufacturing

► **You are in charge of Roquette's new global industrial division. What purpose does it serve?**

The purpose of a global industrial division is to develop a high level of performance across all our sites. We process renewable resources in some 20 plants around the world. Nearly 100 % of the plant-based materials that come into our plants either come out as a finished product or are used in some other way. So our goal is not to increase resource extraction rates but to improve the way the various components are used. In terms of resources, our main impact is on water and carbon: water, because our processes take place in an aqueous medium; carbon, because separating elements and drying consume large quantities of energy.

There are two converging paths towards reduced consumption: both continuous improvement and major changes, sometimes in response to regulatory requirements, such as in India for water.

We are currently preparing for that. In 2015, we saved five million cubic meters of water, with total Group-wide consumption at 80 million m<sup>3</sup>.

► **What actions are you taking to limit energy consumption?**

Again, there are everyday improvements based on good habits, better-adjusted equipment, and turning off conveyor belts when they're empty... and there are also technological leaps such as vapor recompression, cogeneration, and geothermal, like the exceptional, large-scale facility in Beinheim that will be inaugurated within the next few months.

► **Industrial performance also includes human safety. How do you address these issues?**

The safety of people is the Group's number one priority. It's a question of ethics. We have even created a global safety commitment. Some of our processes can be dangerous, so they must be controlled. But that's not enough: we also need to improve our procedures and behaviors.

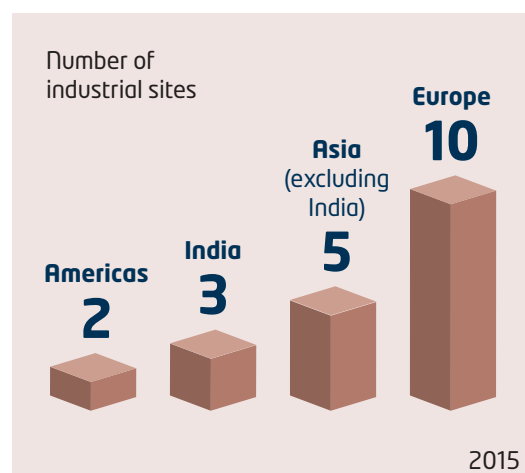
*“Developing a high level of performance across all our sites.”*

In 2015, we beat our historic record by reducing our rate of lost-time accidents to below 2.

► **Consumers are becoming more and more demanding when it comes to quality. How are you adapting?**

Quality has always been an important issue for us, with a food safety system being central to our business. In general, quality consists in delivering what the customer expects. We do have reference documents. But more and more, we are applying a strategy of developing high added-value products for industries that require a very high level of quality. To support these stringent standards, we have created new global functions including quality, HSE (Health, Safety and Environment), and performance directors.

The goal is to drive progress and have the right tools, down to visual management. We also have audits of our customers. It's up to us to help this culture percolate down into our everyday habits and practices.







# Striving for performance

The mission of the Industrial Division is to make better performance achievable by rolling out standards and best practices to all Group sites.

## Assessing a site's industrial performance

To improve the industrial performance of its main sites (in India, the United States, France, Spain, England and China), the Roquette Group hired a company specializing in corporate transformation and operational performance. The aim was to assess and compare the plants' levels of performance, identify best practices, and then use them to define consistent standards for broad application. Preexisting levels of maturity and international multicultural aspects were taken into consideration. For each diagnostic, five key areas were evaluated: production, maintenance, quality, safety and environment. Roquette's teams worked closely with this specialized firm to promote appropriation of the approach and its results.

### zoom

#### An optimized process in Vecquemont

Improving processes is a constant quest for the Manufacturing, Engineering, Research and Development teams, even in the case of tried-and-true processes that have been used for years. The teams work closely together to achieve their results.

Here is one example from Vecquemont, France: the process for extracting potato starch requires filtration and drying steps that use vacuum filter/dryers.

Optimizing the filtration and drying process boosted the instant production rate by more than 10% while also improving the microbiological quality of the starch.

The environmental benefit is **a decrease in biocide consumption and a more than 5% reduction in energy use.**

 **France**



Liangyungang, China plant

## Continuous improvement

One of the priorities of the Industrial Division is to strive for continuous improvement. That is the goal of the ANTARES project implemented in 2010. A certification was created to recognize a workshop, department or plant that respects the principles of continuous improvement according to the defined criteria.

### Why certify a department, workshop or plant?

- To officially recognize the contribution of that workshop, department or plant to driving performance,
- To validate the employees' ownership of the continuous improvement approach,
- To promote the continuous improvement initiative,
- To showcase and highlight initiatives in the field,
- To recognize everyone involved in performance, from operator to manager,
- To ensure the future of the continuous improvement initiative.

### The assessment considers five components:

- The commitment of the workshop's managers,
- Involvement and recognition of teams in the field,
- Performance management and visual management,
- Implementation of the format, structure and initiative,
- Perception of the evolution of a continuous improvement culture.



In 2015, 33 certifications were awarded within the Group.



Certification being awarded in Benifaió, Spain

## zoom

### An example of continuous improvement in the United States

The "5 S" methodology is a Japanese technique to improve the organization of a workplace. Adding Safety and Satisfaction leads to a "7 S event." That's what the Keokuk team in the United States implemented for its warehouses. After three days of Sorting, Straightening, Shining and Standardizing, with particular attention to Safety, the workplace was greatly improved and order was Sustained, to everyone's Satisfaction. Dave Bogner, a continuous improvement leader, recognizes the benefits of this approach :

***" This was our first continuous improvement event in Keokuk and was a great learning experience. The thing that impressed me the most was how we as a team were able to overcome what originally looked like some pretty big obstacles and that we had fun doing it "***

 **United States**



Amilina plant in Lithuania

## Energy efficiency

Energy efficiency is not only a factor in competitiveness, but also an effective lever for economic performance. It optimizes energy consumption while reducing CO<sub>2</sub> emissions into the atmosphere. Last year, the Group implemented an energy management system based on the ISO 50001 standard. The first step affected all European sites.

### An example in Cassano, Italy

The energy diagnostic conducted for the entire site in 2015 helped determine the most energy-intensive workshops and processes. Avenues for improvement were then identified **and used to reduce and optimize energy consumption**. For example, a regenerative variable-frequency drive was installed on a spin dryer. This drive recovers energy during the deceleration phases and injects it into the grid.

This diagnostic is the first step toward achieving ISO 50001 certification at the end of 2016.

## Looking to renewable energy

Renewable energy sources are primary energy sources that cannot be exhausted over the very long term because they are derived directly from regular or constant natural phenomena related to the sun's energy, the earth or gravity.

In order to reduce its emissions of greenhouse gases (GHG), the Roquette Group uses several types of renewable energy, including **biogas and biomass**. As of 2016, the **deep geothermal** well on the Beinheim site (France) will be added to this diverse supply of renewable energy.

About ten methane digesters are installed on the Group's industrial sites. The biogas (methane) produced by the equipment that treats the aqueous effluents generated by our workshops is used as a replacement for natural gas, either directly in the boilers or in cogeneration gas turbines.

In parallel, biomass is used to fuel several of the Group's boilers in China, France, Lithuania and India, using wood or rice husk.

The Beinheim site produces more than 50% of the steam required for its industrial activities using a biomass boiler fueled by wood that comes from within an average radius of 100 km. **This avoids the emission of 75,000 tons of fossil CO<sub>2</sub> into the atmosphere each year.**

### ZOOM

#### Amilina: sharply reduced fossil CO<sub>2</sub> emissions

Since November 2013, Amilina's Lithuanian site has been running a biomass boiler using a local resource, wood, that is abundantly available in Lithuania. As a result, for two years, natural gas consumption has been slashed by a factor of 20 and renewable energy use multiplied by 13.

Biomass is a sustainable solution over both the long and short terms, despite the recent drop in fossil fuel prices. Optimizing industrial performance, implementing solutions to improve energy yield and using renewable energy sources are priorities for the entire Group, which are applied locally whenever possible.

 Lithuania



# Protecting the environment

## WATER: a resource worth saving

Water is a precious resource that must be used in harmony with local ecosystems and communities. **The Roquette Group is committed to preserving this essential resource, both in quality and quantity.**

Water is the primary solvent used to extract components from our plant-based raw materials. We conduct many studies on production techniques to ensure that we are using this resource in a respectful manner and reducing our consumption to the minimum required.

Some of the Group's locations are seeing their taking capacities for water go down due to increasingly strict regulations.

# 81%

**of the water used was returned to the natural environment in 2015, up from 65 % in 2014**

### ZOOM

#### Sustainable water management at the Cassano site

Water is one of the biggest challenges of the 21<sup>st</sup> century. For two years, the Cassano site in Italy has been improving the performance of its water waste treatment plants by optimizing its biological treatment. To complement this, a 1,200 m<sup>3</sup> basin was installed in 2015 to manage storm water.

Wastewater is separated into two distinct networks. The first, for effluents from the workshops, is sent to this new basin for treatment. The second, for storm water, is connected directly to the local network. This new organization allows for optimal management of the purification plant while also protecting the environment.



Italy

As a result, Roquette is conducting projects to systematically apply the following principles:

- Treating the pollution at the source in order to reduce treatment circuits,
- Recycling water without altering its quality or changing the characteristics of the finished products,
- Studying "new" solutions for water procurement.

Meanwhile, Roquette is continuing its efforts to **optimize the quality of its effluents**, which are systematically evaluated by the company's in-house laboratories or those of authorized independent entities. The vast majority of the water taken is released into the natural environment after being treated at internal water waste treatment plants, thus preserving the biodiversity of aquatic species.



## AIR: preserving the air we breathe

Roquette is committed to limiting the largest atmospheric impacts of its plants, produced by:

- Combustion facilities in the boiler houses,
- Transportation of powdery materials,
- Odors,
- Noise.

The Group's actions consist **in using the most effective technologies for filtration and the burners** in the boiler houses, and limiting emissions of NOx and dust.

The company has also implemented **plans to reduce odors** at most of its sites. Some technologies, such as the regenerative thermal equipment, reduce odor emissions by as much as 99%.

Finally, noise is treated as an important factor for plants located near cities. To address it, precise maps of major sources of sound are prepared and used as a guide to **install specific protections**, such as a noise barrier or a silencer on industrial equipment.



# 87%

**of waste recycled in 2015,  
up from 84 % in 2014**

## WASTE: reducing and recycling waste

Although the activities of Roquette's industrial sites generate little waste, managing the waste they do produce is an important step in reducing the Group's environmental impact. The company's commitments aim to **reduce the quantity of waste and recover them in the form of energy** (methanization), **amendment** (composting and spreading) or **recycled raw materials** (paper and cardboard).

For spreading, the Lestrem site in France has obtained a new operating permit for the towns of the Nord-Pas-de-Calais area. The Group also participated in writing the next European BREF (Best References) for the food processing industries. This version will include spreading the effluents from starch plants as a Best Practice, in terms of both capturing economic value and adding agronomic value for farmers.

Finally, in 2015, Roquette cut its production of hazardous waste by nearly 50%. The Group is constantly seeking ways to optimize its waste management **by treating or recovering all of its waste**.



# Environmental data and indicators

In 2015, the scope changed and the three Indian sites were integrated :

| Fossil energy used                         |                                   | 2015    | 2014    | GRI     |
|--|-----------------------------------|---------|---------|---------|
| Electricity                                | GWh                               | 2,357   | 2,291   | G4-EN3  |
| Natural gas                                | GWh                               | 8,073   | 6,997   | G4-EN3  |
| Domestic heating oil                       | m <sup>3</sup>                    | 163     | 735     | G4-EN3  |
| Coal + Petcoke                             | kt                                | 352     | 362     | G4-EN3  |
| Renewable energy used                      |                                   |         |         |         |
| Wood                                       | kt (100%MS)                       | 114.0   | 89      | G4-EN3  |
| Rice husk                                  | kt                                | 94      | -       | G4-EN3  |
| Energy produced                            |                                   |         |         |         |
| Electricity                                | GWh                               | 1,503   | 1,322   | G4-EN3  |
| Biogas                                     | GWh                               | 86      | 32      | G4-EN3  |
| Pumped water                               |                                   |         |         |         |
| - Rivers                                   | 10 <sup>3</sup> m <sup>3</sup>    | 55,731  | 60,713  | G4-EN8  |
| - Underground Reservoir                    | 10 <sup>3</sup> m <sup>3</sup>    | 13,168  | 13,080  | G4-EN8  |
| - Urban network                            | 10 <sup>3</sup> m <sup>3</sup>    | 12,722  | 11,792  | G4-EN8  |
| Water returned                             | 10 <sup>3</sup> m <sup>3</sup>    | 66,451  | 53,509  | G4-EN22 |
| Ratio water returned / pumped water        | %                                 | 81      | 63      |         |
| COD discharged                             | t/kt of starch                    | 1.47    | 1.46    | G4-EN22 |
| Air  |                                   |         |         |         |
| CO <sub>2</sub> emissions                  | teq CO <sub>2</sub> /kt of starch | 596     | 650     | G4-EN16 |
| SO <sub>2</sub> emissions                  | t/kt of starch                    | 0.50    | 0.74    | G4-EN21 |
| NO <sub>x</sub> emissions                  | t/kt of starch                    | 0.66    | 0.58    | G4-EN21 |
| Dust                                       | t/kt of starch                    | 0.24    | 0.19    | G4-EN21 |
| Waste                                      |                                   |         |         |         |
| Non-recycled waste                         | t/kt of starch                    | 12.13   | 14.26   | G4-EN23 |
| Recycled (except spreading) t/kt of starch |                                   | 38      | 33      | G4-EN23 |
| Spreading                                  | teq 100%MS/kt of starch           | 41      | 44      | G4-EN23 |
| Performance indicators                     |                                   |         |         |         |
| Energy                                     | ratio                             | 1.01    | 1.02    | -       |
| Water                                      | ratio                             | 1.24    | 1.26    | -       |
| GHG (greenhouse gases)                     | teq CO <sub>2</sub> avoided       | 702,274 | 578,698 | G4-EN19 |

CO<sub>2</sub> EMISSIONS AVOIDED ANNUALLY (tons of CO<sub>2</sub> eq.)

**2012**

507,147

**2013**

543,882

**2014**

578,698

**2015**

702,274

In 2012, Roquette implemented a performance indicator for CO<sub>2</sub> emissions avoided.

This indicator is defined as the sum of the benefits generated by a set of initiatives aimed at reducing the CO<sub>2</sub> equivalent emissions of the Group's industrial facilities (by installing speed controllers, using biofuels and cogeneration tools, etc.).

The target for 2017 is to reduce CO<sub>2</sub> emissions by approximately 765,000 tons equivalent.





# Social data and indicators

| <b>Workforce</b> (Entire Group - total permanent staff+temporary staff as of Dec. 31) | <b>2015</b>  | <b>2014</b>  | <b>GRI</b> |
|---|--------------|--------------|------------|
| <b>By geographical region</b>   |              |              |            |
| - Europe  | 5,012        | 5,133        | G4-10      |
| - Americas  | 494          | 569          | G4-10      |
| - Asia  | 1,108        | 1,153        | G4-10      |
| - India   | 1,356        | 1,261        | G4-10      |
| <b>Group</b>  | <b>7,970</b> | <b>8,116</b> | G4-11      |
| <b>Professional equality</b><br>(Entire Group - total permanent staff as of Dec. 31)  |              |              |            |
| <b>Male Employees</b>   | <b>6,364</b> | <b>6,450</b> | G4-LA12    |
| - % managers  | 12.0%        | 12.8%        | G4-LA12    |
| <b>Female Employees</b>   | <b>1 606</b> | <b>1 666</b> | G4-LA12    |
| - % managers  | 12.6%        | 12.7%        | G4-LA12    |
| <b>Ratio of Women/Men</b>   | <b>25.2%</b> | <b>25.8%</b> | G4-LA12    |
| <b>New hires/Retirements*</b><br>(Entire Group)                                       |              |              |            |
| - Hires   | 253          | 281          | G4-LA1     |
| - Resignations  | 162          | 310          | G4-LA1     |
| - Layoffs   | 178          | 180          | G4-LA1     |
| - Deaths  | 9            | 12           | G4-LA1     |
| - Retirements   | 139          | 116          | G4-LA1     |
| - Other departures (common agreement, transfers to other sites, etc.)                 | 8            | 46           | G4-LA1     |
| <b>Training</b> (Limited scope)   |              |              |            |
| Training: hours/employees   | 20.5         | 21           | G4-LA9     |
| <b>Integration of workers with disabilities</b> (French scope)                        |              |              |            |
| Proportion of workers with disabilities   | 5.7%         | 5.2%         | G4-LA12    |
| <b>Health and safety conditions</b> (Entire Group)                                    |              |              |            |
| <b>Frequency rate of accidents</b>  |              |              |            |
| - Lost-time Accidents (FR1)   | 1.8          | 2.5          | G4-LA6     |
| - Accident with and without lost time (FR2)   | 5.2          | 8.4          | G4-LA6     |
| <b>Severity</b>   |              |              |            |
| - Days lost   | 1,992        | 1,393        | G4-LA6     |
| - Severity  | 0.14         | 0.10         | G4-LA6     |

\* figures excluding India

FREQUENCY RATE  
OF ACCIDENTS  
REPORTED  
(per million hours worked)

**2011**

6.7

**2012**

7.0

**2013**

8.2

**2014**

8.4

**2015**

5.2



# Methodology

For eight years now, the Roquette Group has published an Activity & Sustainable Development Report.

## Reporting method

To ensure the reliability of our information, we apply several methods prepared by the Group Human Resources and Industrial Divisions. These documents define the perimeters and provide, in a manner that is precise and easy to understand, the definitions of the indicators chosen in this report and in the management reports. Under the French law known as *Grenelle II* (article 225), extra-financial reporting became a requirement for the company in 2013.

The indicators and the information published in the management reports are reviewed by one of our independent external auditors, KPMG. Much of the information is also listed in this report.

Lastly, Roquette was inspired by the "G4 Guidelines" of the Global Reporting Initiative (GRI), and our indicators are listed according to the GRI classification (workforce indicators G4-10 and G4-11, for example).

## The perimeters

Several perimeters have been defined, based on the indicators.

### ● Social indicators:

The Group perimeter includes the legal entity Roquette Frères and all its sites controlled directly or indirectly with a stake of more than 50% as of 31<sup>st</sup> December of the year of reference.

The restricted perimeter includes the legal entity Roquette Frères and all its industrial sites integrated into the Group for at least two years as of 1<sup>st</sup> January of the year of reference, controlled directly or indirectly with a holding of more than 50%, and employing a workforce of more than 50 employees.

### ● Environmental indicators:

The perimeter defined concerns all industrial sites integrated into the Group for at least three years as of 1<sup>st</sup> January of the year of reference, controlled directly or indirectly with a stake of more than 50%, and for which the energy consumption is above 1,000 tons equivalent petroleum (TEP) per year (and above 5,000 TEP/year for the last two years that preceded the fiscal year for the three performance indicators).

In 2015, the three sites in India were included in the environmental reporting.

# Committed contributors

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