

# 2022 Sustainability Report



**CHEMYUNION**  
Inspiring Innovation



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## Introduction

# Dear Reader, welcome to the 2022 Chemyunion Sustainability Report.

This document addresses the harmony of our social and environmental resolutions (that we published in 2022) with the Sustainable Development Goals (SDGs) advocated by the United Nations (UN), as well as our results, learnings, and challenges.

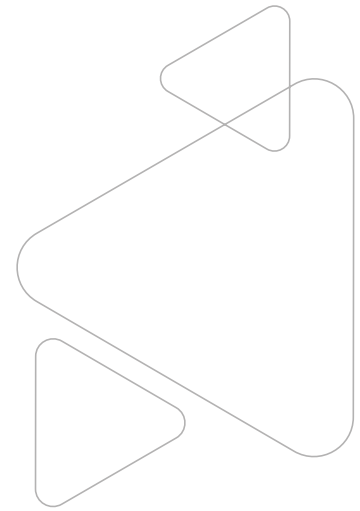
In spite of economic uncertainty, we continue to make constant progress, especially in terms of technology, in order to meet the needs of human well-being in a healthy and equitable way.

The Chemyunion Group highlights in this report the actions and projects that reinforce our values to create a positive impact on the environment and on society in general. We seek to build a better and more conscious future. In each project mentioned, we demonstrate our commitment within the context in which we operate and our passion for inspiring innovation in all our activities.

Throughout this report, you will be able to identify our actions that are integrated with the globally established Sustainable Development Goals. This highlights our commitment to contribute to achieving these goals and to make the world a more sustainable and equitable place.



# SUSTAINABLE DEVELOPMENT GOALS



## Meet the SDGs!

The Sustainable Development Goals (SDGs) were recommended by the United Nations (UN), as a global agenda composed of 17 goals and 169 targets to be achieved by 2030. The goal being prosperity and an increased quality of life through a more environmentally-conscious future.

Created in September 2015, the SDGs represent areas that must be nurtured by targeted actions that contribute to health, agriculture, poverty eradication, education, gender equality, reduction of inequalities, energy, water and sanitation, sustainable patterns of production and consumption, economic growth, and so forth.

Each initiative is exemplified by the following icons:



Now that you know a little more about the SDGs, take this opportunity to learn about our sustainable initiatives and actions carried out in the last year. We hope you enjoy reading this report.






## Message from the CEO



**Marcelo Golino**  
CEO of the Chemyunion Group



In this third edition of our Sustainability Report, we are profoundly proud to share the materialization of the actions we have been undertaking. Through a continuous improvement process, we have been achieving increasingly consistent results, ensuring a more conscious future for everyone.

Accordingly, this report reflects our way of thinking, where we highlight the importance of corporate activity that contributes to the preservation of the environment and the generation of ethical and healthy relationships within society. As part of the specialty chemical industry, we feel an even greater responsibility to take the leading role in this journey, setting goals and developing structured projects to ensure a more sustainable world and serve as an inspiration for other companies.

In 2022, we experienced a period of expansion, especially in our manufacturing facilities, which resulted in sharply increased electricity consumption.

Faced with this challenge, we took the initiative to make new investments in expanding our energy matrix, always prioritizing renewable sources. With photovoltaic panels installed in our manufacturing facility, our administrative building and laboratories will be totally autonomous from 2023 on, thereby increasing our commitment to reducing our environmental impact.

A significant reduction in water consumption of around 9.0% per ton produced has been achieved. This is the result of a set of alternative measures taken to optimize our consumption habits. Another initiative was implementing a rainwater catchment and treatment system to irrigate the green areas at our headquarters.

Another project we take pride in is the Carbon Zero project, whose scope is to neutralize 100% of the greenhouse gas emissions generated by Chemyunion's manufacturing operations. In order to achieve such an ambitious goal, we

are adopting a series of measures, including the exclusive consumption of energy from renewable emission-free sources. To this end, in addition to our own production through the aforementioned photovoltaic panels, we have been guaranteeing the purchase of IREC-certified energy.

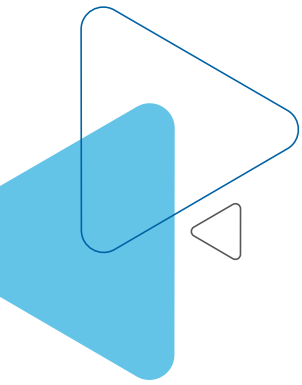
Another aspect that contributed to reducing emissions was specific adjustments in our manufacturing process, such as replacing the previously used fuel in heating thermal fluids (diesel oil) with Natural Gas, whose emissions are significantly lower.

Additionally, our landscaping project at the headquarters was strategically planned to act as an offsetting source of CO<sub>2</sub> (carbon dioxide).

So far, a total of 234 trees of species native to the region have been planted, and an area of 42,000 m<sup>2</sup> is maintained completely preserved as our contribution to offsetting CO<sub>2</sub> emissions. Moreover, we have established a solid partnership with Tree-Nation, through which 698 trees have been planted, thus contributing to the reforestation of regions in Brazil and neutralizing approximately 250 tons of CO<sub>2</sub>.

These are just some of the data that are going to be detailed in this document. We include reports that reinforce the realization of our plans, which have been designed to care for and protect the environment, in addition to inspiring other stakeholders. We strongly believe that our relationships with society and the environment are only truly healthy when based on transparency, ethics, and respect for all those involved. Innovation inspires us, as well as the will to innovate toward a better world for all.

**Thank you for your interest, and we hope you enjoy reading our report!**



# Chemyunion Group



Chemyunion belongs to the specialty chemicals industry. We are a manufacturer of cosmetic ingredients, pharmaceutical excipients, food supplements, and supplies for the veterinary market, as well as active ingredients for hygiene and cleaning products.

We are **driven by nature** and science, with a goal to promote health, beauty, and well-being. Innovating in competitive markets, influenced by constant changes in consumption patterns and global trends, is our daily challenge. Facilitated by employees who are engaged in making a difference, we seek to **contribute positive impacts on both the environment and society**.

Since 1992, we have sought to develop innovative ingredients aligned with consumer needs and market trends.

Our global presence and constant investments in infrastructure and training are designed to ensure the continuous improvement of our operations and processes. Our products are infused with the

technological expertise developed by an enthusiastic and passionate multidisciplinary team that continues to rise to the challenges of innovating, surprising, and meeting the demands and desires of our customers.

Our research and development platforms employ cutting-edge technologies that are **globally recognized for their sustainability precepts**, reassuring our commitment to the development and manufacture of innovative, sustainable, safe, and high-performance products.

With different businesses and operations around the world, Chemyunion group remains focused on innovation and development for the segments in which it operates.

We continue to grow, because being **your first choice is what motivates us**.





## Innovation and Science aligned with Sustainability

### BUSINESS UNITS



### TECHNOLOGICAL KNOW-HOW

Delivery Systems

Organic Syntheses

Inorganic Syntheses

Plant-based Extractions

Peptides

Pharmaceutical Technologies

### SAFETY AND EFFECTIVENESS

*In silico/*  
*in vitro*

*Ex vivo*

Clinical Assessment

Get inspired by  
the Chemyunion  
Universe!

Learn more



[chemyunion.com](http://chemyunion.com)



# Conscious Consumption

Sustainable development takes into account the survival of future generations, and responsible consumption is a way to foster technological growth aligned with environmental preservation. It also encourages a collective awareness of environmental balance, allowing a conscious management of natural resources.

The power of conscious consumption is to turn the consumer into a key tool to influence the impact of their consumption, either by maximizing the positive impacts or minimizing the negative ones. In addition to quality and value, the life cycle of the product or service must also be taken into consideration, and how it may or may not harm the environment.

Therefore, Chemyunion has knowledge and mastery of the entire production chain, from seed production, organic crop management, processing and extraction of plant actives to the final stage of production. This allows a business autonomy aligned to the principles and values of the company.

We understand that, through innovation, we can adopt sustainable management with conscious use of natural resources, becoming a secure option for our customer. We always seek suppliers aligned with our policies, as the acquisition of products and services also have socio-environmental and sustainable development effects.

Our vision is to innovate and add technologies and sustainable solutions that

prioritize cleaner and greener methodologies in production processes, by for example, purification using steam, thus reducing environmental pollution.

Another sustainable alternative used by the company is supercritical fluid carbon dioxide (CO<sub>2</sub>) extraction, which replaces traditional methods to purify compounds of interest, and can be 40 times more effective than conventional methods, being free of chemical contaminants and organic solvents.

Several disadvantages are linked to the use of more traditional extractions, such as high water consumption, use of petroleum-derived solvents, and greater generation of impacts. Chemyunion has managed to mitigate these disadvantages with greener and optimized processes, but it is not possible to completely eliminate them. This is why we use supercritical CO<sub>2</sub>.

In addition, the supercritical CO<sub>2</sub> fluid is not toxic nor flammable, allowing safe handling during the entire extraction process, and has low cost, since it is an abundant resource in nature. Additionally, it has great extraction capacity and can be recycled as it is the only solvent used during the process, minimizing waste generation.





■ *Supercritical Extractor*

**Revinage® is an example of the ingredients we produce using supercritical CO<sub>2</sub> fluid extraction to obtain highly concentrated and safe actives for skin care.**

Revinage® offers high skin care performance. It is a retinol-like ingredient extracted from *Bidens pilosa* using supercritical CO<sub>2</sub>. This is an example of how technology and innovation offer and deliver sustainable, efficient solutions for environmentally aware consumption.





# Innovation is in our DNA

More than inventing, creating, renewing and modernizing, we understand that to innovate means to be inspired by the wishes and desires of our customers. We constantly seek new ingredients, new technologies, and product improvements to offer our customers not only products, but solutions aligned to market trends and, most of all, able to meet their needs. This ideology guides Chemyunion's policy in its path of constant technological advancement, where in each stage of development our concern with the environment is prioritized to ensure a positive socio-environmental impact.

Since 2015, this policy has been applied and refined year after year, with continuous improvement of our own unique development flow, aiming to obtain the best product

in an agile manner, mitigating risks and impacts. Our policy includes understanding the sustainability chain with traceability of raw materials evaluated at all stages of the project, through regulatory assessments. This ensures that any item outside of our standards is reviewed and adjusted, so that at the end of the project, the product reflects our strict requirements regarding sustainability. In addition, we have as our priority the adoption of the precepts of green chemistry and the constant search for safer and more sustainable production methods.

The result is lower environmental impact, which is reflected in our environmental indicators such as, for example the reduction of waste generation (see Environmental Results and Indicators, on page 24).

8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Our guidelines about the impact we make on the world are not only environmental. Chemyunion aims to promote inclusive and sustainable industrialization through processes, infrastructure and resources, both environmental and social.

We seek to support community development in the places where we operate, prioritizing local resources such as labor and raw materials, and thus leverage the socio economic development of the area. We encourage the evolution of the professional career of those employed by Chemyunion and we value the hiring of young apprentices and interns.

We have a strong connection with the technology sector, since we understand that sharing information is the best path to sustainable development. For us education is the route to evolution.

## One of our values is: To attract the best people and make them even better

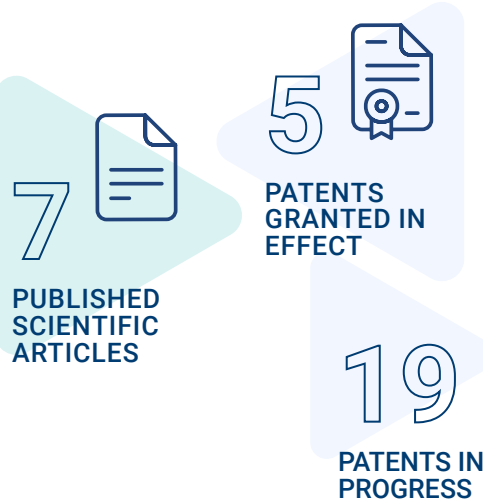
With the consolidation of the university-industry link and a focus on the sharing of scientific knowledge, we improve the technological potential of the industrial sector while contributing to the education of Brazil's future professionals, by means of financing scholarships for undergraduates and post-graduates. Therefore our practice of innovating with a focus on the latent needs of society starts at the university level.

We believe that the student of today will be our researcher of tomorrow.

### PARTNERSHIPS WITH RENOWNED UNIVERSITIES



Chemyunion invests heavily in research, development, and innovation, and for this reason, currently the the innovation sector represents the company's second largest department in number of employees We invest an average of 7% of net sales in innovation. These numbers show our commitment to use innovation as a tool for sustainable development.



By Lilian Mussi

Innovation Manager







# Green Chemistry

12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



## With a focus on beauty and well-being,

Green Chemistry was introduced as a new way of finding alternatives that minimize the impacts of chemical activity, particularly regarding the creation of subproducts and waste. Implementing it requires significant investment in designing and developing products and processes. To this end, the 12 principles of green chemistry can be combined and aligned with different technologies and strategies to ensure sustainable production.

Chemyunion adopts **all principles of Green Chemistry, with special mention to seven** of them throughout our development processes, namely:

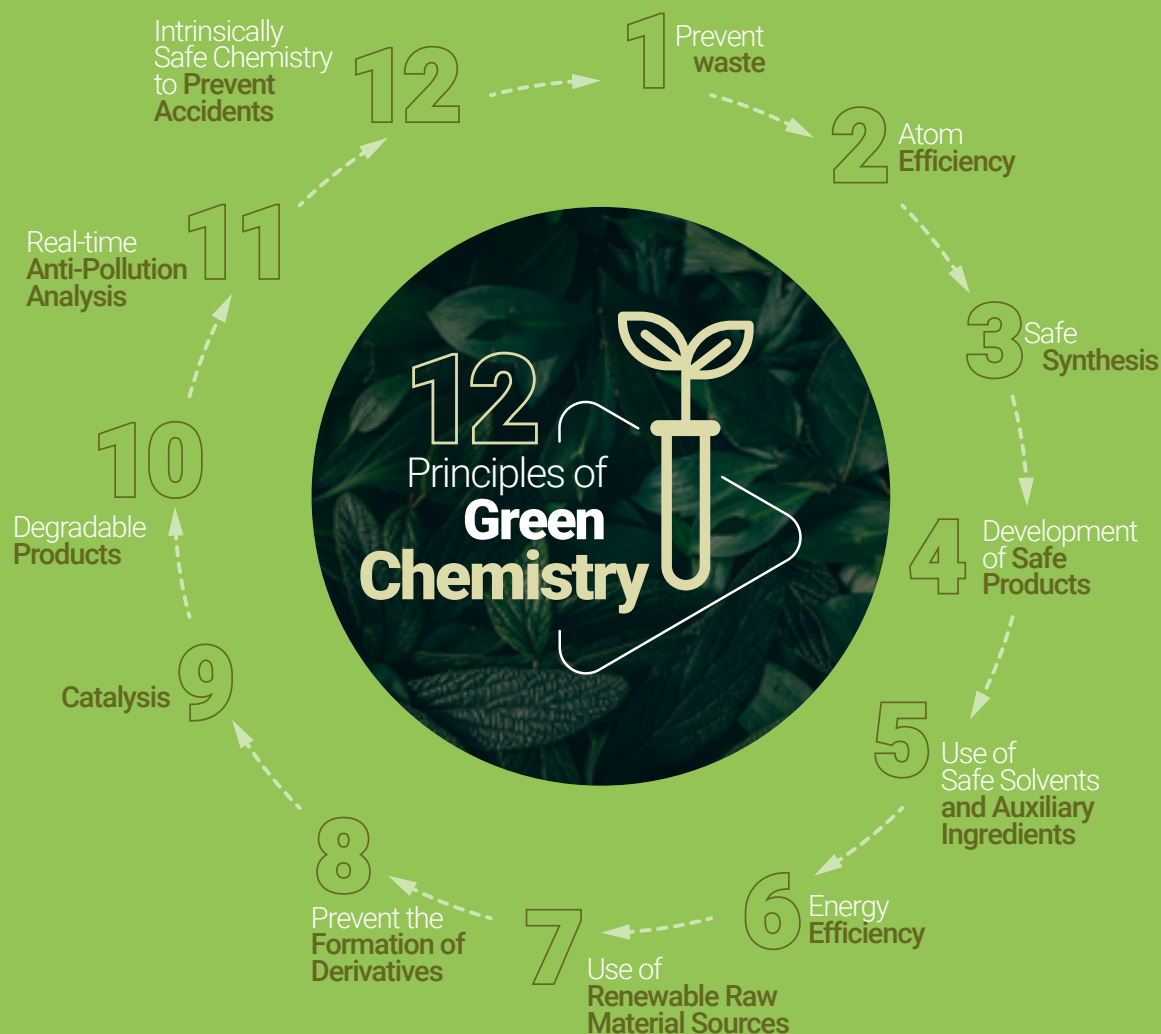
- Waste prevention, with the goal of preventing the production and waste of products and substances.
- Atom economy, using methodologies that maximize the use of all molecules and incorporates the materials into the final product.
- Synthesizing less hazardous products, prioritizing syntheses that result in low toxicity substances.
- Use of raw materials from renewable and biodegradable sources.

- Minimizing the production of derivatives that are not incorporated into the process.
- Catalysis with the goal of reducing the activation energy of the chemical reaction leading to a reduction in energy consumption.
- Preventing pollution by monitoring and controlling processes in real-time, mapping the creation of toxic substances before they are formed.

We are aware of the importance of introducing the principles of Green Chemistry into product development, and thus we use technology and innovation as partners to maximize the efficacy of natural resources and minimize waste and pollutants.

**ProShine®** is an ingredient which ensures great shine and color across all types of hair. Developed by Chemyunion according to the principles of Green Chemistry, it is obtained from renewable sources using clean reactions that do not result in environmentally hazardous subproducts.

With the goal of minimizing the generation of waste and maximizing the use of atoms during the production of **ProShine®**, the reaction medium, vegetable oil, is used as a reagent through transesterification reactions, lowering the production of waste and maximizing the use of raw materials. This results in better use of the atoms throughout



production, according to the principles of Green Chemistry.

**ProShine®** is 100% vegetable and biodegradable hydroxy esters, which interact, at an intermolecular level, with amino acids found in hair fiber, increasing hair shine due to its physical and chemical properties.

The cosmetics market demonstrates high demand for raw materials and biodiverse ingredients, which may have a positive or negative effect depending on the production methods. As Chemyunion is committed to respecting the environment, we have chosen to aggregate Green Chemistry into our production processes.

By turning sustainability into a global effort, we have the opportunity to bring positive social and environmental change, allowing us to help conserve and preserve natural resources, and protect endangered or vulnerable species, while minimizing other environmental damages. Chemyunion is determined to continue developing eco-friendly products while ensuring high performance and excellence in quality.

By Cleverson Pricival

Head in Organic Synthesis





# Solid Residue Management



At Chemyunion, we are committed to be agents of environmental awareness. Our focus is on reforestation and in the reuse of waste, actions that demonstrate our desire to protect the environment.

From the implementation of an efficient selective waste collection system to the constant improvement of our projects, we are dedicated to the care and protection of the planet. Driven by the urgent objective established by the UN to combat climate change and its impacts, we have adopted various policies to encourage the reduction of Greenhouse Gas (GHG) emissions and to promote habit changes both at the institutional and individual level among our employees.

Here, environmental preservation is a priority. We embrace the responsibility of being a sustainable company, aligning our actions with the global objectives of environmental preservation. We are determined to make a difference, and promote positive change towards a greener and more sustainable future. Currently, the project has the goal of reducing by 100% the amount of waste we send to landfills within five years. Following

the sustainable management of chemicals, we have chosen to find alternative solutions for the final destination of our waste in order to drastically reduce the release of substances that may interfere with the ecosystem.

After all, landfills represent the biggest source of impact of the waste sector on climate change. This is due to the decomposition of organic matter. Two main by-products are produced, the leachate, which is potentially a contaminating source for soil and water, and the production of methane and carbon dioxide, two of the main causes of the greenhouse effect.

To mitigate the damage caused by waste generation, we adopt practices throughout the production chain, following the concept of the **5 R's of sustainability: Rethink, Refuse, Reduce, Reuse, and Recycle.**

## IMPORTANT

In **2022**, Chemyunion prevented over  
**110 tons**  
of solid residue from being sent to landfills.

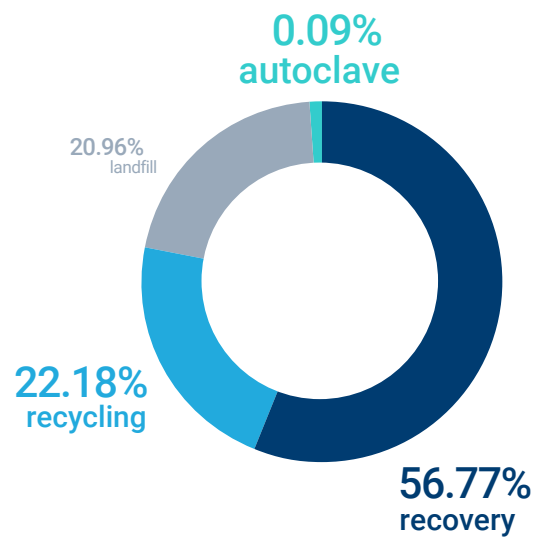


At Chemyunion, we are committed to adopting good consumption practices and making a difference in waste management. Currently we have achieved an impressive energy recovery rate of about 56% from waste generation. Through an innovative process, we transform solid waste into thermal energy that is fed back into the production. This approach brings a significant advantage: the reuse of a large amount of material that would otherwise be sent to landfill.

By adopting energy recovery as the main method, we are doing our part to reduce the amount of waste going to landfills, minimizing environmental impacts and promoting sustainability.

The materials that can be recycled such as paper, plastic and metal scrap represent 22% of the solid waste generated by Chemyunion's headquarters (agriculture, offices, labs and manufacturing). Thus, in addition to returning the raw material to the life cycle, we also support and recognize the immense value that the recycling sector has. The residues sent to autoclave represent less than 1%,

### Final destination of our residues



and are exclusively those that, by law, must be converted due to the physicochemical characteristics of the material.

21% of the solid residues produced by the head office today are sent to landfills, 3% more than the previous year. This is due to the production, which grew 38% in 2022.



# Tree planting Project



## Together for Nature: Reforestation and Conservation in Partnership with Tree-Nation

In 2022, Chemyunion established an exciting partnership with Tree-Nation, an organization committed to fighting Climate Change through reforestation. Through an innovative virtual platform, we selected three reforestation and conservation projects in Brazil that not only contributed to the environment, but also boosted local development and preserved biodiversity.

Our selected projects cover vital and strategic areas. Reforesting the Amazon Basin, Reforesting the Atlantic Forest, and Sowing Water are true examples of dedication to the environmental cause. Each of these projects plays a key role in restoring ecosystems, generating local jobs, supporting communities, and preserving biodiversity.

Thanks to this inspiring partnership, we were able to plant a total of 698 trees. These trees have a significant impact, capturing 188.61 tons of carbon, thus contributing to the reduction of greenhouse gas emissions.

The Amazon Baseline Reforestation Project is a powerful and essential initiative to combat illegal logging in the Amazon rainforest by restoring

devastated areas. Its goal is twofold: protect the world's green lungs and create meaningful opportunities for the most vulnerable local communities.

By reforesting deforested areas, this project not only restores the ecological balance, but also boosts the economic and social development of the communities involved. Through job creation, it offers a valuable chance for local communities, especially those living in poverty, to improve their quality of life.

In addition, the project focuses on reducing exposure and vulnerability to extreme weather events, strengthening community resilience and protecting communities from the negative impacts of climate change. Through social inclusion initiatives, such as education, professional training, and environmental awareness, the project promotes equal opportunities and the empowerment of marginalized groups.







# Our Numbers



## Reforesting the Atlantic Forest

### Reforesting the Amazonian Basin

**698 trees**

Total planted

40% **277 trees**

34% **237 trees**

26% **184 trees**

**0.45 hectares**

Total planted

55% **0.252 hectares**

23% **0.105 hectares**

21% **0.097 hectares**

**188,61 tons**

Total captured CO<sub>2</sub>

47% **88.20 tons**

36% **67.75 tons**

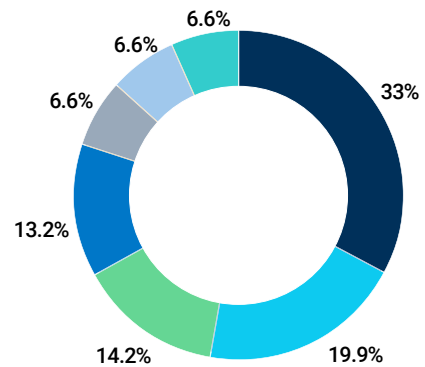
17% **32.66 tons**

## Seeding Water

The Atlantic Forest Reforestation Project is a long-standing initiative, committed to the conservation and reforestation of this important biome. Over more than two decades of operation, the project has been tirelessly dedicated to environmental education programs, implementation of public policies, production of native tree seedlings, and ecological restoration.

With an unwavering commitment, the project has already recovered more than 600 hectares of Atlantic Forest in the region, by planting more than of more than 1 million native seedlings. These impressive numbers reflect the hard work and determination to preserve and restore one of the most threatened biomes in the country.

**Class/type of plant species planted**



- nutritional
- rapid growth
- agricultural forestation
- plant
- majestic
- endangered
- medicinal

## Most planted species



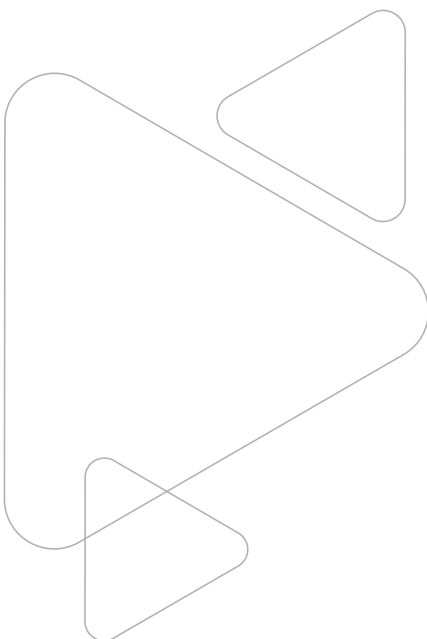
CO<sub>2</sub>  
**40kg**

*Ingá vera*



CO<sub>2</sub>  
**800kg**

*Schizolobium amazonicum*



In addition to reforestation itself, the project seeks to promote awareness and knowledge about the importance of the Atlantic Forest. Through environmental education programs, the local community and future generations are empowered and inspired to become active defenders of this unique ecosystem.

Finally, the Sowing Water Project is an initiative dedicated to reversing the degradation of the water bodies of the Cantareira System through changes in land use. With a comprehensive approach, its goal is to restore forests in Permanent Preservation Areas and promote conservation practices throughout the production chain.

The project's main strategy is forest restoration, recognizing the crucial role that these ecosystems play in regulating water resources. Through the planting of native Atlantic Forest trees and the adoption of agroforestry systems, it seeks to recompose the vegetation that has been suppressed over time.

**698**  
trees  
total planted

CO<sub>2</sub>  
**150kg**

*Calliandra  
brevipes*



In addition, the Sowing Water Project works closely with rural producers, encouraging the adoption of sustainable land use practices. This includes the ecological management of pastures and the implementation of forestry with native species, contributing to the conservation of water resources and promoting sustainability in agricultural activity.

A fundamental aspect of the project is environmental education, involving the local community in its actions. Through this engagement, it seeks to raise awareness and train community members about the importance of water resource conservation and sustainable land use practices.



# Sustainable Energy

Chemyunion proudly proves its use of **renewable and sustainable energy through I-REC (Renewable Energy) Certification**. In 2022, we installed a photovoltaic plant with a total of 60KW, which will be integrated with the public power grid in the future. This plant is composed of 186 photovoltaic plates of 445W, ensuring the complete supply of energy for our administrative building, including lighting, air conditioning, heating and the entire electrical infrastructure.

Our commitment to the use of renewable energy is evidenced by the seal I-REC Brazil and by the



certification from The International REC Standard Foundation, making us a reference in this field. We are pioneers in Brazil in proving the use of renewable energy sources in 100% of our operations, reinforcing our commitment and responsibility to the environment.

I-REC Certification is a mechanism to ensure that our energy consumption is from renewable sources, providing greater confidence to our customers about our sustainable practices and commitment to reduce environmental damage.

This certification is also evidence of our commitment to fight global warming and climate change. By reducing the indirect greenhouse gas emissions associated with electricity (GHG Protocol Scope 2), we are doing our part to address global environmental challenges.



## DID YOU KNOW?

The global renewable energy portion of installed power capacity is 33%, and **83% of this is installed in Brazil.**





## DID YOU KNOW?

RECs are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy resource. This allows us to ensure our energy consumption continues to be renewable.

Photovoltaic Panels

**At Chemyunion, our I-REC certification is more than a seal,** it is a tangible manifestation of our commitment to sustainability and proof that we are on a path toward a cleaner and more responsible future.





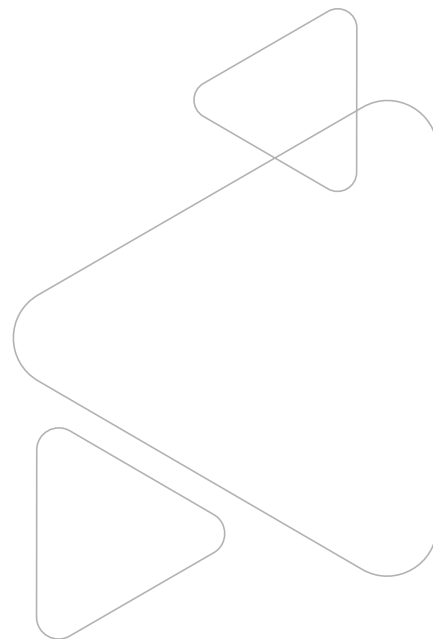
# Environmental Indicators

GENERAL  
FRAMEWORK OF  
INDICATORS



Environmental indicators are essential to quantify the impacts of our production process. We continuously monitor water and energy consumption, effluent generation, solid waste and CO<sub>2</sub> emissions. These indicators are integrated into our Environmental Management System, certified by ISO 14001:2015. In 2022, we obtained results that demonstrate efficiency and consolidation of our Environmental Management System, with lower rates in relation to production.

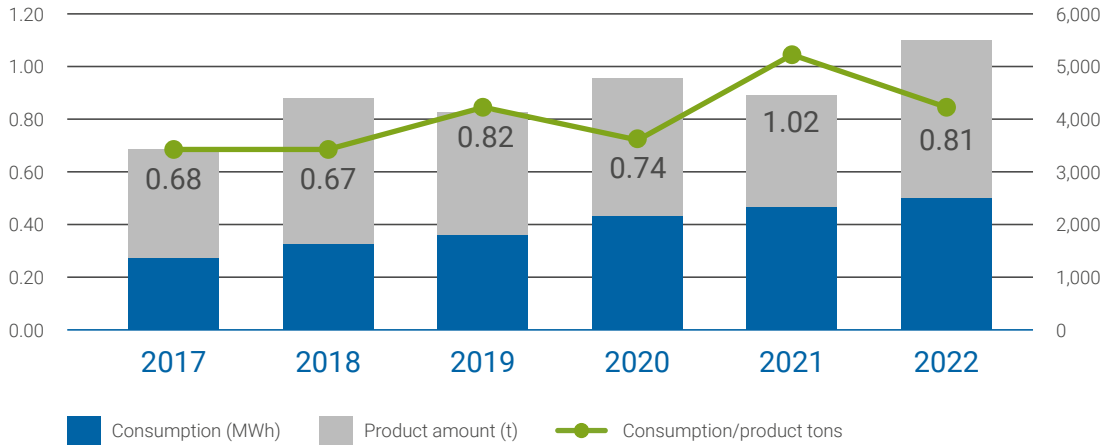
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## ENERGY CONSUMPTION

Year	2017	2018	2019	2020	2021	2022
Consumption (MWh)	1381	1758	1828	2068	2240	2464
Product Amount (t)	2020	2607	2221	2781	2195	3028

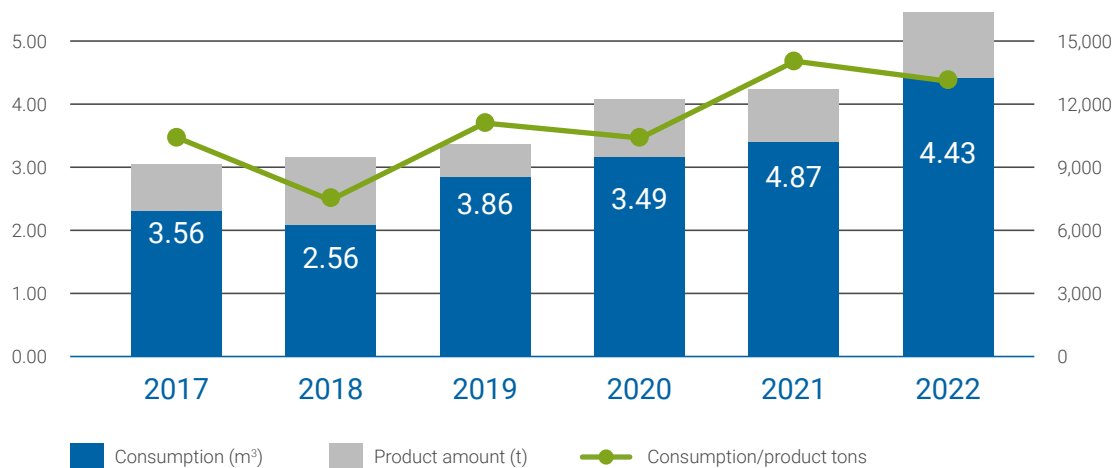


The average electricity consumption to produce one ton of product in 2022 was approximately 0.814 MWh/t, which represents an increase in energy efficiency of over 20% compared to the prior year and reflects greater environmental awareness and better use of our production capacity.



## WATER CONSUMPTION

Year	2017	2018	2019	2020	2021	2022
Consumption (m³)	7192	6672	8564	9702	10700	13424
Product Amount (t)	2020	2607	2221	2781	2195	3028



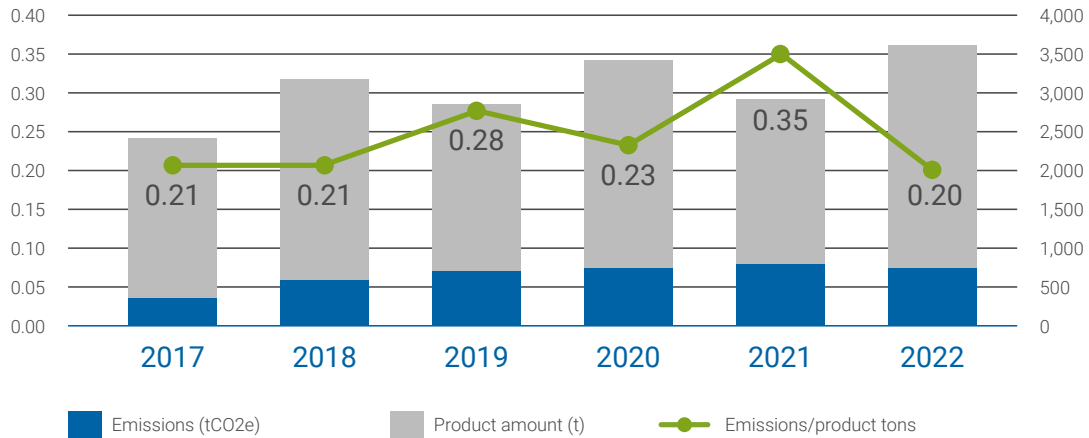
Our company uses water from deep wells for the entire manufacturing plant. We have decreased our use of water per ton of product by 9%. Closer analysis of our water consumption for production reveals a decrease

of 16.52% overall, even with production demand growth. Our investment in a rainwater acquisition and treatment system to be used solely for irrigation is yet another measure to decrease water consumption.



# CARBON DIOXIDE EMISSIONS

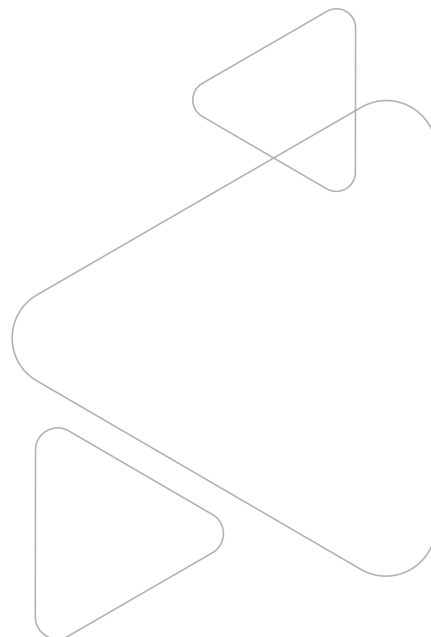
Year	2017	2018	2019	2020	2021	2022
Emissions (tCO2e)	422	558	617	653	767,89	603,36
Product Amount (t)	2020	2607	2221	2781	2195	3028



Our carbon dioxide emissions are calculated using a tool provided by the Brazilian GHG Protocol Program, which determines that Scope 1 emissions are those stemming from diesel-powered equipment. Scope 2 emissions, on the other hand, are defined by emissions from electricity. As 100% of our energy consumption comes from renewable sources, this scope does not have any associated emissions.

In order to lower our CO<sub>2</sub> emissions, our goal is to replace the renewable diesel used in the thermal fluid heating process, with Natural Gas, resulting in significant environmental gains, as combustion and greenhouse gas emissions are extremely low compared to other fossil fuels. Chemyunion has also acquired a new generator powered by Nitrogen, a renewable, clean source of energy, to fulfill the company's needs.

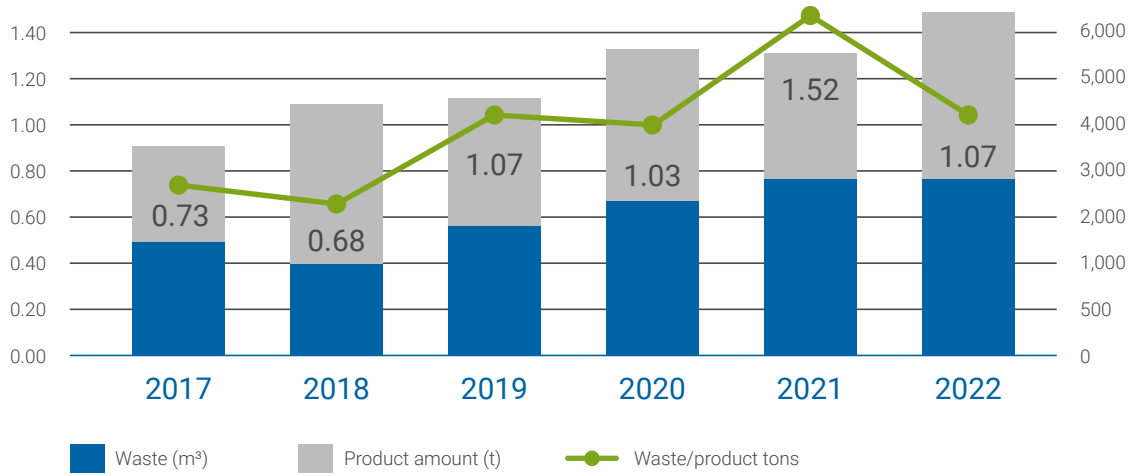
As a way to compensate part of our CO<sub>2</sub> emissions, Chemyunion used a landscaping project to plant 75 native species and maintain a natural preservation area of 42,000 m<sup>2</sup>.





# WASTE

Year	2017	2018	2019	2020	2021	2022
Waste(m³)	1476	1782	2384	2858	3343	3220
Product amount (t)	2020	2607	2221	2781	2195	3028

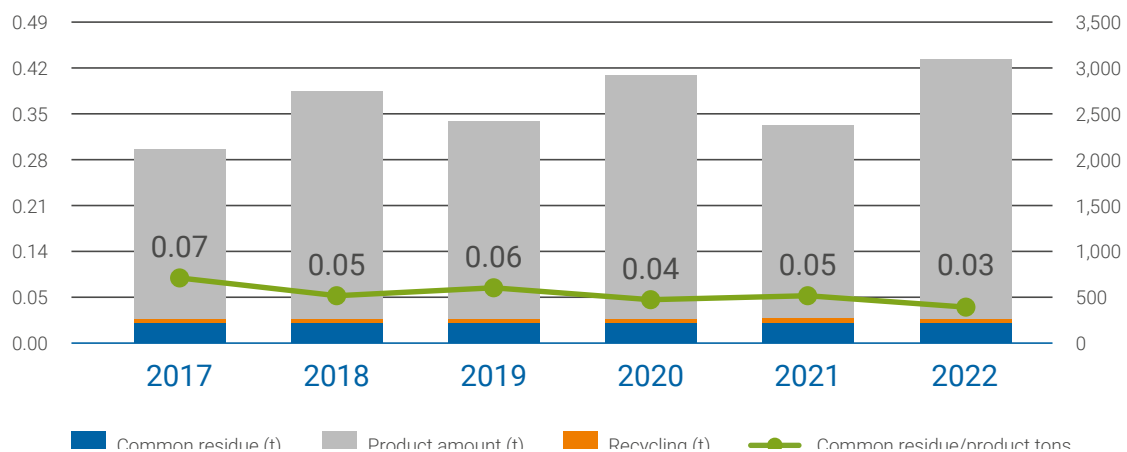


The actions adopted in 2022 aimed at reducing the generation of industrial effluents, such as the use of a high-pressure system for cleaning production equipment and the standardization of the volume of water for rinsing, generated a reduction of around 30% when compared to 2021. It is worth noting that 100% of the effluent generated was treated on site at our headquarters, bringing greater reliability to the process.



# COMMON RESIDUE AND RECYCLING

Year	2017	2018	2019	2020	2021	2022
Common residue (t)	140.30	131.48	139.80	123.60	105.34	104.43
Product amount (t)	23.01	23.47	20.70	22.17	34.41	31.83
Qtd. Produto (t)	2020	2607	2221	2781	2195	3028



In 2022, more than 31 tons of waste went to recycling.



Products  
and their  
**naturalness**



4MAN - Hop



ISO Standard 16128/2016 outlines criteria and definitions for natural ingredients and cosmetics, ensuring uniformity when calculating indexes and degree of naturality. The index's quantification plays a key role in developing new products as it provides

guidance for innovation projects to increase the amount of Natural Origin Content (NOC).

In 2021, Chemyunion showed its commitment to launch products with high Natural Origin Content: 81% of our products launched in the last five years had NOCs equal to or greater than 90%.

Product*	NOC (%)
SkinBlitz	96,88
Polluout®	93,20
MitoClean®	100,00
Hebeatol CG	28,05
4MAN	93,51
Sensoveil Soft	99,75
Agen	100,00
ThermoShield Premium	93,85
Sensactive Mild	91,41
Cellfie®	99,60
ProShine®	100,00
Allinea	94,97
Miracne®	84,25
Chemyssoap NS	82,45

\*Does not contemplate tailor-made products, B2B2C, animal origin and different versions.

Product*	NOC (%)
Iselight®	100,00
Restart PRO	90,48

\*Does not contemplate tailor-made products, B2B2C, animal origin and different versions.

All products developed in 2022 in our Personal Care unit had 90% or higher NOC.



**Restart PRO** - obtained through a biotechnological process involving corn flour.

In line with the Sustainable Development Goals, Chemyunion continues to invest in innovation for sustainable production, focusing mainly on the use of milder processes, with the reduction or absence of organic solvents, upcycling, and natural and natural-derived ingredients.



# Certifications and Audits



Environmental respect and protection are part of our sustainable practices and are reflected in our actions.

Our processes are based on Good Manufacturing Practices and guided by various certifications that allow us to take a definitive step towards our goals of innovation, quality, and respect for the environment.



## RSPO

The Round Table on Sustainable Palm Oil (RSPO) is a global non-profit organization focused on bringing together all parties involved in the palm oil supply chain to develop and implement sustainable standards. Its certificate covers palm oil manufactures, processors, consumer goods manufacturers,

NGOs, and more.

The methodology chosen by Chemyunion was Mass Balance (MB). It involved keeping detailed control over the input and output volumes of materials derived from palm oil, ensuring our commitment with certified palm oil production, and actively promoting the sale of palm oil products certified by RSPO.

The first step of the process is for the company to become a member of the RSPO, and Chemyunion (headquarters) has been a member in the Associate category since 2021. Over the course of 2022, our company held training sessions on the subject with the technical departments and the structure we had previously prepared, so that Chemyunion can hold its first RSPO audit in 2023.



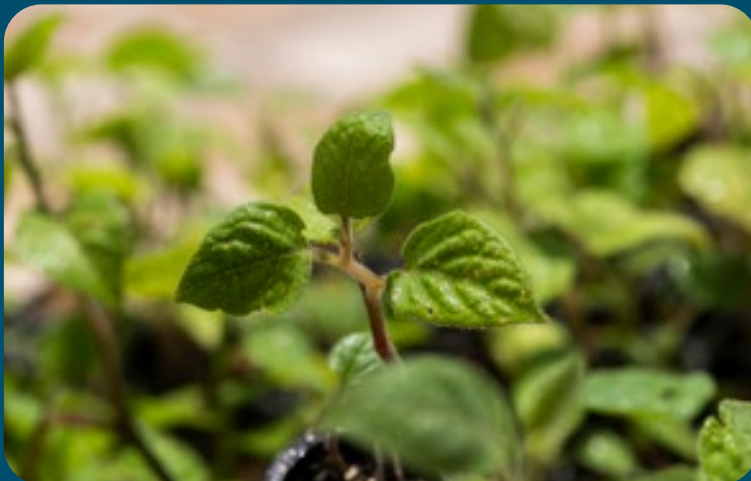
**COSMOS  
APPROVED**

## ECOCERT and COSMOS

The primary objectives of the COSMOS standard is to establish sustainable practices for the development of cosmetic products and ingredients, aligned with economic process and social responsibility while contributing towards maintaining Earth's natural balance.

From the early stages of the project, a significant number of the newly developed products by the RD&I team have fulfilled the requirements established by this standard, which reiterates our commitment towards the health and safety of our employees and of the environment.

Please contact our commercial team in your region if you'd like to see the full product list.



*Physalis angulata*



*Thymus vulgaris*



*Bidens pilosa*

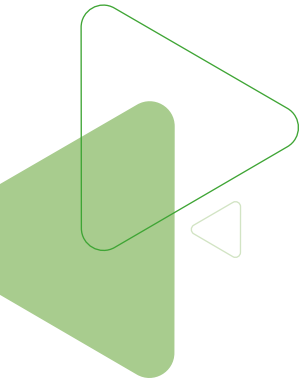
## ISO 9001 and ISO 14001

Chemyunion is ISO9001:2015 and ISO 14001:2015 certified, two standards that make up and underpin the Integrated Management System (IMS). This approach allows us to achieve sustainable growth and development, establishing a solid foundation that inspires confidence in our customers.

Chemyunion's Integrated Management System (IMS) is the solid foundation that allows us to grow sustainably. By combining the guidelines of ISO 9001:2015 and ISO 14001:2015, we integrate quality and

environmental responsibility in all areas of our business. This provides us with an efficient framework to make informed decisions, drive innovation, and offer solutions that meet the highest standards of quality and sustainability.

By maintaining these certifications we demonstrate our ongoing commitment to excellence, both in terms of quality products and services, as well as environmentally responsible practices.



# Organic Cultivation



The Brazilian Law No. 10831 oversees the cultivation of organic products in Brazil, serving as the foundation for our own cultivation practices along with other rules. **Organic products are those obtained through an agricultural and farming system that:**

- 1 Focuses on the local ecosystem
- 2 Aims to support social-economic and cultural relations in local communities
- 3 Protects natural resources
- 4 Preserves labor rights
- 5 Does not use synthetic chemicals or genetically modified organisms

As such, our efforts to grow organic products matches the concept of sustainability as outlined below:



## ENVIRONMENT

Producers must make rational, responsible use of natural resources and, whenever possible, use renewable sources of energy, showing greater concern regarding GHG emissions, preserving local biodiversity and promoting the health of the community and the environment.



## SOCIAL

Speaking of community, one of the duties of organic growth is preserving the historical and cultural aspects of local regions, and ensuring fair, healthy conditions for all workers. This allows us to establish a balanced relationship with communities and allows them to reap the benefits of local economic activities.



## ECONOMIC

Organic products are still susceptible to market fluctuations, and we have noticed an increase in consumers looking for these products. As such, the organic seal allows consumers to reliably identify organic products, offering quality, competitiveness and fair prices.



■ *Physalis Angulata*

Organic production requires a multidisciplinary, engaged team aligned with sustainable practices. We thus prioritize the preservation of nature, fauna, flora and society, making efficient use of natural resources, preserving cultural and historical assets, promoting the conservation of biodiversity and ensuring social development.

The organic certificate was created to identify organic products, ensuring the product or service was created according to organic production standards, as defined by law and regulatory agencies.

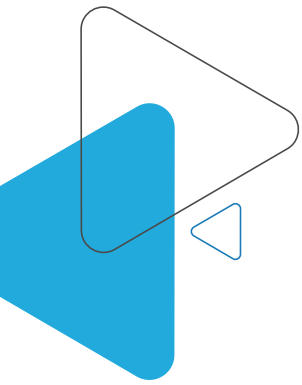
**Since 2021, Chemyunion was awarded the Ecocert seal of organic growth for certain species of vegetables used in our products. The cultivation of *Bidens pilosa*, *Thymus vulgaris* and *Physalis angulata* is certified by Ecocert**, which fulfills standards from Brazil, the US and Europe. This is a strict certification that requires a high degree of monitoring and tracking of all inputs used in production, from seed acquisition to use of soil.

Family farming ensures that the community also benefits from the economic activities, bringing sustainability even closer to Chemyunion's principles. Therefore, we chose to invest in the cultivation of plant species in a rural property near the headquarters, where 100% of the activities are performed by local families, contributing to the subsidy and the professional and economic development of the surroundings.



■ *Thymus vulgaris*





# Well-Being and Sustainability

## LANDSCAPING

The purpose of implementing sustainable landscaping at Chemyunion is to transform an industrial plant into a place that values native biodiversity, and that supports the natural culture of Brazil by delivering a unique experience of direct contact with species native to the Atlantic Forest and Cerrado biomes to our community of partners and employees. These efforts also allow us to better understand native species and **enjoy natural beauty and tranquility**, not to mention the local climate benefits related to temperature, humidity and more.

The area includes a native species preservation area, with species such as the popular **Cedro Rosa**, o **Jequitibá Rosa** (*Cariniana legalis*), o **Cambucá** (*Plinia edulis*) e a **Bromélia Imperial** (*Alcantarea imperialis*), considered vulnerable according to MMA ORDINANCE No.148, DATED ON JUNE 7, 2022 by the Ministry of the Environment, which refers to the National List of Endangered Species.

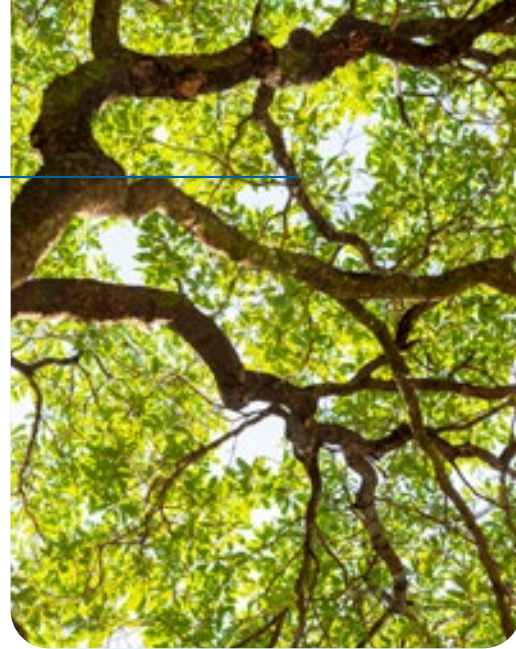


Originally found in the state of São Paulo, the Cerrado vegetation occupied approximately 14% of its total area, but only 1% remains now. Of the remaining vegetation, only half is protected by conservation units and legal reserves.

Total protected area (legal reserve)	Total recovered area (75 native species)
42,000 m <sup>2</sup>	15-16,000 m <sup>2</sup>



Jequitibá Rosa



At Chemyunion, we work with naturally occurring species from this biome. The area has several locations with rainwater canals and gardens, and native species of plants are leveraged to allow water to be accumulated which directly improves sustainable drainage and the quality of drainage water.

Our company actively monitors the entire green area to ensure the flora remains healthy. Chemyunion chose to hire local workers to support employees that are still in training. These efforts encourage

employees to further their education while helping to bolster funding of scientific research, bringing them more opportunities.

This strategy supports the development of the environmental market, improving the strength, transferability and visibility of services and professionals in the field.

Bromélia Imperial

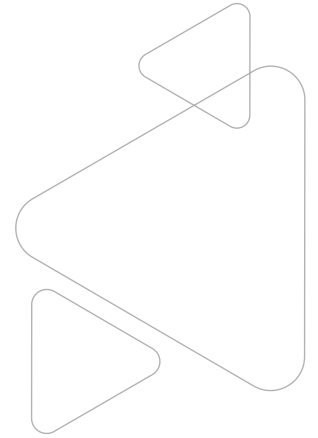


## DID YOU KNOW?

The Atlantic Forest is the biome that has suffered the most from human encroachment, with only 29% of its original cover being left today. Its forests and other ecosystems are responsible for the production and supply of water, fertility and soil protection, in addition to oils and substrates.

## GAZEBOS

Construction began in 2022 of Gazebos in areas that are fully integrated with the native vegetation preserved in our headquarters. These gazebos have sustainable, adequate structures for use by employees, partners and customers. They used highly absorbent panels to keep the drainage system operational and ensure high quality soil for the local trees. The area used an organic design that promotes harmony between the community and nature.



## ECOTRAIL

Our headquarters feature an ecotrail designed under the principles of sustainability, where no trees were removed. The area boasts drainage floors to help with the natural cycle of water and significantly decreases any issues caused by rain, while providing other benefits such as safety, resistance and landscaping. **It also features the primary plants used in our products,** in order to empower and stimulate our sense of hearing, smell, touch and sight. It's a unique sensorial experience born out of contact with nature.



## BOTANICAL GARDEN

In 2022, Chemyunion revitalized its greenhouse so native plant seedlings could be grown. These seedlings are used in the areas under recovery or are donated to employees or used in the production of species of interest for the development of

new products. This continuous improvement of our infrastructure, with a focus on preserving biodiversity and natural resources, is aligned with the UN's goal of ensuring conservation, recovery and sustainable use of ecosystems.



## RAINWATER COLLECTION AND IRRIGATION SYSTEM

Our company uses measures to improve water preservation by perfecting the drainage system so that the environment absorbs the remaining water, increasing the resources available to the hydrological cycle. The primary change was the implementation of a rainwater collection system. The headquarters' roof has an average yearly collection capacity of 4,200 m<sup>3</sup>, or six times the capacity of the fire reservoir. This water is used primarily to irrigate the

green area and other projects illustrated below. In 2022, we also introduced a modernized automatic irrigation system across the entire green area, scaled towards the vegetation demands and keeping the surrounding area healthy. This allows us to efficiently use water-related resources, prevent waste and optimize our team's manual labor.

The headquarters' roof has an average yearly collection capacity of

**4,200 m<sup>3</sup>**



## ORNAMENTAL LAKE

The ornamental lake is supplied with water from rain and drainage. To bring local communities closer to native species of the original biome of the city of Sorocaba, we have introduced species of fish such as pacu, curimba and cascudo, as well as aquatic plants and other surrounding vegetation: red pineapple, calliandra, vedélia, carqueja,

among others. The area features two large decks where employees can hold short meetings in contact with nature, stimulating positive feelings capable of reducing work-related stress. This can also help improve focus and efficiency and contribute towards the well-being of the community, allowing for a healthier lifestyle for those in direct contact with nature.



# Gender Equality



Chemyunion believes that people are its greatest asset. With this principle in mind, our company makes significant investments in actions and practices at a global level with a focus on valuing individuals. We believe that diversity is value to be respected in corporate environments.

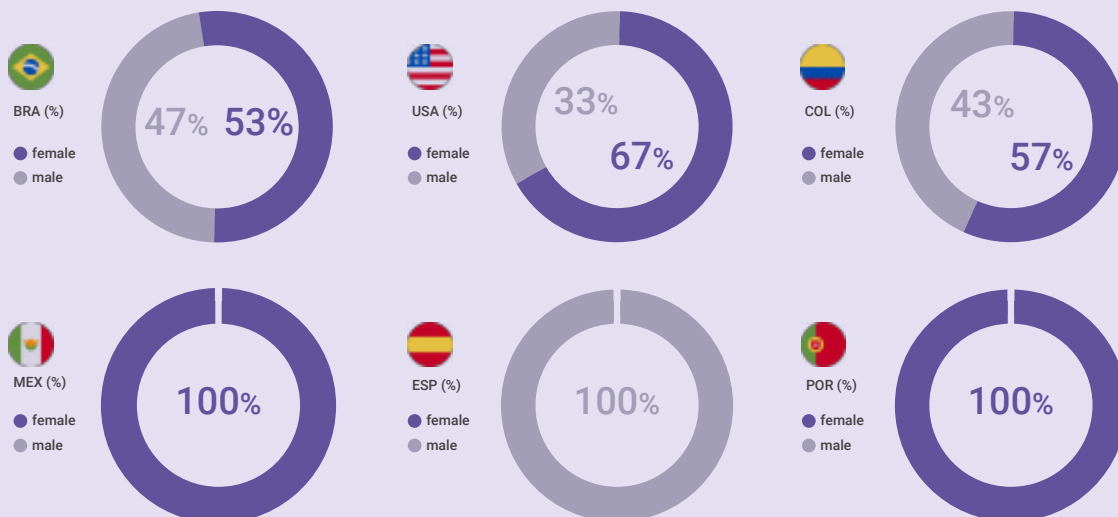
This means ensuring equal access to job opportunities and leadership roles across all decision-making levels to allow women to actively contribute to politics and the economy.

Gender equality is naturally manifested in our company, but even so, we are

aware of the importance of promoting policies that further bolster the fight against inequality between men and women of all ages. Thus, starting in 2020, we began ensuring equal pay so men and women receive the same wages according to their roles and qualifications.

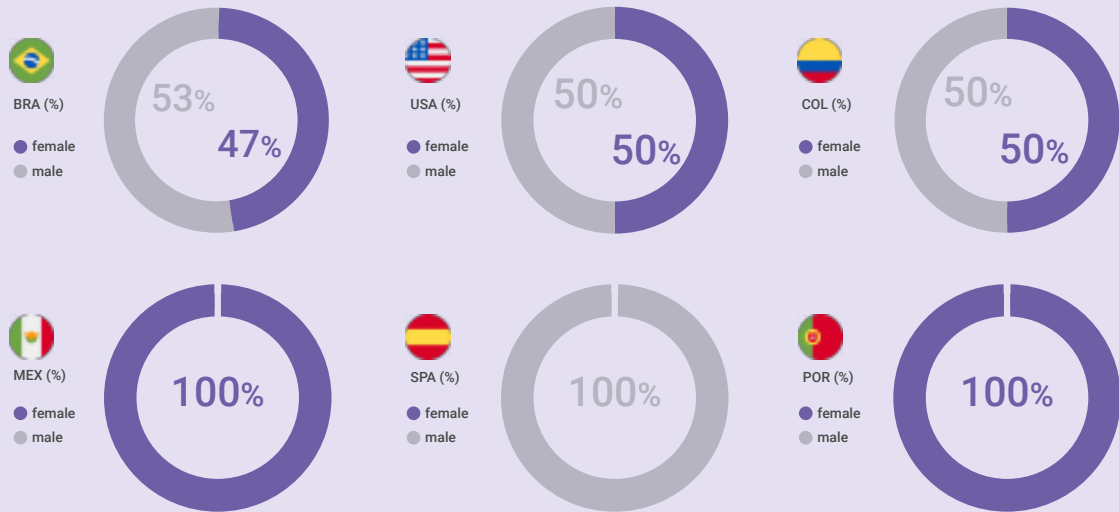
With the goal of attracting and retaining female employees, Chemyunion aims to provide a safe, welcoming, high-quality environment for these female employees, as well as for female visitors and customers.

## Employees Board





## Leadership Board



Caring is one of our pillars, not only for our customers but also for mothers returning from maternity leave. As such, we provide areas in our corporate facilities dedicated to women who still breastfeed, as we are aware of the

importance of this issue for mothers and that the post-pregnancy months can be a sensitive time. It is our belief that we can provide well-being, privacy, and safety for these mothers.

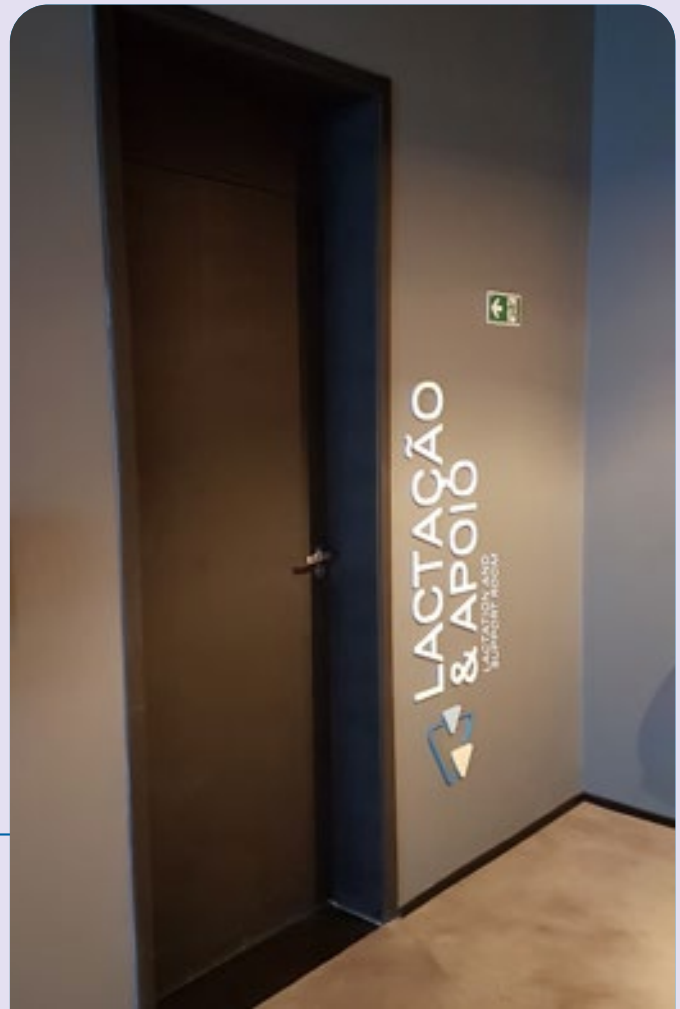
“ We are continuously doing our best to care for all of our employees and we understand that mothers must care for their children, through simple actions like extracting breast milk to feed their infants. ”

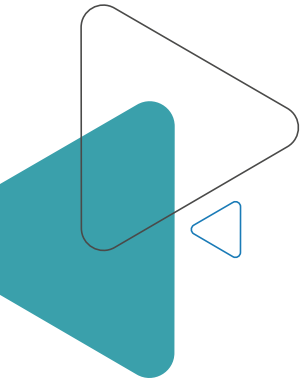
By Renata Nunes

HR Manager



Lactation Room





# Social Responsibilities



Sustainability is founded upon three essential pillars: environmental, social, and economic. Focused on these precepts, Chemyunion's social endeavors are represented by our Social Responsibility Committee, known as Chemyunidos. Founded in 2013, the goal of the committee is to coordinate and implement social and environmental actions across our company.



In Chemyunidos, our principle is respect for the environment, people, and society. We recognize that it is our duty to promote internal and external actions **in search of a more just society and the common good**. Through Chemyunidos, we assume responsibility for socio-environmental development and seek to give back part of our achievements to the community.



## THROUGHOUT 2022, THE CHEMYUNIDOS LED A NUMBER OF PROJECTS:

- Planting of 74 Atlantic Forest native seedlings, with the participation of employees and their families on Tree Day (September 21, in a deforested region in Sorocaba);

- Incentive to Quality Education, through the partnership with the institute CEAP - Centro Educacional Assistencial Profissionalizante, which aims to make available scientific and technological knowledge and attract young people who are entering the academic life and the job market. We participated in the event "Feira de Profissões do CEAP", promoting a chat about innovation and technical skills with more than 60 young people.

- TAMPETS Project, which consists in collecting plastic caps for donation to animal protection institutions, with the purpose of castrating street animals.

- Christmas Solidarity, with the sponsorship of 30 socially vulnerable children, creating a solid and continuous link between Chemyunion, Bethel Institute, and Lar Casa Bela.



**Great Place To Work**

**Certificado**  
Nov/2022 - Nov/2023  
BRASIL

## Chemyunion receives the Great Place to Work certification

In 2022, Chemyunion participated for the first time in the Great Place to Work journey and won the GPTW certification that recognizes the best companies to work for, taking into consideration various aspects of internal climate and a healthy corporate culture.

Our value is to attract the best people and make them better, and this also includes providing the best working environment so that the entire

community has support and encouragement to develop, as well as the health and well-being of our employees.

As such, Chemyunion believes that the GPTW seal, awarded with an 82% approval rating, is an important milestone for our commitment towards a cooperative, healthy environment that nurtures the well-being of our people.





INNOVATE FOR THE FUTURE



CHEMYUNION

2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



Check out our future projects.

For us, innovation for a better future is more than a sustainability motto, it is exercising actions that ensure the quality of life for future generations. Thus, we present five projects that will drive this movement in the coming years.



## 1. GREENHOUSE

After revitalizing our Greenhouse, we have introduced a project to make it a preservation center of native species of plant starts grown in our headquarters. This serves as an environmental education tool to raise awareness of natural conservation while showing the organic source of our raw materials, turning our company into a native seed bank.



## 2. COMMUNITY GARDEN

The project has as its main objective, to cultivate the food consumed in our our daily lives. The project will also seek to to make our collaborators and the community aware that it is possible to maintain healthy eating aligned with the environment and sustainable practices. The idea is the planting and organic cultivation of greens and vegetables use in our dining hall, sharing sharing the management practices with everyone.

**“Our commitment is to give continuity to sustainable and innovative projects, with the lowest possible impact and that bring to our employees and our customers the passion and beauty for nature conservation, and social and socio-economic actions. I can say that I am very grateful to belong to a company that values preservation and innovation in everything it does.”**

By Raquel Kanashiro  
Environment and Safety  
Supervisor



## 3. GAZEBOS

We will continue with the construction of gazebos as outdoor dining rooms, providing a fully wooded environment. Besides enjoying a delicious meal, our clients will have the opportunity to connect with nature and get to know several species native to the area. It will be a unique and enriching experience for everyone.



## 4. GREENHOUSE GAS INVENTORY

We will continue to carry out the inventory of greenhouse gases and the offsetting of atmospheric emissions. With this commitment, Chemyunion is moving towards towards becoming a Carbon Neutral company, strengthening its contribution in the fight against climate change.

In addition, we are committed to expanding our efforts related to the GHG inventory. We are implementing a corporate strategy that encompasses more comprehensive surveys and meaningful mitigation actions.

This approach reinforces our purpose and aligns our our objectives with the goals set the Paris Agreement of 2015, which aims to combat the effects of climate change. By making this commitment, we expect to make a significant contribution to achieving these global goals and to a more sustainable future.



## 5. ZERO DUMPS

We continue to pursue our goal of Zero Landfill, to eliminate the waste we send to landfills. We have been studying pioneering and innovative solutions in order to find a sustainable solution that encompasses environmental, economic, and social aspects.



# Acknowledgments



We express our immense pride and gratitude to all employees who are part of the history of Chemyunion. We sincerely thank them for contributing in an enriching way to the growth and maturation of our company, based on solid principles and values such as ethics, transparency, commitment, respect for people and the environment.

We dedicate special recognition to those directly involved in the preparation of this Sustainability Report. Through this document, we seek to demonstrate our ongoing commitment to evolve in our sustainability goals and actions, in addition to inspiring our customers, business partners, suppliers, and everyone around us to practice more and more actions that promote improvements in favor of a conscious and favorable future for all living beings.

To us, there remains the feeling of motivation to continue with good practices and of deep admiration for the team that makes this project a reality.



# Credits

## PREPARED BY

Agnaldo Flauzino | Industrial Director  
Cleverson Princival | Head in Organic Synthesis  
Fábio Curcialeiro | Occupational Safety Technician  
Gabriela dos S. Luchetti Vieira | Environmental Analyst  
Isabela Sato | Regulatory Affairs Coordinator  
Lilian Mussi | Innovation Manager  
Marcelo Golino | CEO  
Marília Pagliato | Communications Specialist  
Patrícia Moreira | Global Marketing Director & PC and HC Sales Director for Brazil  
Raquel Kanashiro | Environment and Safety Supervisor  
Renata Nunes | HR Manager

## REVISION

Ana Paula Vilar | Operations Director  
Isabela Sato | Regulatory Affairs Coordinator  
Lilian Mussi | Innovation Manager  
Patrícia Moreira | Global Marketing Director & PC and HC Sales Director for Brazil  
Renata Nunes | HR Manager  
Wagner Magalhães | RD&I Officer

## GRAPHIC DESIGN

Eder Maiela | Designer

## IMAGES

Cardim Arquitetura Paisagística  
Luciano Zandoná | Biologist  
Chemyunion file  
Shutterstock



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