

SUSTAINABLE
DEVELOPMENT
REPORT
2019

ADISSEO
A Bluestar Company



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SAFETY
SAFETY IN ALL
AREAS, OUR NO. 1
PRIORITY



SUSTAINABLE GROWTH
INNOVATION AND THE
RAPID DEVELOPMENT
OF ITS KEY SKILLS



SOCIAL RESPONSIBILITY
BUILDING
THE FUTURE



THE ENVIRONMENT
OUR FIRST
ENVIRONMENTAL
COMMITMENTS



RESPONSIBLE CARE
OUR COMMITMENT TO SUSTAINABILITY

Adisseo is a signatory to the *Responsible Care* global charter and, as such, is committed to safe management of its products throughout their lifecycle, the promotion of their role in improving quality of life and their contribution to sustainability.

Adisseo has voluntarily followed the 2016 Global Reporting Initiative Guidelines in preparing this report - Find out more at www.globalreporting.org

"SHOWING THAT SUSTAINABLE APPROACH AND PERFORMANCE ARE COMPATIBLE."

The President's Message Jean-Marc Dublanc



Aware of present and future economic, environmental, and social issues, and determined to serve as an exemplary global leader in the field, Adisseo has developed a growth strategy that is clearly in line with the UN's Sustainable Development Goals.

Our raison d'être is to offer healthy, sustainable, affordable, and quality food to our planet.

A major actor in the food chain, Adisseo has adopted a sustainable and virtuous economic model that combines safety, performance, and general interest. In doing so we are constantly investing in order to develop our tools, products, and services, as well as our processes and systems in order to meet our stakeholders' expectations, i.e. satisfying our customers, developing equal relations with all our partners, looking out for the wellbeing of our employees and ensuring the harmonious and respectful integration of the environmental impact of our activities on their host communities.

As a company listed on the Shanghai Stock Exchange since 2015, we must consider both the requirement of presenting quantitative results every quarter as well as the implementation of an effective, long-term sustainable development policy.

OUR PRIORITIES HAVE BEEN CLEARLY SET OUT AND...

Our priorities have been clearly set out and shared: First of all, ensuring the safety of people – Adisseo employees as well as people outside the company – and goods, controlling the risks relating to our products' manufacturing processes, and limiting the environmental impact of our activities.

In 2019, we achieved our best performance in terms of people's safety in a perimeter that incorporates all our entities, including recently acquired companies. Development programmes relating to our safety culture have been implemented and are being strengthened. These results show that we are on the right track and that we must continue without any compromise in regards to compliance with safety rules and best practices in the field.

Similarly, major dramatic accidents which have occurred recently in companies in the chemical industry, remind us that we must remain alert at all times. Managing our activities with regards to the safety risks of our processes is not a choice, but one of primary responsibility.

Natural resource economics and the fight against climate change are also part of our priorities. The objectives we set out for a 20% reduction between 2015 and 2025 of the intensity of our water and energy

consumption as well as our greenhouse gas emissions are about to be achieved and have even been exceeded in 2020. We are thus able to set out new, even more ambitious objectives.

FINALLY, A COMPANY CANNOT GROW AND DEVELOP WITHOUT...

Finally, a company cannot grow and develop without the commitment and the strong involvement of its employees. In this field, our actions rely on everyone understanding and supporting the company's strategy, on continuously training and improving our set of skills, on looking out for the wellbeing of individuals, on the development of work approaches and conditions that take into account their ideas and expectations, and on everyone sharing the company's profits.

Our approach is pragmatic and well thought out. We do not believe it is realistic to become a role model in every domain in a single day. However, our objective is clear with regards to social and environmental issues, which we place at the heart of our strategy.

The idea that Adisseo has of its future and that of its employees is adopting and fostering a citizen-based approach to our work and working in a world that is more respectful of nature and the environment as well as more just and humane.



COMMITTED TO OUR STAKEHOLDERS

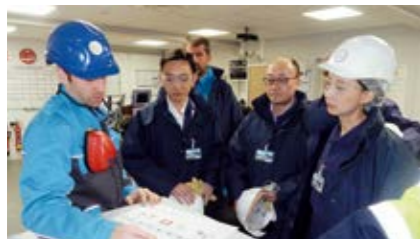
Thanks to regular meetings, constant monitoring and transparent communication, Adisseo has developed and maintained long-term relationships of trust with all its stakeholders, whether employees, business partners, shareholders, authorities or members of the general public.

THE SUSTAINABLE DEVELOPMENT GOALS



Adisseo welcomes its shareholders and Bluestar/ChemChina representatives

Adisseo lends particular importance to promoting its activities in full transparency. It regularly welcomes various stakeholders to its various sites. These occasions are an opportunity to showcase our activities, understand the expectations and needs of our stakeholders, and establish relationships of trust as well as a lasting dialogue.



In April, Dr Hao, President of Bluestar, accompanied by Mr. Wang, Director of Production & Operations and Mrs. Guo, Head of Production & Operations, were welcomed to the Commentry plant (France).

This visit enabled them to discover the site and its activities, especially the production workshops and control rooms. Bluestar representatives also enjoyed a presentation of the facilities, the approaches and procedures relating to safety and the protection of the site, and the construction project of the new water treatment plant, O'disseo. Dr Hao expressed his satisfaction regarding the site's management.



The Roches-Roussillon building enjoyed the visit of a delegation of representatives from the Board of Directors of the ChemChina group and the General Management of Bluestar.

After a general presentation of Adisseo and its industrial operations in France, participants discussed Adisseo Group's activities, safety and sustainable development issues as well as certain strategic projects. The day ended with a visit of the plant.



The Adisseo Nanjing plant and the Syngenta plant in Nantong were identified by the ChemChina group as references in terms of safety.

The Nanjing plant welcomed 35 representatives from ChemChina New Materials Company's Hygiene, Safety & Environment (HSE) committee in December 2019. This visit aimed to showcase and spotlight Adisseo's management system and good practices in terms of HSE for the members of the ChemChina delegation.



Adisseo signs a new aquaculture contract with Shenglong

Shenglong is an industrialist specialised in aquaculture which has experienced strong growth in Vietnam, producing food for shrimp, freshwater, and saltwater fish with a production rate of 300,000 tons per year.

After a few conclusive tests with Rhodimet® AT88 liquid methionine, Shenglong finally agreed to work with Adisseo. The partnership was made official on 28 July 2019, during the inauguration ceremony of Shenglong's second plant in Long-An province in the south of Vietnam.

More than 700 guests were present at the event, including distributors of aquaculture feeds, major fish farm owners, shrimp integrators, institutional representatives, a few select partners and suppliers, and Adisseo.

OTIF : a key indicator of supply chain performance

On Time In Full (OTIF) is an important customer satisfaction index which measures the frequency at which customers receive their order at the requested date and in the expected quantity. In 2019, aside from the implementation of several improvement measures, significant work was done for the reliability of the index.



> Customer satisfaction indicator, OTIF (On Time In Full), stabilised at a high value.

Asfacyl visits the Burgos plant

In October 2019 Adisseo Spain welcomed the annual meeting of the Feed Compound Manufacturers Association of Castilla y León (ASFACYL) and the Spanish Feed Manufacturers Confederation (CESFAC).

The participants, hailing from all over Spain, were able to visit the facilities of the Burgos site in the presence of Mr. Baudilio Fernandez-Mardomingo, the administrative regional delegate. The event was organized in collaboration with Indukern, our privileged business distributor in Spain.



Certified activities

To meet the expectations of their stakeholders, economic and social partners, Adisseo's main production sites

Roches-Roussillon (France), Commentry (France), Burgos (Spain) and Nanjing (China) – have been ISO 9001, ISO 14001,

OHSAS 18001 and health & safety FAMI-QS certified.

These standards (and measures of trust) guarantee our commitment to a continuous improvement system and our expertise in terms of quality management, people safety, environ-

mental protection, and management of health risks. The same goes for all our research and development centres with regards to QHSE fields.

The same teams are working on the certification of the ISO 45001 standard.

92%
satisfaction
rating
Survey of 2000 customers
across the globe

Adisseo surveys its customers

This year Adisseo carried out a customer satisfaction survey among **2000 customers** throughout the world. The result is excellent since the company obtained a **satisfaction rating of 92%**. This was possible thanks to the involvement of all of Adisseo's employees, and reflects the **"Customer Focus"** program which places the customer at the heart of its strategy and activities.

The main strong points identified in the survey are customer service, after sales service, product quality and Adisseo's staff.

This survey is an invaluable tool for Adisseo to improve and anticipate its customers' future needs.



The Minister of Economy and Finance meets Adisseo in Beijing

In January 2020 Mr. Hao Zhigang, President of Bluestar, met the French Minister of Economy and Finance, Bruno Le Maire, in Beijing. This visit took place as part of the development of the "Belt and Road Initiative", a major project initiated by China which aims to enhance connectivity and cooperation in the Eurasian region, mainly through ambitious infrastructure and business agreements. Thanks to the support of senior officials of both countries, Adisseo, a major entity of the Bluestar Group, has enjoyed great acceleration opportunities for its international development.

Collaborating and sharing expertise with customers

Adisseo regularly organizes seminars and conferences in order to better understand the needs of its customers and share its expertise in terms of animal feed. Thanks to the intervention of experts, nutritionists, trainers and technical and business managers, these events help enhance the value of Adisseo's products and services and provide information as well as tangible applications for their use.



BRAZIL

Adisseo organized a two-day training session with its customers, poultry feed integrators Pluma Agroviçola and Bello Alimentos in Cascavel. The content of the session addressed technical aspects of management and motivation.

Altogether, 24 employees from the production, nutrition and quality teams took part. These two companies consider Adisseo a privileged partner, capable of providing technical support and consulting services for the development of their activities.



INDONESIA

Adisseo Indonesia organized a presentation on the management of mycotoxins in collaboration with its business partner, PT. Kalbe Farma Animal Health Division.

Two seminars were held in August 2019 in Surabaya and Jakarta, which gathered together about 50 animal feed experts. During the talks, the R-Biopharm test kit (a quick test device to detect the presence of mycotoxins in raw materials) was unveiled. The Mycoman application which helps to precisely dose anti-mycotoxin products was also unveiled.



FRANCE

At the end of June 2019, Adisseo welcomed customers from the Maghreb for the "Mycogut" program, a training event dedicated to poultry that includes practical and theoretical sessions designed for industry professionals.

Topics relating to poultry health as well as issues relating to the optimisation of breeding performances without antibiotics were addressed.



MEXICO

A seminar was held that gathered experts in the dairy, poultry and swine sectors in Mexico, Central America, the United States and Europe.

Several talks took place, including a presentation by partner Rabobank on the production of proteins in the world and in Mexico and a presentation of Adisseo's vision and future R&D projects.

This event was greatly appreciated by customers and prospects, all animal feed professionals.

Customers at the heart of our organization

For its "Customer Focus" program, Adisseo opened its plants and research centres to customers and business partners. These meetings help enhance the company's know-how, as well as its research and production tools. It is also an opportunity to strengthen partnerships in order to develop solutions suited to their needs together.



SINGAPORE

Adisseo welcomed its customer New Hope at its offices in Singapore.

This visit was an opportunity to showcase the company and its animal feed expertise and to evoke ways of strengthening their collaboration, since Adisseo has the ambition to contribute to the expansion of New Hope in the years to come.



NANJING

More than 30 key customers and business partners in the Asia Pacific region were invited to Adisseo's plant in Nanjing, China, including Cargill, JAPFA, Chamfre, Chung Ang Livestock Feed, Hyundai Feed, Heung Sung Feed, New Panay Agri-ventures and Everlast.

During the event customers were able to visit the facilities and address market prospects for methionine and the effective production of animal feeds. Participants also had an overall view of the quality control systems, ensuring the reliability of Adisseo's products, and their role in terms of environmental sustainability.

Visitors were impressed with Adisseo's expertise and commitment in terms of sustainable development.



COMMENTRY

SKM, a key customer in the south of India, visited the facilities in Commentry (France).

The objective of this meeting was to see the research centres on site (Expertise and Nutrition Research centres [CERN and CARAT]) in order to better grasp Adisseo's R&D capacities in terms of animal feed. Hence, Adisseo was able to enhance the value of its products and better inform SKM about their use.

This visit helped reinforce business relations with SKM, one of the main animal feed players in India.



BURGOS

The Burgos plant (Spain) welcomed the visit of a customer from Ukraine.

Participants were given an in-depth description of the site's production tools. Accompanied by Adisseo managers, this meeting also helped the customer better understand the organization of the supply chain.

OUR GROUP

Adisseo became a subsidiary of the Chinese Bluestar Group in 2006. Since then, group revenue and employee numbers have risen year-on-year. In 2015, Adisseo became the first international company to have its shares traded on the Shanghai stock market.

> KEY FIGURES FOR ADISSEO

N°1 worldwide in protected methionine	N°1 worldwide in liquid methionine	N°2 worldwide in methionine (all forms)	
N°3 worldwide in nutritional ingredients specialty for animal nutrition	1st international company to float on the Shanghai Stock Exchange in 2015		
+2185 employees worldwide	1,44 Bn€ in annual revenue	+3900 customers in 100+ countries	
+185 researchers	+1200 M€ invested since 2010	2 manufacturing centers (Europe and Asia) and multiple industry partnerships	
15 production plants, including 5 INNOV'IA plants	10 research centers including 2 INNOV'IA	3 business units	7 sales departments

OUR VALUES

CREATIVITY

Which opens new paths to progress and new ways of succeeding together.

TEAM SPIRIT

Which unites us in our successes and challenges.

INTEGRITY

Which underpins our interaction with customers and partners, ensuring that our actions are consistent with our words and values.

RESPONSIBILITY

Each of us is a stakeholder in the company and a contributor to its success.

We encourage decisiveness, a sense of urgency, courage and delegation.

RESULTS-FOCUSED CULTURE

Which makes our actions effective and measurable, because we understand that success is built on the quest for performance, continuous improvement and listening to our customers.

OUR BEHAVIORS

COMMITTED

Delegation | Collaboration

COURAGEOUS

Risk taking (exc. for safety)

CUSTOMER FOCUS

Creating value for Adisseo customers

SIMPLE

Agility | Flexibility | Speed

RESPECTFUL

People (360°)
Principles and values | Commitments
Environment | Adisseo group
Customers

ONE VISION, MANY MISSIONS

Offering our world healthy, sustainable, affordable, high-quality food: that is the major challenge to which Adisseo is contributing through the missions it has set itself:

To play its part in the sustainable development of our world

To provide the animal feed and food industries with innovative products and services

To deliver on its commitment to distribute the value it creates fairly between its customers, employees and shareholders

THE 4 CORNERSTONES OF ITS MISSIONS:

SAFETY

ENVIRONMENT

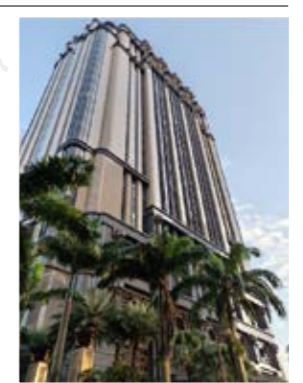
ECONOMIC PERFORMANCE

CUSTOMER & DIGITAL FOCUS

> OUR GLOBAL PRESENCE



- Head office
- Innov'IA locations
- ◆ Other locations
- Sales offices
- Production sites
- Innov'IA sites and subsidiaries
- R&D centers
- Innov'IA centers & subsidiaries



A PREFERRED PARTNER

With its nutritional additives and solutions, Adisseo helps improve the effectiveness and quality of the food chain. To this end we are working to enhance the breeding performance of poultry, swine, dairy cows and aquaculture species in several fields:

THE SUSTAINABLE DEVELOPMENT GOALS



> OUR PRODUCTS AND SERVICES

- **Nutritional performance**
to provide safe, quality products to final users and offer an effective alternative to antibiotics as growth promoters,
- **Economic performance**
to produce at the cheapest cost and feed the vast majority,
- **Environmental performance**
to use less water, less arable land, fewer pesticides and limit waste.

Adisseo's mission is to reinforce food security and provide food that is better quality, more economical and more respectful of the environment.



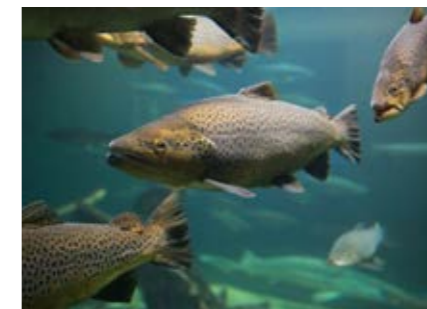
POULTRY



RUMINANTS



SWINE



AQUACULTURE

SERVICES

PNE
DIM
E.lab

PALATABILITY

Krave®
Optisweet®
Gusti®
Maxarome®
Delistart®



ESSENTIAL NUTRIENTS

Rhodimet®
SmartLine™
AdiSodium™
Microvit®



FEED DIGESTIBILITY

Rovabio® Excel
Rovabio® Advance
Rovabio® Advance Phy



TOOLS

Rhodimet® Nutrition Guide
Rovabio® Advance Predictor
Mycoman®

HEALTH BY NUTRITION

Apex®
Alterion®
Adimix®
Selisseo®



FEED PRESERVATION

Mold-nil®
Salmo-nil®
OXY-NIL®
EVACIDE®
Nutri®-Bind



MYCOTOXIN

UNIKE® Plus
TOXY-NIL® Plus
TOXY-NIL®




Reducing the environmental impact of sulfurated products

Adisseo relies on a high level of upstream integration to secure its methionine value chain. Sulfuric acid is one of the most commonly used compounds across a broad spectrum of industry sectors, so in addition to ensuring its own security of supply, Adisseo also provides this product to external customers.

Adisseo offers its customers a regeneration service that makes the product ready for re-use, introducing a new way of promoting a virtuous circular economy. This service is greatly appreciated by industries that use large volumes of sulfuric acid, since it reduces both the environmental impact of their production processes and the carbon footprint of their products.

Our group is therefore a major force in sulfuric acid regeneration in France and Western Europe. Adisseo is fully engaged with the sustainability policy it applies internally and externally for the benefit of its customers.



European leader in the development and production of new additives in powder form, Innov'IA strengthens Adisseo's expertise in shaping their additives.

SAFETY IN ALL AREAS, OUR NO. 1 PRIORITY

Ensuring the safety of persons, installations, products, transport and the environment is Adisseo's No. 1 priority. Reinforced action plans have been implemented to guarantee safety, thanks to innovative and continuous awareness-raising measures. Every day, all employees rally to reach the "Zero Accident" goal.



DID YOU KNOW?

7500 people die every day in the world from accidents at work or occupational diseases.

Source: ILO, International Labor Organization

1000 people die every day in the world due to an occupational accident

THE SUSTAINABLE DEVELOPMENT GOALS



> Safety Day 2019

Looking back at the annual Global Safety Day, organized in all of Adisseo's industrial sites, business regions, research centres, and functional divisions through various animations, training sessions, visits, and discussions focusing on the "Zero Accident" goal. This event raises the awareness of employees to safety, the company's No. 1 priority.



ANTONY

Several workshops on wellbeing at work, relaxation, light therapy, review of the Highway Code, first aid training sessions



R&D CENTRES

Highway Code training sessions, risks and collisions, creation of safety posters by teams



COMMENTRY

Simulation workshops and a Safety Escape Game



ROCHES-ROUSSILLON

Workshops and discussions about notions of perception and decision-making, presentation of the ADISAFE programme and organization of a Safety Escape Game



BARBASTRO

Focus on the "6 Golden Rules", safety observations (FOS), actions plans and inspections



BURGOS

Interactive exchanges, first-aid training sessions



NANJING

Safety seminars and demonstrations around the construction of the new BANC II plant



ASIA PACIFIC

Quiz on food safety, emergency instructions in case of an earthquake, prevention against crime, road safety



SAO PAULO

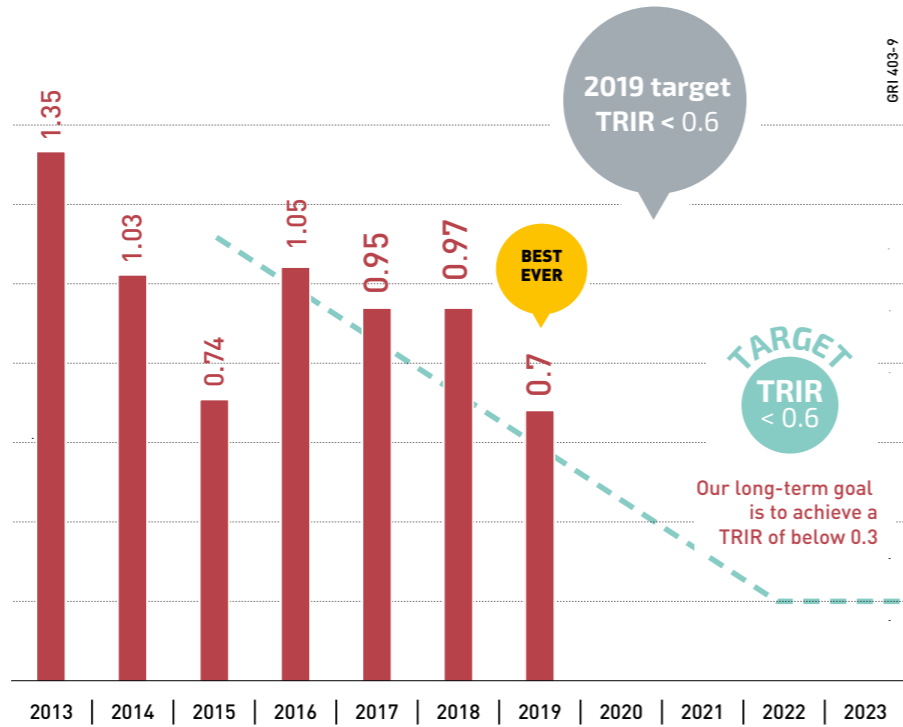
Discussions and animations on Adisseo's safety culture

> 2019, the best year for safety

Number of accidents per 200,000 hours worked
TRIR (Total recordable Injuries Rate)

Our 2019 results represent Adisseo's best ever performance in terms of safety. Despite a difficult second quarter, our safety performance over the three other quarters was good and very close to our objective.

This result is the fruit of various specific action plans dedicated to safety which are deployed throughout the company. Among them, several safety culture programmes were launched in the last few years in our most accident-prone sites. This performance is also linked to the deployment of good practices and of our safety culture on the sites of subsidiary and recently acquired companies such as Nutriad and Inodry.



> Adisafe, for an integrated safety culture

In 2019 the Adisafe programme was launched in the Roches-Roussillon site, which also included staff from Bayonne. Adisafe is an approach that aims to establish an integrated safety culture, i.e. involve all employees to reach the shared objective of "Zero Accident" defined by Adisseo. Indeed, good safety performance is the result of everyone's vigilance and actions.

Nine areas of work have been defined, based on a diagnostic in the form of a questionnaire and interviews, undertaken with the help of the staff. Common knowledge, roles and responsibilities, and the management of instrumental safety barriers were already addressed at the end of the year.

The approach is based on the idea of enabling and seeking the participation of as many people as possible.



> Towards a "Zero Accident" goal

In 2019 Adisseo's safety performance was excellent thanks to many preventive measures as well as the involvement of all internal and external employees. The sites in Nanjing and Burgos illustrate this commitment:



NANJING

Construction for the second Rhodimet® AT88 liquid methionine production platform has already totalled more than 2 million working hours without accident. This strategic project represents a significant investment of EUR 435 million and will contribute to the development of Adisseo's global liquid methionine sales



BURGOS

Adisseo Burgos obtained new awards for its safety performance: the MC-Mutual prize for going beyond 5 years without accidents and the COASHIQ prize for going 3 years without accident.

2 Million of working hours without accident

> First aid training course

Training in first aid means being able to react as fast as possible in accident situations and saving lives.

Aside from the 17 workplace first-aiders on site, 60% of Antony's employees have attended a first aid training course.

The Red Cross came to our offices to organize several training sessions during Adisseo's annual Safety Day and the European Heart Failure Awareness Days.

Those reflexes and basic notions will also help everyone in their personal lives.



60% of Antony's staff trained in first aid

> New railway accesses for Burgos

In October 2019 Adisseo Burgos inaugurated new railway installations in the presence of representatives Renfe and Adif (national railway companies) as well as raw material suppliers Tramesa, Fertiberia and Tepsa.

The guests attended a presentation of the site and its evolution from 1975 to the present, highlighting the growing importance of railway transport since the beginning of its activities.

The event ended with a visit of the new facilities as well as of the unloading stations for raw materials.

This EUR 6.9 million investment has helped improve working conditions for operators as well as safety during handling operations, movement of wagons and pedestrian traffic. The creation of a Rhodimet® AT88 liquid methionine loading station now enables direct delivery to customers by wagon rather than trucks, thereby ensuring better safety conditions and a reduced impact on the environment.



> Coordination with public emergency services

In December 2019 the Commentry site welcomed 15 or so professional officers and volunteers from the Allier Departmental Fire and Emergency Service to exchange ideas with Adisseo's teams about safety processes.

This occasion allowed everyone to discuss the

roles and responsibilities of various actors (public and private) in the case of emergency situations. The visitors were introduced to the activities on site as well as to major possible accident scenarios and the different means of controlling them. The day ended with a visit of the whole site.



> Technical interruption 2019

Every two years the Roches-Roussillon site organizes technical interruptions on its production sites and carries out maintenance operations, regulatory checks and changes relating to improvement projects. The technical interruption is an investment of more than EUR 20 million and a large-scale operation, with hundreds of people working (employees and external parties) for several weeks.

A safety "Zero Accidents" challenge, rewarding the best individual and collective practices, has been implemented with the commitment of everyone, to successfully carry out the many complex operations in the safest possible conditions.

The Commentry and Burgos sites also carry out this type of essential operations, since technical interruptions also contribute to meeting the quality, health & safety and environmental requirements.

TIGHTER SAFETY MEASURES

> Deployment of good practices

In 2019 the Barbastro (Spain) and Kallo (Belgium) sites increased their level of application of good safety practices. An action plan was set out with the implementation of new individual and collective protective equipment, reinforced signage (traffic plan, light signalling on handling chariots), and changes to certain installations for more safety. Training sessions were carried out for the employees to adopt good reflexes, appropriate the "6 Golden Rules" and Adisseo's safety culture.

In April Adisseo CEO Jean-Marc Dublanc visited the sites and observed the effective implementation of these good practices.

In 2019, the North American teams have also developed a holistic approach to safety. Various training sessions were conducted: shooting sessions given by the local police department, an interactive presentation on first aid, and ergonomical exercises.



In the field, they reviewed our Rhodimet® AT88 feed mill safety product stewardship program by emphasizing its value to our customers. Similarly, safety management at the production plants in Hampshire (USA) has been improved (Employee awareness of the 6 golden rules, reinforcement of safety signs, new security system).



> Crisis management tools training session

Preparations for managing emergency situations that might present an immediate risk of causing serious harm to people's health, goods and the environment is an essential element for any health and safety management programme.

The basis for these preparations includes having an internal operational plan and contingency arrangements with an appropriate training course and a test and exercise programme.

The Roches-Roussillon site reinforced training sessions for its HSE executives and team leaders to learn about good reflexes and the use of crisis management tools in order to better understand interactions with regulatory authorities (DREAL, CODIS, prefecture, town council, police force).

The training module, delivered by GESIP (Petroleum Fire Safety Study Group) is based on various operational tools shared between industries and public emergency services. Adisseo's HSE support helped with the transposition of theory to the practical tools used. During this training course, four tools were presented: the situation sheet, the log book, the tactical situation (SITAC) and SAOIELC.

ACCELERATING INNOVATION

Adisseo's ambition is to be a profitable and growing company that operates sustainably. To this end, research and innovation are essential to set the company apart and offer its clients innovative and sustainable solutions to help them grow.



DID YOU KNOW?

Animals' capacity to convert feed into live weight relies heavily on species and livestock management.

Source : IOP (Institut of Physics) publishing December 2017

CONSUMPTION INDEX



THE SUSTAINABLE DEVELOPMENT GOALS



INNOVATION AND THE RAPID DEVELOPMENT OF ITS KEY SKILLS

> Innov'L@b at the heart of innovation

Innov'L@b is a collaborative network created by Adisseo which pools the skills required to identify, assess and integrate disruptive technologies. Its mission is to seek, select and develop proofs of concept (POC) for solutions, technologies and business models that will contribute to Adisseo's sustainable growth.

The selection of POCs is made according to three key performance indicators (KPIs): improving animal welfare and lowering mortality rates, reducing greenhouse gas emissions and contributing to sustainable development, and guaranteeing reduced costs and the improved effectiveness of livestock production.

In 2018 Adisseo launched, in collaboration with Seventure Partners, AVF, an institutional fund dedicated to animal food, nutrition, and health. In 2019 three investments were made including for the French Rennes-based start-up TIBOT Technologies, which develops robotic solutions for poultry farmers.

These partnerships have led to the creation of Sputnik and Sputnik NAV, two robots whose function is to ensure poultry welfare while improving the technical and economic performances of agricultural holdings and farmers' working conditions.

Nowadays, Innov'L@b continues to seek new projects with start-ups and companies, offering innovative solutions to all aspects of the livestock industry.



- health through nutrition
- mycotoxin management
- new raw materials
- precision breeding
- analytical methods
- biosafety
- the digitalization of breeding



> SPUTNIC is intended for layer farms, it encourages poultry to lay eggs in nests, avoiding laying on the ground, and limits financial losses.

> SPUTNIC NAV is intended for broiler chicken, it stimulates movement and improves well-being thanks to a scraper that allows the litter to be aerated.



in 2019:

48

proofs of concept (POCs) that have been selected and evaluated

40

preselected applications

3

projects of POC are under development

3

investments





> BANC II : Completion of a new logistics centre in Nanjing

The new logistics centre of the future BANC II plant in China was completed in May 2019 and is part of a global EUR 435 million project to build a new production platform that will supply 180,000 tons of Rhodimet® AT88 per year. Located close to Adisseo's first Nanjing-based plant, this new methionine production platform will meet customer demands as well as the company's sustainable growth objectives.

The new logistics centre includes several packaging lines, a warehouse, storage tanks and a bulk loading station. In its operational phase the logistics centre will be able to manage more than 360k tons per year of Methionine Rhodimet® AT88 and ensure its reliable and timely delivery to customers in China and internationally. Thanks to the excellent work and the cohesion of Adisseo's teams in Nanjing, Shanghai (China) and Lyon (France), the construction process suffered no accidents or anomalies and the final cost ended up being below budget.



> A new research centre dedicated to aquaculture in Singapore

On 13 December 2019 Adisseo inaugurated its new research and development centre dedicated to aquaculture in Singapore.

ASA (Aquaculture Station by Adisseo) has assembled a team of aquaculture experts to focus on nutrition, aquatic animal health and innovative technologies relating to aquatic sciences. Located within the Marine Aquaculture Centre (MAC) of the Singapore Food

Agency (SFA), ASA will benefit from the SFA's tropical aquaculture expertise and will also be able to access biological material available at the MAC to aid aquaculture research.

The new research centre's mission is to meet the challenges of the fast-expanding aquaculture industry (fish and shrimp), by developing strong partnerships with academics the world over, especially in the Asia Pacific region.



> Technical exchanges with Electricité de France (EDF)

For Adisseo's relations with local companies, and upon the request of EDF, the Roches-Roussillon site (France) welcomed 30 of EDF's employees to share views on the management of the ventilation installations of the plant's building.

In addition, five people from Adisseo's team were able to visit EDF's neighbouring power plant in Saint-Alban. These exchanges helped Adisseo understand EDF's constraints and analyse possible solutions to help carry out EDF's project.



> Adisseo invests in the development of a portable nanometric device

In order to accelerate its development in terms of innovation, in addition to internal research, Adisseo now also relies on venture capital.

AVF, the investment fund created in 2018 by Seventure for which Adisseo is a key investor, carried out its first operation at the start of 2019. Inspecto Solutions Ltd., the target company, is currently developing a portable nanometric device for

the early detection of contaminants such as mycotoxins, directly on site. This device allows for better quality control of food by detecting the presence of mycotoxins in cereals destined for the animal industry. It potentially offers a dedicated solution, capable of real-time analysis and adapted to the detection of a series of contaminants according to the customer's needs.

Unlike traditional methods, all stakeholders in the supply chain can easily use this device at any moment to gather results in real time and thus create value throughout the food production cycle.

Several other projects are being developed within AVF. These new projects will enable Adisseo to foster innovation in terms of developing new products and solutions.



> Adisseo takes part in the Sommet de l'Élevage

For the first time Adisseo has taken part in the Sommet de l'Élevage which took place in Cournon d'Auvergne (63), France.

This European fair for breeding professionals gathers 1500 exhibitors and attracts more than 95,000 visitors from all over the world – an opportunity for Adisseo to present its activities in the field of Ruminant Products to dairy farming professionals.



> Sustainable development at the heart of Adisseo's 6th Catalysis Days

In December 2019 Adisseo's 6th Catalysis Days took place in the offices of the Solvay Research & Development Centre in Lyon (France) which hosts our Cinachem research centre.

Organized over two days, this annual event aims to reinforce the diversity, quality and originality of Adisseo's Catalysis Research and Innovation (R&I) approach. These meetings represent an excellent opportunity to discuss with Adisseo's main academic partners the topic "Sustainable Development, a Challenge for Tomorrow's

Chemical Industry" and to show participants around the innovation centre.

This was also an opportunity to present Adisseo's contribution to sustainable development and the creation of innovative products and services in the fields of animal food and the food industry. The event gathered together 30 people, consisting of PhD students, postdoctoral researchers and their supervisors, as well as the heads of Sustainable Development for Solvay and Adisseo.

> 2019 : Adisseo maintains its environmental investments

> Closure of the Polar project



The Polar project represented an investment of more than EUR 110 million destined to increase liquid methionine production capacity in Europe. The aim was also to secure access to raw materials and to improve the reliability and competitiveness of our installations.

The 3 years of the operational construction phase ended with the activation of a new effluent treatment furnace and a new unloading station for methyl mercaptan (MSH) wagons on the Saint Clair du Rhône site (France). These two latter elements in the project represented 70,000 hours of work for some fifty people. No work accidents were reported.

On 19 December 2019 the closing day for the Polar project took place in Saint Clair du Rhône in the presence of François Mailhos, Adisseo's Industrial Director, who also presented the outcome of the Polar project for the Burgos site (Spain).

The aim of this day was to review the project and to share with the whole team the lessons learned as well as the positive points and areas of improvement. Many topics were addressed during the meeting, among which were the project's organization, technical aspects, safety on site, purchasing and commissioning. The constant improvement approach will help capitalise on this feedback for future projects.



> Adisseo obtains its first "sustainable development" loan

On 22 November 2019 in Hong Kong, Adisseo successfully secured with a group of 4 banks a loan of EUR 200 million over 5 years (under the holding BlueStar Adisseo Nutrition Group Ltd) with competitive financial conditions that will enable the group to finance its future development.

With an interest rate linked to the achievement of key objectives in terms of social responsibility, Adisseo can benefit from the

development of this type of loan and thus use the loaned funds freely.

For that purpose, Adisseo has identified several KPIs, in line with its sustainable development strategy.

The company has set clear and easily measurable objectives based on areas of development such as safety at work, research and development efforts for bio-sourced processes, and the

water and energy consumption of the production units.

Adisseo, a leading actor in the food chain, contributes to one of the major challenges for the planet: feeding the world's ever-growing population sustainably.

Adisseo has shown the increasing integration of sustainable development in all its activities, including its responsible financing strategy thanks to this innovative solution.

> Adisseo holds its first booth at Asian Pacific Aquaculture 2019

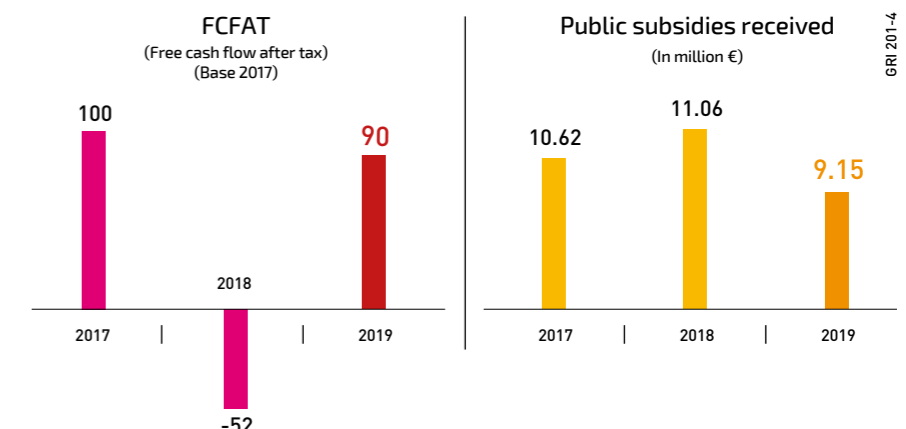
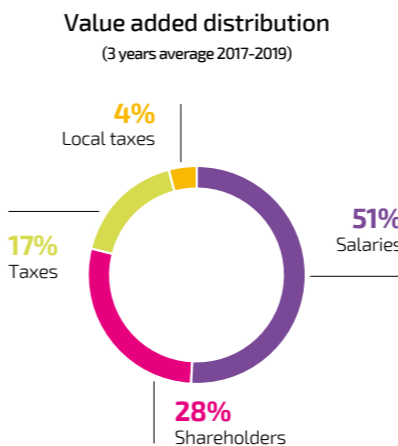
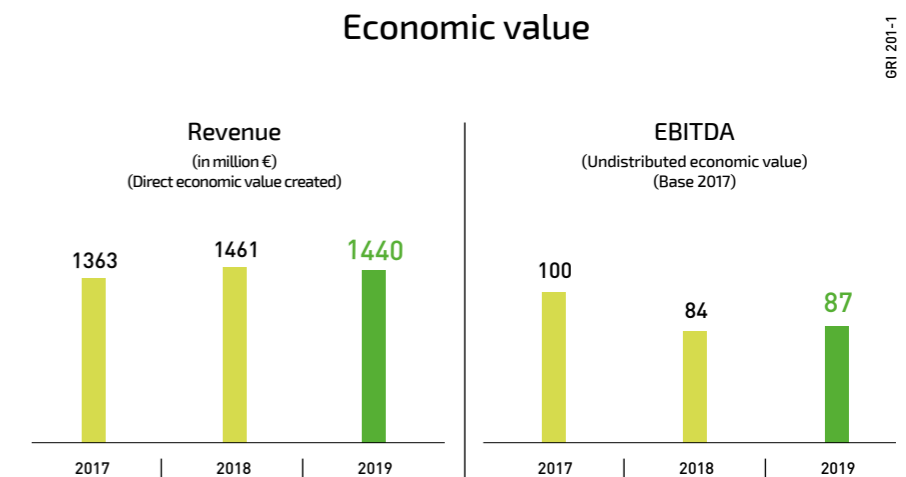
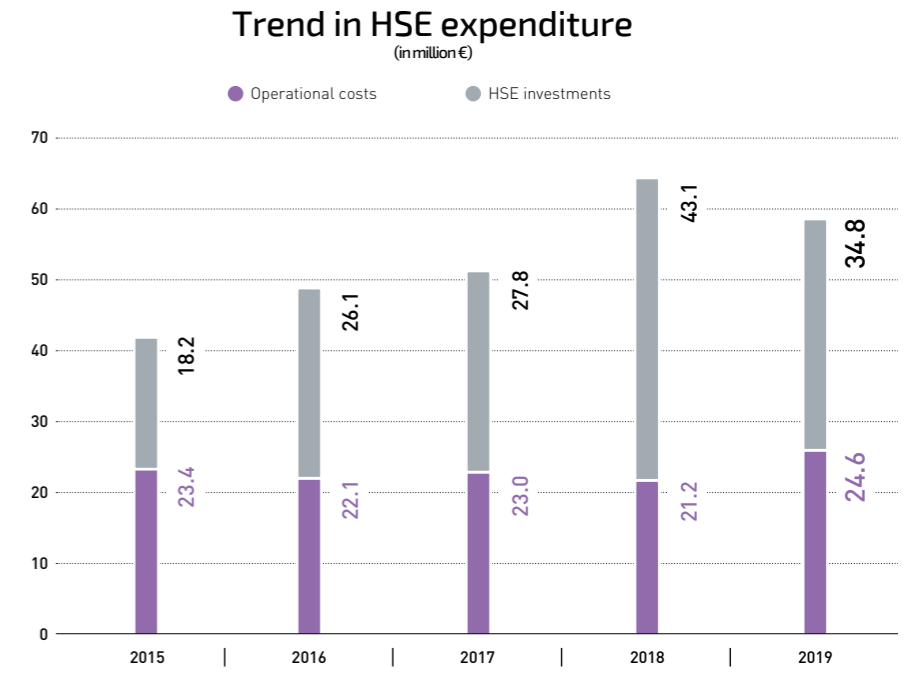
For the first time Adisseo took part in the Asian-Pacific Aquaculture 2019 (APA), organized by the World Aquaculture Society, which was held in June in Chennai, India. The event included many rewarding professional meetings.

During the event, Adisseo's booth featured the company's latest aquaculture solutions for more than 200 aquaculture professionals and specialists. In collaboration with APA, Adisseo also organized a seminar which welcomed more than 90 clients and media from South-East Asia and India.



Our HSE operational budgets, which must integrate an increasing number of regulatory constraints (additional studies, rising taxes, etc.) are under control thanks to a deliberate HSE investment strategy of close to EUR 30 million per year over the last five years. Each industrial project is made good use of to improve and strengthen our management of safety and environmental risks and to reduce their impact in a strategy of sustainable growth.

As in 2018, 2019 saw a significant increase in the environmental share of investments, due to several major projects (50% of investments in 2018-2019 vs. the usual 25%). The construction of a new water treatment plant in Commeny (France) is under way and the construction of a new effluent treatment furnace in the production unit of a methionine intermediary in Saint Clair du Rhône (France) started mid-2019.



ATTENTION & SOLIDARITY

As a company that pursues a corporate social responsibility (CSR) policy, Adisseo aims to guarantee the satisfaction and commitment of its employees through measures that promote wellbeing, health at work, diversity and solidarity (local events, support to humanitarian organizations, etc.).



DID YOU KNOW?

Animal protein contributes to 25% of our protein needs.

Source : Global Food FAO stat 2016

25%
of our protein needs

THE SUSTAINABLE DEVELOPMENT GOALS



BUILDING THE FUTURE



> Adisseo implements its Code of Ethics

Adisseo's Code of Ethics sets out the company's values and conduct. It reflects the company's commitment in terms of integrity and ethics and reinforces its reputation thanks to just and transparent business practices. It sets out principles and rules of conduct for all employees, whatever their function and position, which they undertake to respect and implement on a daily basis in the course of their duties.

Adisseo's Code of Ethics addresses topics such as conflicts of interest, anti-corruption policies, anti-competitive practices, guidance in terms of gifts and entertainment, fight against fraud, respect for human rights, safety at work, harassment prevention, equal opportunity and the protection of personal data.

In 2019 Adisseo organized a general training session for all employees on a variety of topics with online training sessions (e-learning) as well as classroom lectures.

At the same time a platform to report illegal conduct was implemented.

> <https://adisseo-ethics.signalement.net>

"The success of a company is based on the trust of its stakeholders, including business partners, civil society, shareholders and especially employees. Success can only be gained by ensuring transparency, reliability and equality."

Jean-Marc Dublanc, Adisseo CEO

> Adisseo, silver medallist of Ecovadis

Ecovadis awarded silver to Adisseo for its CSR performances with a global score of 57/100.

In Environmental terms, Adisseo is ranked in the top 9 companies evaluated in the field of animal feed manufacturers.

In Social and Human Rights terms, Adisseo is ranked in the top 25 companies evaluated in the field of animal feed manufacturers.

This result leaves Adisseo clearly above the average in its field (45/100).

Ecovadis is a renowned assessment body

which aims to promote and foster ethical, social and environmental performance throughout the supply chain.

This recognition encourages Adisseo to pursue its efforts in terms of sustainable development. Management of environmental impact as well as social policy are the company's strong points. The detailed analysis of the results will help us define areas for improvement in the field of responsible purchases, and finalise the implementation of the Code of Ethics and related training sessions.



> Sustainable procurement

Supplier risk management has become a central issue for Adisseo, not only in terms of its business continuity but also more broadly in application of its Responsible Procurement policy.

A complete screening of all our suppliers is carried out annually according to the Responsible Procurement issues of each purchasing category, in order to guarantee the sustainability of our supplies.

Action plans are defined and include industrial investments to secure the supply of raw materials as well as the establishment of sustainable partnerships with suppliers.

This is supplemented by systematic consideration of CSR aspects in all purchasing strategies, the formalization of these aspects in all purchasing requirements documents as well as in all annual supplier assessments. Specific CSR audits are implemented for suppliers considered at risk.

Establishing stable and responsible relationships with our suppliers is the foundation for building sustainable supply chains.



> Adisseo finances the construction of a research centre in Brazil

Adisseo gave financial support for the construction of a new research centre dedicated to poultry at the Federal University of Paraná (Brazil), with a donation of USD 3500. Inaugurated in May 2019, this facility will benefit first- and second-cycle students of the University of Agronomy and Veterinary Medicine. Local students, academic staff, professionals from the poultry industry and Adisseo's team in Sao Paulo were present for the opening ceremony.

This project is part of the academic development and poultry production research for the region of Paraná



> Participate in the training of future professionals

Adisseo participates in the students' training and professional integration. Every year, the company hires many interns and student workers from various levels from BAC to BAC +5.

In 2019, 96 students in France chose Adisseo to develop their skills.

Adisseo has also opened its doors to 14- and 15-year old secondary school students in Antony – a privileged moment to enable them to discover the company's activities through interactive workshops such as the "Climate Fresco".

96
students
recruited in 2019

COMMITTED TO EMPLOYEE SATISFACTION

THE SUSTAINABLE DEVELOPMENT GOALS



> Recognition of employees

Adisseo attaches particular importance to valuing its employees and recognising their work.

In 2019 the plant in Nanjing organized a ceremony for the promotion of 29 of its employees. Mr. Ru Chengjun, the General Director of the Nanjing plant and its Industrial Director Jean-Paul Alozy, congratulated the staff on their commitment.

Three employees received the "Responsible Care" project prize awarded by the Jiangbei Union.

In Commentry 26 medals were awarded to employees for their 20 to 45 years of commitment and their contribution to the company



> 30th Bluestar Summer Camp

In July the 30th Bluestar Summer Camp took place. This annual event gives the opportunity to the children of the employees of all of Bluestar Group's companies and subsidiaries throughout the world to spend three weeks in China. In 2019, eight children of Adisseo employees from four different countries took part in the programme.

The aim of this initiative is to promote multicultural communication and

to contribute to the development of children's curiosity and understanding of Chinese culture. This is done through various activities: cultural visits, sports and stays with local families. The children also got to discover Beijing, visit the Great Wall and participate in a show presented during the opening ceremony for the 30th anniversary of the Bluestar Summer Camp. A wonderful experience that they are unlikely to forget!



> The Nanjing plant celebrates its 10th anniversary

In 2019 the Nanjing site celebrated its 10th anniversary. To mark the occasion an event was organized for all Chinese staff. After a review of the site's activities, the Director General, Mr. Ru Chengjun, presented the plant's record in terms of people safety, process security, environmental protection and production over the last ten years.

Mr. Bian Zhongwu, Director of Nanjing's "New Material Science and Technology Park" which Adisseo is part of, congratulated and recognised our staff for their excellent work in all these fields. A prize was awarded to the employees for their involvement.





> A new award for the Addixyz training tool

Adisseo launched a digital training tool for tablet, Addixyz, in June 2017. This training device is destined for operators in the chemical industry.

Recognised by digital training experts as a functional, cutting-edge tool, Addixyz was awarded the **1st Prize for Excellence in the Digital Training category by CEGOS in 2018**.

Since then the project has been the subject of numerous talks including at France Chimie in early 2019 under the aegis of M. Bonnell, Deputy from the Rhône Département.

In July, Addixyz was awarded a new prize: The Special "Coup de Cœur" Prize awarded by the think tank for Human Resources &

Management (RH&M) and the **Global Talent Observatory**. Created in 2010, the event aims to contribute to the emergence of innovative talent management concepts to deal with national and international challenges, the virtualisation of management, new technologies and diversity.



> Appointment and Adoption of Adisseo's values

Adisseo advocates certain values and conducts, including **Courage, Engagement, Customer Focus, Respect** and **Simplicity**, which are structural elements in its corporate culture.

Several brainstorming and interactive presentation sessions focusing on Adisseo's values and conducts took place in all of Adisseo's entities.

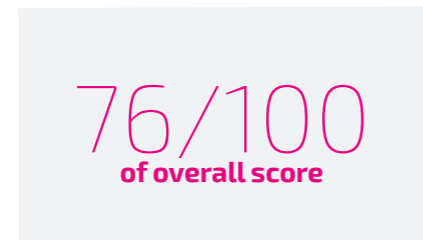
These workshops aim to rally the teams, reinforce the importance of these elements and enable employees to exchange ideas on the company's culture.

> Gender equality study

Committed to being an inclusive and socially responsible company, Adisseo attaches great importance to professional equality within its French entities. To this end a study was carried out and the company received a mark of **76/100**, based on the following five indicators:

- Differences in pay between men and women for a similar position per age bracket,

- Percentage of men and women having benefitted from an individual raise during the year,
- Percentage of men and women having benefitted from a promotion during the year,
- Percentage of women to have received a raise upon returning from maternity or adoption leave,
- Number of women among the ten highest earners.



> Enhance diversity

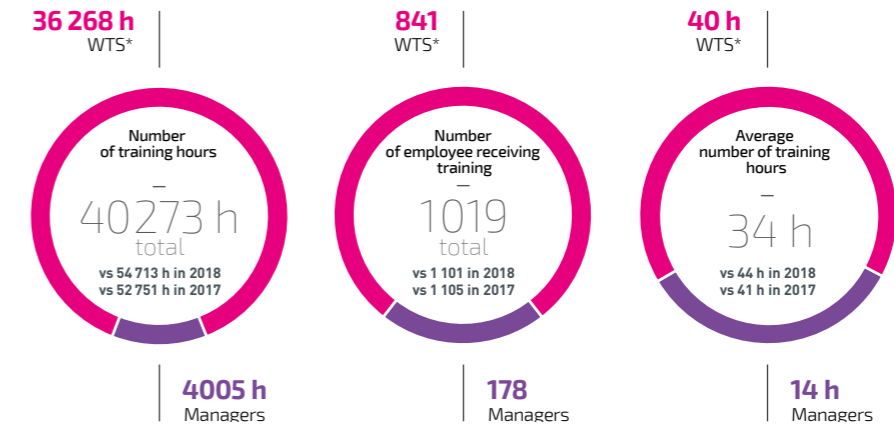
Adisseo supports EllesBougent (in France) and STEM Talent Girl (in Spain), associations which aim to enhance diversity in companies in sectors where women are under-represented, as in the technology industry and tech-related activities. EllesBougent and STEM Talent Girl have rallied to foster talent diversity in training courses, federations, associations, secondary schools and institutions as well. They fight against the stereotypes that weigh on the industry and encourage young women to consider a career in science and technology.

By joining EllesBougent and STEM Talent Girl, Adisseo has shown its desire to integrate more women within its activities.

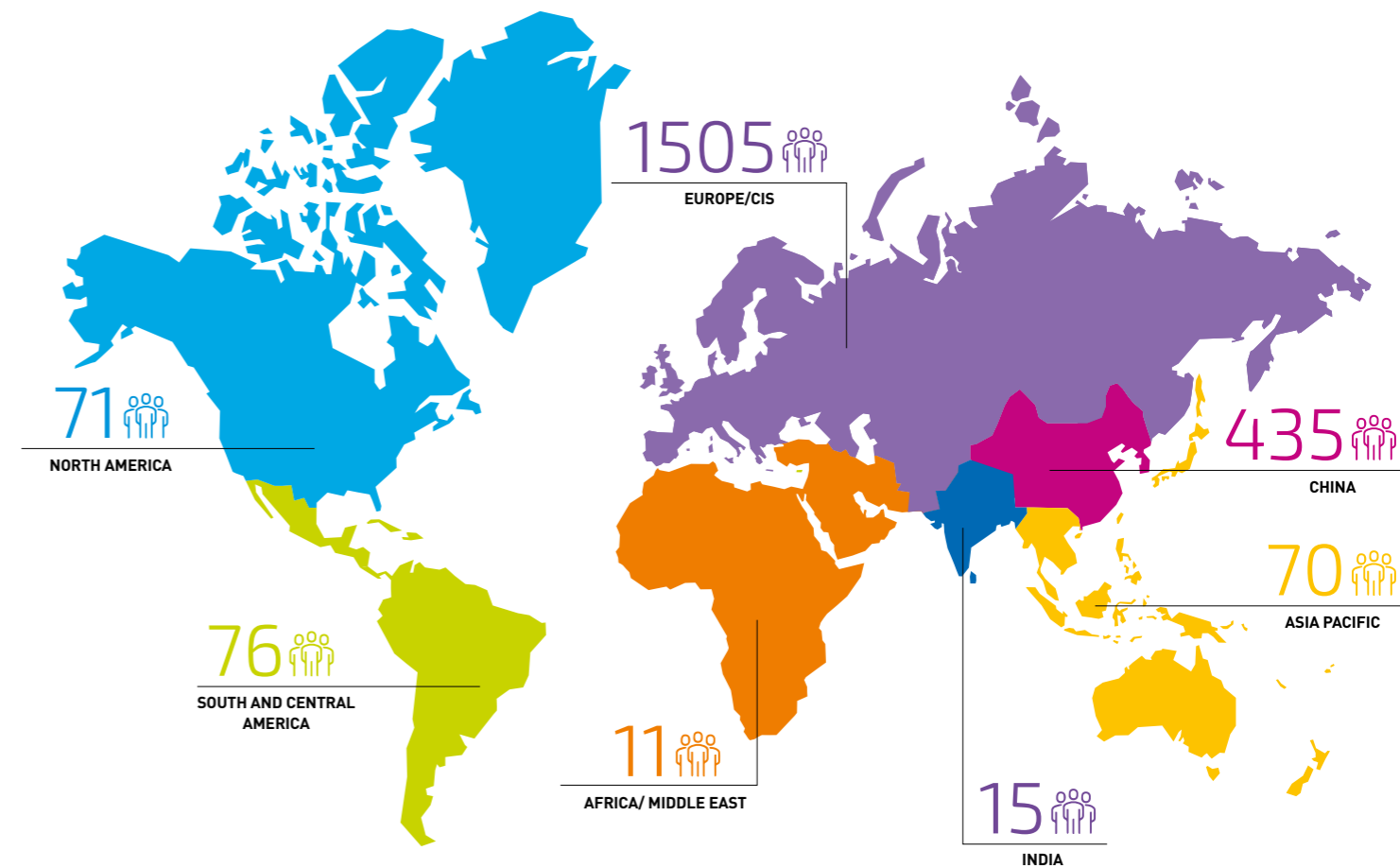
Training at Adisseo in 2019

(In Europe by employee and professional category)

*Workers, Technicians, Supervisors (non-management)



> Total global labor force by region in 2019*



2183
employees in 2019

2018 labor force : 2178 - 2017 labor force : 1895

*Full-Time Equivalent Staffing

GRI 401-1

GRI 102-7

> Promote exchanges

For its corporate social responsibility, Adisseo organizes events that contribute to strengthen employees' engagement and team work in a relaxed and happy atmosphere.



ANTONY

"Meet & Share" events are organized to share information with employees on site about the company, its trades and activities and current affairs. "Lunch and Learn" events foster exchanges between teams and breaks down barriers.

The "AdiBuddy" integration programme provides support for newcomers thanks to an employee who helps them integrate and answers their questions and beyond that, is there for them.



ROCHES-ROUSSILLON

"Working Together" days, exchanging and sharing in work groups to come up with ideas and objectives relating to safety, reliability and competitiveness.



DENDERMONDE

In Dendermonde (Belgium) in September, employees organize work meetings and end the day with a friendly moment around a barbecue.



> Ensure health and wellbeing in the company



For its health and wellbeing at work policy, Adisseo promotes various measures.

For "Pink October", the Commentry site organized a screening event for breast cancer. This is the leading cause of cancer death for women, although early detection in 9 times out of 10 leads to recovery. In Roches-Roussillon, an occupational psychologist offers weekly consultations. Meditation and micro-nap sessions are also available for volunteer employees

to help them reduce their stress and offer more comfortable working conditions.

As a member of the Poligono Saludable association, which includes companies from the industrial area in Burgos, Adisseo Spain organizes many activities to promote health and wellbeing at work: anti-smoking and anti-obesity campaigns have been carried out, a hike for employees organized and a football and cycling team built.

BUILDING SUSTAINABLE RELATIONSHIPS

THE SUSTAINABLE DEVELOPMENT GOALS



> Events around Sustainable Development Week

Adisseo is a committed company and as such, several activities have been organized around the world during Sustainable Development Week.



SINGAPORE

The team went to Singapore's National Water Agency NEWater drop-in centre for an interactive visit and a workshop where the team got acquainted with the water treatment process.



SAO PAULO

A sustainable activity per day with simple measures to limit waste in the environment. An open discussion with a nutritionist to get rid of persistent beliefs and habits.

Massage and yoga sessions in the offices to reduce stress, improve sleep and strengthen health...



LYON

The Cinachem team is decided to creating a green area to preserve bees and pollinating insects, since the protection of insects is essential for the balance of our natural environment.



ANTONY

Several workshops have been organized to create a "Fresque du Climat" in order to better understand the origins of climate change and its impact on our planet



BURGOS

A busy programme: sustainable race, contribution to the "Pas d'enfant sans moustache" campaign, a sustainable market with EUR 900 collected for disabled people.



COMMENTRY ROCHES-ROUSSILLON

In Commentry, priority is given to the "Zero Waste" campaign.

In Roches-Roussillon, our employees made their own washing powder..



> Adisseo contributes to the employability of people with disabilities

Adisseo's Disability approach is in line with its global CSR approach. As a member of Handicap Officiel, Adisseo is committed to promoting jobs for people with disabilities.

For three years Commentry has counted 6% of people with disabilities among its staff. In 2019 3 temporary staff with disabilities were hired and 4 employees benefitted from job maintenance support.

Adisseo has partnered with several ESATs (French support and work assistance establishments, including "Les Ateliers de Fresnes" and contributes to hiring people with disabilities, for example to prepare cocktails, clean work clothes, maintain green areas and archive documents.

This year Adisseo won the Integration prize at the 15th "Trophées Handicap & Entreprises" for supporting employees with its qualifying training programme.



> Adisseo celebrated the European Disability Employment Week and the International Day of Disabled Persons with various activities

ANTONY
a sign language workshop to communicate without speaking and a lecture by blind horse rider Ophélie Fatwiski.

COMMENTRY
a photo exhibition and hearing screenings were offered to employees.

ROCHES-ROUSSILLON
"Handi poursuite", a game to test employees' knowledge of disabilities.

MEXICO
a quiz, talks and a poster campaign.

BURGOS
a quiz to raise awareness of the topic.

> World Egg Day

World Egg Day is celebrated every 2nd Friday of the month of October and contributes to raise awareness of the benefits of eggs and their importance in human nutrition. For ten years Dr Sachin Ingewar, Adisseo Business Director for the Indian subcontinental region, has taught children the nutritional value and importance of eggs. His personal initiative is also supported by his wife, Dr Pinky.



> Solidarity: Adisseo rallies

Every year Adisseo's entities take part in community initiatives and make financial and material donations to various associations.



ANTONY > BOOK DONATIONS

At the initiative of the employees, a book collection for the association RecycLivres was organized in Antony. The operation was a success and more than 28 boxes with close to 300 books were donated.



BURGOS > COLLABORATION WITH ASPANIAS

The Burgos site donated part of its old but still functional office furniture to the association Aspanias.



BARBASTRO > PARTNERSHIP WITH UNICEF

A charity collection campaign in partnership with UNICEF was undertaken in Barbastro. At Christmas a food collection was organized. Finally, employees ran to support the fight against cancer among women.



SAO PAOLO > COMMUNITY RACE

Sao Paolo's employees participated in a community race, the "Italia Esperienza 6K". The total amount paid for the registrations was donated to the NGO Gaia+, which helps send more than 9000 children to school in Brazil.

OUR FIRST ENVIRONMENTAL COMMITMENTS

Adisseo constantly aims to reduce the impact of its activities on the environment. To this end the company has rallied together to reach the public environmental objectives it set in 2018, while contributing to UN's Sustainable Development Goals.



DID YOU KNOW?

50% is the necessary increase in productivity of our food system to feed 10 billion people. This is the current share of habitable land needed for food production.

Source : GE06, ONU 2019

50%
productivity increase
of our food system

THE SUSTAINABLE DEVELOPMENT GOALS



> Sustainable development indicators

Natural resources economics and the fight against climate change are part of our primary areas of progress.

The objectives we set back in 2018 for a 20% reduction between 2015 and 2025 of the intensity of our water and energy consumption as well as our greenhouse gas emissions are about to be achieved and even exceeded this year.

Nevertheless, 2019 was marked by a slight increase in water and energy consumption intensity and greenhouse gas emissions due in particular to the prolonged restart of our European units after a long technical interruption (required to carry out regulatory controls and/or significant process changes).

Thus, from 2020, we will set new, even more ambitious objectives.

> A new sustainable evaluation tool for R&D projects

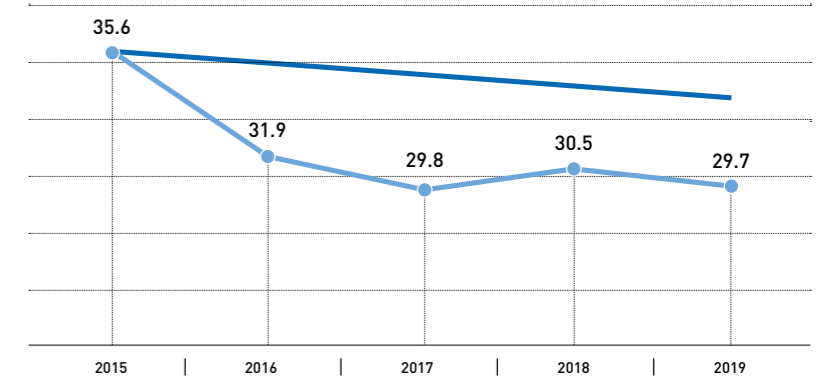
Sustainable development is increasingly considered in decision-making relating to new projects carried out by Adisseo. For example, the company is working at several levels to improve its environmental footprint as well as that of its customers, through advantages provided by its products.

Now, beyond their mere innovative and competitiveness-enhancing dimension, R&D projects are evaluated according to their Sustainable Development impact. To this end an ASSET (Adisseo Sustainable evaluation tool) evaluation chart has been implemented to ensure the decision-making process of R&D projects.

This evaluation chart relies on three pillars of sustainable development: the environment, social concerns (including health and safety) and the economy, which each have clearly defined criteria. This tool complements the life cycle assessments (LCAs) carried out for ongoing projects and helps identify the most virtuous projects and their areas of improvement.

Water use intensity

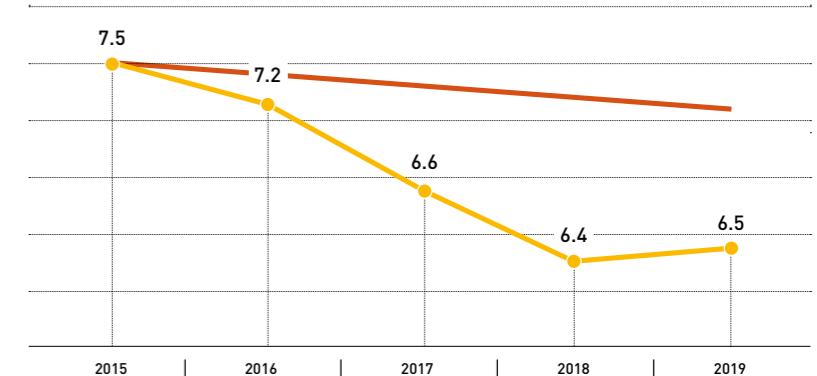
(m³/t of manufactured products)



● Reduction objective for a target of -20% by 2025 compared to 2015
● Annual water consumption

Energy use intensity

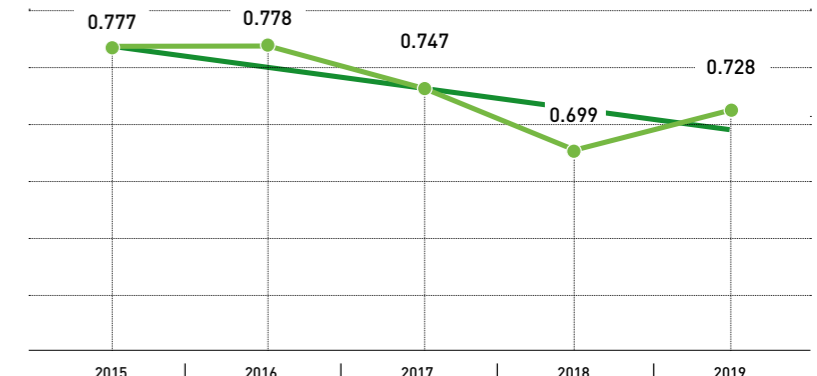
(GJ/t of manufactured products)



● Reduction objective for a target of -20% by 2025 compared to 2015
● Annual energy consumption

Greenhouse gas emissions intensity

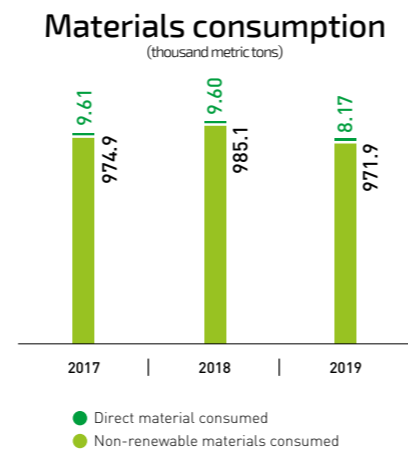
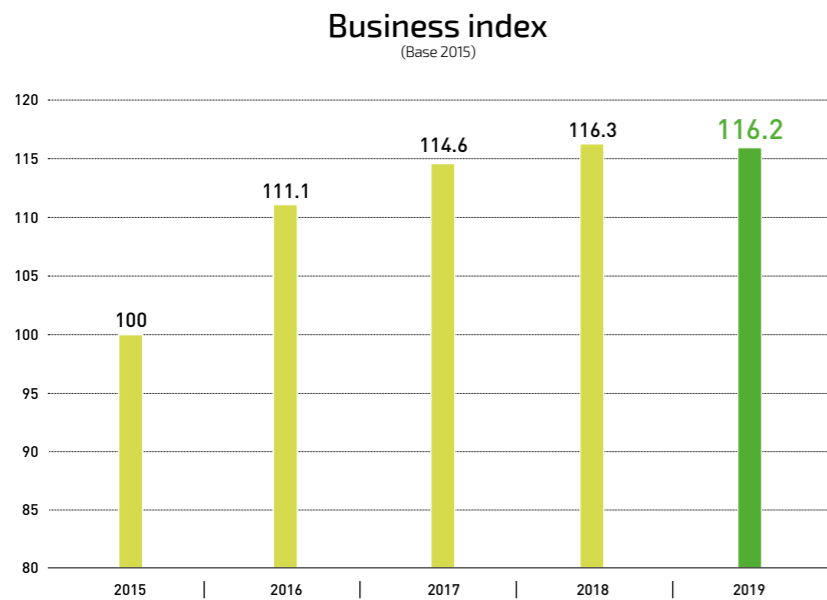
(t/t of manufactured products)



● Reduction objective for a target of -20% by 2025 compared to 2015
● Total greenhouse gas emissions per year

> Activity maintained at a high level

The activity index reflects the evolution of quantities produced in our major industrial production sites. Despite a lengthy technical interruption (for regulatory controls and/or significant process changes), activity remained at a high level in 2019 after steadily increasing for the past few years. This should be viewed in light of controlled and improved environmental results.



Material consumption is directly linked to the stable rate of activity over the last few years.

TOWARDS A SUSTAINABLE ACTIVITY

THE SUSTAINABLE DEVELOPMENT GOALS



> O'disseo receives the visit of DREAL

The construction of the new "O'disseo" water treatment plant in Commentry (France) is ongoing and represents a global investment of EUR 19.3 million. The installation will treat 5,500 m³ of water per day and will help reduce odour emissions and meet the new environmental standards that will apply in 2021.

As construction is nearing completion, Adisseo has received a visit from DREAL, which carries out environmental police missions on industrial and agricultural sites to help reduce risks and nuisances for the environment and public health.

The meeting enabled Adisseo to discuss the project's development and the elements that indicate compliance with the rules and regulations, in full transparency with the authorities.

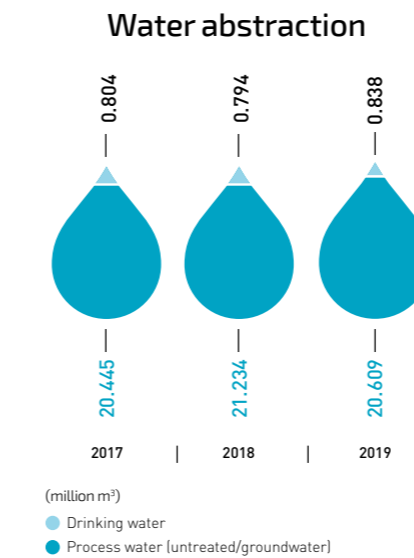


> The Commentry site secures its water supply

In ever-increasing periods of drought and of climate change, water has become a major issue. The Commentry site has introduced a major action plan to save water.

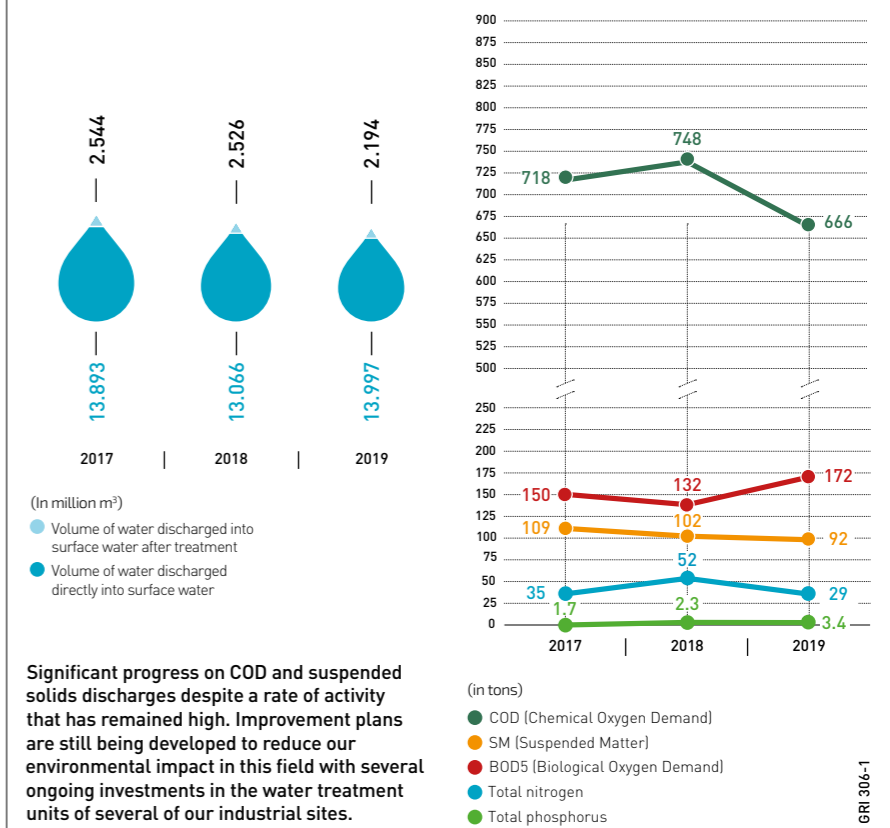
In 2019, 10% of water consumption was saved. Moreover, the site diversified its supply by choosing to pump from the neighbouring river (La Torche), thereby relying less on more sensitive sources.

10% of water consumption saved



Good control of water consumption at a high level of activity. Note the effectiveness of the various improvement and industrial water economy measures, especially at the Commentry site (France).

Water discharges by destination and type



Significant progress on COD and suspended solids discharges despite a rate of activity that has remained high. Improvement plans are still being developed to reduce our environmental impact in this field with several ongoing investments in the water treatment units of several of our industrial sites.

> Adisseo reduces its greenhouse gas emissions

Every four years, according to French law and in compliance with the Environmental Code, Adisseo publishes a report on its greenhouse gas emissions.

Several projects have been carried out during this period which have helped reduce these emissions by more than 20%.

At the same time the green energy development programme which

the Burgos site (Spain) concluded with the supplier Engie in 2018 became effective at the start of 2020. For a period of 10 years this contract will help the Burgos plant significantly reduce its greenhouse gas

emissions related to the purchase of electricity to power its installations – a further step towards Adisseo Group's goal of reducing its greenhouse gas emissions by 20% by 2025.

> Adisseo's "Zero Emissions" policy

Several Adisseo sites in France are equipped with electric vehicles.

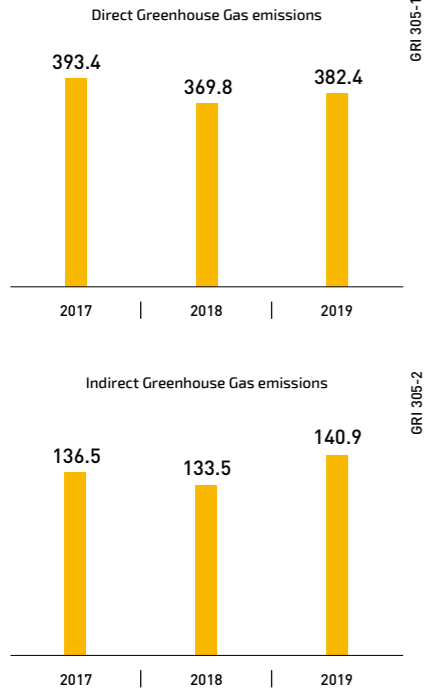
At the Antony headquarters (France), charging terminals for electric vehicles, installed since 2017, have helped avoid the emission of 3150 kg of CO₂ during the 24,242 km travelled with zero emissions. Currently, HQ has four electric vehicles and is planning to purchase two more in 2020.

The building has also set up a new courier organization with a single service provider. Thanks to this new contract with ONET,

the 787 errands that are done every year are now carried out in 100% electric vehicles with zero emissions.

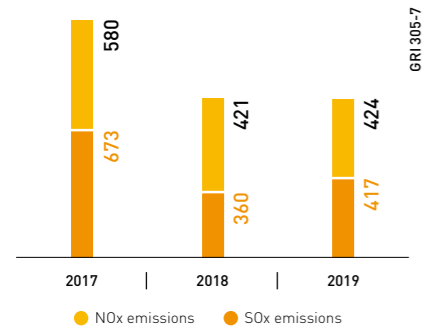
This approach was initiated four years ago in the Commentry site (France) by the Prevention, Safety & Intervention Department with the purchase of three electric vehicles. These mail distribution vehicles which belonged to La Poste have been reconditioned to meet mobility needs on the industrial site. With one battery charge per week, maintenance costs are low.

Greenhouse Gas emissions (thousand metric tons of CO₂ equivalent)



Greenhouse gas emissions (sum of direct and indirect emissions) are relatively stable despite the relatively significant impact of the prolonged restart of the European units after their technical interruption. The supply of vapour by a biomass plant in Commentry (Allier, France) has also enabled Adisseo to benefit from a more virtuous production method since 2018.

NOx and SOx emissions (in metric tons)



NOx and SOx emissions have remained at a low level in 2019 as in the previous year. This is the result of various reliability improvement and investment measures, e.g. the gas effluent treatment furnace in the Roussillon site (France) where an injection of ammonia helped reduce the quantity of NOx in the fumes.



> The Roches-Roussillon site reduces its energy footprint

A new effluent treatment furnace for a production unit in the Saint Clair du Rhône site (France) was put into service in September 2019.

This **EUR 8.5 million investment enhances the energy recovery** of the fumes by producing vapour at 40 bars. This vapour directly fuels a turbo alternator to be transformed into electricity, thus making the site more self-sufficient in energy and less sensitive to potential electric disturbances.

> New heating system in the Saint Clair du Rhône site (France)



At the end of 2019 the warehouse's oil heating system was replaced with a heat pump. The regulation system helps adjust the temperature when the building is unused.

This installation complements the building's insulation work carried out in the last few years.

The consumption of more than 40,000 litres of fuel per year has been replaced with electricity consumption, which is better for the environment.

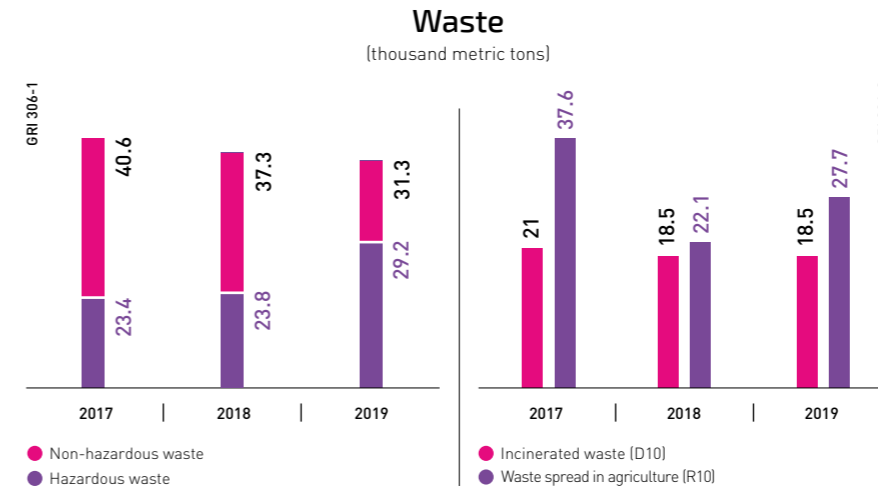
20 000 €
energy-saving
per year for heating

> Waste collection for an environmentally-friendly initiative

This summer, employees from Adisseo Singapore decided to act with the help of their families to raise awareness to the environmental issue of plastic in the oceans. Wearing protective gloves and carrying bin bags, they needed two days to collect all the waste on the beach on Saint John's Island. In total, some 15 bags were filled with bottles, plastic straws and other waste.



A similar initiative was carried out with the organization of waste collection in the CERN site (France) with the participation of 15 or so employees who picked up the waste in the site's surroundings. Twenty minutes was enough for these volunteers to clean the perimeter. This action is part of an individual and daily environmentally-responsible approach. To encourage this environmentally-friendly action, a waste collection box accessible to all will be installed close to the site.



> Initiating actions for sustainable development

The different Adisseo entities are setting up initiatives to contribute to the company's environmental approach.

ANTONY (FRANCE)

Sensors and presence detectors have been implemented to better manage lighting, air conditioning and heating. An environmental certificate was awarded for the paper and cardboard recycling approach. Finally, the dilution stations help limit the

consumption of household, 90% biodegradable products with no organic compound emissions.

NANJING (CHINA)

15 participants attended a seminar dedicated to sustainable development. For the occasion, they visited the site's logistics centre.

BARBASTRO (SPAIN)

LED lights have been installed as well as a new, more efficient heating system for the offices and the changing rooms.

NORTH AMERICA

The teams participated in a month long "Zero Waste" challenge and implemented the

5 R's: Refuse, Reduce, Reuse, Recycle, and Rot. A training day was organized, with a sustainability simulation: "The Fishing Game", that explained how sustainability and resource management works.

> R&D Adisseo France centres

Six "green rules"

have been implemented in the research centres and employees are committed to following them: sorting waste for re-use, saving electric energy, saving water, optimising space in one's mailbox,

reducing paper printing, and favouring car-sharing for work.

Each research centre has also carried out specific measures including:

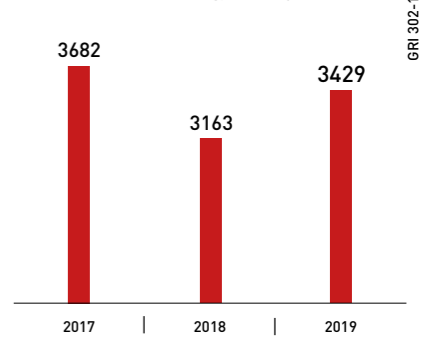
Cinabio: The laboratory's waste treatment is managed by Suez.

"Mailbox cleaning" operations have been carried out on a monthly basis, a water fountain and LED lights have been installed and old domestic appliances

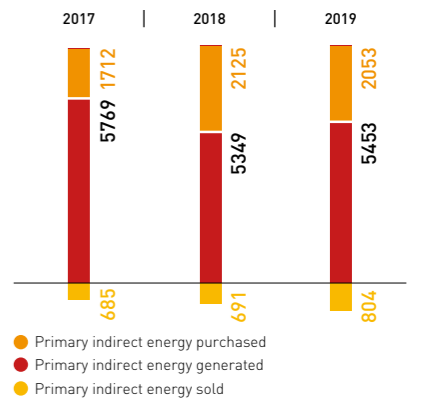
in the cafeteria have been replaced.

Cinatech: Bi-monthly meetings (the "DD Cafés") are organized to share good ideas and address sustainable development-related issues.

Energy consumption (terajoules)



Indirect energy consumption



Total direct energy consumption is directly related to the rate of activity and is controlled thanks to improvement measures which aim to reduce its consumption (optimisation of consumption and energy recovery, etc.). The implementation of the biomass plant in the Commentry site (Allier, France) increases the share of purchased primary indirect energy. The primary indirect energy produced was higher in 2019 following the smooth running of the Chinese platform in Nanjing.

GRI INDEX

Adisseo is based on the most recent recommendations of the Global Reporting Initiative (GRI). In association with the United Nations Environment Programme (UNEP), GRI develops globally applicable sustainable development guidelines to report on the economic, environmental and social performance of companies and organizations.

Aspect	GRI 2016 Ref.	Description	Statut	Reference Sheets	Comments
Strategy	102-14	Statement from senior decision-maker	Complete	3	
	102-15	Key impacts, risks, and opportunities	Partial	All report	
Organization profile	102-1	Name of the organization	Complete	Cover	
	102-2	Activities, brands, products, and services	Complete	8 to 13	
	102-3	Location of headquarters	Complete	10, 11, 4 th cover	
	102-4	Location of operations	Partial	10,11	
	102-5	Ownership and legal form	Complete	4 th cover	The Adisseo Group is made up of 25 legal entities controlled by Bluestar Adisseo Company, a company listed on the Shanghai stock market (headquartered at 9 West Beitucheng Road, Chaoyang District, Beijing), and which is owned 89% by its majority shareholder China National Bluestar (Group) Co., Ltd (China).
	102-6	Markets served	Complete	10 to 13, 4 th cover	 Adisseo teams are located in more than 100 countries on all continents. Customers: > Integrators: these are poultry meat producers who have full control of the entire production chain from the manufacture of complete feeds through to poultry slaughter and processing. > Pre-mixers: these are manufacturers of premix products containing micro-ingredients (vitamins, trace elements, etc.), which will be incorporated into complete feeds by feed mill operators. > Feed manufacturers: these are producers of complete feed products for all types of livestock. > Distributors: these intermediaries distribute feed ingredients (amino acids, vitamins, enzymes, etc.) at national level or within a particular market segment.
	102-7	Scale of the organization	Complete	8	
	102-8	Information on employees and other workers	Partial	8,31	
	102-9	Supply chain	Complete	4 th cover	The supply chain structure is based on a community led by company managers for each product range. These are supported by local contacts at each manufacturing site and in each sales region. Network coordination is based on the sales and operations planning process. Implementation of the organization by SBU (We Move project).
	102-10	Significant changes to the organization and its supply chain	Partial	All report	
102-11	Precautionary Principle or approach	Complete	3		
102-12	External initiatives	Partial	2, 44, 45		
102-13	Membership of associations	Partial	5, 17, 23, 30	Adisseo is a member of the IFIF (world), the FEFANA (EU), SYNPA (FR), SINDIRAÇÕES (BR) and UIC (of which JM Dublanc is a board member)...	
Reporting practice	102-45	Entities included in the consolidated financial statements	Partial	8	The report content is determined in accordance with the recommendations from the GRI.
	102-46	Defining report content and topic boundaries	Complete	3	
	102-47	List of material topics	Complete	3	
	103-1	Explanation of the material topic and its Boundary	Complete	3, 10, 11	
	102-48	Restatements of information	Complete	31	
	102-49	Changes in reporting	Complete	All report	

	Aspect	GRI 2016 Ref.	Description	Statut	Reference Sheets	Comments
General Information	Stakeholder engagement	102-40	List of stakeholder groups	Complete	4 to 7, 30 to 35	List of main stakeholders included: customers, employees, trade unions, shareholders, civil society and media, as well as suppliers, public authorities, local and regional communities, etc.
		102-42	Identifying and selecting stakeholders	Complete	4 to 7, 30 to 35	Initiatives implemented with stakeholders during the reference period and illustrated in report articles.
		102-43	Approach to stakeholder engagement	Partial	4 to 7, 30 to 35	The methods and frequency of engagement are integral to the company management system.
		102-44	Key topics and concerns raised	Partial	16, 36	Environmental considerations have become integral to the basic tenets of the company, in the same way as safety and financial results.
Reporting practice	102-50	Reporting period	Complete	3 rd cover		
	102-51	Date of most recent report	Complete	3 rd cover	2019 Sustainable Development Report : July 2020	
	102-52	Reporting cycle	Complete	3 rd cover	Annual.	
	102-53	Contact point for questions regarding the report	Complete	4 th cover	sustainability@adisseo.com	
	102-55	GRI content index	Complete	42, 43	Governance of the group is divided into committees (the executive management and management committees), as detailed in our ISO 9001, ISO 14001, OHSAS 18001 and FAMI-QS certified management manual.	
Governance	102-18	Governance structure	Complete	3		
Ethics and integrity	102-16	Values, principles, standards, and norms of behavior	Complete	9, 27		
Eco	Economic Performance	201-1	Direct economic value generated and distributed	Partial	25	
		201-4	Financial assistance received from government	Partial	25	
Social	Employment	401-1	New employee hires and employee turnover	Complete	31	
		403-2	Hazard identification, risk assessment, and incident investigation	Partial	16	
	Training and Education	404-1	Average hours of training per year per employee	Complete	31	 Development of eLearning and digital training resources
		404-3	Percentage of employees receiving regular performance and career development reviews	Complete	31	 In 2019, 100% of employees in France and 100% of managers in Spain received at least one performance review.
Local communities	413-1	Operations with local community engagement, impact assessments, and development programs	Partial	26 to 35	Engagement in dialog with immediate local residents, sustainability day (of discussion with authorities, nonprofit associations, etc.), environmental and social commitment through partnerships, public meetings, emergency communication, etc.	
	413-2	Operations with significant actual and potential negative impacts on local communities	Partial	26 to 35		
Environment	Materials	301-1	Materials used by weight or volume	Complete	38	
		302-1	Energy consumption within the organization	Complete	37, 41	
	Water and Effluents	303-1	Interactions with water as a shared resource	Complete	37, 39	
		Emissions	305-1	Direct (Scope 1) GHG emissions	Complete	37, 39, 40
	305-2		Energy indirect (Scope 2) GHG emissions	Complete	40	
	305-7		Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Partial	37	
	Effluents and Waste	306-1	Water discharge by quality and destination	Complete	39	
		306-2	Waste by type and disposal method	Complete	41	



SDG INDEX

The Sustainable Development Goals where Adisseo is contributing significantly

In september 2015, the 193 United Nations Member States adopted 17 Sustainable Development Goals (SDG), defining the global priorities and aspirations about the social, environmental and economic development by 2030.

Adisseo is contributing through its products and services, through its investments and also through the best practices implemented.



	Reference Sheets
 End poverty in all its forms everywhere	26, 32
 End hunger , achieve food security and improved nutrition and promote sustainable agriculture	8, 11, 21, 25
 Ensure healthy lives and promote well-being for all at all ages	11, 13, 14, 26, 29, 31, 32, 34, 37
 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	14, 15, 16, 17, 26, 27, 28, 29, 30
 Achieve gender equality and empower all women and girls	26, 32
 Ensure availability and sustainable management of water and sanitation for all	34, 35, 36
 Ensure access to affordable , reliable, sustainable and modern energy for all	34, 36, 38, 39
 Promote sustained, inclusive and sustainable economic growth , full and productive employment and decent work for all	11, 14, 20, 26
 Build resilient infrastructure , promote inclusive and sustainable industrialization and foster innovation	20, 21, 22, 24, 26, 27, 28
 Reduce inequality within and among countries	26, 32, 33
 Make cities and human settlements inclusive , safe, resilient and sustainable	
 Ensure sustainable consumption and production patterns	11, 12, 20, 22, 34, 35, 38, 39
 Take urgent action to combat climate change and its impacts	8, 9, 34, 36, 37, 38, 39
 Conserve and sustainably use the oceans , seas and marine resources for sustainable development	8, 9
 Protect, restore and promote sustainable use of terrestrial ecosystems , sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	8, 9
 Promote peaceful and inclusive societies for sustainable development , provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
 Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	

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