



Derived from nature,  
refined by innovation

# Sustainability Report 2024



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# Letter From the CEO

Dear all,

Citribel is proud to share its second Sustainability Report, highlighting our continued efforts towards a more sustainable future. For over a century, circularity has been an important part of who we are. Using sugar molasses, a byproduct of the sugar industry, as our main raw material, and through our unique surface fermentation process, we produce citric acid and other circular products that offer many opportunities for innovative and sustainable solutions.

Today's global economic and political challenges affect all our markets, and as one of Europe's last citric acid producers, we take our role as a local and sustainable supplier very seriously. With the world's growing focus on reducing carbon emissions and promoting local sourcing, we are committed to helping our customers and partners meet their sustainability goals.

Our products and brands continue to show lots of potential for new and innovative uses. Moreover, the mycelium we produce as a side product of our surface fermentation, gives us access to an untapped potential for a wide range of sustainable alternatives to existing technologies, whether it is in biomaterials, agriculture, aquaculture or biotechnology.

Sustainability has always been a priority at Citribel, and the growing focus on it helped us to attract talented individuals. Their ideas and energy drive us forward and we are excited about what lies ahead.

This report covers our actions and progress, presenting an overview of Citribel's activities, initiatives as well as their overall impact. We are proud of what we have achieved, but we know there still is work to do, so we remain dedicated to accelerate the ongoing improvements.

Thank you for your support as we continue to work towards a more sustainable future.

Joris Merckx, CEO



# Citribel

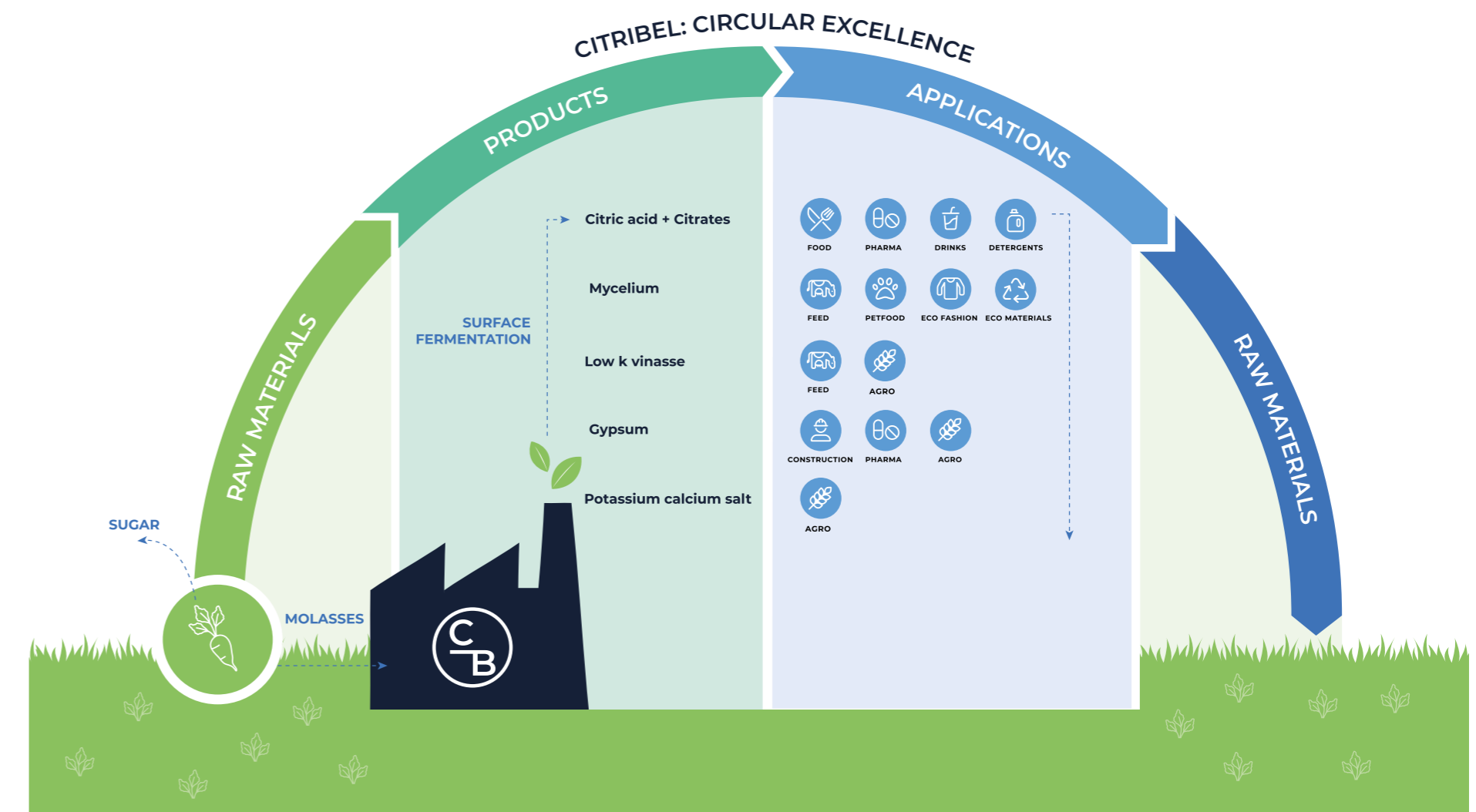
Today, Citribel stands out as a global leader in the circular production of citric acid, citrates, mycelium, and other high-value products, all produced through natural surface fermentation of sugar molasses.

## 1 About Citribel

### Who we are

Citribel is a leading producer of citric acid, citrates, mycelium, and other high-value products. Founded in 1919 in Tienen, Citribel began with the production of citric acid using sugar fermentation. Over the decades, our production processes have continuously evolved, becoming more efficient and embracing circular principles. By 1947, efforts to enhance circularity led to the use of sugar molasses, a byproduct of the nearby sugar industry, as our primary raw material. This choice significantly reduced waste and environmental impact while ensuring a steady supply for the production of citric acid, citrates and mycelium.

Today, Citribel's product portfolio has expanded, with mycelium and other sustainable high-value products contributing to a growing range of innovations. Our products are widely used across various industries, including food, pharmaceuticals, animal feed, agriculture, and numerous other specialized application areas.





## Our Values

### Legacy of Circularity

Since 1919, Citribel has built on a foundation of expertise and trust to deliver high-quality products. Today, we continue this journey with a strong focus on circularity, sustainability, and innovation.

### Thoughtful Innovation

In a world shifting towards sustainability and circularity, we embrace our responsibility to innovate. Inspired by nature, we are committed to giving back to the environment. By balancing progress with thoughtful choices, we explore new possibilities while prioritizing the well-being of people and the planet.

### Thrive Together

At Citribel, everything is connected. From sugar molasses to mycelium, and from citric acid to other sustainable high-value products, our processes are all part of a bigger picture. It's not just about production it's about our people, our communities, and the future we build together.



## 2 Closing the circle

### Circularity at heart

At Citribel, circularity is at the heart of everything we do. Increasingly, our customers are embracing sustainability and circularity as they address the urgent environmental and climate challenges we all share. We meet this demand as the world's only citric acid producer that utilizes sugar molasses, an upcycled byproduct of the sugar industry, as our primary raw material.

By choosing sugar molasses, we not only reduce carbon emissions but also avoid the need for extra land, fertilizer, and water, minimizing our impact on biodiversity and ecosystems.

Citribel also taps into the benefits of sugar beet, which naturally sequesters carbon, requires less nitrogen, and is processed close to where it's grown. Together with our efficient production processes, this allows us to create truly circular products, where nearly all raw materials are transformed into valuable new resources for our customers effectively closing the loop.

## Our production processes

At Citribel, circularity runs through all aspects of our operations. By transforming nearly all of our waste streams into valuable resources, we minimize the amount of residual waste left behind. Our commitment to circularity extends to how we manage water and energy, with a strong focus on reducing our carbon footprint and minimizing water use. As an ISO 14001-certified company, we continuously work to improve our environmental performance across the board.

Our production process is an interconnected system with multiple stages that all play a role in maximizing circularity. It starts with sugar molasses, the perfect nutrient for our unique 'Citribel fungus'. Through surface fermentation, the fungus grows into a biomass known as mycelium, while converting the sugar in the molasses into liquid citric acid. We closely monitor and fine-tune key factors like temperature and humidity across our 184 fermentation chambers. After a few days, once most of the sugar has been processed, we carefully separate the mycelium from the crude liquid citric acid.

The citric acid then enters a refining process. Initially, it reacts with lime milk, forming a calcium salt precipitate. This mixture undergoes a liquid-solid separation, producing a filtrate that is directed to our feed and agro facility. The precipitated calcium salt is then dissolved using sulfuric acid, yielding a purified citric acid solution and gypsum. After separating the gypsum, the citric acid solution is further refined through ion exchange, activated charcoal treatment, and crystallization. The process concludes with the production of high-quality citric acid crystals, which are dried, sieved, and packaged for use.

## Citric acid and citrates

As a result of our unique production methods, Citribel delivers high-quality products with distinct properties.

Citric acid, a naturally occurring acid, is a key component across many industries. It's valued for being safe, environmentally friendly, and biodegradable. As an odorless and non-toxic ingredient, it poses minimal risk to both human health and the environment, making it the go-to choice for a variety of uses:

In the food and beverage industry, it acts as a natural preservative and flavor enhancer. In cosmetics, it serves as an exfoliant, pH adjuster, and stabilizer. Its chelating properties make it essential in detergents, where it binds to mineral ions to boost cleaning power. Citric acid is also found in dishwasher tablets, offering a natural alternative to phosphates in cleaning agents.

This versatile ingredient is found in many everyday products, from effervescent tablets and jams to gummy bears, juices, and canned fruits and vegetables. Though often unnoticed, citric acid plays a vital role in local supply chains, supporting the production of a wide range of goods.

We produce citric acid in two forms: Dry (anhydrous) or with one water molecule (monohydrate). Depending on what's needed, we offer different granulations, powders, and solutions, along with various packaging and logistical options to suit specific applications.

In addition to citric acid, we also produce trisodium citrate dihydrate (TSC) and monosodium citrate anhydrous (MSC). These are made by neutralizing citric acid with sodium hydroxide. Both TSC and MSC are odorless, white crystals with a mildly salty and tart flavor. They're widely used in food, beverages, and technical applications, like buffering, sequestering, or as agents in coagulation and emulsification.



Scan for  
our  
production  
video



## Other circular products

In addition to citric acid and citrates, we also produce a range of high-value circular products, including mycelium, potassium calcium salt, gypsum, and low potassium vinasse. Thanks to our careful fermentation, separation, purification, crystallization and drying processes, we are able to contribute to a more sustainable future. Our goal is to inspire businesses to explore the many potential uses of these products.

### Citrofert®

The combination of sugar molasses and surface fermentation produces a significant amount of potassium calcium salt, commonly known as syngenite. This product is a game-changer for farmers, recognized as a top-quality fertilizer. It's proudly sold under our trusted brand, Citrofert®.

### Citrogips®

Our gypsum powder, sold under the Citrogips® brand, is not only a versatile material for construction but also a key ingredient in dental and medical applications.

### Nutribond®

The organic residue from molasses is concentrated into low-potassium vinasse at the end of our process. Our low potassium vinasse, sold under the Nutribond® brand, is mainly used in the feed industry.

### Mycelium, MycaNova, MycoFence, MycoGlucan

Our surface fermentation process produces a large volume of mycelium. As more markets and industries recognize the potential of mycelium, new and innovative uses are constantly emerging. This fascinating material is worth exploring further.

## The opportunities of mycelium

Mycelium is the root-like structure of fungi, typically growing underground or on decomposing tree trunks. In our case, it grows on a liquid mixture of sugar molasses. From mycelium, fungi can produce mushrooms. Mycelium is a network of microscopic tubes that help with natural decomposition and provide nutrients to plants and trees. It's even been called the "wood wide web" because it helps plants communicate with each other.

There are different types of mycelia, each with unique properties. The fungus we use at Citribel has evolved over decades to thrive on sugar molasses, producing both citric acid and high-quality mycelium around the equivalent of six soccer fields per day.

While many companies are just starting to scale up mycelium production, Citribel has over a century of experience at an industrial level, creating a valuable upcycling process.

Due to the large quantities we produce, most of our wet mycelium is sold to the feed industry under the Citrocell® brand, where it's valued as a natural, tasty, high-protein feed additive with a spongy texture.

To make it even more versatile, we've developed a specialized drying process that turns the mycelium into a powder. This powder is easy to use, mix, and integrate into industrial processes.

We continue to collaborate with partners, exploring innovative applications and new ways to use mycelium in various industries. To demonstrate Citribel's commitment to innovation, we've partnered with Onda, a research organization specializing in aquaculture, to develop MycoFence, aimed at enhancing the immune system of Atlantic salmon and shrimps, reducing the need for antibiotics. Additionally, we've conducted research on MycoGlucan to improve immunity in pets and livestock, with promising results in animal health.

We also developed a brand "MycaNova" which creates sustainable mycelium based materials for the fashion and automotive industry.

**"Citribel is so much more than citric acid and citrates. Due to our unique production approach, we also provide various agribusiness solutions. And we are not stopping there as we continuously investigate ways to expand our portfolio even more, focusing foremost on our one-of-a-kind mycelium."**

Jasper Deckers - Scientific Product Specialist



Scan to learn more about our mycelium



## MycaNova®

**MycaNova®: upcycling mycelium to enable carbon footprint reduction in synthetic leather applications.**

In our efforts to maximize the value of our circular products, we found that our dried mycelium powder integrates easily with bio-based binders. When combined with materials like organic cotton or recycled polyester, it creates high-quality alternatives to natural leather. This not only offers sustainable solutions to various markets but also significantly reduces carbon footprints.

Our MycaNova® mycelium is 100% natural, animal-free, non-GMO, and fully upcycled. Transparency is key, so we provide full details on MycaNova® materials. Due to growing demand, MycaNova® has been invited to showcase samples and solutions across industry platforms.

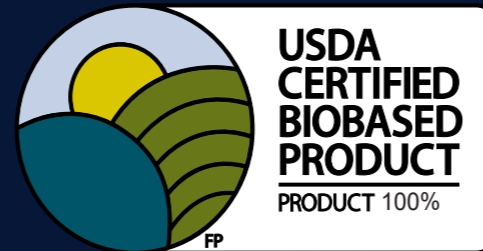
Besides finished MycaNova® material on roll, the MycaNova® mycelium itself is also available for innovative producers of alternative leather for a broad variety of applications, in which we provide the much-appreciated support.

To find the perfect balance between sustainability, design, and performance, we collaborate with industry partners to develop MycaNova® solutions tailored to their specific needs. These solutions are being used across various industries, including leather goods, footwear, automotive materials, luxury packaging, interiors, furniture, and more.

## Certificates



Scan for Podcast



## MycoFence®

MycoFence® is a pure, organic immunity booster that's rich in high-quality beta – (1,3/1,6)-glucans (>60%). Derived from mycelium, it's an eco-friendly and sustainable resource. MycoFence® outperforms yeast beta-glucan due to the unique structure of beta-glucan in mycelium, resulting in superior functionality. Additionally, MycoFence® is a pure and free-flowing powder, easy to handle for optimal use in all feed formulations.

### How is MycoFence® produced?

In an optimised and validated production process, all proteins from the mycelium can be removed with a gentle extraction. What is left is a pure isolate powder high in beta-glucan content, that we call Mycofence®.

### Climate & Society

The urgency for innovative immune-enhancing products is underlined by the increasing challenges in aquaculture, such as overfishing and rising ocean temperatures, factors that contribute to increased risk of infections and greater dependence on antibiotics.

Through advanced challenge testing with shrimp and salmon, this product has been proved effective to significantly reduce mortality related to both viral and bacterial infections.

Replacing animal raw materials with plant-based alternatives, combined with the immune-stimulating effect, addresses two crucial challenges in aquaculture: the need for more sustainable food sources and reducing the use of antibiotics.

### Why MycoFence®?

Because MycoFence® has the impressive ability to significantly reduce mortality caused by both viral and bacterial infections. By using Mycofence, a future with less dependence on antibiotics in crucial fish species can be promised. This is a breakthrough that not only benefits the health of the animals, but also has a positive impact on aquaculture and the environment in general.



## Challenge tests

In collaboration with Onda, we investigated the impact of Mycofence® and commercial Beta-glucans on the immune response and survival of Atlantic salmon when exposed to severe pathogens. After five weeks of supplementation, the fish showed good growth, reduced mortality, and enhanced immune markers. Separately, we conducted a study on *Penaeus vannamei* shrimp, feeding them diets with varying levels of Mycofence®. Following a 28-day feeding phase, the shrimp underwent a challenge with a viral challenge. Growth performance, mortality rates, and expression of immune-related genes were meticulously analyzed.

### Key Findings:

- Higher Survival Rates
- Unchanged growth and feed conversion rate
- Enhanced immune response
- Delayed onset of mortality



## Two awards for MycoFence®

MycoFence has won two awards: the “Corporate Blue Innovation Wave” and the “Public Award” at The Blue Innovation Awards hosted by Blauwe Cluster (Blue Cluster) vzw.



Scan to review our video pitch

Decrease in mortality rates  
**Salmon**  
**29%**  
T. maritimum

**Shrimp**  
**52%**  
White spot syndrome virus  
**Salmon**  
**17%**  
M. viscosa



## MycoGlucan®

MycoGlucan®, derived from the mycelium of *Aspergillus niger*, offers a powerful solution for boosting the immune system of pets. This product is rich in beta-glucans, which are known for their immune-enhancing properties, making it a valuable addition to functional feed.

To ensure immune competence, animals need both innate and adaptive immune responses. MycoGlucan® supports these systems, helping animals defend themselves against infections while also developing long-term immunity through antibody responses. This dual approach strengthens the overall health of animals, reducing the need for antibiotics.

### Health benefits

MycoGlucan®, has demonstrated the significant positive impact on immune system markers in dogs.

### Digestibility

MycoGlucan® not only supports immune health but also plays a key role in improving overall digestion. The proteins within MycoGlucan® are easy to digest and contain a balanced amino acid profile, which enhances nutrient absorption and gut health. Research shows that high digestibility is crucial for animal performance and well-being, especially during growth or periods of stress. In fact, the mean apparent protein digestibility was found to be exceptionally high in pet food produced with 14% MycoGlucan®: 91.4-93.3% for dogs and 86.6-92.5% for cats.

### Palatability

Palatability is a key factor in the success of any animal feed ingredient. MycoGlucan® has been shown to significantly improve feed intake, ensuring animals readily consume the product. This is especially important when supplementing feed to improve immune function and overall health.

Acceptance tests of pet food produced with 14% MycoGlucan® incorporation resulted in slight improvements, with 67% feed acceptance compared to 50% for the control group, demonstrating a clear preference for the MycoGlucan®-enriched diet.

### Why MycoGlucan®?

#### Pet Friendly

MycoGlucan® contains at least 40%  $\beta$  (1,3)-glucans, scientifically recognized for their ability to support both innate and adaptive immune responses, making it a safe and effective choice for improving the health of pets.

#### Natural Source

Using a surface fermentation process starting from sugar molasses, CitribeL has developed a sustainable and gentle purification process that results in a highly biofunctional product without mannoproteins.

#### Proven Results

Studies have shown that beta-glucans can activate immune cells such as neutrophils, which play a critical role in the body's defense against pathogens.



Dogs:

92%

Cats:

89%

### Digestibility

Digestibility was found to be exceptionally high in pet food produced with 14% MycoGlucan®.

Feed acceptance:

67%

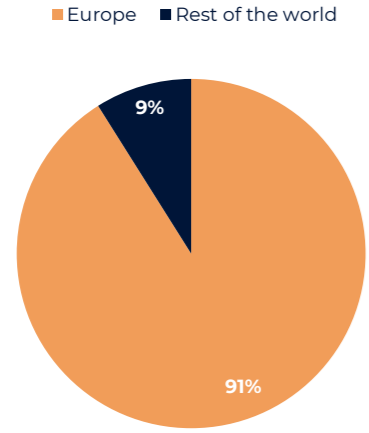
### Palatability

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## Our markets

Historically, the European market has always been our main market for citric acids and citrates. The increasing focus on local products in the past years further strengthened our position in the EU. Nevertheless, our products are valued in more than 60 countries worldwide with emphasis in North America and Asia. Within Europe, Germany, Italy and the Netherlands comprise our largest markets.



Other circular products total around two thirds of our outgoing goods. Historically, the distribution of these products has a strong local focus, with almost half of them sold in Belgium. In the last few years, exports to other countries have increased.

## 3 How we consider risk & impact

Our sustainability strategy is about creating a business environment where Citribel can thrive while addressing environmental concerns, ethical business practices, and stakeholder interests. This requires a balanced approach and input from both internal and external stakeholders.

We use the principles of double relevance to assess how global sustainability issues impact Citribel and how we affect society and the environment. This includes evaluating our supply chain from sugar beet cultivation to the food and pharmaceutical industries and considering factors like our carbon footprint and business relationships.



### Upstream

Beet molasses are our primary raw material, valued for their low carbon footprint and excellent fermentation efficiency. While most molasses come from nearby EU countries, we also source from more distant regions. As a result, we closely monitor the environmental impact of transportation, biodiversity, water use, and soil health in these areas. We also work with regulators to prevent beet molasses from being used for low-value applications like biofuels, instead focusing on its role in fermentation. Additionally, we ensure our raw materials are responsibly sourced and processed.



### Citribel

At our production facility, we carefully assess the impact we have on people, the environment and the local community. We take pride in being a reliable local employer and purchaser. Acknowledging that our company was founded in a time of different resource availability, we have implemented proactive initiatives to minimize environmental impact. Ensuring the health and safety of our employees remains a top priority, in line with our sustainability strategy.



### Downstream

Once our products leave our warehouses, they serve a wide range of applications for our diverse customers. Regardless of the end use, quality remains our top priority. We value customer feedback and aim to build lasting partnerships to better understand their needs. With the expertise of our innovation team and the practical skills of our technicians, we're able to adapt to market changes and evolving regulations to meet customer demands effectively.











































**“In the current spirit of population growth, we notice that we are more and more aware of healthier living and eating. These factors lead to intensive fish consumption and production, which brings along infections and diseases. I am happy to be part of an innovative and future oriented team and company that has developed one (of many to come) new product to provide an answer to this. Mycofence, derived from fungal biomass, is rich in immune stimulating fibres and, as a surplus, completely natural and circular. Proud to be part of an innovative and future oriented team and company.”**

Edith Wilderjans – Project Manager  
Innovatie

## Our sustainability strategy

In our comprehensive value chain analysis, we adopt an approach centered on Citribel's perspective while considering the expectations of our stakeholders. This approach enables us to compile an extensive list of topics, which are subsequently assessed based on their impact and financial materiality.

By categorizing this list of topics, we identify and prioritize five key focus areas. Within this framework, our strategic ambitions are defined. In alignment with our longstanding commitment to contributing to the United Nations' Sustainable Development Goals (UN SDG's), we link these prioritized areas with the overarching UN SDG's, reinforcing the cohesion and synergy between our strategic priorities and global sustainability objectives. The following section illustrates these 5 focus areas, along with our established set of ambitions.

Focus Areas	Ambitions	Value Chain Impact	SDG link
Circular Excellence & Innovation	Product innovation through valorisation and new applications of all our products	UP  DOWN	  
	Circularity and innovation in production processes	UP  DOWN	
Care for our Planet	Reduce our carbon footprint	UP  DOWN	  
	Reduce our energy use		
	Optimise and reduce our water use		
	Avoid waste and pollution	 DOWN	  
	Strengthen biodiversity	 DOWN	
Care for our People	Focus on health and safety		  
	Attract and develop talent		
	Promote well-being of our employees		 
	Improve equality, foster diversity and inclusion		
Sustainable Procurement	Expand use Code of Conduct		  
	Elaborate due diligence policy	UP  DOWN	 
	Improve sustainable evaluation suppliers	UP  DOWN	
Good Governance	Focus on business ethics and conduct	UP  DOWN	
	Invest in process management, operational excellence and quality		
	Commitment to IT security, data security and privacy	UP  DOWN	  
	Communicate Citribel's circular story internally and externally	UP  DOWN	



## Sustainability Targets & Endorsements at Citribel

At Citribel, our commitment to sustainability is evidenced by our numerous endorsements and certifications that reflect our dedication to responsible business practices.

**We are proud to hold the following recognitions:**

**CO2 Reduction Certificate:** This certificate by SGS acknowledges our successful efforts to significantly reduce carbon emissions across our operations, aligning with global climate action goals.

**SMETA Audit:** We adhere to the SMETA principles, which ensures that our practices meet high standards in labor rights, health and safety, the environment, and business ethics.

**Code of Conduct:** Our Code of Conduct provides a framework for maintaining integrity and transparency in all our business dealings, ensuring that we operate in a socially responsible manner.

**Labor Policy:**

**Fair Pay:** Citribel is committed to equitable compensation for all employees, recognizing the hard work and dedication that each team member brings to our company.

**Equal Pay:** We enforce a strict equal pay policy, ensuring that all employees are compensated solely based on their role, experience, and performance, without discrimination.

**Employee Rights:** We staunchly uphold the rights of our employees, providing a safe and respectful working environment that fosters professional growth and personal well-being.

**Carbon footprint:** We aim to reduce our scope 1 carbon footprint by 55% by 2030 compared to 2021. This through close monitoring of existing facilities, use of advanced data infrastructure and AI as well as targeted electrification of key thermal consumers.

**Waste:** We aim at reducing our waste production by 80% by 2027 through the implementation of new state of the art technologies that will enable Citribel to avoid waste production.

**Water Reduction:** Citribel uses significant amounts of process and cooling water in its operations. By 2030, we aim to reduce our water consumption by 35% compared to 2021 levels. We plan to achieve this by raising awareness around efficient water use and by implementing new water recycling technologies.

Citribel is dedicated to continuing our journey of sustainability and ethical business, setting a benchmark in the industry for others to follow.



## Together with our partners

Citribel values its role in being part of a vibrant community and values the contributions of generations of diverse colleagues and partners. We actively support local initiatives like Red Cross blood drives, poverty reduction programs, and litter clean-ups. Additionally, we foster future talent through internships, often leading to permanent roles.

Our daily work shows how everything is connected at Citribel, from molasses and fungi to our people and history. We value our ecosystem of research institutions, suppliers, and global customers, each essential to our circular journey.

### We listen to our stakeholders and take action



#### Our customers

Our customers rely on us for consistent quality and service with minimal carbon and water footprints. We work closely with them to address these challenges, supporting their transition toward a Net Zero carbon economy through collaboration and innovation.



#### Our Employees

Our employees are the foundation of Citribel's story, and we're dedicated to their well-being. As a local employer, we welcome and support each person, valuing the unique perspectives they bring to our journey.



#### Investors

We appreciate the trust our investors place in Citribel, confident that this partnership will continue to strengthen the value of our organization.



#### Unions

Unions play a key role in negotiating collective bargaining agreements and setting employment conditions. Transparent communication across various platforms helps us work together to identify and implement solutions.



#### Suppliers & service providers

Citribel collaborates closely with its suppliers in alignment with the ETI base code, as outlined in our code of conduct, to ensure partnerships with a low carbon footprint and respect for social rights. As a SEDEX member, Citribel actively fulfills its due diligence responsibilities.



#### The local community

We greatly value input from the local community around our historic site in Tienen, Belgium. Open communication helps us identify priorities for growth and reinforces our role as a dependable local employer committed to meeting community needs.



#### Schools & research centers

Citribel is located near some of Europe's most renowned universities and research centers, providing invaluable knowledge for our R&D efforts and a strong pool of skilled engineers and managers to lead us into the future.



#### Local and sectoral network organizations

Citribel is a valued member and active stakeholder of Belgian and European sector organizations where it advocates the sustainable industrial processes and reliable supply of critical additives to the food, feed and pharmaceutical sectors.



#### Municipality – regional governments and European institutions

Citribel operates in compliance with local, regional, federal, and European regulations. With the growing emphasis on sustainability, we are pleased to partner closely with regulatory authorities, who play an important role in advancing our sustainability strategy.



## By connecting with others, we optimize our efforts

We value assessments, audits and certifications

In our journey towards a more circular and sustainable economy, we recognize that we are not acting alone. Our commitment to learning and progress is underscored by our active engagement in various sustainability-related programs and initiatives. We consider these memberships and involvements to be invaluable, since they provide us with opportunities to gain insights from other companies around us while allowing us to share our own knowledge and experiences.



Scan for the full ecovadis report



Becoming an SDG Champion!

The 'VOKA Charter Duurzaam Ondernemen' provides a framework to turn sustainable goals into real actions, promoting ongoing improvements in areas like carbon reduction, circular projects, and social responsibility all in alignment with the UN SDGs. We are proud to announce that Citribel has been awarded the VOKA Charter for Sustainable Business for the 6th consecutive year! This recognition highlights our dedication to sustainable practices and our commitment to a better future.

Following an independent assessment, companies earn certificates across three levels: SDG Pioneer, SDG Champion, and SDG Ambassador. After five years of active participation, Citribel has achieved both SDG Pioneer and Champion status, with sights set on becoming an SDG Ambassador.



We are an active member of associations

Through our affiliation with network organizations and sector/industry federations, we have the privilege of engaging with individuals and companies who share similar values and objectives. As such, we are provided with valuable opportunities to acquire knowledge, exchange insights and collectively advocate for sustainability topics and other related matters.



# Care for our Planet

Citribel prioritizes environmental responsibility, fully aware of the impact across our value chain. We reduce our footprint by using molasses, a residual byproduct of the sugar industry, as our raw material instead of corn and by optimizing water and energy use. Through innovation, we've converted most waste streams into valuable products and identified new applications. These actions have reduced our carbon and water footprint, supported biodiversity, and built a strong foundation for sustainable production in food, feed, pharmaceuticals, and various technical industries.

## 1 Towards a lower carbon footprint

Our carbon footprint encompasses emissions generated both during our production processes and the emissions associated with our incoming raw materials and outgoing products. The primary contributors to our carbon footprint are the energy consumption of our production plant and the inherent footprint coming from the production of our raw materials.

Citribel's production processes demand a substantial energy supply, including both electrical power and thermal energy essential for our processes. Since 2020, Citribel operates a Combined Heat and Power (CHP) plant, utilizing natural gas as its fuel source. This CHP plant not only provides the necessary thermal energy (steam) required for our operations but also generates its electrical power. Excess power is injected into the local electricity grid, as such contributing to general electricity supply in Belgium. Following the recent overhaul of our energy plant, we have introduced a large hot water circuit to reclaim stack emissions.

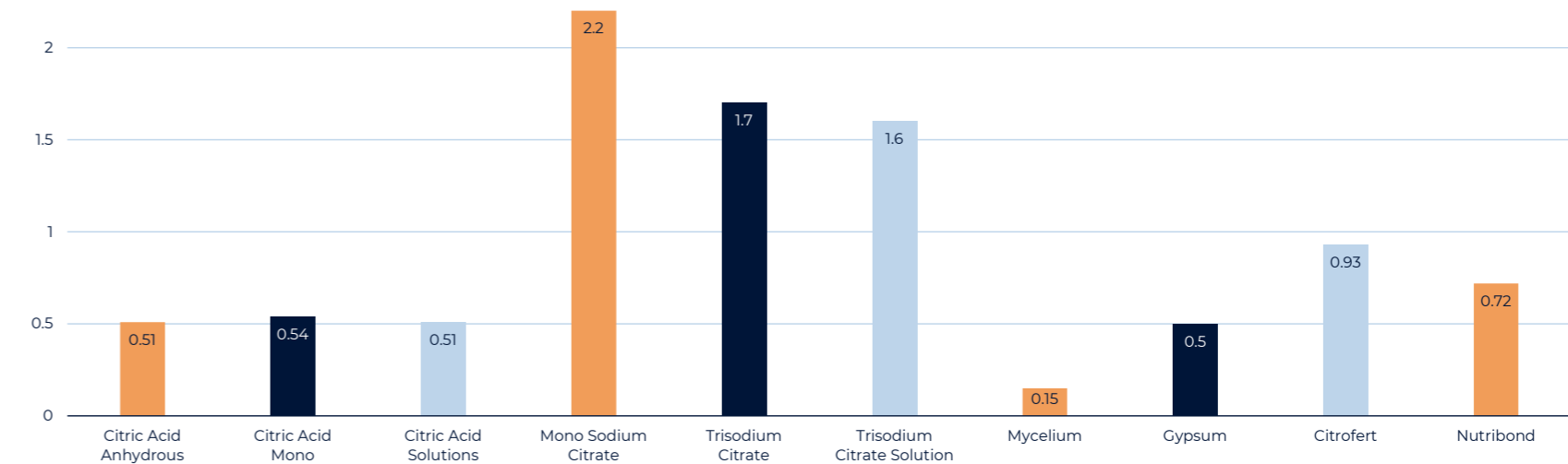
In addition, we are actively exploring innovative solutions to enhance our energy monitoring capabilities. We continuously monitor and enhance energy efficiency, exploring new technologies in collaboration with governmental agencies, universities, and industry associations. Our circular production process efficiently converts most residual waste streams into valuable products, minimizing waste generation. However, a few waste streams remain, with gypsum from filtration being the largest.

Citribel measures its carbon footprint at both corporate and product levels to fully understand its environmental impact. Using these insights, we continuously update our carbon roadmap, action plan, and climate strategy. This framework unifies our initiatives in circularity, energy, water, waste, and biodiversity, enabling informed strategic decisions.

We aim to reduce our scope 1 carbon footprint by 50% by 2030 compared to 2021. This through close monitoring of existing facilities, use of advanced data infrastructure and AI as well as targeted electrification of key thermal consumers.



TON CO2 EQ PER TON DRY PRODUCT FOR CITRIBEL CITRIC ACID PRODUCTION



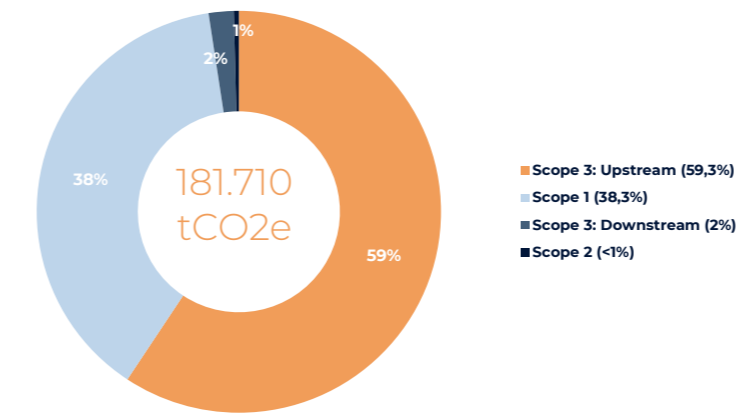
Product carbon footprint of Citribel's products

System boundary: cradle-to-gate

Data sources: primary data by Citribel (year 2023) and secondary data by EcoInvent database

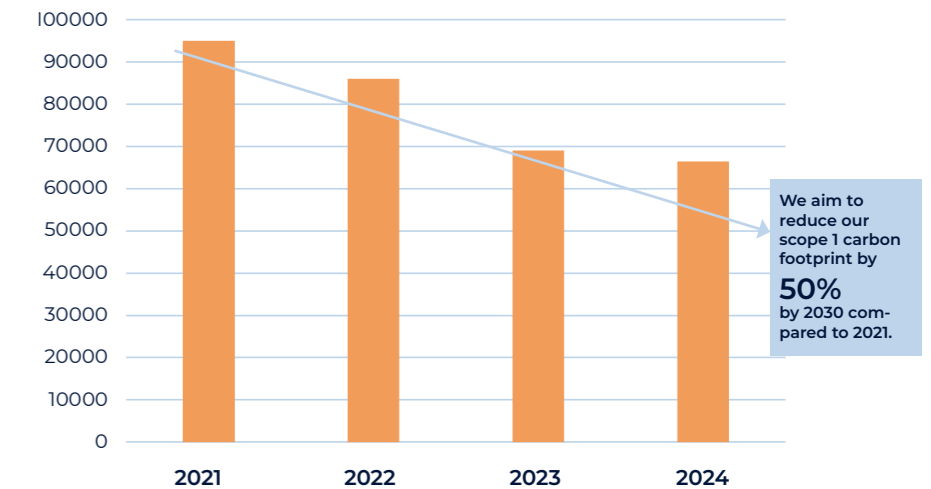
Allocation: dry mass allocation per department

EMMISSIONS



Corporate Carbon footprint Citribel: according to the greenhouse gas protocol (year 2023).

DIRECT CO2-EMISSIONS FROM CHP PLANT (tCO2e)



## 2 Reducing our energy use

Citribel has a production capacity of 300,000 tons per year, operating around the clock to meet market demand, which requires significant energy. As the only global producer using surface fermentation for citric acid, Citribel's process consumes considerably less energy during fermentation than conventional deep-tank methods. We remain committed to evaluating and refining our processes and infrastructure to continuously reduce energy consumption and carbon emissions.

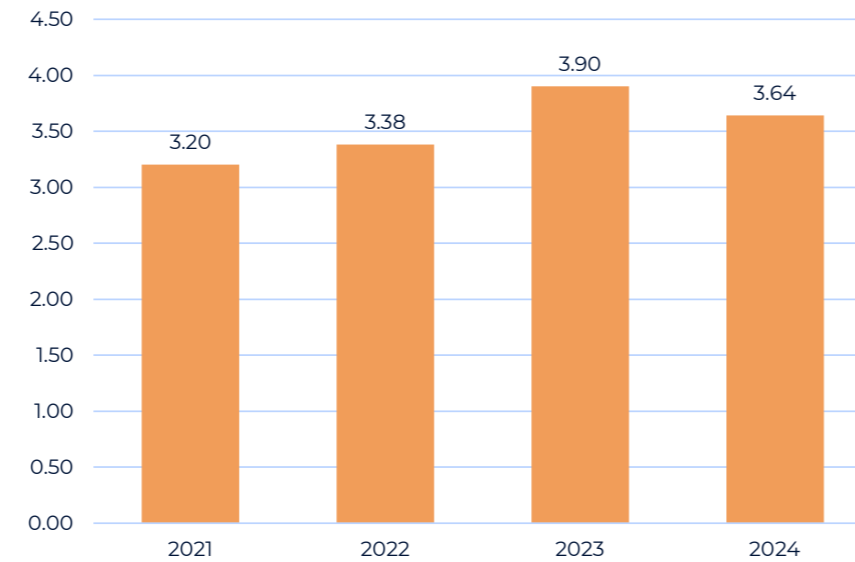
### We reduce our energy use

Since 2014, Citribel has participated in the Flemish Energy Benchmark initiative, aimed at improving energy efficiency among large industries in Flanders. Our recent transition in production has contributed to lower overall energy consumption, supported by initiatives like our hot water circuit, which saves enough energy to power over 1,000 households annually.

The graph illustrates our energy consumption per produced ton, measured in MWh. We saw a steady decrease from 3.20 MWh in 2021 to 3.38 MWh in 2022, then a rise to 3.90 MWh in 2023. In 2024, we successfully reduced our energy consumption again to 3.64 MWh per ton, continuing our commitment to efficient energy use.

Our recent decrease in energy consumption reflects the ongoing transition in our production. As part of our strategic plan, we're actively working on additional measures to further reduce energy use and improve efficiency. A key achievement has been our hot water circuit, which recycles excess heat and saves energy equivalent to powering over 1,000 households annually. Building on this success, we're developing advanced projects to continue reducing energy consumption and enhancing efficiency.

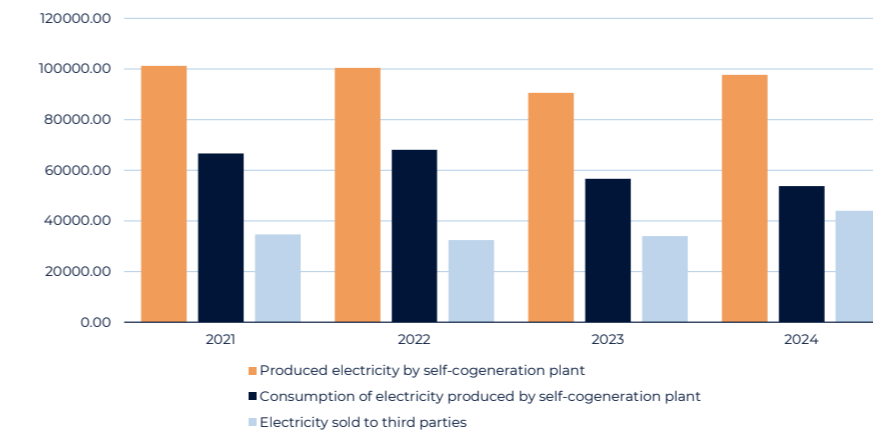
Specific energy consumption MWh per produced ton



## We generate energy

Since 2020, our combined Heat and Power (CHP) facility has utilized natural gas as its primary fuel source, generating both steam and electricity. Surplus electricity is fed into the conventional power grid. The production of electricity by our cogeneration plant has reached peaks of approximately 100,000 MWh yearly. A significant portion, about one third, of this generated electricity is supplied to external entities, affirming Citribel's role as a net contributor to the electricity grid.

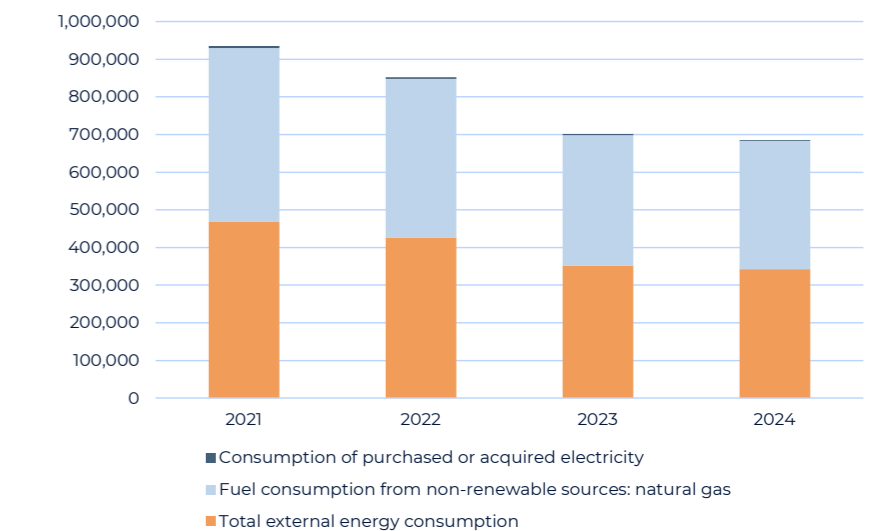
ELECTRICITY PRODUCED BY COGENERATION PLANT (MWH)



The charts show that Citribel's external energy consumption has decreased by approximately 12.5% over the past year, reflecting a decline in both purchased or acquired electricity and fuel consumption from non-renewable sources.

As part of our commitment to renewable energy and reducing our carbon footprint, we are planning a solar panel installation on our facilities for 2025. This initiative aims to further decrease our reliance on external energy sources and enhance our sustainability efforts.

EXTERNAL ENERGY CONSUMPTION (MWH)



## We measure our energy use

Citribel developed an in-house digital network of data measurement systems designed for real-time tracking of energy consumption across our different plants and processes. This system empowers us to pinpoint opportunities for energy reduction and optimize energy systems for maximum efficiency.

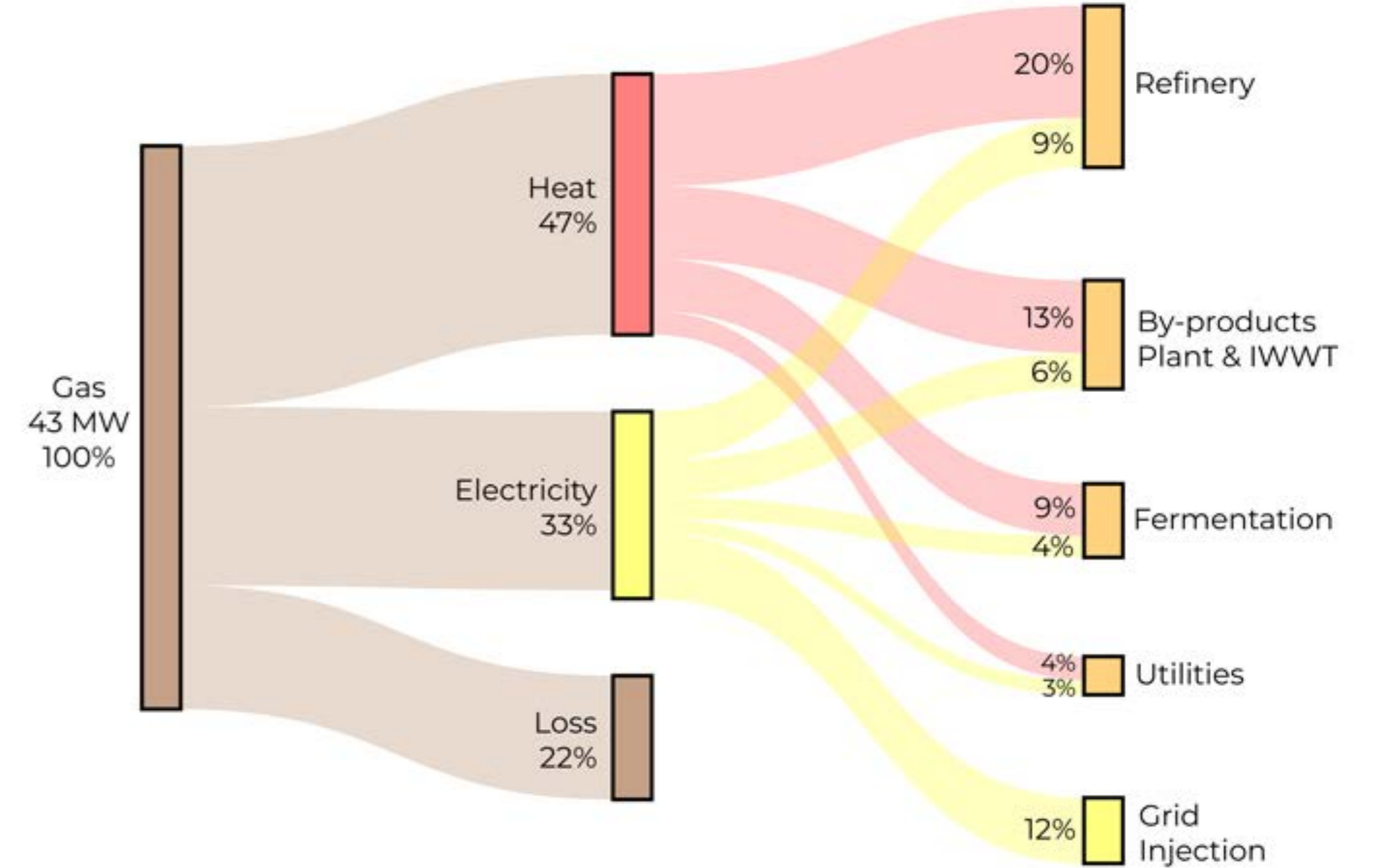
**“As a zero carbon engineer, I believe in collaboratively building a profitable future where we minimize our ecological footprint. Through joint innovation and continuous improvement, we create this sustainable future.”**

Ruben Hoofwijk – Zero Carbon Engineer

## We reduce the impact of transportation and mobility

As a prominent (bio)chemical corporation, Citribel manages a substantial volume of inbound and outbound freight. To minimize truck mileage and reduce air emissions, we strategically adopt multimodal transportation strategies, actively incorporating ship and rail transportation options where possible.

Furthermore, Citribel is dedicated to fostering a culture of sustainable commuting among its employees. To achieve this, we implemented various initiatives, including financial incentives for staff who choose to commute by bike. We also introduced a bike leasing program and enhanced our on-site bike storage facilities, resulting in a noticeable increase in the number of employees choosing cycling as their main mode of transportation. At this moment, 64 employees have opted to participate in the bike leasing program. For those employees who still rely on automobiles, Citribel has revised its company car policy to prioritize the adoption of electric or hybrid vehicles. To support this transition, charging stations have been installed, allowing staff to conveniently charge their vehicles at work using sustainable electricity sources.



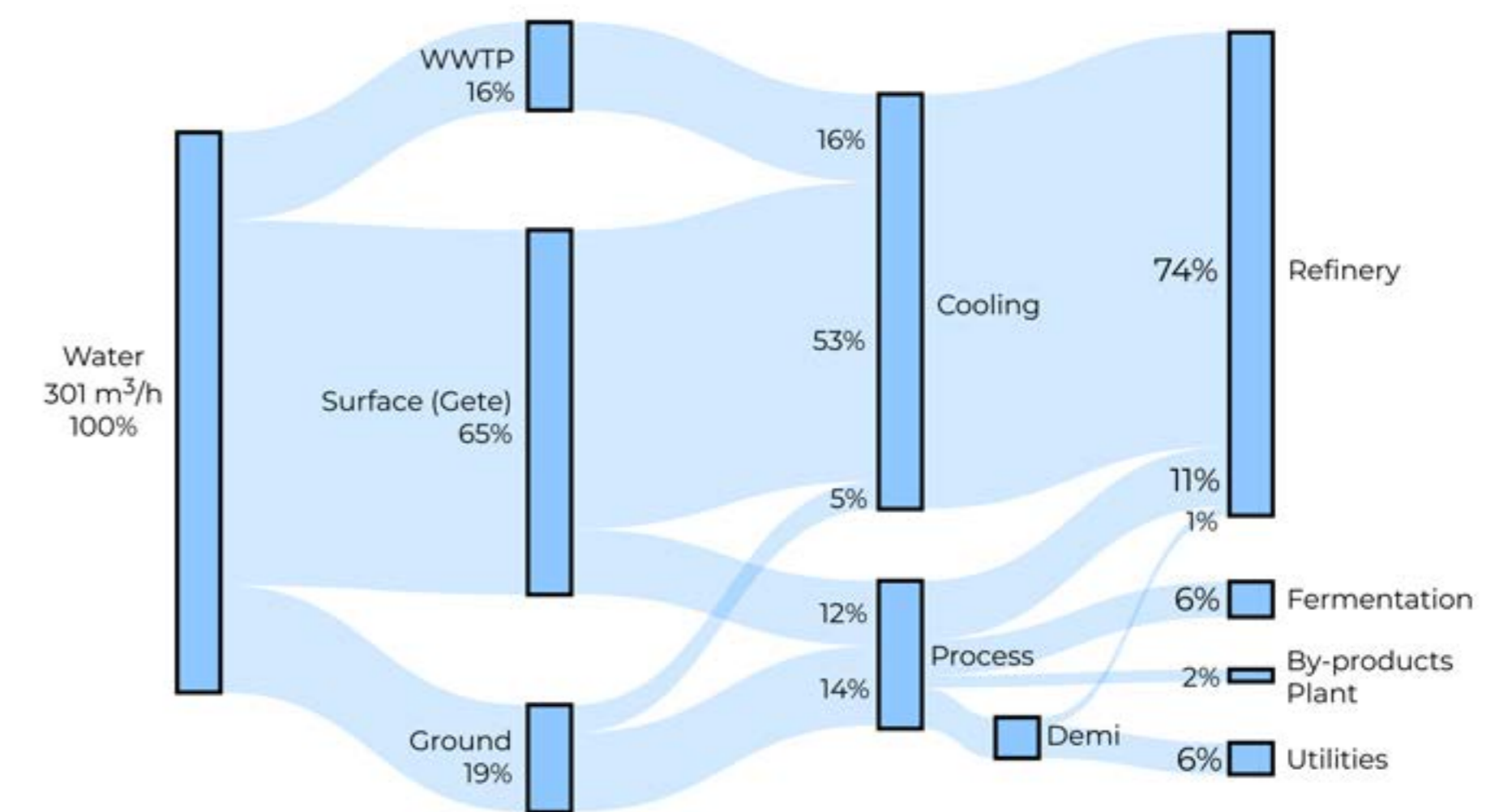
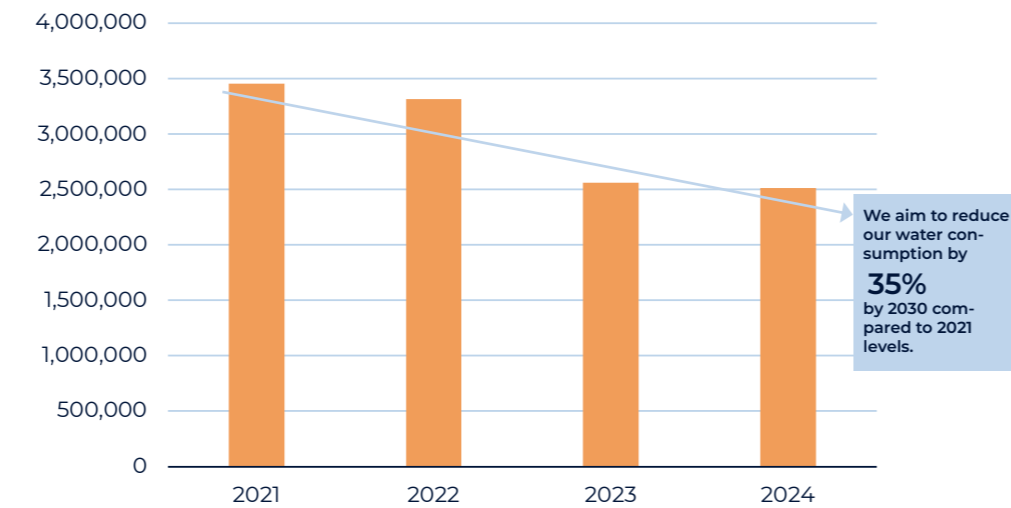
### 3 Reducing our water use

Water is essential in our production, with 30% used for processing and 70% for cooling, while household water makes up only 0.1% of total use. Though not in a water-scarce region, we are mindful of climate challenges and prioritize water reduction in all processes. Citribel is committed to efficient water management and local ecosystem preservation, employing biological wastewater treatment to purify discharge before returning it to the environment.

#### We reduce our water use

Our total water consumption has shown a steady decline over the past few years. From consuming nearly 3,500,000 m<sup>3</sup> in 2021, we reduced our usage to around 3,250,000 m<sup>3</sup> in 2022. The following year, 2023, saw a further reduction to just below 3,000,000 m<sup>3</sup>. By 2024, we achieved a reduction to approximately 2,750,000 m<sup>3</sup>. This consistent decrease in water use demonstrates our ongoing commitment to improving water efficiency and sustainability at Citribel.

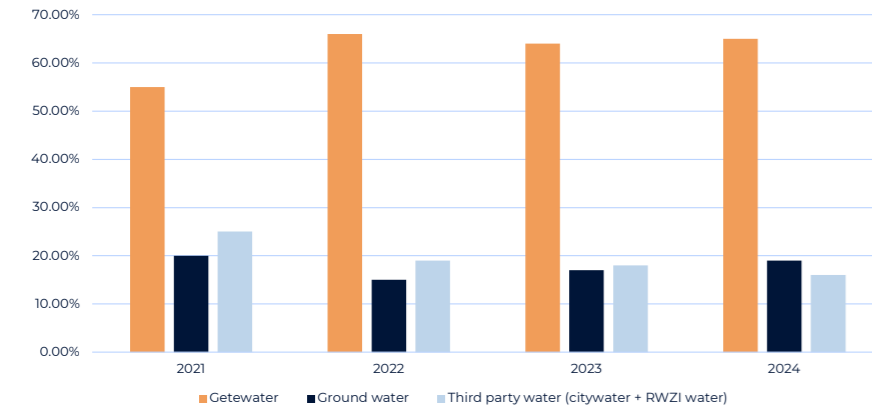
TOTAL WATER CONSUMPTION (M<sup>3</sup>)



## We use less ground water

Historically, Citribel predominantly relied on groundwater as its primary water source. However, in recent years, through the implementation of innovative new water production facilities and a concerted effort to reduce net consumption, we successfully decreased our groundwater usage. From utilizing nearly 30% groundwater in 2021, we reduced this to around 20% by 2024. This significant reduction was made possible by diversifying our water sources to include a greater proportion of third-party water, which rose from about 50% in 2021 to 70% in 2024. Our strategy has focused on utilizing more sustainable water sources such as treated municipal wastewater and increased water reuse.

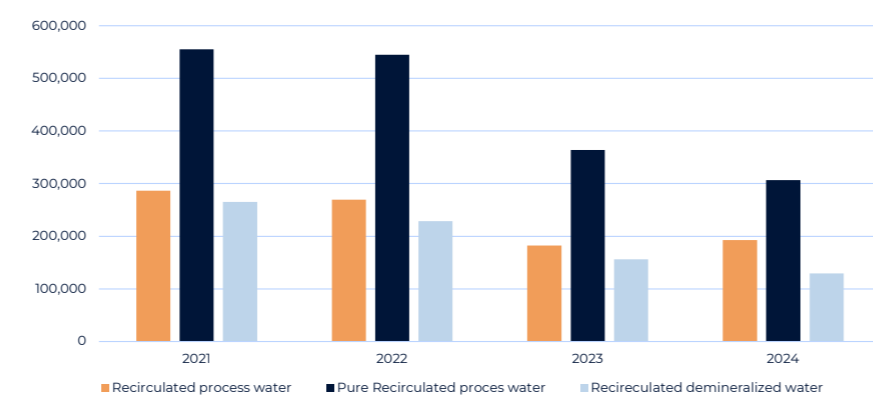
WATER USE BY SOURCE (%)



## We reuse our water

Citribel has been actively enhancing its water reuse practices, incorporating various types of recycled water into its operations. Over the recent years, we have made significant strides in reusing process water, pure recycled process water, and recycled demineralized water. Our commitment to increasing water efficiency is evident from the growing volume of reused water, especially in the categories of pure recycled process water and recycled demineralized water. By optimizing our water recycling processes, we not only conserve valuable resources but also contribute to sustainable water management within our production facilities.

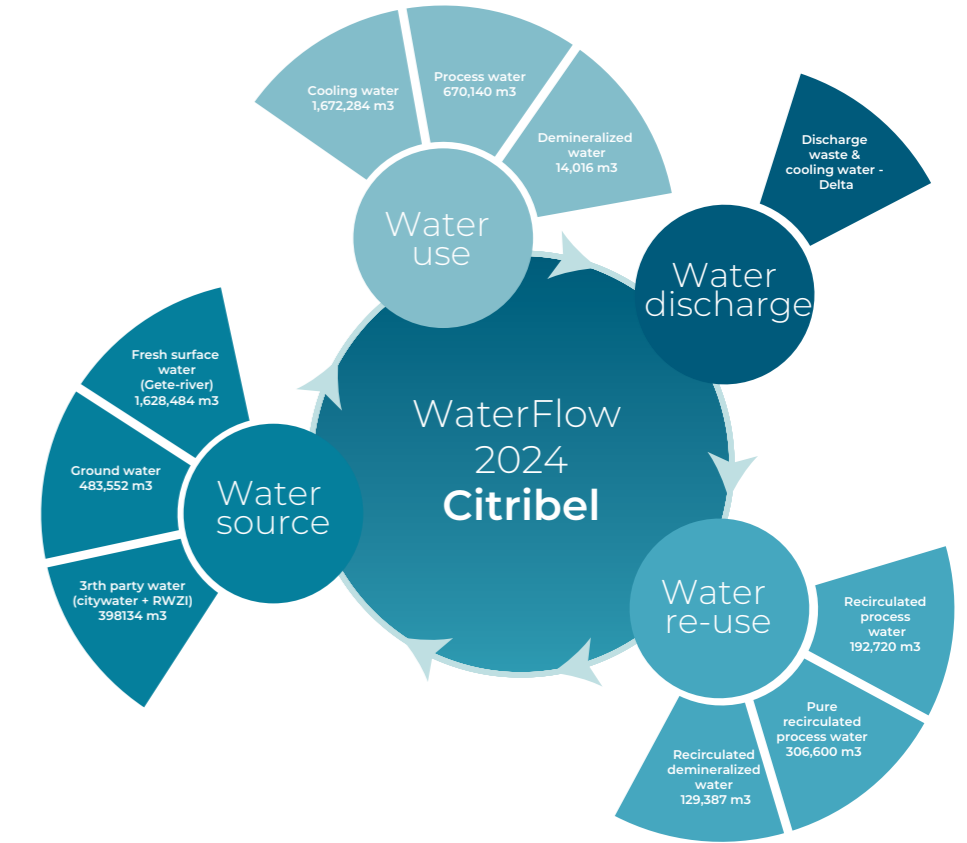
REUSED WATER (M3)



In alignment with our circular mission, we actively promote the reuse of our treated wastewater by local farmers. Our biological water treatment facility ensures that wastewater is meticulously purified, guaranteeing that only pristine water is returned to the natural environment. During instances of water scarcity, we extend this valuable resource for irrigation use within agriculture, horticulture and public landscaping



## Waterflow Citribel 2024



## 4 Avoiding waste and pollution

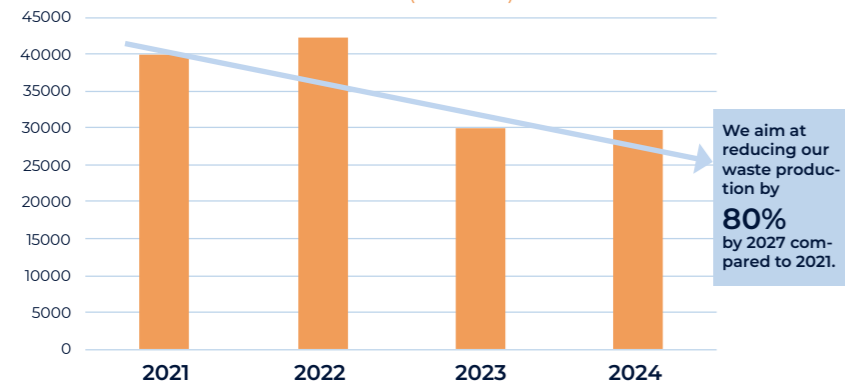
Circularity and maximum use of residual flows are at the core of our DNA. We place a strong emphasis on waste stream minimization and are committed to overall reduction of waste, air pollution and water pollution.

### We reduce waste

At Citribel, waste is minimized by converting most waste streams into valuable products. As a circular company, we're committed to achieving full circularity, including efficient use of the small amount of residual waste. Inevitable waste, such as scrap, wood, and packaging, is collected and processed to the highest standards. Packaging presents a key challenge, and we strive to use low-carbon, recyclable materials.

We aim at reducing our waste production by 80% by 2027 through the implementation of new state of the art technologies that will enable Citribel to avoid waste production.

TOTAL WASTE STREAMS (TONS)



## We strive for clean air, noise reduction and odor control

We have implemented an air emission management plan to prevent and mitigate emissions, especially given our location near residential areas. Combustion emissions from our CHP plant are continuously monitored. Noise and odor emissions are also managed, with a permanent noise measurement system at our site boundaries.

Our main raw material, sugar beet molasses, is sourced from nearby processors to reduce transportation emissions. This local sourcing supports both our production needs and our commitment to minimizing environmental impact.

## We strive for clean water

Citribel operates a large wastewater treatment plant (WWTP) that purifies wastewater before releasing it into a nearby water body, helping protect downstream freshwater ecosystems. Our unique "colleagues" goldfish assist by testing water quality before it returns to the environment.

## 5 Strengthening biodiversity

Citribel recognizes the importance of biodiversity in maintaining ecosystem health and is committed to reducing its environmental footprint. We actively work to limit emissions to air and water, with measures like our wastewater treatment and CHP plants. To conserve water, we've reduced groundwater use by 50% since 2016, encourage stormwater infiltration in new projects, and avoid pesticides in outdoor maintenance.

Additionally, Citribel responsibly manages a former landfill, supporting vegetation and wildlife development to further promote biodiversity.

Biodiversity is essential for healthy pollinators, including over 20,000 bee species. At Citribel, we support local pollination with a bee hotel in our green zone, promoting biodiversity and climate resilience. Bees play a crucial role in pollination, which sustains 35% of global agriculture, including local crops like sugar beets that produce sugar molasses. Our bee hotel, though small, is a meaningful part of our supply chain.



## 6 Circularity of our incoming & outgoing materials

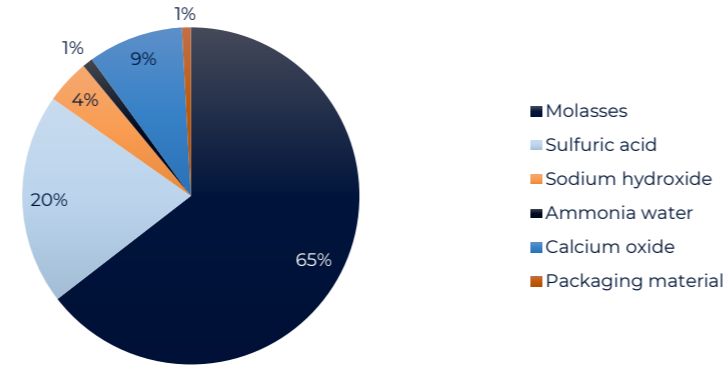
With our unique production process, we efficiently convert raw materials into valuable products for our customers. Our primary inbound material is molasses, a co-product of sugar production, while our outbound materials include citric acid, citrates, and other products. Our core operation focuses on transforming residual streams into practical solutions, significantly reducing waste.

### Circularity of incoming materials

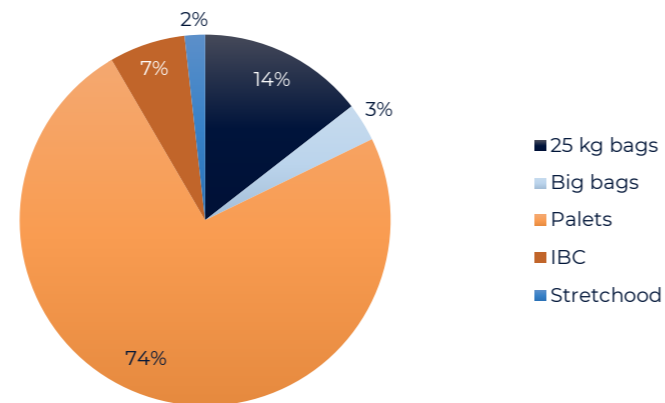
In the year 2024, our incoming material intake continued to reflect a strategic focus on key raw materials. Sugar molasses remained the predominant component, representing 65% of the total volume, consistent with the previous year. Additionally, we observed shifts in the utilization of other key substances; sulfuric acid accounted for 20% of our incoming materials, while calcium oxide represented 9%.

In our packaging needs, pallets dominate with 74% of the total packaging weight, followed by 25-kg bags at 14% and IBCs at 7%. Big bags and stretch hoods account for 3% and 2% of usage, respectively, reflecting our consistent approach to packaging over the years. We remain committed to developing high-performing, functional, and sustainable packaging solutions. Through close collaboration with our suppliers and clients, we strive to minimize the use of packaging materials while maintaining stringent hygiene standards and optimizing logistical efficiency.

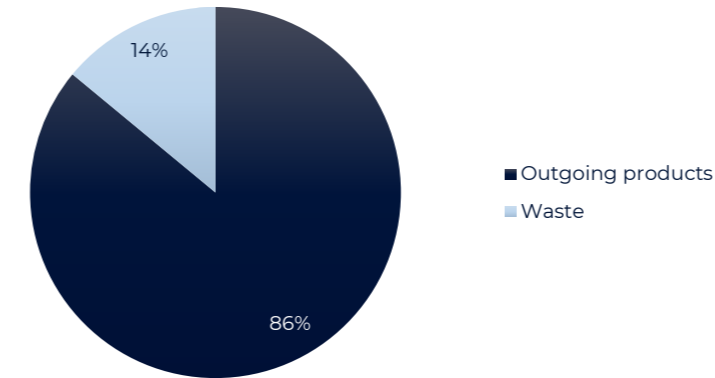
MAIN INCOMING MATERIALS (% BASED ON WEIGHT) 2024



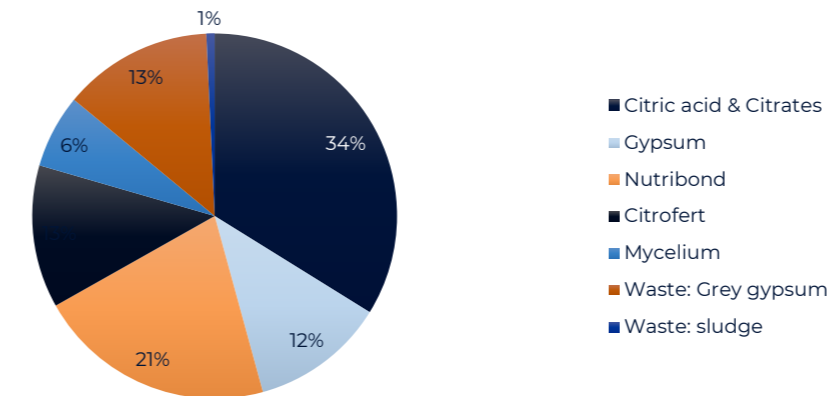
DIVISION PACKAGING MATERIAL (% BASED ON WEIGHT) 2024



MAIN OUTGOING MATERIALS (% BASED ON WEIGHT) 2024



OVERALL OUTGOING MATERIALS (% BASED ON WEIGHT) 2024



### Circularity of outgoing materials

In 2024, our outgoing materials totaled 240,884 tons, encompassing both products for our customers and waste materials. Products destined for our customers make up the majority, accounting for approximately 86% of the total volume.

Our production process yields a diverse array of products, with citric acid and citrates forming a significant part, constituting 34% of our outgoing materials. Other key circular products include gypsum, contributing 21%, and Nutribond, making up 13%. Additional circular products such as CitroFert and mycelium also play important roles in our production outputs.

Currently, 14% of our outgoing materials are classified as waste, including grey gypsum and sludge. Actively working to reduce this waste percentage is a cornerstone of our ongoing sustainability efforts.



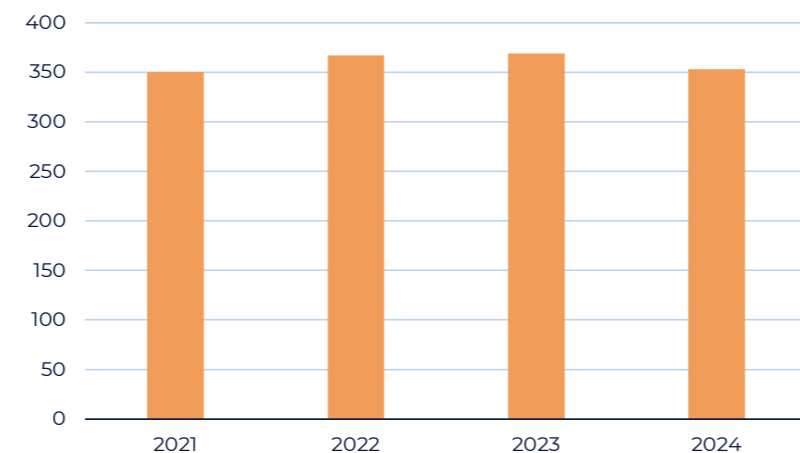
# Care for our People

Citribel has a dedicated workforce of approximately 353 employees, evolving slightly over the last year.

We prioritize the well-being and personal growth of our employees, offering a safe, comfortable, and purpose-driven environment with a strong focus on health and safety. Our HR team brings expertise across various fields, aiming to create cohesion and foster a respectful, inclusive workplace. They ensure compliance with Belgian labor laws while addressing individual needs, with personalized education and continuous learning at the forefront. In addition to health and safety training, we offer diverse courses, from technical skills to leadership. We maintain an open dialogue with employee representatives through the Works Council, Safety Committee (CPBW), and union delegations, encouraging collaboration and shared decision-making.

Citribel believes in maintaining an open and constructive social dialogue with employee representatives, facilitated by facilitated by key groups such as The Works Council, the Safety Committee (CPBW) and the union delegations. The Works Council and CPBW comprise representatives from both the management and the workforce, fostering collaboration and shared decision-making.

NUMBER OF EMPLOYEES (HEAD COUNT)



## 1 Focus on health and safety

The safety and well-being of our employees, partners and visitors on site are extremely important to us. As a production company operating heavy machinery, we place a firm emphasis on this topic. We are dedicated to constantly improving the safety culture by various initiatives, such as infrastructure enhancements, continuous education and the systematic implementation of preventive measures. Our goal is to ensure that Citribel is and remains a secure environment for all.

### We monitor and reduce health & safety risks

Health and safety risks are monitored and addressed by performing frequent and comprehensive risk analyses. These analyses allow us to continuously tackle the most significant risks. It is worth noting that, in 2024, we recorded 10 work-related incidents. The most prevalent causes of these incidents were slip and fall accidents. By investing in infrastructure changes and complementary awareness training, an increasing number of structural problems is solved. In addition, thorough maintenance of our installations ensures their reliability and reduces risks.



## Training prevents accidents

Safety and well-being comprises roughly 70% of our training programs. We emphasize inclusivity, as each individual person on our site and every single job or task are relevant when it comes to safety. It is a collective responsibility, shared and carried as a team. While some training courses are mandatory and require periodic renewal, we strive to exceed legal compliance: for instance, forklift training is provided every 5 to 6 years, even though it is legally required only once for every driver. Similarly, we provide VCA training (Safety, Health and Environment Checklist contractors) to all employees, including desk workers.

Our training curriculum covers various health and safety topics such as routine risk assessment, hand safety, slip-, trip- and fall prevention and maintaining a healthy lifestyle during shift work. Further focus areas include confined space procedures, evacuation protocols, heat management and hands-on sessions on fire safety. Additionally, evacuation exercises are organized regularly. To maximize the effectiveness of our training and communication, we employ different methods, including information panels on 8 locations throughout the company to reach non-email users. Our strong commitment to health and safety was recognized during our successful **SMETA** audit, where this topic is intensely covered.

### The importance of day-to-day -information

During a visit to our site, you will notice information panels strategically placed on various locations. These panels serve as an accessible means of sharing information on health, safety and environmental topics. In addition, they also serve as a source of lighthearted information such as notifying everyone in case of hot weather conditions and fresh ice cream in the company fridge.



## We attract talent

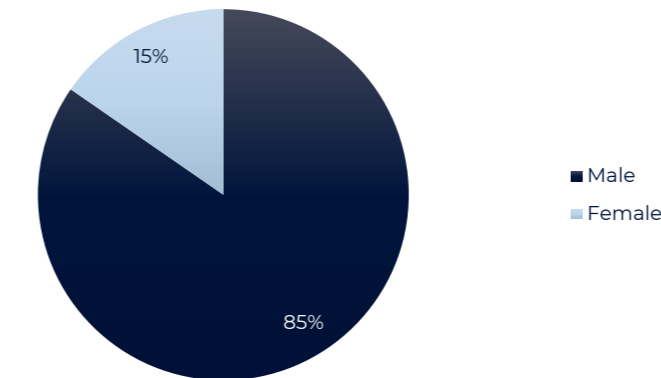
Citribel is an important employer in the region of Tienen, boasting a workforce of 353 dedicated individuals. In the year 2024, we were pleased to onboard 13 new colleagues, with 15% of them being female. The number of employees leaving Citribel during the year 2024 resulted in 26 people in total.

For many prospective employees, the allure of Citribel as an employer extends beyond mere work conditions: our circular history and mission are an important consideration factor for nearly all applicants and new employees.

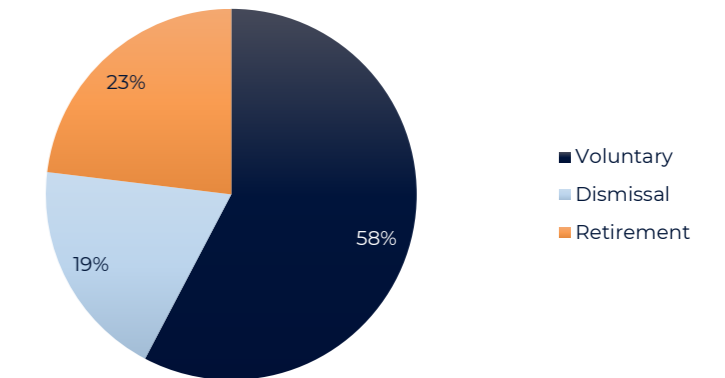
Our onboarding process is highly valued by new employees. On their first day, they meet with the HR team, prevention advisor, and colleagues, receive a personalized development plan, and a mentor. New hires are also introduced in our weekly newsletter and participate in the “Journey through Citribel” program, offering insights into our circular production process.

We offer competitive pay and benefits, including meal vouchers, commuter allowance, and comprehensive insurance. Flexible work schedules and a “cafeteria plan” provide added options. We will continue enhancing our benefits to ensure Citribel remains a top employer.

Newly hired employees per gender (13 total) in 2024



Reasons for employees leaving Citribel in 2024



**“Sustainability in my field means creating a learning culture where employees develop in line with our business objectives, resulting in engaged and motivated teams and a forward-looking organization.”**

Loetitia Peetersille - Training officer / Recruiter



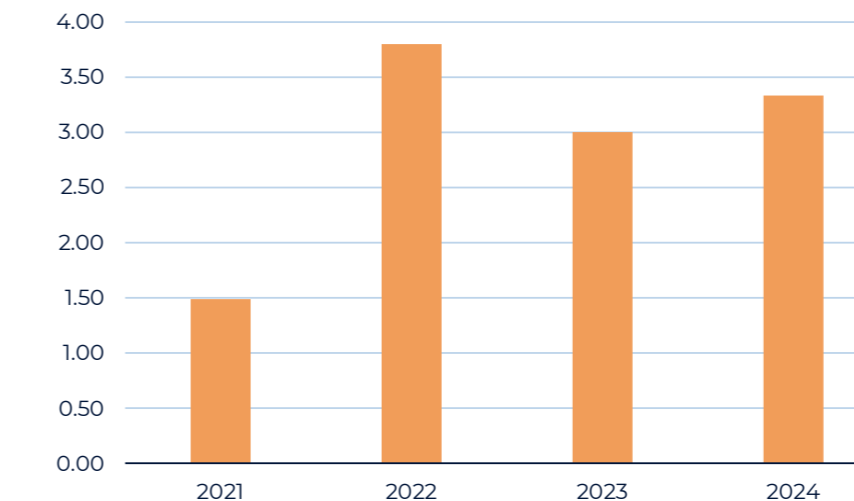


## We develop talent

Our training program follows three principles: prioritizing safety, supporting professional growth through technical and soft skills, and fostering personal development. Employees can explore new skills or work in different departments to broaden their experience. Training is practical and hands-on, available both online and in-person, led by external professionals or in-house specialists. Recent programs, like "Impact" for managers, focus on communication and feedback.

The average training days per employee went from in 3 in 2023 to 3.3 in 2024, reflecting our commitment to continuous learning and development.

Average number of training days in 2024



## 2 Promoting the well-being of our employees

We are committed to establishing a stimulating and comfortable work atmosphere for our employees by creating a culture of robust collaboration and positive vibes within and among teams. We promote team building activities and engage multiple teams in our projects. Our aim is to provide a healthy work environment by prioritizing work-life balance and ergonomics.

We place special emphasis on the well-being of our colleagues by offering an extensive range of medical examinations. In addition to the mandatory check-ups, we introduced "The Health Compass" initiative, launched in 2022, offers all employees voluntary additional medical assessments. These assessments are discussed in depth with the company doctor, aiming to proactively address potential health risks, both in the workplace and in one's personal life. Starting with 40 participants in 2022, this initiative quickly doubled its participation, reflecting its success and the value our employees see in it.

To assess the overall well-being and job satisfaction of our employees, we conduct a comprehensive survey every five years. Following the survey in 2022, which saw an impressive 80% participation rate, we developed a detailed action plan focusing on enhancing safety conditions in specific departments. The next assessment is scheduled for 2027, ensuring we continue to monitor and improve employee satisfaction and workplace conditions effectively.

In the face of any challenges or issues, our employees have access to designated confidants, both internal and external to the organization. These confidants are specially trained to provide attentive listening, advice, and mediation services in response to inquiries, grievances, or workplace conflicts.



We highly value the interactions within our teams and allocate an annual budget for team-building activities. We also encourage our employees to engage in a range of activities, from leasing electric bikes and playing darts with colleagues to participating in team walks, playing table tennis and table soccer games. Additionally, our employees enjoy discounts on a variety of products and events through the 'Benefit at Work' program.

#### Yearly Red Cross blood donation initiative

Our employees also have the opportunity to contribute to community service projects organized by Citribel. One such initiative is our annual blood donation day, hosted in collaboration with the Red Cross and neighboring companies. Tiense Suiker, Citribel, BE-NEO, TMS Industrial Services, and Kim's Chocolates once again joined forces for the sixth edition of their yearly blood drive.

This valuable initiative, organized in cooperation with the Flemish Red Cross, took place at the Tiense Sugar Refinery grounds. The event highlights the collective commitment of these companies to corporate social responsibility and has become a firm tradition since its inception in 2018.

The blood drive aims to support the Red Cross in maintaining an adequate blood supply, especially critical in December when donations typically decrease. The participating companies made an additional appeal to their employees to donate blood, resulting in a highly successful turnout with all donation chairs fully occupied. At the end of the event, all donors received a goodie bag filled with gadgets from the participating companies, as a token of appreciation and recognition for their contribution.



Scan the code to review an article about our yearly blood collection for red-cross



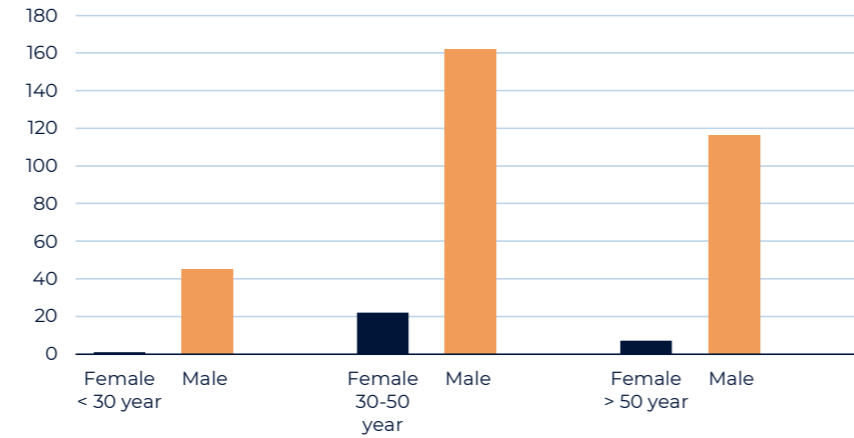
### 3 Improve equality, foster diversity and inclusion

Citribel prioritizes equality, fostering diversity across genders, cultures, and generations. Women are increasingly present in our production sector, and our workforce spans age groups, with 14% under 30 and 34% over 50. Although our workforce is currently 91% male (mainly in production), we're addressing gender balance and unconscious bias. Our support services maintain gender balance, with 46% women, while our board and senior management have 25% and 15% female representation, respectively. We are also committed to a diversity, inclusion, and language policy in the coming years in specific departments. In the event of any challenges or issues, our employees can turn to designated confidants, both internal and external to the organization. These confidants undergo specialized training to offer attentive listening, advice and mediation services in response to inquiries, grievances or workplace conflicts.

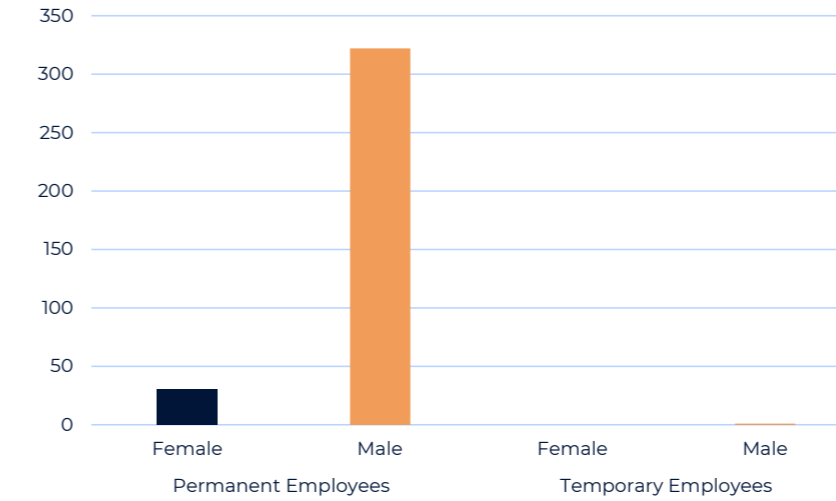
Most of our workforce holds permanent contracts, with fewer than 1% on temporary terms. All female employees have permanent roles. We also support flexible work options, with 11.33% of staff choosing part-time arrangements.

Our team is multicultural, with employees from 10 nationalities. We respect diverse cultural and religious practices, accommodating needs such as additional breaks during Ramadan.

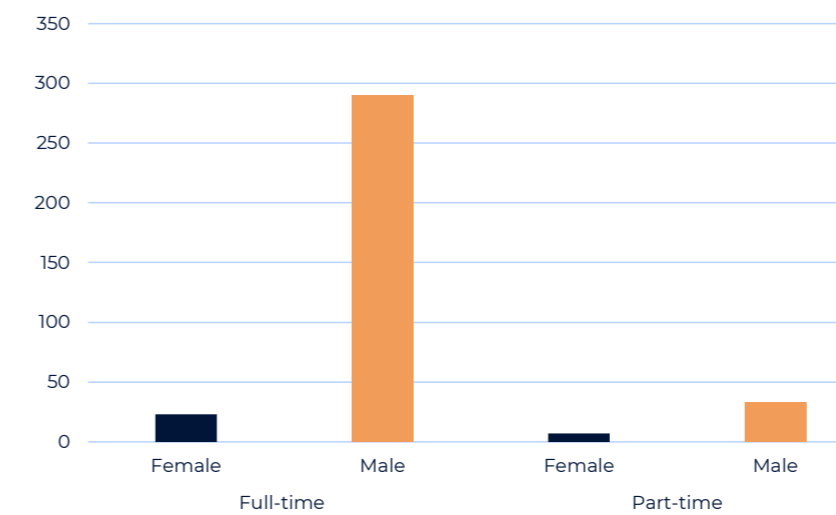
Employees per Age & Gender



Employees permanent vs temporary per gender



Employees Full-time vs Part-time per gender



# Sustainable Procurement

## 1 A responsible & sustainable procurement policy

Our corporate responsibility extends beyond internal operations, including a commitment to improving our environmental and social impact in collaboration with our suppliers. While responsible procurement is central to our values, we view full integration as a continuous journey of learning and enhancement. We expect all suppliers to endorse our Code of Conduct and plan to review our procurement policy as part of our sustainability action plan.

Our recently updated Code of Conduct, built on 11 core principles like “non-excessive working hours,” “payment of a living wage,” “equal opportunities,” and “environmental protection,” applies to our workforce and extends to our customers and suppliers.

We prioritize local collaboration, working with regional contractors on-site and sourcing materials locally whenever possible. Employees can also reach out to trained internal and external confidants for support on any workplace concerns.



# Good Governance

Founded in 1919, Citribel builds on a strong history while looking to the future. Good governance is key to our long-term sustainability and success. Sustainability and circularity are central to our organizational structure. For over 20 years, we’ve invested in a dynamic R&D team focused on circular solutions, supported by collaboration across departments.

As our core business revolves around circularity, sustainability is ingrained in our strategic framework and consequential choices. It’s essential that our teams are supported by a dedicated management team and a board with a strong focus on sustainability. Employees can turn to designated confidants, both internal and external to the organization. These confidants undergo specialized training to offer attentive listening, advice and mediation services in response to inquiries, grievances or workplace conflicts.



## 1 Business ethics & business conduct

### Code of Conduct

Citribel emphasizes ethical business conduct as a key part of our corporate governance. We are committed to eliminating corruption, including bribery, fraud, conflicts of interest, and money laundering. We expect all stakeholders to uphold the highest standards of equality, respect, and honesty, avoiding anti-competitive practices and espionage. These principles form the foundation of our Code of Conduct, which includes 11 guiding principles for ethical standards. Employees, clients, and suppliers are expected to comply with this Code. Specific training sessions help our employees understand and apply these principles, while suppliers are asked to endorse our Code or provide equivalent documentation.

### Whistleblowing system

Citribel takes a proactive approach in enabling stakeholders to voice their concerns throughout the entire value chain, both within and outside the organization. To facilitate this, a whistleblowing portal has been established, providing a confidential and anonymous way to manage concerns and complaints. Our “Speak-up” initiative has been introduced to our employees through a newsletter and communication boards and has been incorporated in our Code of Conduct.



**citribel.  
speakup.  
report/  
whistle-  
blowing**

## 2 Process management & operational excellence

### Operational excellence

Efficient operations are key to achieving Citribel's sustainability goals. We focus on operational excellence, continuous improvement, and fostering collaboration across teams to drive innovation and synergy.

Our Research & Development (R&D) team plays a vital role in improving circular processes by reducing water, energy, and raw material use. Their projects are developed in close collaboration with product managers to ensure practical implementation and scaling.

Innovation thrives across our organization through structured tools for documenting, scoring, and assessing improvement ideas. Additionally, we use LEAN methodologies, such as process improvement training and work boards, to enhance daily operations and track progress.

### Daily meetings for reflection and improvement

In our production departments, magnetic boards display daily operational data and action items. These boards serve as our workstations for documenting concerns and corresponding actions. Teams gather daily to discuss critical subjects such as safety, quality and potential issues, as such promoting a problem-solving culture where members take ownership and collaborate to share knowledge.

**“Citric acid production and biomass formation go hand in hand. Just like citric acid, the components of biomass potentially have thousands of applications. At Citribel, we explore how to extract these in an environmentally conscious way, ensuring Citribel can thrive for another hundred years.”**

Kiandro Fortuna – Project manager innovation

## Product quality, customer health & safety

Citribel provides raw materials for industries such as food, beverages, pharmaceuticals, and animal feed. Quality is a top priority, with rigorous assessments ensuring product safety and reliability.

Our Quality Assurance (QA) team oversees key tasks like approving raw materials and finished products, managing certificates and audits, and handling inquiries and complaints. Customer Service works closely with QA, with a dedicated team member managing client inquiries and supporting audit and certification processes.

We follow a ‘first-time-right’ approach, ensuring products meet standards before release. If issues arise, our QA team investigates promptly, aiming to resolve complaints within two weeks.

**“Sustainability is an inseparable part of our quality system. Our QA team is dedicated to always implementing the latest food safety standards, which today are heavily linked with topics such as food waste prevention, at which Citribel excels with its innovative co-products. We are continuously working on expanding the awareness and importance of quality and the creation of a strong food safety culture.”**

Nathan Lievens - QA Officer

To underscore and verify our commitment to quality, Citribel has obtained numerous certifications and quality labels, including ISO 9001, ISO 22000, FSSC 22000, GMP+, Non-GMO IP, Non-gmo project verified, Halal and Kosher. We also maintain compliance with the ISO 14001 environmental standards and have successfully completed both Ecovadis evaluations and SMETA audits.



### 3 ICT cybersecurity, privacy & innovation

Within our operational framework, we prioritize ICT security, privacy and innovation. We conduct thorough assessments of operational security risks and assure continuous cybersecurity training for both white and blue collars. We are fully GDPR (General Data Protection Regulation) compliant and have a dedicated Data Protection Officer responsible for upholding all relevant guidelines. During all operations we stick strictly to all applicable rules. Our goal is not to use the latest technology but to use innovative technologies to help the company to reach its goals and to ensure a sustainable ICT infrastructure which decreases its carbon footprint year over year.

#### Cybersecurity & privacy

The implementation of technical cybersecurity solutions is very logical and the easiest part. But the important detail that is often forgotten is the 'human' firewall. We don't leave our users in the dark and make sure they get good cybersecurity trainings. Over 250 white collar employees are enrolled in bi-weekly online cybersecurity trainings. During this program they are regularly tested and if they don't pass a test they get additional training. Our blue collar employees get cybersecurity training in classroom format during the planned training days.

To ensure that the acquired knowledge is correctly applied we routinely conduct phishing tests. A simulated cyber-attack by ethical hackers is also part of our efforts to evaluate the effectiveness of our security measures. It speaks for itself that we have taken also all additional measures to become compliant with the European NIS2 guidelines.

We assure that, whenever we start a collaboration with another organization, the security aspect is integrated as of the start of the collaboration. Remote connections to our environment are only allowed through a Privileged Access Management system which has a strict enrollment procedure. Access to data is only allowed on when absolutely necessary and under strict conditions. Rights which are no longer needed are withdrawn asap.

#### Innovation

Our goal is not to use the latest technologies. But we use innovative technologies to help us to reach our company goals in the best possible conditions. A close collaboration with all the different business units ensures that we understand their needs and that we can be pro-active in offering the necessary solutions to help them. We always assure that any solution or platform we integrate help us to increase efficiency, decrease energy usage, thus our carbon footprint and help Citribel to become a better Biotech company.

#### Closing the circle with a heart for digital inclusion and accessibility

As part of our corporate responsibility efforts, we donate outdated ICT equipment to social organizations: 'Close the Gap' and 'Digital for Youth'. 'Close the Gap' is an international organization dedicated to bridging the digital divide by providing IT devices to projects in developing and emerging countries. 'Digital for Youth' focuses on ensuring safe and easy access to digital resources for children and teenagers in Belgium.

In 2024 we were not able to donate any equipment as we were planning an infrastructure update for 2025. This means that in 2025 we will again be able make a nice donation and will continue to support these programs.

**“Citribel’s ICT department is a privileged service provider helping the different business units to reach the company goals.”**

Geert Reynaerts - ICT Manager



## 4 Internal & external communication

### Internal communication

Strengthening Citribel's sustainability culture depends on effective internal communication. We use various channels to keep sustainability & circularity front and center, and we welcome feedback from our staff.

While circularity has always been part of Citribel's foundation, we've increased communication efforts in recent years to further embed these values. Internal communication is essential for engaging new team members in our sustainable practices.

We promote sustainability through information boards, displays/screens, orientation sessions, management meetings, team gatherings, and training programs. We've also created a company-wide SharePoint to share news and access important documents. Key announcements are communicated via email to ensure everyone stays informed. These efforts foster a strong sustainability culture, empowering employees to act as ambassadors for our values.



### External communication

We take great pride in our sustainability initiatives and ensure to promote these efforts transparently to all our stakeholders.

Citribel and its circular journey frequently feature in the media. In the past years, articles have been published on platforms such as 'vrt news', 'Nieuwsblad' and 'ROB tv', highlighting our plans for the future. Additionally, 'Kanaal Z' aired a report on Citribel. We further advance our sustainability approach by participating in events organized by institutions such as 'Vlaio', 'Voka', 'Leuven Mindgate' and 'Ethion', among others.

In addition to these extensive communication channels, we are dedicated to fostering an active and transparent relationship with our immediate community. This entails hosting information days and consultation sessions regarding upcoming projects, as well as conducting regular 'neighborhood committee meetings'. In these gatherings, we openly address inquiries and consider suggestions related to our daily operations. We maintain a 24/7 communication channel for our neighbors to reach out to us.



Scan for the interview video with Ruben Hoofwijk





## About this report

This document represents Citribel's second sustainability report and is the initial step in our trajectory towards aligning with the Corporate Sustainability Reporting Directive (CSRD). Within this report, we present our sustainability strategy, disclose our ambitions, assess our performance and evaluate our activities throughout the calendar year 2024. Additionally, we underscore initiatives set for the near and medium-term horizon. Over time, we intend to progressively enhance the quantification of our sustainability objectives and key performance indicators (KPIs), while concurrently expanding the reporting scope in line with our sustainability priorities.

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**THANK  
YOU!**

