

ALTERNATIVE NOW

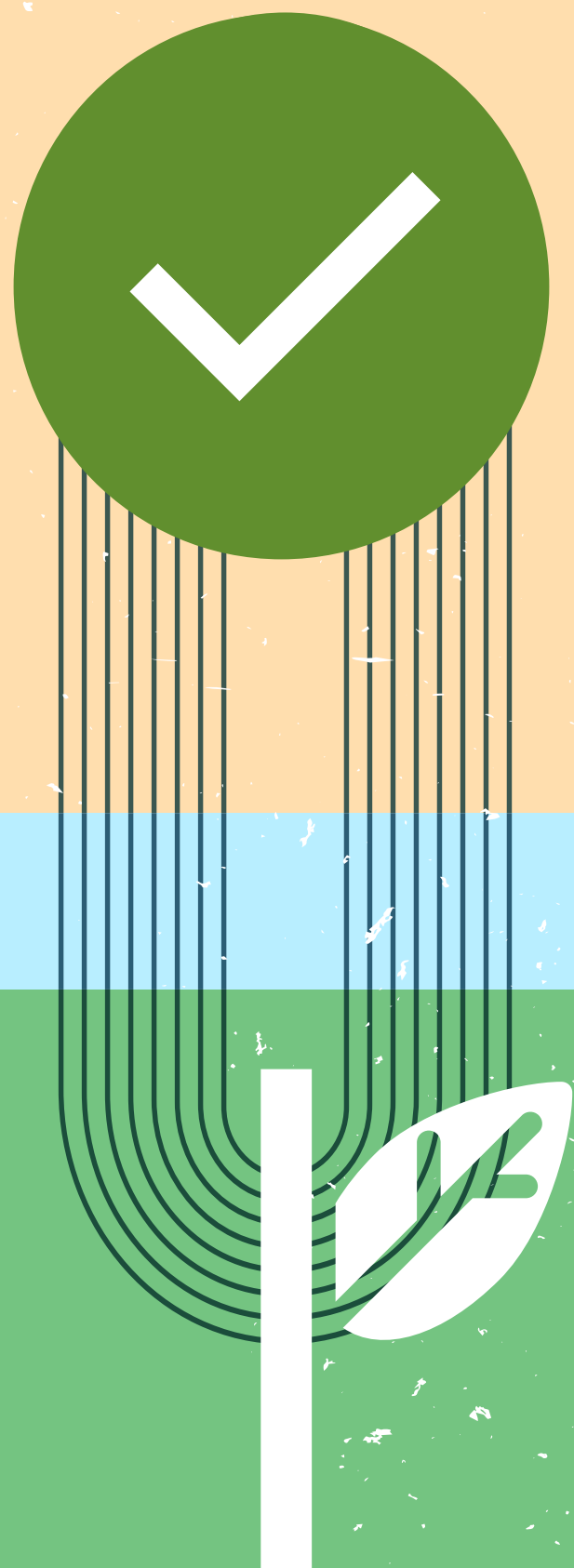
SUSTAINABILITY REPORT

2022

✓
METABOLIC
EXPLORER



EDITORIAL



Benjamin GONZALEZ
Chairman and CEO



2022, ON COURSE

Like many French and European manufacturers, the METEX Group faced adverse external factors in 2022. The war in Ukraine, which began in February 2022, led to a reduction in demand from certain industrial sectors, as well as an extremely sharp rise in production costs, caused in particular by the increase in energy prices.

The animal nutrition sector, currently METEX's main outlet, also had a difficult year in 2022: avian flu hit European livestock farms hard, leading to a drop in production, and the pork sector underwent major restructuring, caused by the fall in European exports to China, which experienced a slowdown in demand as a result of the zero-Covid policy.

Despite these adverse conditions, METEX stayed on course with its CSR and sustainability policy, in line with the commitments made last year. I would highlight the following points in particular:

- The first positive results of the OneSafetyCulture@METEX program. Launched at the end of 2021, this project will enable us to consolidate the safety culture throughout the METEX Group.

-The policy initiated by the new human resources team, which will establish and strengthen a real Group culture around the METEX values: inventiveness, adaptability, cross-functionality and competitiveness.

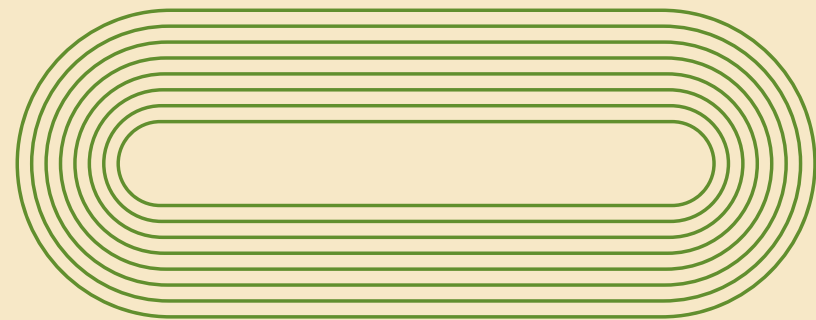
-The life cycle analyses carried out on amino acids made it possible to quantify the carbon savings that METEX products can achieve: approximately 6 million tonnes of CO₂ saved per year for the livestock sectors in France and Europe.

As announced in 2022, the Carling site has been included in the monitoring of industrial indicators, less than a year after the start-up of the plant.

-The integration of a new indicator, also announced last year, will make it possible to monitor the reduction in the carbon footprint of our industrial activities, according to the trajectory we are in the process of calculating.

Happy reading.

*INNOVATION IS AT THE HEART
OF THE METEX CULTURE*



*This publication and verification process has been implemented voluntarily in view of the importance that METEX attaches to Sustainable Development issues.
A selection of the quantitative non-financial information published in this report was verified by MAZARS*



2022

SUSTAINABILITY REPORT

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WHO WE ARE?

Founded in 1999 in Auvergne, France, METabolic EXplorer (METEX) is a French intermediate-sized enterprise specialised in the development, industrialisation, and marketing of functional ingredients produced through fermentation. The Company is headquartered near Clermont-Ferrand, France, and is listed on NYSE Euronext in Paris in compartment B.

METEX uses the biochemistry of micro-organisms to «produce differently» to offer its customers solutions that are viable, sustainable, and produced from renewable resources as alternatives to conventional processes. The solutions developed by METEX are aimed at existing markets with strong development potential, where the demand for environmentally friendly production is high: animal nutrition, consumer care (including cosmetics), and biopolymers. Our technologies are developed by our laboratory thanks to a unique R&D know-how built on more than 20 years of bacteria engineering at the heart of its processes: Escherichia coli. The complete mastery of the fermentation process allows our laboratory and our experimental pilot plant in Saint-Beauzire (Auvergne) to produce multifunctional products for our target markets.

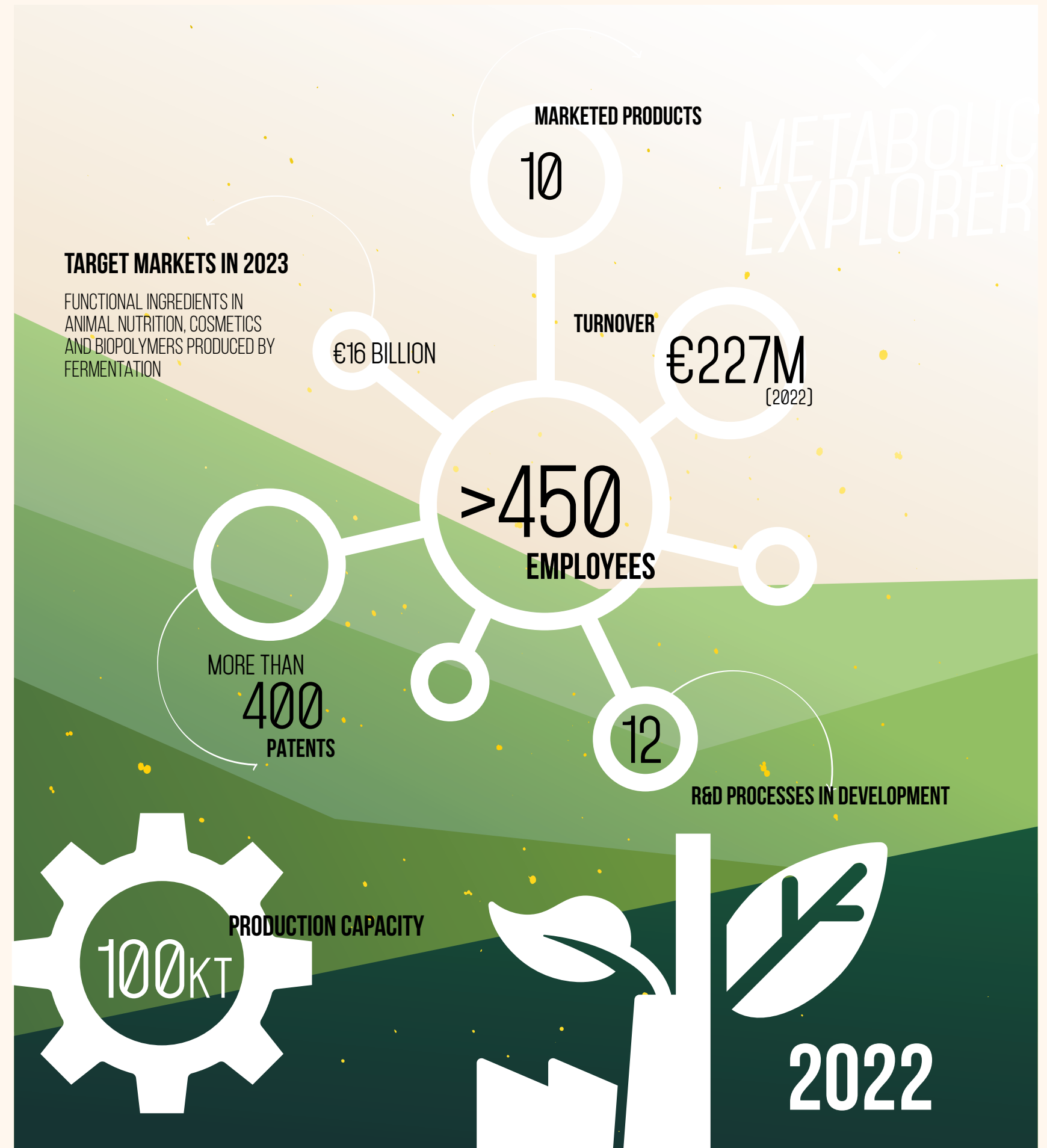
METEX'S INDUSTRIAL PRODUCTION RELIES ON TWO SITES LOCATED IN FRANCE

The plant of our subsidiary METEX NØØVISTA located in Saint-Avoid (Grand-Est region), resulting from a green-field investment (construction started in 2019 and the first lots sold in June 2021).

This site is dedicated to the production of propanediol (PDO) for the market for consumer care and biopolymers and non-petrochemical butyric acid (BA) especially for animal nutrition.



The METEX NØØVISTAGO plant in Amiens (Hauts-de-France region), taken over in April 2021 as part of the acquisition of Ajinomoto Animal Nutrition Europe. This site now produces amino acids for the animal nutrition market.





RSC EFFICIENT ALTERNATIVE

NATIVE

METabolic EXplorer was born 20 years ago from the vision of a sustainable industrial world without oil and the dream of alternative biological chemistry as a tool for this transformation. METEX's raison d'être is to contribute to the necessary ecological transition by innovating to find different ways of producing and selling low-carbon functional ingredients used in the manufacture of consumer products.



ALTERNATIVE **NOW**

ODD

OUR SUSTAINABLE DEVELOPMENT COMMITMENTS

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



These commitments are a natural part of our raison d'être and our strategic orientations.

It is quite naturally that for several years now METEX has decided to make its CSR commitments a central focus of its corporate vision, based in particular on its two strategic pillars:

- **Innovating to create value**
- **Accelerating the ecological transition**

Creating value through innovation is at the heart of the METEX culture. Innovation means responding to two essential challenges: producing differently and now and being able to challenge the status quo constantly. However, this also means doing so by offering employees, local residents, and other stakeholders a safe, responsible working environment.

Being a player in the ecological transition means responding in a concrete way to the challenges of the circular economy (value maximisation of co-products, waste, and responsible and local purchases) and decarbonisation.

Our sustainable development commitments are in line with the United Nations Sustainable Development Goals, in particular commitments 9, 12, and 13.

FULLY INVOLVED GOVERNANCE

Guided by the Chairman and CEO, the Board of Directors validates the major orientations of the CSR approach (Corporate social responsibility) and the proper implementation of the action plans resulting from the commitments made to respond to the identified challenges.

The operational management of the approach is entrusted to the Sustainable Development Director. He works in collaboration with the departments that deal with the Group's various economic, environmental, and social challenges.

To ensure the good governance of this approach and to ensure that the commitments made by METEX, **the Board of Directors** relies on the Audit Committee which :

- examine the commitments and orientations of the Group's social, environmental, and social responsibility (CSR) policy and their consistency with the expectations of stakeholders
- track the deployment of these commitments, and, more generally,
- ensure that CSR issues are taken into account in the Group's strategy and its implementation.

In terms of data collection, METEX relies on a process of formalising the indicators and their scope within a dedicated set of standards deployed with the Group's subsidiaries. The deployment of this process started in 2021 and has continued in 2022.

As a reminder, METEX's Board of Directors currently has six members: four men and two women.

To assist it in its work, it has set up:

- **The Strategic Orientation Committee** which examines the company's strategic focuses, information on market trends, reviews of competition, and the resulting medium-term and long-term prospects. It examines any development project of the company, in particular major investments or the creation of industrial partnerships.

- **The Audit Committee** which examines the accounts presented by the statutory auditors and ensures the relevance and consistency of the accounting methods adopted for the preparation of the consolidated and company financial statements. The Chairman of the Board of Directors or the statutory auditors may refer to the Audit Committee any event that exposes the Group to a significant risk, and may request that an internal or external audit or study be carried out on any subject that it considers falls within its remit.

- The Chairman of the Board of Directors or the statutory auditors may refer to the Audit Committee any event exposing the Group to a significant risk and may request that an internal or external audit or study be conducted on any subject deemed relevant to its mission.

- **The Compensation and Appointments Committee** makes proposals to the Board of Directors for the appointment of the members of the Board of Directors, the Chairman of the Board of Directors, and the members of committees. It also proposes to the Board of Directors the remuneration of corporate officers. The Committee is also informed of the compensation policy for the main executives who are not officers and may make any comments on this subject. It is also responsible for setting out the decision-making process associated with the development of the succession plan for corporate officers.

- **A non-voting member** available to the Board of Directors, its committees, and its Chairman to provide advice, analyses, and recommendations of all kinds, particularly in technical, commercial, administrative, or financial matters. The non-voting member is not a corporate officer and has only an advisory but non-deliberative voice at meetings of the Board of Directors and its specialised committees.

There is also a 4th specialist committee, **the Financial Scenario Evaluation Committee**, which meets on an ad hoc basis.

As of the date of this report, the composition of the Board of Directors and the committees is as follows:



Marie-Catherine BOINAY

Holding a management degree at ESCP, a French certified public accountant and a certified board member by the French IFA, Marie-Catherine Boinay has a 30 year professional experience as a finance director. Having started her career with PwC audit, she joined Danone in 1996, where until 2018 she held several positions, from head of group consolidation or international treasurer until France finance director. She managed large teams and transformation projects. She has an international experience, having lived and worked four years in Japan, and sat at the board of a Turkish company. Eager to finance innovation, Marie-Catherine Boinay became a business angel in 2019 and sits to the strategic committee of some startup companies. She joined METabolic EXplorer's Board of Directors in 2023 and is also a member of the company's Strategy Committee and of the Audit Committee.

**Marie-Catherine Boinay was appointed as a board director in 2023 to replace Anne Abriat.*

Member Member Member



Daniel CHERON

Daniel Chéron holds a degree in economic sciences from the Université d'Orléans (France). In 1976, he joined Limagrain, an international cooperative group specialised in seeds and grain products, and has spent most of his professional career there. After holding various operational positions, he was appointed Chief Executive Officer of Groupe Limagrain and Coopérative Agricole Limagrain. Mr Chéron was in charge of devising and implementing strategy and oversaw and led the Group's boards of directors (including that of a publicly listed holding company). Since joining the METabolic EXplorer Board of Directors in 2015, Mr Chéron has provided expertise in agro-industry and the diversity of agricultural resources.

Member President President



Jérôme DUPAS

Jérôme Dupas holds an engineering degree from the Université de Technologie de Compiègne and an MBA from ESSEC business school. He has extensive experience in investment banking in Paris and London. After serving as Managing Director of HSBC Investment Bank in Paris, he was head of Corporate Finance at Fortis and then at BNP Paribas Fortis in France. He is currently Managing Director of Corporate Finance at Pramex International, a subsidiary of the BPCE group.

Member Member President



Benjamin GONZALEZ

Benjamin Gonzalez founded METabolic EXplorer in 1999 based on his doctoral thesis work. A driving force in the company's development, he is in charge of the company's strategy and its implementation, particularly that related to financing and business development. The innovative company, under his leadership, has now become a leading ETI in the manufacture of functional ingredients by fermentation for animal nutrition and cosmetics. The Group now has more than 450 employees, 2 industrial production sites and achieved a turnover of €170 million in 2021. Benjamin Gonzalez is an engineer and holds a PhD in biotechnology.

President

Member



Jean-Philippe RICHARD



A Senior Investment Director at Bpifrance's SPI investment fund, Jean-Philippe Richard is on the boards of several small and midsize industrial companies in Europe operating in the bioproduction and New Space sectors. With more than 25 years of experience in investment banking, strategy consulting, and general management, he has in-depth knowledge of the bioproduction and biotechnology sectors in Europe and brings proven and unique expertise in the industrial application of innovation, notably in the field of green chemistry.

Member

Member

Member

Member



Magali JOËSSEL

Previously in charge of the General Interest Investments Department of Caisse des Dépôts then of the Strategy Department of Bpifrance, Magali Joëssel is now Director of the SPI fund (Société de Projets Industriels) fund. The SPI fund is endowed with € 800 million from the State, through the Programme d'Investissement d'Avenir (PIA) and the European Investment Bank (EIB). It was created with the objective of investing in the industrialization of innovative projects, very often carrying technologies that are unique in Europe, or even at the global level, respectful of the environment, creators of jobs and established in the territories. Magali Joëssel, as representative of the SPI fund, is a member of the Group's Strategy Committee.



Bpifrance representative

Bpifrance member



Hans VOGELSANG

After a 36-year career in the Royal Dutch Shell group, where he held positions in production, sales, marketing and business development and was also in charge of technologies, with national and international responsibilities, Hans Vogelsang served as member of the Board of Directors of METabolic EXplorer from 2008 to 2017. He has also held operational management positions and served on boards of directors in the sectors of petrochemicals, industrial engineering, and industrial services. In 2001 and 2002, he was President of Technology at Basell Polyolefins, and from 2003 to 2013, Senior Independent Non-Executive Director at Bodycote International plc (LES: BOY). From 2003 to 2006, he was also an advisor for British Sugar.

Censor

Censor

PILLAR #1

CREATING VALUE:
INNOVATION AT
THE HEART OF
THE METEX CULTURE

CHALLENGES

1	Be an alternative to conventional processes
2	Ability to challenge the status quo
3	Working environment

OUR COMMITMENTS

1	Develop one new industrialisation-ready process/year
2	Bring to market one new product or service per year
3	Develop a culture of industrial protection and confidentiality across the group's activities
4	To unite all employees around common values and to increase the company's overall performance through effective communication
5	Employees are involved in their professional development together with the company
6	Develop an empowering organisation based on high standards, trust, and dialogue
7	Guarantee the safety of people at work and of facilities

PILLAR #2

BEING
A KEY PLAYER
IN THE ECOLOGICAL
TRANSITION

CHALLENGES

4	Circular economy
5	Decarbonisation

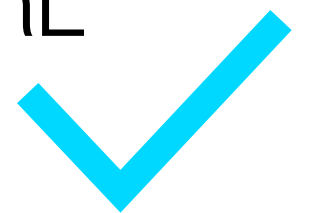
OUR COMMITMENTS

8	Measure the environmental footprint of our products using Life Cycle Analysis (LCA)
9	Promote the use and functionality of our solutions
10	Buy sustainably by relying on local supplies
11	Apply the principles of the circular economy to move towards zero waste
12	Industrial sites well integrated into their environment
13	Reduce the carbon footprint of industrial activities
14	Develop a low-carbon product offering
15	Help to reduce our customers' environmental footprint



PILAR #1

CREATING VALUE:
INNOVATION AT THE HEART
OF THE METEX CULTURE



PILLAR 1
CREATING VALUE

CHALLENGE 1
BE AN ALTERNATIVE TO CONVENTIONAL PROCESSES

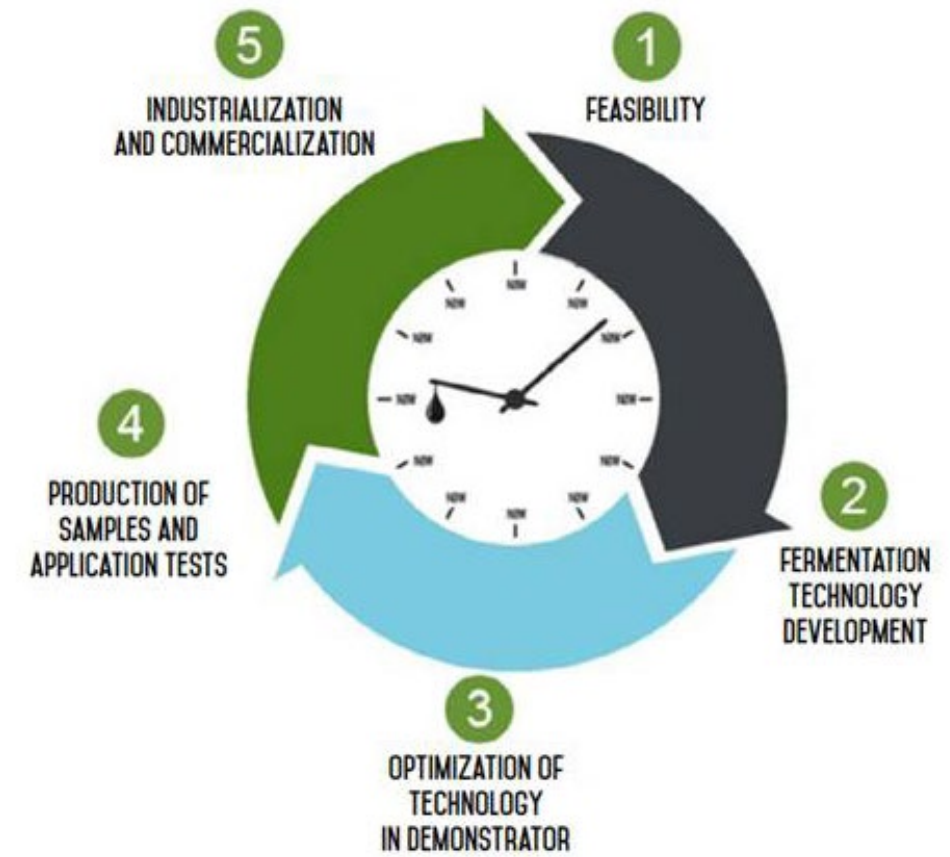
COMMITMENT **#1** *ONE NEW INDUSTRIALISATION-READY PROCESS/YEAR*

WHY/OBJECTIVE

METEX's innovation process is based on the ALTANØØV® platform for the rapid development of fermentation processes to meet the demand for bio-based and sustainable ingredients to the cosmetics, animal nutrition, and biomaterials markets. METEX has a number of projects at various stages of maturity: from technological feasibility studied using its in-house bioinformatics tools to pre-industrial maturation of the complete technology on its demonstration unit.

METEX's R&D teams are mobilised for this objective. These teams regularly review the project portfolio with the sales teams and the industrial teams in order to best align the progress of projects with market expectations and available production capacity. This is how projects are prioritised and others are stopped to continuously improve R&D efficiency.

Building on this capacity for innovation, METEX is committed to delivering one new industrialisable process per year starting in 2021, thereby increasing its contribution to the energy transition by providing «green» alternative solutions to fossil-based ingredients.



2022 ACHIEVEMENTS

In 2022, METEX developed a proprietary bacterial strain for the production of L-Valine by fermentation, as well as the associated fermentation and purification processes. This innovation follows the new industrialisable process for Glycolic Acid (GA) developed in 2021. The new Valine production process developed by METEX is more competitive than the licensed technology currently used in the METEX NØØVISTAGO plant, thanks in particular to significant energy savings. This new solution will strengthen METEX ANIMAL NUTRITION's offering, helping to decarbonise the livestock sector in France and Europe.

PILLAR 1
CREATING
VALUE

CHALLENGE 1

BE AN ALTERNATIVE TO CONVENTIONAL PROCESSES

COMMITMENT

2

BRING TO MARKET ONE NEW PRODUCT/SERVICE
PER YEAR

12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



WHY/OBJECTIVE:

In direct connection with the commitment to develop one new industrialisable process per year and by relying on its capacity for innovation, METEX has committed to putting one new product or service on the market per year starting in 2021.

In farm animals, for example, numerous health factors affect the growth, health and well-being of animals. Antibiotics and anticoccidials have been used on a massive scale to deal with these problems, but growing concerns about the emergence of microorganisms that are multi-resistant to these molecules are prompting the search for innovative nutritional approaches to improve the health of animals and thus their resilience in the face of these challenges.

The INNEUS product range, launched in February 2022, is the answer to this major challenge. INNEUS® is the first innovative range of solutions for pigs and poultry based on mixtures of so-called functional amino acids (AA) and polyphenols. These solutions target the intestinal health of young animals during periods of stress (e.g. weaning in piglets, subclinical coccidiosis in chickens, etc.). In addition to amino acids, INNEUS incorporates a key ingredient for the intestinal barrier, for which only METEX has received marketing authorisation from the European Food Safety Authority (EFSA).

Lastly, innovation around INNEUS was rewarded in September 2022 with an INNOV'SPACE award at the international livestock show.





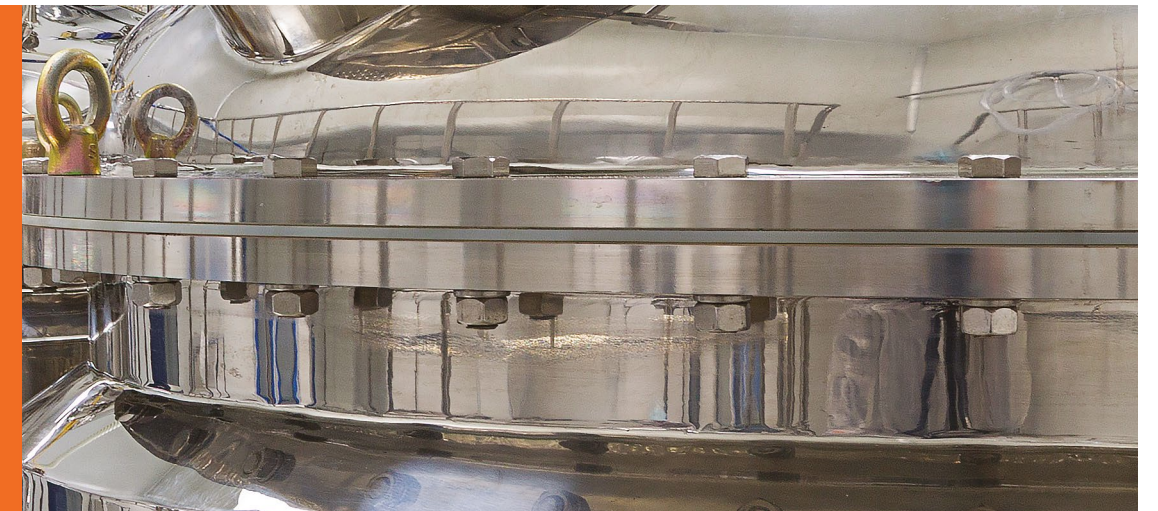
METEX

PILLAR 1
CREATING
VALUE

CHALLENGE 2
ABILITY TO CHALLENGE STATUS QUO

COMMITMENT **# 3** *DEVELOP A CULTURE OF INDUSTRIAL PROTECTION AND CONFIDENTIALITY ACROSS THE GROUP'S ACTIVITIES*

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



WHY/OBJECTIVE:

To maintain an attractive and competitive position, METEX relies on a solid Industrial Property (IP) strategy, supported by the registration of IP rights (trademarks and patents) on its inventions and by the awareness of its staff to detect and secure these inventions. This strategy is possible thanks to the regular exchanges between METEX's various Research and Development, Business Development, and IP departments.

PROTECTING INVENTIONS

METEX protects its inventions with patents. These inventions may relate to the strains developed, the fermentation and purification processes, and the products obtained and their applications.

All inventions by METEX are patent-protected in France via European patent registration as well as internationally in the main countries of the market and/or production of the target products.

METEX's identity, products, and innovative concepts are also protected and promoted by trademarks.

METEX tracks not only the number of new patent-protected inventions or new trademarks filed, but also the number of national patents or trademarks filed worldwide, which reflects the strength that METEX puts into protecting these inventions.

RESPECT FOR THE RIGHTS OF THIRD PARTIES

A dense competitive landscape involves a sustained level of innovation and patenting by third parties. One of METEX's priorities is to maintain a strong competitive position by protecting its innovations while respecting the rights of others. For all innovations, we conduct freedom-to-operate analyses internally or using outside patent attorneys to ensure that we do not infringe any IP rights registered by a third party or otherwise to ensure that we find solutions for the free use of METEX's creations.

DEVELOP A CULTURE OF CONFIDENTIALITY

Confidentiality

In METEX's field of activity, the competitive landscape is significant. The competitive advantage is maintained and nurtured by the ability to innovate but also by controlling the dissemination of METEX's key information.

In September 2021, METEX launched a confidentiality awareness programme for all its staff. The awareness-raising effort focuses on the importance and the means of managing the confidentiality of METEX information, know-how, and knowledge. METEX's objective is to raise awareness among all new employees within six months of their arrival and then to raise awareness among half of the staff each year so that all METEX employees are made aware of the issue at least every two years. In addition to this staff awareness, METEX pays attention to the signing of confidentiality agreements before any discussion with a third party.

Data protection and cyber security

To support and reinforce the Group's confidentiality awareness programme, in 2022, METEX trained all its staff in the data classification policy and the associated tools. Employees are encouraged to label the documents and emails they handle on a daily basis (through the tools used), thus ensuring that sensitive content is encrypted. These encryption mechanisms provide a robust solution against data leaks outside the company, helping to protect key data.

Cybersecurity

Information systems security is a priority for the METEX Group:

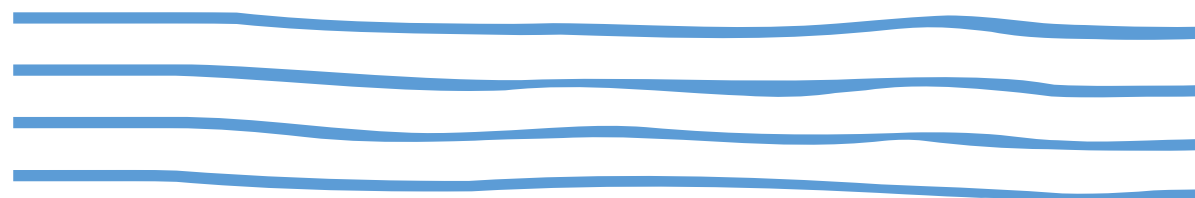
- People's identities are secured by a robust password policy and strong authentication.
- Network security is ensured by up-to-date, market-leading hardware and software. External exposure is kept to a minimum.

- The security of workstations is ensured by recognised solutions (up-to-date antivirus, analysis of attachments and rewriting of URLs in emails, etc.).
- Resilience is controlled by a properly executed and monitored backup plan, supplemented by regular restoration tests. Key network equipment/components are redundant.
- A process for identifying, monitoring and dealing with vulnerabilities is in place.

A governance structure oversees Information Systems Security (ISS) and, in particular, the continuous improvement approach, with various projects carried out each year: intrusion and remediation tests, regular risk analyses, indicator-based management, network monitoring, etc.

2022 ACHIEVEMENTS

In 2022, METEX filed 16 patent applications and 15 trademarks (compared with 19 and 159 respectively in 2021, linked to the integration of METEX NØØVISTAGO in 2021). 63% of METEX employees had been made aware of confidentiality at 31/12/2022, compared with 33% in 2021. It was not possible to raise awareness among more employees due to the period of partial activity experienced by METEX NØØVISTAGO. The data classification policy has also been implemented.



HUMAN



HR COMMITMENTS

HR POLICIES AND ACTIONS DEPLOYED

Both structural and cyclical factors had an impact on the company in 2022. As a result, changing priorities, in response to adverse economic realities (avian flu, restructuring of the pork industry in the first half of the year, then the energy crisis in the second half) obliged METEX, and in particular METEX NØØVISTAGO, to reduce working hours for 4 months and then restructure.

The fundamentals of the human resources policies were maintained, but their roll-out at Group level, as planned at the beginning of the year, could not be implemented for all commitments and some had to be reconsidered to adapt to the Group's new priorities. Some actions were indeed undertaken, but the situation prevented them from being completed or meant that they had to be adjusted to make them more coherent. They therefore mark the starting point for the 2023 Human Resources Roadmap, which is geared towards harmonising the METEX Culture throughout the Group.

The company's dynamism is driven by men and women committed to contributing to the necessary green transition by innovating to produce and market low-carbon functional ingredients used in the manufacture of fast-moving consumer goods.

The METEX Group's performance and development are based above all on the skills and commitment of our teams, who are driven by shared values that guide our day-to-day actions. The Group's culture is communicated regularly to all employees at all sites.

Our human capital is our company's most important asset. Our success is therefore closely linked to attracting and retaining employees. Achieving excellence through high standards, respect and transparency in an environment where safety is always the priority, is the key to success for both the employee and the company.

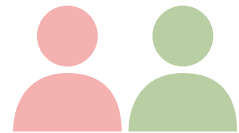
Everyone is involved in their own professional development alongside the company, and HR processes are geared towards recognising performance, high standards and continuous improvement.

The Group's transformation to become One METEX is reflected in an organisation that encourages responsibility and cross-functionality, freeing up synergies, trust and dialogue.

ACTION PLAN

Dissemination of the HR policy to the entire management line and then to all employees in 2023.

CODE OF CONDUCT



The first principle is formalised by the Code of Conduct and Business Ethics, which sets out the foundations of professional conduct, the applicable rules and principles, the expression of values, and the search for responsible behaviour.

It is part of the transparency and its social and environmental responsibility that has always been at the heart of METEX's activities. In today's changing environment, METEX wishes to guarantee this standard in its practices, not only in terms of compliance with all laws, but also in terms of ethical behaviour.

All METEX employees are required to comply with the Code of Business Conduct and Ethics in their daily activities.

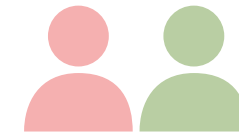
ACTION PLAN

It will be extended in 2023 to the METEX group's subsidiaries to create a common culture of integrity throughout the Group.

From year 2023 :
Distribution of the Code of Conduct to each employee (collective and individual internal communication) and inclusion in the documents to be provided on recruitment.

HR COMMITMENTS

GENDER EQUALITY



METEX is committed to a working environment where women and men have equal opportunities and are treated equally. This is reflected in the gender equality index, which measures the gender pay gap as well as the percentage of women in the workforce.

This index is calculated for each Group company that meets the calculation criteria. Beyond the calculation of this indicator, the defence of women's rights in terms of professional equality is the responsibility of each and every one of us, and awareness-raising initiatives will be carried out on this subject.

The third principle for METEX is to ensure that there is no room for any form of discrimination throughout the professional career and in all its components: professional equality between men and women and work/life balance (as demonstrated by our gender equality index), professional integration of young people, employment and retention of older people, professional integration of employees with disabilities, equal opportunities, etc.

Non-discrimination starts before a new employee joins METEX. As part of its recruitment process, each job posting specifies that it is open to both women and men, thus guaranteeing the Group's openness to all applications.

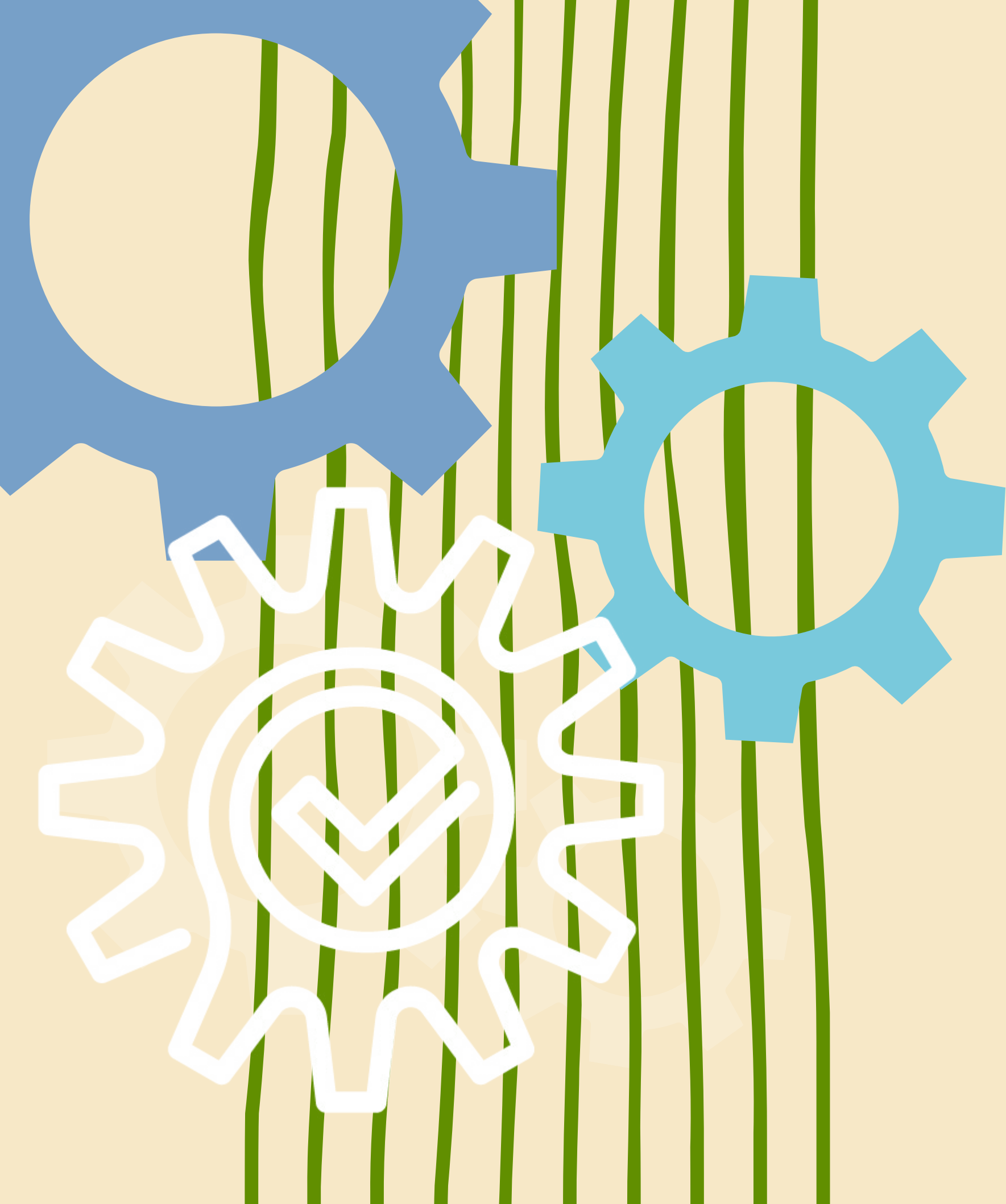
NON-DISCRIMINATION AND NON-HARASSMENT



ACTION PLAN

Recruitment awareness training will be provided to managers at all Group entities, and will be extended to all METEX entities in 2023.

Performance measured from the baseline year 2023: rate of managers who have completed recruitment awareness training.



PILLAR 1
CREATING
VALUE

CHALLENGE 2 ABILITY TO CHALLENGE THE STATUS QUO

COMMITMENT

4

TO UNITE ALL EMPLOYEES AROUND COMMON VALUES AND TO INCREASE THE COMPANY'S OVERALL PERFORMANCE THROUGH EFFECTIVE COMMUNICATION

A CORPORATE CULTURE BUILT AROUND 4 VALUES: INVENTIVENESS, ADAPTABILITY, CROSS-FUNCTIONALITY, COMPETITIVENESS, AND EFFECTIVE COMMUNICATION

METabolic EXplorer is a dynamic company that relies on committed employees who share the Group's four founding values: Inventiveness, Adaptability, Cross-functionality, Competitiveness. These are accompanied by day-to-day operating principles: simplicity, transparency, trust, responsiveness and respect, all of which are essential to maintaining simple, clear working relationships.

The values must be known and embodied by all. They must be on display at all METEX sites. They must be presented and explained during recruitment and during an employee's onboarding process. The behaviour of employees must be assessed against these four values at the time of recruitment and throughout their career at METEX.

These values mark the cornerstone of our know-how. They are shared by all our teams so that we can move forward in the same direction and create efficient synergies between the different values.

We need to succeed in formally projecting our culture and the passion that drives each and every one of us outside the Group. This can only be achieved through co-construction with every employee, because who better than us can talk about our employee experience. An employee referral programme has been set up for this purpose.

RECRUITMENT PHASE

New employees must integrate, enrich, and interact with the teams already in place. During the recruitment process, the technical skills as well as the «METEX spirit» must be assessed in candidates. These values must be meaningful to them.

ACTION PLAN

The recruitment process should be enriched in 2023 with a common assessment matrix containing the values to be assessed and should be distributed to all managers and used for recruitments.

Performance measured from the 2023 financial year (Q2): recruitment rate incorporating the completion of this grid.

ONBOARDING PHASE

New employees must be supported when they arrive to ensure success.

Conditions for successful onboarding include:

- the ability of existing staff to welcome newcomers, be open-minded towards them, and to support them
- the ability of new employees to understand and integrate METEX's foundational codes and behaviours, which are necessary to give them a sense of responsibility, including the fundamentals of the company's culture in the form of its four values.

ASSESSMENT PHASE

METEX has developed a performance management and employee appraisal process that has several components:

- setting of individual targets,
- assessment of annual achievements,
- behavioural assessment of employees in how they embody the four METEX values in their actions.

This system, which has been in place since 2020, is gradually being extended to the entire Group.

ACTION PLAN

The assessment of values must be added to the assessment process for all entities. These actions are to be initiated in 2023.

Performance measured starting from year 2023: Rate of employees assessed on the values



COMMUNICATING EFFECTIVELY AND TRANSPARENTLY

Cohesion between the various legal entities that make up the single METEX group is created and sustained through strengthened Group communications for all sites.

Management is driven by a desire to send a single, shared message to all team members, regardless of their location, profession or position.

Exchange and information meetings are organised several times a year to communicate Group news and progress with projects, and to report on key indicators. Information specific to each department or site is also circulated by the local HR team and the entity's management.

The HR policy is a basic framework that remains flexible in its application so that it can be adapted to each situation while guaranteeing compliance with its major principles.

ACTION PLAN

Each Group entity must communicate and deploy this Group policy to each employee in order to ensure that its basic principles are respected.

Performance measured from 2023: Percentage of employees who have received Group HR policy.



CHALLENGE 2

ABILITY TO CHALLENGE THE STATU QUO

COMMITMENT

5

EMPLOYEES ARE INVOLVED IN THEIR PROFESSIONAL DEVELOPMENT, TOGETHER WITH THE COMPANY

RECONCILING PROJECTION AND PERFORMANCE

Giving meaning to our work, enabling each of us to realise how our work impacts that of others and how we contribute to the company's overall objectives is necessary to understand how our skills are put to good use in the service of the company.

Each new employee must have the qualities and aptitudes required for the METEX experience. They must have the potential to develop; be responsible; be operational, whatever the position; move forward: test, (in)validate, redirect, adjust, persevere. In short, they must adapt, start again by accepting and learning from their mistakes; have the required desire and drive; be aware of their limits and make them known without fear of judgement because, after all, it is fair not to know everything.

MOVING FORWARD, EVOLVING

The desire to learn and progress has a strong presence at METEX. All employees must be aware of the need for ongoing development of their skills and that they are responsible and active contributors.

The HR department encourages and implements tools to enable employees to take an active role in their training and in maintaining their skills. It considers all modes of training for this purpose.

At the same time, since practice is the best training, managers must advise and coach their employees in the development of their skills. They must encourage their versatility, which is a prerequisite for maintaining a certain degree of professional development, while taking care not to dilute the expertise needed by the company.

Annual manager/employee interviews provide an opportunity for our employees to express their career development aspirations, enabling us to work together on a career development plan.

There are many opportunities, ranging from internal mobility (functional and/or geographical) to traditional training and e-learning, or coaching, for example.

We aim to offer a wide range of development opportunities, enabling each employee to take charge of his or her own development plan, while at the same time providing support.

ACTION PLAN

Vacancies are published at all sites and on a shared area of the website

Performance measured from 2023: number of posts open for recruitment published internally at Group level.

PROGRESS THROUGH CONTINUOUS IMPROVEMENT

Continuous improvement is a pillar of Operational Excellence and must be applied at all levels of the organisation. It is by applying these principles that each individual can and must progress, and in so doing will help the organisation as a whole to progress.

METEX employees or teams must bear in mind the following principles, which are reflected in the behaviour expected of them:

- Challenge the status quo
- Think about how to do it rather than explaining why you can't.
- Question processes, never people;
- Don't aim for perfection the first time
- Do it properly instead of in haste: "Get it right the first time"

Find zero-cost solutions;

•Trying things out, making mistakes and learning from them are all opportunities for progress, which is why a feedback report is drawn up for each project or stage.

- Find the root cause of problems and stop them from reoccurring;
- Seek the ideas of 10 people rather than the knowledge of just one.

To achieve this, trust must first be established between the members of the team so that they can talk to each other without fear of judgement or consequences.

In this way, personal development will be made possible by unleashing the talent of each and every one of us, allowing us to express our boldness, take measured risks, innovate and go beyond our limits.

ACTION PLAN

These continuous improvement principles are published at all sites and presented to staff.

From 2023: Dissemination and awareness-raising of these principles at each site.

SKILLS DEVELOPMENT PLAN

All employees have the qualities and skills necessary for the METEX experience. They have development potential.

The desire to learn and progress has a strong presence at METEX. All employees must be aware of the need for ongoing development of their skills and that they are responsible and active contributors. The HR department encourages and implements tools to enable employees to take an active role in their training and in maintaining their skills. It considers all modes of training for this purpose.

The proposal of career paths implies an important role for the management line in the process of preparing the skills development plan for their teams. Managers must ensure that their employees' wishes for development are in line with the company's needs.

Managers must advise and support their staff in developing their skills. They must encourage versatility, which is a prerequisite for maintaining a certain level of professional development, while taking care not to dilute the expertise required by the company.

The skills development plan must be drawn up according to two focuses, independently of the mandatory and regulatory training, particularly in terms of safety:

- a first focus on the development of new skills according to new business needs but also career plans or changing job requirements, and the development of versatility within the team;
- a second, equally essential focus of maintaining the skills already in place, necessary for business continuity, in the management of key skills.

ACTION PLAN

Conduct career and development interviews at least every two years.

Performance measured from 2023: % of employees having had a career and development interview for at least 2023 and/or 2024.

PILLAR 1
CREATING
VALUE

CHALLENGE 3

WORKING ENVIRONMENT

COMMITMENT

6

DEVELOP AN EMPOWERING ORGANISATION BASED ON HIGH STANDARDS, TRUST, AND DIALOGUE

ESTABLISH CLEAR RULES, A FRAMEWORK FOR CLEAR WORKING RELATIONSHIPS THAT ARE CONDUCTIVE TO THE DEVELOPMENT OF THE PROACTIVENESS OF EVERYONE INVOLVED IN THE SOCIAL DIALOGUE.

METEX is committed to developing clear and transparent relationships with its employees within an empowering organisation based on high standards, trust, and dialogue.

Accountability is developed through a clearly defined, communicated, explained organisation, through a clear, communicated, explained strategy, thanks to a framework of communicated and understood operating rules. This is all the more necessary in the context of an acquisition, as METEX has just experienced.

Even though this acquisition is based on perfect complementary business lines and skills (METEX brings the technology, and AANE brings the industrial tool and the marketing network), the employees of the different entities need to understand the new entity, the rules, their place, and their expected role so that they can each quickly understand what they can expect from the others and where their contribution to the performance of the new entity will be.

KNOW THE ORGANISATION, FRAMEWORK, AND RULES

Displaying the organisation, who does what, and the rules of operation enables everyone to know precisely what their mission, role, and expected contribution are and what they can expect from others within the organisation.

Each site has its own set of internal rules, which are subject to consultation with employee representative bodies and are communicated to each new employee at the same time as the company's IT charter and internal policies. Delegations of authority and signature are signed by each employee with responsibilities requiring them.

Internal governance bodies are clearly defined: Board of Directors, Executive Committee, Management Committee, site or facility Operational Committees, integrated supply chain Operational and Strategic Committees, other Project Committees.

The role of these bodies is to steer the operational excellence of the Group and its businesses by monitoring key performance indicators and the implementation of the annual budget or long-term business plan. To this end, each year the Executive Committee sets out the roadmap for each department, a document which, when cascaded and communicated, will serve as a reference for setting and aligning the objectives of the teams and of each employee, thus giving them the opportunity to participate directly in the achievement of METEX's overall project.

The HR community works with operational teams to establish agile, high-performance organisations that create value. The aim is to put in place simplified structures, with fewer levels of hierarchy, to speed up the flow of information up and down the organisation. These organisations must also give employees greater responsibility.

The Human Resources Department plans to standardise and regularly update all job descriptions, which will be used as a reference in career development interviews.

A METEX job reference grid is also being developed to provide an overall view of responsibility levels within the Group.

ACTION PLAN

The updated organisation charts are shared with all employees for their respective entities.

All job descriptions will be updated between 2023 and mid-2025. From the 2023 financial year: dissemination of the governance bodies' formal documents to managers.

ESTABLISHING TRUSTING AND MOTIVATING RELATIONSHIPS WITH A SHARED GROUP ETHIC

Partnership with managers is essential to guarantee effective HR management. To this end, each manager adheres to the METEX Management Charter. On a day-to-day basis, they ensure that they apply the behaviours described as far as possible, in order to create a climate that is conducive to the development of all employees. This is achieved by exchanging ideas and listening to others, thereby establishing the trust that is essential to the empowerment and development of each individual and of the project.

We need to build relationships based on trust and respect and to improve cohesion and team spirit. We need to develop the human skills of each and every one of our employees. Simple caring behaviours that are very easy to apply often make a big difference.

Feedback is an essential tool in building these relationships of trust and co-development. Whether you give it or receive it, feedback is very useful for building and progressing. Feedback is therefore a managerial development tool, but it can also be practised between peers, as part of a culture of high standards, since it enables everyone to improve their behaviour and ways of doing things, and therefore to perform better. Practising feedback implies a high level of integrity and respect for others.

ACTION PLAN

In 2023, the METEX Group will harmonise the content of managerial career paths across all entities. Initial work began in 2022 with the drafting and signing by the members of the Executive Committee of a Managerial Charter setting out the behaviour expected of the entire managerial line and the managerial principles derived directly from the 4 values, which will then be presented to all METEX Group managers during various workshops in 2023.

Performance from 2023: percentage of managers who have attended workshops to implement the management charter

DEVELOP CLEAR WORKING RELATIONSHIPS: THE IMPORTANCE OF SOCIAL DIALOGUE

This social dialogue takes place with four parties: employees, staff representatives, management, and senior management. It involves respect, listening, open-mindedness, and a willingness to find common ground.

Social dialogue enables all employees to work together to achieve common goals. It helps to develop good relations and communication within the teams, which then become more effective. Managers play an important role in the quality of social dialogue, as they are the first point of contact for their teams.

We want to establish social dialogue as one of the essential levers for successfully transforming the Group, making a lasting contribution to its performance, and building a shared project that guarantees the company's long-term future. Communication, transparency, consultation and negotiation with employee representative bodies are the conditions for the success of this transformation.

ENSURE FAIR EVALUATION FOR FAIR RECOGNITION OF PERFORMANCE AND PROFITABILITY

METEX aims to develop performance and cultivate excellence. This is only possible because commitment and motivation are present. It is important that everyone feels equally valued for their investment in relation to the investment they receive from their colleagues. This implies, among other things, that the evaluation process is fully linked to excellence in the three areas of values, skills, and objectives. Because this notion of fairness and equity can only be applied on clear foundations, avoiding the maximum amount of subjectivity, the evaluation process must be established, disseminated, and integrated by the management line and, of course, understood by all employees.

The overall remuneration package proposed by the METEX Group aims to offer a fair and competitive reward.

METEX is convinced of the importance of valuing contribution and commitment. To achieve this, we offer a variety of remuneration packages, in line with the company's profitability requirements, including both monetary and non-monetary elements based on themes common to all group employees.

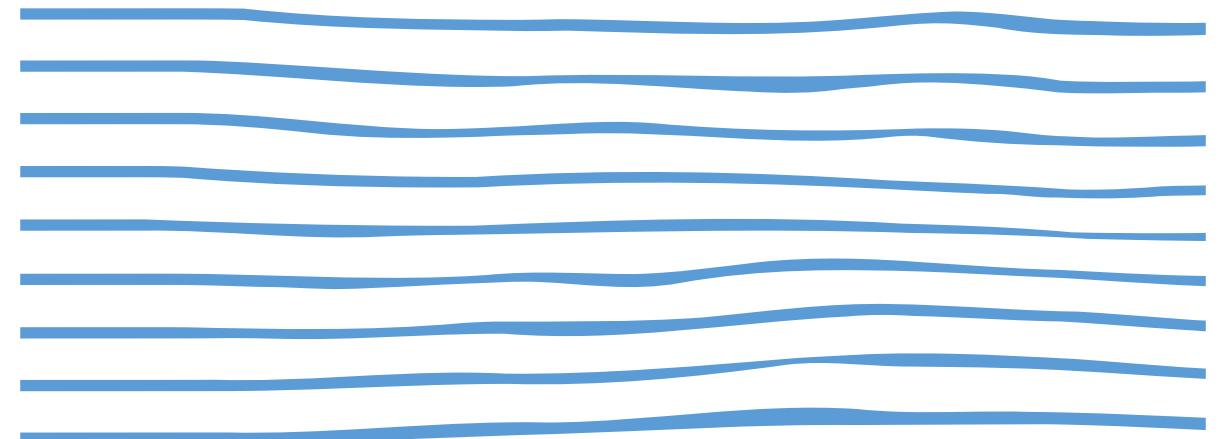
This policy takes into account the collective bargaining agreement to which each entity adheres, the practices of local companies and the economic realities of the various companies in our Group.

Sharing wealth when it is earned, not before. This sharing is achieved through deferred remuneration schemes that redistribute a share of profits to employees.

ACTION PLAN

Defining and formalising a Group remuneration policy.

From the 2023 financial year: Drafting and sharing of the remuneration policy with the Executive Committee.



	HR indicators	METAbolic EXplorer 2022	NØØVISTA 2022	NØØVISTAGO 2022	METEX Consolidated 2022	METEX Consolidated 2021
	Total number of FTEs: 3,112 excluding pro contracts, including fixed-term contracts, excluding replacements	70,39	48,57	316,32	435,28	458,26
gender parity au 31/12	% women	59,45%	24,00%	29,78%	34,08%	34,33%
	% men	40,55%	76,00%	70,22%	65,92%	65,67%
	Gender pay gap (index)	97	NC	86	NC	NC
Type of employment contract	% permanent contracts	95,95%	96,08%	96,04%	96,04%	96,87%
	fixed-term contracts and temporary workers, including work/study trainees	4,05%	3,92%	3,96%	3,96%	3,13%
Management	Management ratio (managerial staff/total staff)	40,28%	15,06%	27,59%	28,11%	24,68%
	% women	55,17%	27%	36,36%	40,17%	41,74%
	% men	44,83%	73%	63,64%	59,83%	48,26%
Working time	Total full-time staff	66	48	306	420	439
	Total part-time staff	6	1	13	20	27
	% women	83,00%	0,00%	53,85%	60,00%	70,37%
	% men	16,67%	100,00%	46,15%	40,00%	29,63%
Employees Turnover	turnover rate	23,19%	24,51%	10,36%	14%	NC
	Absenteeism rate	4,32%	7,70%	5,87%	5,87%	NC
Workplace Accidents	Workplace accident frequency rate	0	9,5	14,71	10,8	NC
	Number of workplace accidents with lost time	0	1	6	7	NC

	HR indicators	METAbolic EXplorer 2022	NØØVISTA 2022	NØØVISTAGO 2022	METEX Consolidé 2022	METEX Consolidé 2021
training	number of hours of training	483	2881	6551	9915	NC
	number of employees who have taken at least one training course	43	49	330	422	NC
	training participation rate	58,10%	94,23%	100%	92,54%	NC



CHALLENGE 3

WORKING ENVIRONMENT

COMMITMENT

7

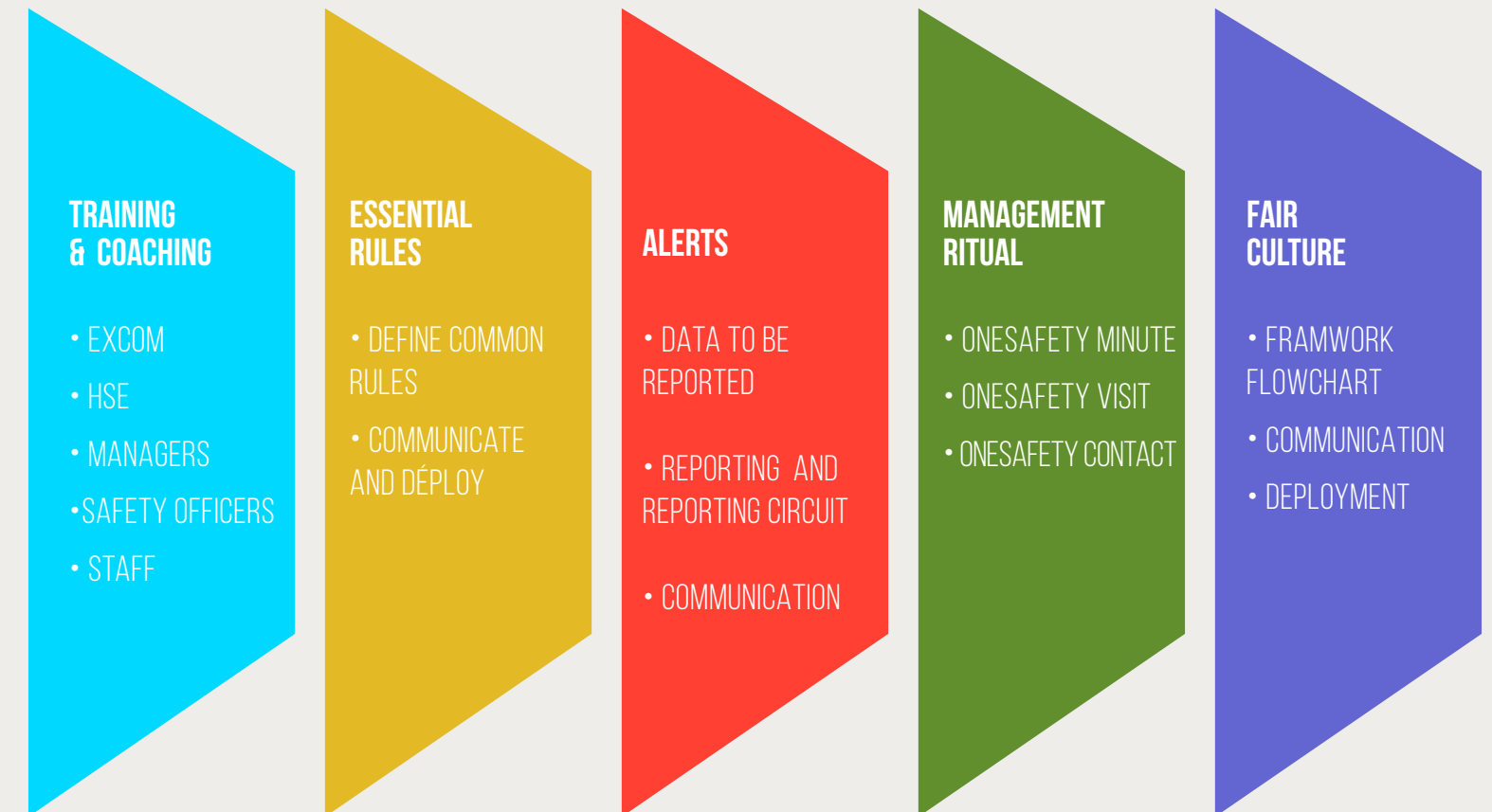
GUARANTEE THE SAFETY OF PEOPLE AT WORK AND OF FACILITIES

CONSOLIDATING THE SAFETY CULTURE

For us, safety is a value that no one compromises for any reason whatsoever. Improvement efforts are continuing as part of the OneSafetyCulture@METEX programme. Impelled by the METEX Board of Directors at the end of 2021, this programme stimulates a joint and general effort to consolidate the entire Group's safety culture. The aim of this programme is to achieve a level of maturity in terms of safety and to become a benchmark. From spring 2022 onwards, it will implement a number of improvement projects grouped together in a OneSafetyCulture roadmap:

- Training of all staff in behavioural approaches to safety (progress: 95%)
- Coaching of management teams (progress: 80%)
- Implementation of safety rituals by operational management and the executive team (behavioural visits, on-site events) (progress: 80%)
- Deployment of a digital tool for reporting dangerous situations (90% complete)
- Definition of Vital Safety Rules applicable across the METEX Group (progress: 70%)
- Creation of a tool for handling discrepancies based on the Just Culture approach (progress: 15%)

ONESAFETYCULTURE ROADMAP



This OneSafetyCulture programme will be finalised for the whole Group by September 2023, and then made permanent in our day-to-day practices.

2022 WORKPLACE ACCIDENT RATES

The indicators used to measure progress in safety are the number of accidents with lost time (TF1) and the number of accidents with and without lost time (TF2).

In 2022, METEX employees suffered 16 accidents at work, 7 of which resulted in time off work. None of these accidents involved an event with a high potential for seriousness, i.e. one that could potentially lead to a serious or fatal accident. The main type of accident was pedestrian-related (falls on the same level, slips). The majority of these accidents are due to organisational and human factors (vigilance, behaviour), which are at the heart of the OneSafetyCulture initiative.

It should be noted that, since the start of this programme in May 2022, the frequency of accidents at work has been reduced by 25% within the METEX Group and the rate of safe behaviour observed is increasing.

2022 accidents with lost time (TF1):

METEX NØØVISTAGO: 6 accidents with lost time for 407,866 hours worked

METEX NØØVISTA: 1 accident with lost time for 104,811 hours worked

METABOLIC EXPLORER: 0 accidents with lost time for 137,686 hours worked

METEX GROUP: 7 accidents with lost time for 650,363 hours worked
(TF1 = 10.8 compared with 10.6 in 2021)

$$\text{TF1} = (7 \times 1,000,000) / 650,363 = 10.8$$

2022 accidents with/without lost time (TF2):

METEX NØØVISTAGO: 10 accidents with/without lost time for 407,866 hours worked

METEX NØØVISTA: 3 accidents with/without lost time for 104,811 hours worked

METABOLIC EXPLORER: 3 accidents with/without lost time for 137,686 hours worked

METEX GROUP: 16 accidents with/without lost time for 650,363 hours worked
(TF2 = 24.6 compared with 19.1 in 2021)

$$\text{TF2} = (16 \times 1\,000\,000) / 650\,363 = 24,6$$

1- METEX NØØVISTAGO perimeter only in 2021

METEX

PILLAR #2

BEING A
KEY PLAYER
IN THE
ECOLOGICAL
TRANSITION

PILLAR 2

BEING A KEY
PLAYER IN
THE
ECOLOGICAL
TRANSITION

CHALLENGE 4

CIRCULAR ECONOMY

COMMITMENT

8

MEASURE THE ENVIRONMENTAL FOOTPRINT OF OUR
PRODUCTS USING LIFE CYCLE ANALYSIS (LCA)

12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



WHY/OBJECTIVE:

METabolic EXplorer aims to contribute to the ecological transformation thanks to its own solutions but also to the functional solutions developed at customers. In order to achieve this goal, it starts with the precise measurement of our product environmental footprint. This is clearly why METEX is committed to regularly assess the environmental footprint of its solutions based on Life-Cycle Assessment (LCA) as a methodological reference. This commitment will be met by using officially recognized methodological LCA norms and relevant from a user sector perspective.

The LCA methodology is a standardised method, allowing the assessment of the product environmental footprint, taking into account many impact categories (multicriteria method) and including all the steps of the product lifecycle. The multicriteria approach allows a global analysis (climate change impact, water consumption, fossil fuel usage...) which verifies that the impairment of one impact category does not negatively compromise the other impact categories.

Taking into account the different steps of the product lifecycle allows to identify the ingredients or the production steps which have the highest contribution and therefore to establish the priorities for further improvement.

From now on, the LCA results of all the amino acids produced in Amiens and commercialized by METEX NØØVISTAGO are available for the customers and partners. This LCA was performed within the following methodological framework:

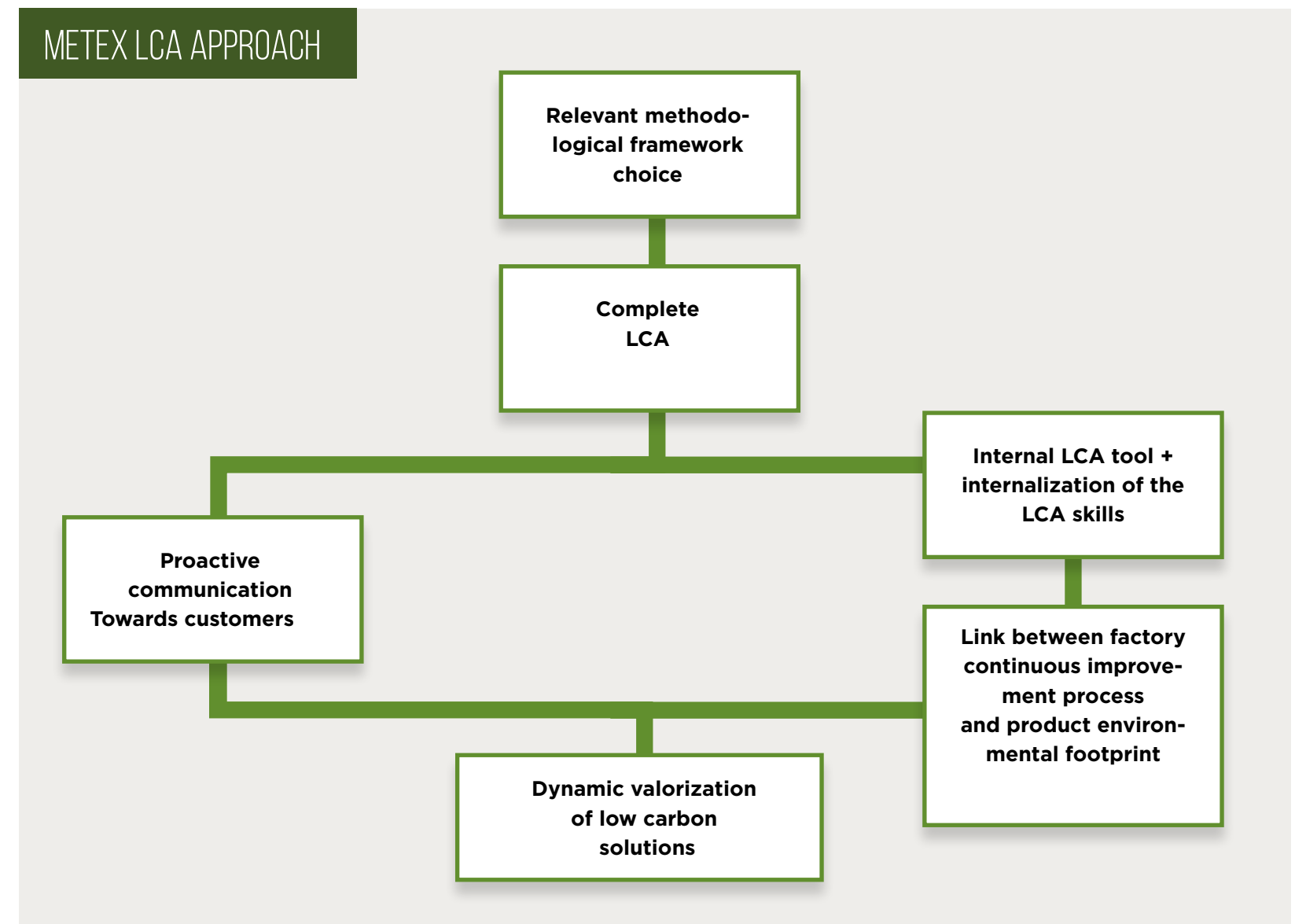
- ISO 14040

- Feed PEFCR, European methodological reference specific to animal nutrition, approved by the European commission

- FAO guidelines within the LEAP framework, for environmental footprint evaluation of feed additives.

This LCA also includes a comparison between the Lysine produced by MNG in France and the lysine produced in China. It demonstrated that the carbon footprint of French Lysine is 5 times lower than the Lysine produced in China (refer to commitment # 14). All those results have been peer-reviewed by independent and external LCA experts, following the LCA methodological requirements. From this LCA, an IT tool was developed to allow the autonomous LCA update, the development of eco-conception processes and of benchmarking. Several METEX NØØVISTAGO departments have been trained to use the tool in order to develop the LCA culture within the company.

During 2022, METEX made its work on LCAs of amino acids available to ADEME, the French Agency for Ecological Transition. This collaboration has enabled ADEME to integrate LCA data for amino acids used in Europe into the French government's official LCA database, Agribalyse.



In 2022, an LCA was available for 98% of the products marketed by METEX (compared with 90% in 2021; excluding co-products) and for 56% of all the volumes marketed by METEX (compared with 59% in 2021). The change between 2021 and 2022 is mainly explained by the completion of a new LCA for one product and the increase in 2022 in the share of co-products in volumes marketed (effect of reducing stocks).

These results are in line with METEX's objective of having an LCA for all its marketed volumes by 2026.

PILLAR 2

BEING A KEY
PLAYER IN
THE
ECOLOGICAL
TRANSITION

CHALLENGE 4

CIRCULAR ECONOMY

COMMITMENT

9

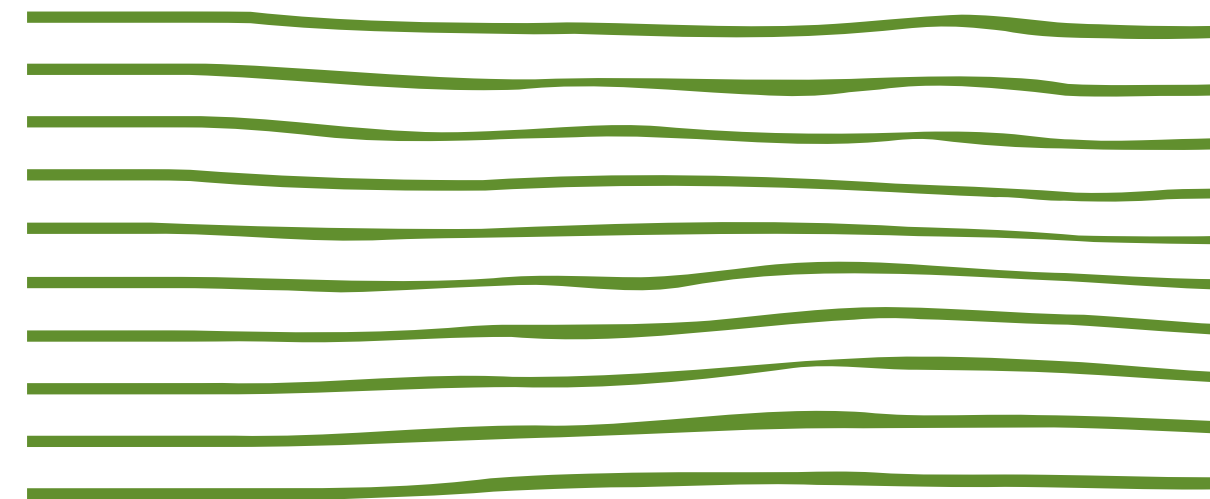
PROMOTE THE USE OR FUNCTIONALITY OF OUR
SOLUTIONS

- nutrition and the economic performance of livestock farms (profitability of livestock sectors)
- nutrition and the environment (reducing livestock-related emissions, particularly carbon and nitrogen)
- nutrition and health, well-being (minimising the use of antibiotics in livestock farming)



The economy of the functionality is one of the main components of the circular economy. It aims to prioritize the use over the possession, to sell a service rather than a product. Implementing the economy of functionality ultimately allows to decouple the added value from the consumption of resources. METEX wants to apply the principles of the economy of functionality to its activities and is committed to place on the market the solutions that answer to a specific need, a specific use or a well-defined function.

In order to develop and deploy our solutions, we rely on strong scientific collaborations around the world through theses, national or European programmes and public-private consortia. They are then validated by field approaches carried out in collaboration with our partner customers. Our priorities revolve around nutrition, and in particular the link between :



2022 ACHIEVEMENTS

After setting up a 5-year R&D plan in 2021 to address these 3 issues, 2022 was the year of concrete action with :

- accelerating our scientific collaborations in France and abroad: funding for 7 PhD or post-doctoral students by 2022,

- a strategy of scientific visibility and credibility through 57 scientific publications, 7 of which are peer-reviewed articles on amino acid nutritional strategies on the environmental impact, performance and health of animals (the number of peer-reviewed articles is lower than in 2021, a year in which the time available for writing and reviewing articles was exceptionally high due to COVID),

- the launch of a range of unique and innovative products: INNEUS, the first solution based on functional amino acids.



-Nutrition and performance

At Wageningen University, two PhD students working as part of a public-private consortium have started their research projects aimed at developing new nutritional strategies to improve the performance and health of pigs and poultry under heat stress. In addition, 17 publications were produced in 2022 to document the impact of lower protein in pig and poultry feed on overall performance, meat yields and quality, and energy and protein metabolism (e.g. Alfonso-Avila et al., 2022. Effect of low-protein corn and soybean meal-based diets on nitrogen utilization, litter quality, and water consumption in broiler chicken production: insight from meta-analysis. Animal). Deploying our solutions to meet the challenge of protein sovereignty.

- Nutrition and the environment

At Laval University in Canada, two other PhD students are continuing their research projects on the life cycle analysis of innovative nutritional strategies to reduce emissions from pig and poultry farming. In particular, they have helped to disseminate the scientific results at a number of conferences: World Poultry Congress, Journées de la Recherche Porcine. In all, 14 publications were produced on this theme in 2022, including a life cycle analysis study co-published with Blonk in 2022 (Braconi et al., 2022), which showed that reducing the protein content of feed for partner customers in England and Germany reduced carbon dioxide emissions by almost 10%, and that this effect was maximised by using synthetic amino acids produced in Europe.

- Nutrition and health / well-being

Finally, two PhD students (Guelph and Wageningen) and a post-doctoral student (Bologna) are continuing their research projects on nutritional strategies, and in particular amino acids, to improve animal welfare and health. 25 publications, including 6 peer-reviewed articles, were produced in 2022, with 3 major examples:

- Kim et al (2022) quantified the impact of coccidiosis in chickens on amino acid digestibility.
- Gagnon et al (2022) who quantified the impact of a functional amino acid solution (INNEUS) on the performance of broiler poultry.
- Minussi et al (2022) who demonstrated that amino acid nutrition had a significant positive impact on the behaviour of rearing pigs.

PILLAR 2

BEING A KEY PLAYER IN THE ECOLOGICAL TRANSITION

CHALLENGE 4

CIRCULAR ECONOMY

COMMITMENT

#10

BUY SUSTAINABLY BY RELYING ON LOCAL SUPPLIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Since 2020, supply chains have been under severe pressure. The difficulties created by the COVID-19 crisis have been followed by strong tensions and raw material price increases due to the war in Ukraine, the effects of which are still being felt. The implementation of a purchasing policy that enables the industrial sites to be supplied in a sustainable manner is therefore a structuring element of METEX strategy.

As an example, at METEX NØØVISTAGO, this purchasing policy is part of the Integrated Management System within the «Purchasing and flow management» process, which aims at the sustainability of supplies through :

supplier reliability

- quality
- security of supply,
- compliance with our specifications,

risk management

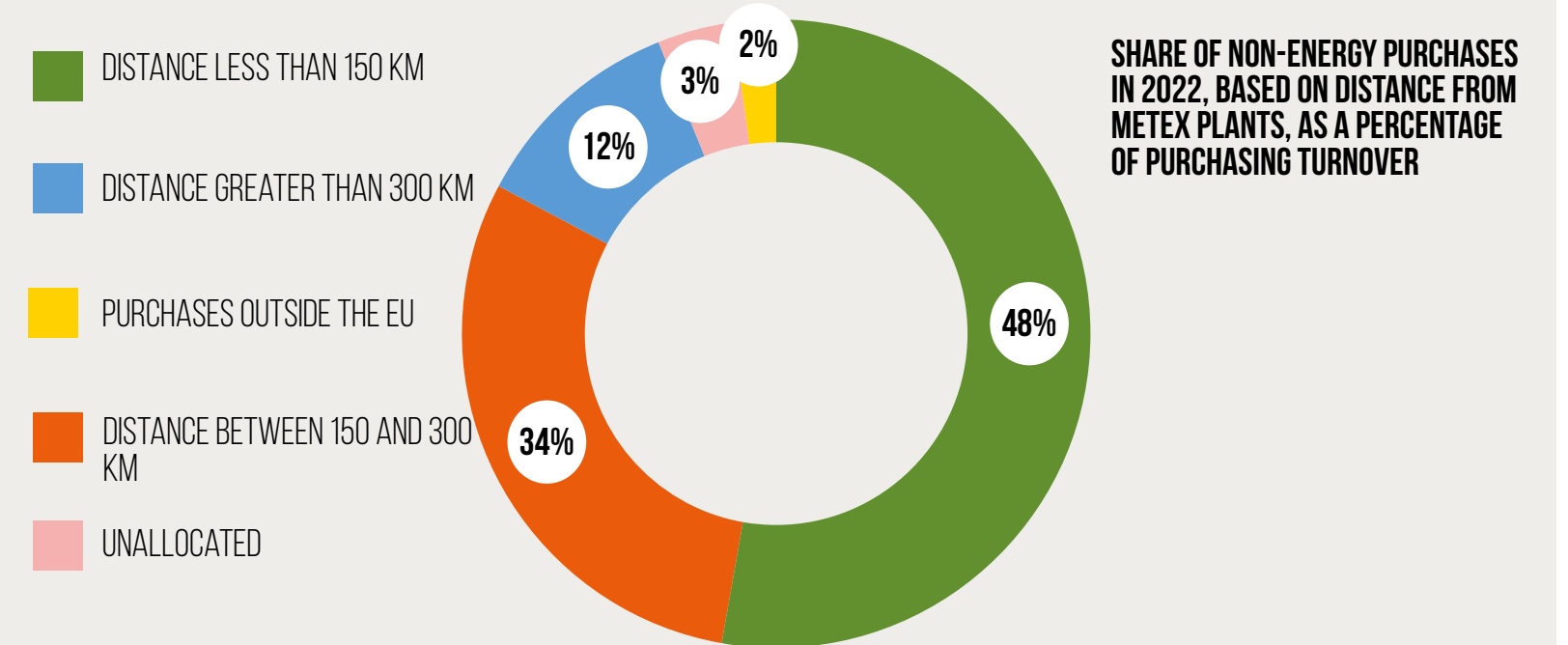
- risk analysis on critical products / suppliers,
- minimum of two suppliers for the main products purchased.

Our suppliers are selected through a multidisciplinary approval process that is regularly reviewed.

METEX is convinced that short supply chains are an essential element for the resilience of value chains. This is the reason why METEX is positioned as a European supplier to its customers, but it also applies to METEX own procurement. Therefore METEX has decided to measure the share of its purchases according to the distance to its production plants.

In 2021, this exercise was only carried out for the METEX NØØVISTAGO plant to take account of the industrial start-up of the Carling plant. In accordance with the commitment made, the exercise was carried out for both METEX plants in 2022, and the results are as follows:

DISTANCE TRAVELLED BY PURCHASES EXCLUDING ENERGY (AS A % OF PURCHASING TURNOVER)	METEX NØØVISTAGO		METEX NØØVISTA		METEX GROUP	
	2022	2021	2022	2021	2022	2021
< 150 KM	47%	53%	64%	NA	48%	NA
BETWEEN 150 & 300 KM	36%	30%	10%	NA	34%	NA
> 300KM	11%	11%	25%	NA	12%	NA
OUTSIDE EU	2,5%	4%	0%	NA	2%	NA
UNALLOCATED	3,5%	2%	1%	NA	3%	NA



More than 80% of METEX Group's purchases are made within a distance of less than 300 km and more than half of the purchases are made within a distance of less than 150 km, while purchases outside the EU are marginal. The consolidated indicator is calculated by taking the weighted average of the two industrial sites. METEX NØØVISTAGO accounts for 97% of flows for this indicator, compared with 3% for METEX NØØVISTA.



PILIER 2

BEING A KEY PLAYER IN THE ECOLOGICAL TRANSITION

CHALLENGE 4

CIRCULAR ECONOMY

COMMITMENT

#11

APPLY THE PRINCIPLES OF THE CIRCULAR ECONOMY TO MOVE TOWARDS ZERO WASTE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



The circular economy consists of producing goods and services in a sustainable way by limiting the consumption and waste of resources and the production of waste (3). The fermentation processes implemented by METEX are perfectly in line with this circular rationale. These processes use renewable resources such as sugar, glucose syrup or glycerine as fermentation substrates to feed the bacteria that produce the molecules of interest: amino acids, PDO, butyric acid. Different types of co-products can also be generated during the process:

(3) Source: Ministry of Ecology

- biomass co-products;
- some of the bacterial creams from amino acid production are dried and then used to make protein-rich pellets for use in aquaculture,
- solubles co products;
- the other elements present in the solution at the end of the process are concentrated to be crystallized under the form of ammonium salts, used as fertilizer for the crops that produce the fermentation substrates, a perfect illustration of the circularity of the process. An additional decantation stage produces another protein-rich by-product, which is mainly used as feed for dairy cows.
- The wastewater treatment plant
- The residual flows at the end of the process are treated in a wastewater treatment plant. Both METEX NØØVISTAGO and METEX NØØVISTA have their own wastewater treatment plants. At the end of the treatment plant, purified water is returned to the natural environment and the solid by-products of the treatment plant are used as fertilizer by the farmers near the factory.

The design and optimization of the fermentation production process allows us to apply the principles of the circular economy in our factories. METEX is committed to minimizing the amount of non-recyclable waste leaving the factories. It should be noted that most of the time this waste is not directly related to the production process (e.g. laboratory waste, printer toners, ...).

To meet this commitment, METEX measures the recovery rate of outgoing streams, defined as the total volume recovered in relation to the total volume of outgoing streams.

This rate is as follows:

	2021	2022
CARLING	START	96,1%
AMIENS	99,9%	99,9%
METEX GROUP	NC	99,6%

At METEX Group level, this recovery rate will reach 99.6% in 2022, i.e. extremely close to rigorously measured zero waste (the consolidated indicator represents the weighted average, with METEX NØØVISTAGO accounting for almost 90% of flows for this indicator, compared with 10% for METEX NØØVISTA).

PILLAR 2

BEING A KEY PLAYER IN THE ECOLOGICAL TRANSITION

CHALLENGE 4

CIRCULAR ECONOMY

COMMITMENT

#12

INDUSTRIAL SITES WELL INTEGRATED INTO THEIR ENVIRONMENT



As a responsible industrial company, METEX gives great importance to the integration of its industrial sites into their environment. Given the processes and raw materials used in our factories, the challenges of this integration are multiple:

- Safety issues, an absolute priority for METEX (see commitment # 7)
- Energy management and reduction of the carbon footprint of industrial sites (see commitment # 13)
- issues of water quality returned to the natural environment at the end of the wastewater treatment plant
- issues of respect for the factory neighbors, through the limitation of odor nuisances measured by a specific indicator for the Amiens site and not consolidated at Group level.

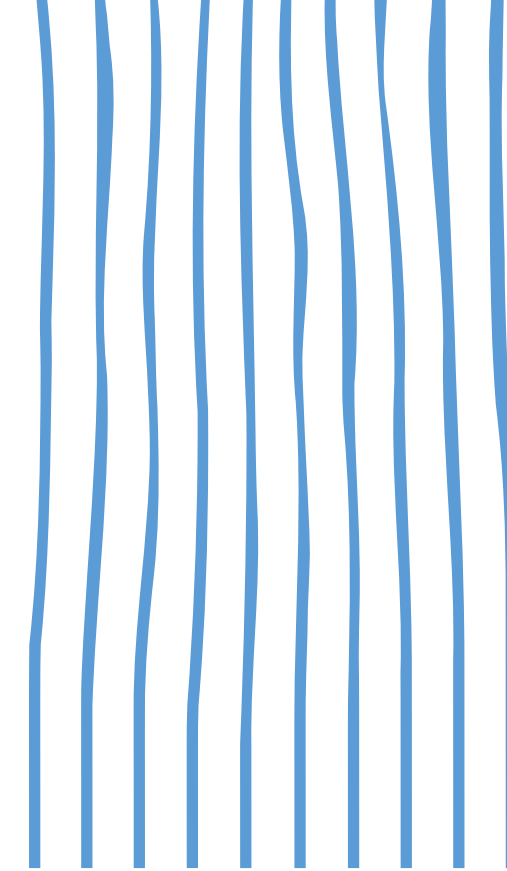
At the end of the treatment plant of the METEX NØØVISTAGO site in Amiens, the water used for the production process is returned to the natural environment, in the Somme. The requirements in terms of quality and composition of this discharge water are subject to a prefectural decree to which METEX NØØVISTAGO is subject. The situation is different for METEX NØØVISTA in Carling, which is part of an industrial platform.

Downstream of the METEX NØØVISTA treatment plant, the wastewater is discharged into another treatment plant, shared with other manufacturers. It is the water discharged by this shared plant that ultimately reaches the natural environment. However, METEX NØØVISTA is also subject to a prefectural decree concerning the water discharged by its treatment plant.

METEX NØØVISTAGO regularly monitors the composition of the water downstream of the treatment plant by performing daily analyses. These analyses are used to calculate the compliance rate of the treated water, defined by the number of compliant analyses divided by the total number of analyses. In 2022, this compliance rate was 91.40% versus 97.3% in 2021. The change is explained by the disruption caused by the introduction of the partial activity scheme in autumn 2022, which may have led to a concentration of flows.

A similar inspection is carried out by METEX NØØVISTA at Carling. The compliance rate was 26.58% in 2022, a level that can be explained by the difficulties caused by the start-up of the treatment plant, particularly at the denitrification stage.

At METEX Group level, the weighted compliance rate was 89.2%. It is calculated by taking the weighted average of the two industrial sites. METEX NØØVISTAGO accounts for 97% of flows for this indicator, compared with 3% for METEX NØØVISTA.



Although located in an industrial zone, the METEX NØØVISTAGO plant in Amiens is relatively close to housing, unlike the Carling site. The issues of respect for local residents therefore take on a particular dimension.

To limit the olfactory impact on the factory neighbors, METEX NØØVISTAGO is associated with the olfactory monitoring network set up by ATMO Hauts de France with Amiens Métropole. This network of «noses» reports odors locally via

an application installed on a smartphone. The «noses» use a method of analysis and mapping of odors, the language of noses, for which they have been specifically trained. METEX NØØVISTAGO contributes to the training of industrial «noses», specialised in the identification of odors from industrial origin. For the METEX NØØVISTAGO plant, the characteristic odor that can be perceived is defined as an odor of petfood.

The integration of METEX NØØVISTAGO in this odor watching network allows it to measure the rate of days for which no odor is reported. This rate was 91% in 2022.

The disruption caused by the partial shutdown in autumn 2022 is also responsible for this change. This is a specific indicator for the METEX NØØVISTAGO site in Amiens, which is therefore not consolidated at Group level.

PILLAR 2
BEING A KEY PLAYER IN THE ECOLOGICAL TRANSITION

CHALLENGE 5
DECARBONISATION

COMMITMENT #13
REDUCE THE CARBON FOOTPRINT OF INDUSTRIAL ACTIVITIES



Looking at the upcoming climate crisis, reducing greenhouse gas emissions is a priority. This necessity is part of the «raison d'être» of METEX, which aims to produce and market low-carbon functional ingredients. In addition to developing solutions to reduce the carbon footprint of the value chains in which they are used (see commitments # 14 and 15), METEX responsibility is to work on controlling and reducing the carbon intensity of its industrial activities - which will be measured by the CO₂eq/MWh consumed - at the Carling and Amiens sites.

The roadmap put in place by METEX to decarbonise industrial activities is based on the following:

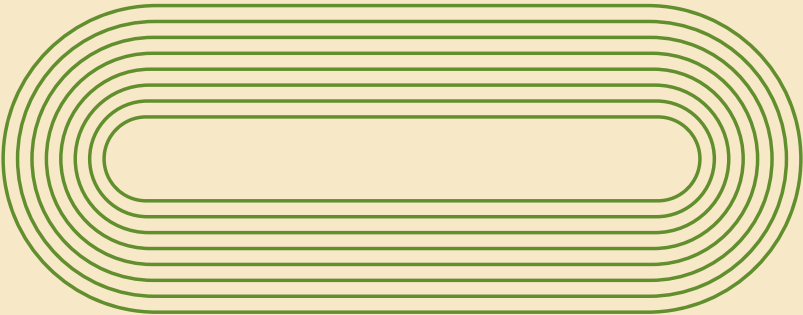
- energy efficiency actions. Through our energy performance plan, we have made a commitment to the public authorities to achieve 10% energy efficiency gains by 2025.
- recovery of waste heat used in the Amiens metropolitan heating network
- introduction of METEX technology for valine production, which will reduce the carbon footprint of valine production by around 40% compared with current levels
- reducing dependence on fossil fuels. The biomass boiler project selected by ADEME for the Amiens plant will reduce the carbon footprint by between 10%

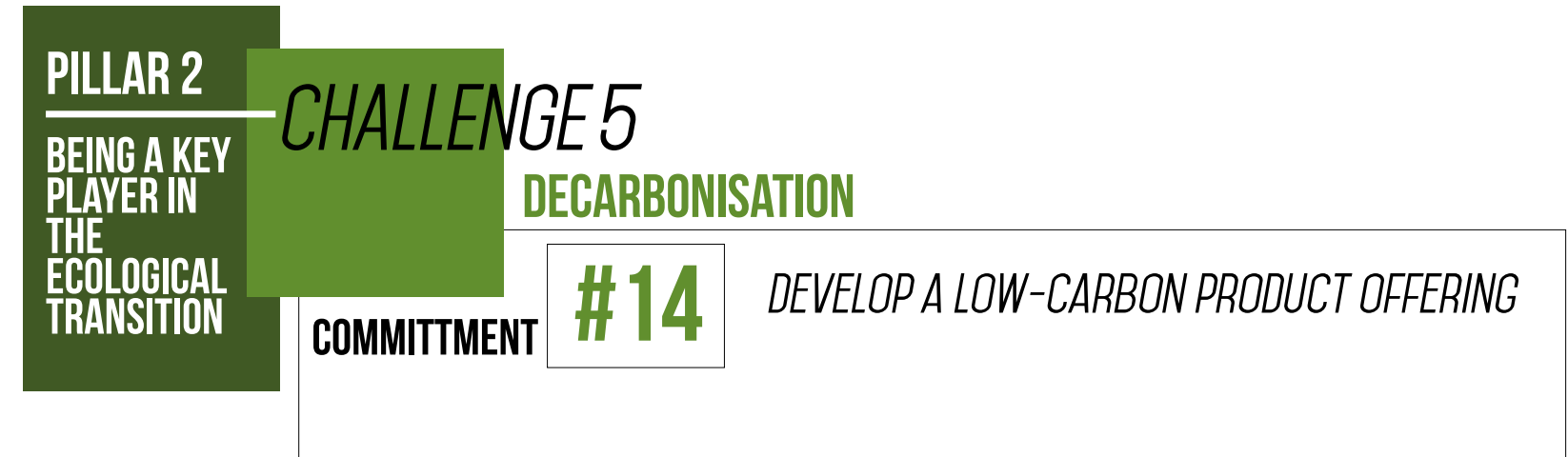
and 30%, depending on the product.

This roadmap is based on reference years 2021 and 2022. Work on quantifying this roadmap will continue in 2023 with the publication of the METEX Group's climate trajectory.

In line with the commitment made last year, METEX has measured the carbon intensity of its production activities for 2022, expressed in kg of CO₂ equivalent per MWh consumed. This indicator is as follows:

	METEX NØVISTAGO	METEX NØVISTA	METEX GROUP
CARBON INTENSITY 2022 (KG CO₂EQ/MWH)	166	183	167





The decarbonization of value chains must be achieved by relying on robust & recognized metrics based on a scientific approach. METEX is indeed committed to further differentiate itself by developing a low-carbon product offering that can be easily identified by its customers and partners through transparent benchmarking based on recognized methodologies.

This allows METEX solutions to be benchmarked against current and future solutions.

In 2022, METEX used the completion and validation of life cycle analyses of amino acids to quantify the environmental benefits for our customers.

The results were disseminated via three major projects:

-Recognition of this work by life cycle assessment specialists

Following a review of the AA LCA results by METEX and EVEA, the 16 LCA indicators for lysine, tryptophan, valine, arginine, isoleucine, leucine and histidine for each producer country for the European market (France, USA, Indonesia, Korea, China and Brazil) were integrated into the Agribalyse 3.1 database in October 2022. These results are now officially recognised and publicly accessible directly on the Agribalyse 3.1 website: <https://doc.agribalyse.fr/documentation/>

- Recognition of this work by the animal nutrition sector

In September 2022, METEX received a 2-star Innov'Space award at the SPACE trade show in Rennes, France, in recognition of the quality of its work, its novelty and the impact that the origin of amino acid production can have on calculations of the carbon footprint per kg of feed or meat (pork and poultry).

<https://www.space.fr/Laureats/metex-noovistago/859.aspx>

In addition, the data were made available to our partner customers via the dedicated METEX ANIMAL NUTRITION website: <https://lca.metexanimalnutrition.com/>

In 2022, they were downloaded 26 times by our customers and partners.

- Recognition of this work by the scientific community

Finally, in 2022, our work on the functionalisation of our amino acids by their lower carbon footprint value was disseminated through an initial series of publications at scientific conferences: Journées de la Recherche Porcine, Journées de la Recherche Avicole, World Poultry Congress, ISEP, LCA Foods and demonstrated that the origin of amino acids had a significant impact on the carbon footprint of pork and poultry feed or meat. The first peer-reviewed publication to demonstrate this impact was validated in November 2022:

<https://www.sciencedirect.com/science/article/pii/S1056617122000642>

This work has led to the launch of the NOOVALIFE range, the first European range of low-carbon amino acids, which went on sale in 2023.

noovalife

AMINO ACIDS 
Life Cycle Assessment
ORIGIN MATTERS!



PILLAR 2

BEING A KEY PLAYER IN THE ECOLOGICAL TRANSITION

CHALLENGE 5

DECARBONISATION

COMMITMENT

#15

HELP TO REDUCE OUR CUSTOMER ENVIRONMENTAL FOOTPRINT

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



METEX commitment and contribution to reducing the environmental footprint of its customers' value chains goes beyond only offering low-carbon products. By relying on the expertise of its teams, METEX is also committed to highlighting and quantifying the sustainability benefits of using its solutions. This goes hand in hand with commitment #9 to enhance the functionality of our solutions.

The quantification of benefits follows a rigorous and transparent scientific approach, backed-up by numerous scientific publications. Quantifying the environmental benefits makes it easier for our customers to make decisions and commit to virtuous approaches. It is carried out

within a transparent framework that also allows METEX solutions to differentiate in the market.

In 2021, METEX NØØVISTAGO research teams have built a predictive model, whose equations have been scientifically validated by independent experts, that quantifies the environmental, animal health and animal welfare benefits of the use of amino acids in feed applications (through reduced protein content in feed). The model predicts the benefits for broiler chickens and fattening pigs. The development of this model in other segments is under investigation.

2022 ACHIEVEMENTS

In 2022, the METEX teams have added a module to the prediction model to assess the impact of the origin of amino acids on the carbon footprint of pig and poultry feed, as well as the impact per kg of pig or chicken leaving the farm (kg CO2 /kg live weight).

This module makes it possible to quantify the environmental gains specifically for each customer.

In the case of TILAMAR® PDO with NØØVISTA™, a calculator has been developed by DSM to measure the reduction in carbon footprint for users, compared with propylene glycol chemically produced.



METHODOLOGY NOTE

Foreword

For METEX, Corporate Social Responsibility means:

- CSR governance (see paragraph on fully involved governance);
 - A data collection process including the entities listed in the scope below;
 - A CSR report on all social, societal, and environmental information;
 - A verification of the data by an auditor and publication of the resulting report.

Perimeter

The reported data published in this CSR Report covers the period from 1 January 2022 to 31 December 2022.

The CSR scope is based on the financial scope (3 companies: METABOLIC EXPLORER, METEX NØØVISTA and METEX NØØVISTAGO).

Other exclusions / limitations:

Indicator #13 on carbon intensity is published for the first time this year. It is based on the sum of CO2 emissions from the various forms of energy used for production (steam (gas), electricity) expressed per MWh consumed. The emissions factors used are consistent with the rules in force under the EU Emissions Trading Scheme (EU ETS). This indicator will be further harmonised from a methodological point of view, to take into account the specificities of the treatment of the Group's internal and external energy sources.

Reporting standards

The METEX group's reporting standards guide the CSR reporting process in a consolidated approach, and the methods for calculating and collecting information are specified in these standards, which are available on request.

Contact
contact@metabolic-explorer.com

Contacts on social networks:

LinkedIn :

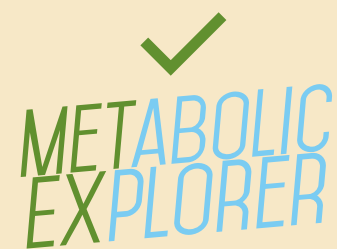
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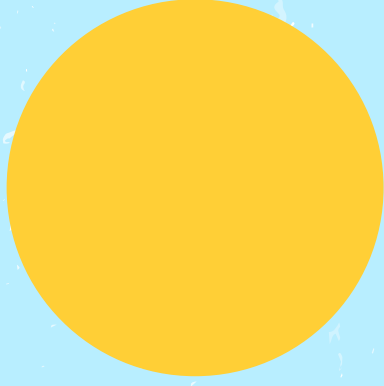
2022

SUSTAINABILITY REPORT



2022

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ALTERNATIVE **NOW**