



**Sustainability Report**

**20  
22**



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## About the **Report**



# General Information

GRI 2-1, 2-2, 2-3

In this third Ibema Sustainability Report, prepared in accordance with GRI Standards, the company discusses its performance in the period between January 1st and December 31st, 2022. In this cycle, the Report includes, for the first time, SASB (Sustainability Accounting Standards Board) indicators. The previous edition was published on 08.30.2022.

Ibema is committed to presenting its sustainability report annually.

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# Engajamento de stakeholders

GRI 2-29

Seeking to maintain a close relationship with stakeholders with greater interaction on a daily basis, Ibema builds partnerships that allow it to anticipate risks and analyze the specific needs of each public, which makes it possible to cross-reference this information with the company's own demands. Engagement with all stakeholders is carried out through constant dialogue, reciprocity, trust, and actions focused on each party involved, thus enabling business continuity.

In order to further strengthen ties with financial institutions, suppliers, and strategic partners, in 2022, Ibema held business roundtables to provide this public with consolidated information, perspectives for the year and strategic ambitions for the coming periods. On these occasions, it also presented broad views regarding governance and the ESG journey.

Regarding end-users, the company strengthened its operations through partnerships focused on sustainability, such as expanding partnerships with startups from the Ritagli product line. More information about the initiative is available on [page 50](#).

During the year, Ibema also took an important step in mapping interests, which defined material topics based on the stakeholders' main concerns. This in-depth research was fundamental for the construction of the 2022 sustainability report and for the improvement of ESG management.

In addition to being used to produce this report, the mapping of interests is an essential thermometer to initiate action plans that address, prevent, or mitigate stakeholders concerns.

## Employees



**Approach for engagement:** Internal Communication (E-mail, bulletin boards and others); Coffee with the President; Communication campaigns; Social media; Institutional website; Newsletter; Research using the GPTW (Great Place to Work) methodology; Ombudsman and Ethics Channel.

**Concerns raised in 2022:** Solid Waste; Guarantee of Raw Material's Origin; Suppliers; Reputation; Circular Economy; Corporate Risk Management.

## Community surrounding the factories



**Approach for engagement:** Dialogues and action through the community center; In-person Visits; Local media (radio).

**Concerns raised in 2022:** Solid Waste; Effluents; Local development; Reputation; Industrial Management; Circular Economy; Human Rights; Corporate Risk Management.

## Suppliers



**Approach for engagement:** Monitoring of the main suppliers in the supply chain; Negotiation Meetings (virtual and face-to-face).

**Concerns raised in 2022:** Solid Waste; Effluents; Training and Education; Financial Results; Reputation; Industrial Management; Circular Economy; Human Rights.

## Financial Institutions



**Approach for engagement:** Submission of financial reports annually or as required; Roadshow of strategic projects and other topics.

**Concerns raised in 2022:** Effluents; Guarantee of Raw Material's Origin; Suppliers; Financial Results; Reputation; Circular Economy; Human Rights; Corporate Risk Management.

## Legal and Commercial Representation



**Approach for engagement:** Virtual and face-to-face meetings.

**Concerns raised in 2022:** Solid Waste; Training and Education; Local Development; Reputation; Industrial Management; Circular Economy; Corporate Risk Management.

## Customers and End Users



**Approach for engagement:** Semiannual surveys using the NPS (Net Promote Score) methodology; Customer Portal; Virtual and face-to-face meetings; Social media; E-mail marketing; Partnership actions for the market; Approaching End-Users through internal areas such as Research & Development, Supplies and Sustainability.

**Concerns raised in 2022:** Local Development; Financial Results; Reputation; Circular Economy; Human Rights; Corporate Risk Management.

## Top Management



**Approach for engagement:** Monthly Board of Directors meetings and periodic Strategic Committee meetings. This last body meets, on average, every two months. Weekly board meetings.

# Materiality

## Process

GRI 3-1, 3-2

Following the GRI (Global Reporting Initiative) Standards – which offer tools to map, identify and evaluate the main topics and their respective most relevant indicators for the organization and its stakeholders –, Ibema carried out an in-depth materiality process to prepare the 2022 Sustainability Report.

Through an online system, the company invited strategic stakeholders to respond to a pre-defined questionnaire, formulated based on the GRI Standards guidelines and topics relevant to the paper sector. The questions were defined taking into account three major themes: Environmental Performance, Social Performance and Economic Performance and Product Management. Each macro theme unfolded into seven different subjects, which were numbered in order of importance. In other words, opinions regarding 21 different subjects were analyzed.

To build this engagement, stakeholders were divided into six groups: legal advice and commercial representation; community surrounding the factories; financial institutions; suppliers; customers and end-users; collaborators. In addition to these publics, Ibema's opinion, represented by senior management, was also included in the definition of material topics.














The survey revealed that, currently, seven topics are considered most relevant to stakeholders and to Ibema. After the identification process, the material topics were analyzed and validated by the company's senior leadership.

The materiality survey's result is detailed below and each material topic was correlated with the GRI Standards indicators and with the Sustainable Development Goals (SDGs) of the United Nations (UN). Materiality also defined the groups of strategic stakeholders (internal and external) that are directly and indirectly impacted by the company's actions linked to the topics.

### Material topic

#### Legend
























								
Top Management	Customers and End Users	Employees	Community surrounding the factory	Suppliers	Financial Institution	Legal	Commercial Representation	

Material topic	Why is the topic material?	INSIDE LIMITS (internal audiences impacted by the topic)	OUTSIDE LIMITS (external audiences impacted by the topic)	Alignment with Ibema's Commitments	SDG
 <p>Reputation</p>	<p>Reputation is essential to maintain a positive competitiveness in the market. This concept gains greater relevance when the company seeks business strategies based on good environmental, social and governance practices.</p>			<ul style="list-style-type: none"> <li>• Be a Negative Landfill.</li> <li>• Boost education.</li> <li>• Ensure a diverse, equal, and inclusive work environment.</li> <li>• Reduce impacts on climate change.</li> <li>• Manage water in our industrial processes in a sustainable way.</li> </ul>	         

## Material topic

### Legend

								 Directly impacted stakeholder groups	 Indirectly impacted stakeholder groups
Top Management	Customers and End Users	Employees	Community surrounding the factory	Suppliers	Financial Institution	Legal	Commercial Representation		

Material topic	Why is the topic material?	INSIDE LIMITS (internal audiences impacted by the topic)	OUTSIDE LIMITS (external audiences impacted by the topic)	Alignment with Ibema's Commitments	SDG
 <p>Solid waste</p>	<p>In the paper production process, like most production processes, waste generation is inherent. In this way, we consider an important material topic to be properly managed.</p>			<ul style="list-style-type: none"> <li>Reduce impacts on climate change.</li> <li>Be a Negative Landfill.</li> </ul>	    
 <p>Training and education</p>	<p>Investment in education and training helps us raise quality levels, increase productivity with a focus on customer satisfaction and also that of our employees.</p>			<ul style="list-style-type: none"> <li>Boost education.</li> <li>Ensure a diverse, equal, and inclusive work environment.</li> </ul>	  
 <p>Effluents</p>	<p>In the paper production process, water is one of the main inputs used and, consequently, generates effluents. Therefore, we consider it an important material topic to be properly managed.</p>			<ul style="list-style-type: none"> <li>Reduce impacts on climate change.</li> <li>Sustainably manage water in our industrial processes.</li> </ul>	     

## Material topic

### Legend



Top Management



Customers and End Users



Employees



Community surrounding the factory



Suppliers



Financial Institution



Legal



Commercial Representation

■ Directly impacted stakeholder groups  
■ Indirectly impacted stakeholder groups

Material topic	Why is the topic material?	INSIDE LIMITS (internal audiences impacted by the topic)	OUTSIDE LIMITS (external audiences impacted by the topic)	Alignment with Ibema's Commitments	SDG
<p>Industrial management</p>	<p>Industrial management is essential to focus on sustainable practices, producing with the lowest possible environmental impact, always connected with the organization's strategies to meet ESG metrics.</p>			<ul style="list-style-type: none"> <li>Reduce impacts on climate change.</li> <li>Be a Negative Landfill.</li> <li>Training and Education.</li> <li>Ensure a diverse, equal, and inclusive work environment.</li> <li>Sustainably manage water in our industrial processes.</li> </ul>	
<p>Circular economy</p>	<p>Circular Economy has been a major theme in companies' sustainability commitments, as the consumer is increasingly aware and seeks more ecological packaging alternatives. In addition, new regulations aim to reduce the volume of waste sent to landfills or dumps, therefore, it forces consumer companies (our indirect customers) to seek recycling solutions or sustainable destinations for their materials.</p>			<ul style="list-style-type: none"> <li>Reduce impacts on climate change.</li> <li>Be a Negative Landfill.</li> <li>Education and Training.</li> </ul>	



## Material topic

### Legend



Top Management



Customers and End Users



Employees



Community surrounding the factory



Suppliers



Financial Institution



Legal



Commercial Representation

■ Directly impacted stakeholder groups  
■ Indirectly impacted stakeholder groups

Material topic	Why is the topic material?	INSIDE LIMITS (internal audiences impacted by the topic)	OUTSIDE LIMITS (external audiences impacted by the topic)	Alignment with Ibema's Commitments	SDG
<p>Corporate risk management</p>	<p>Ibema understands that risk management is the main way to prevent Operational, Financial, Image and Reputation events from jeopardizing the strategic plan's execution or the achievement of the company's results.</p>			<ul style="list-style-type: none"> <li>• Boost education.</li> <li>• Ensure a diverse, equal, and inclusive work environment.</li> <li>• Sustainably manage water in our industrial processes.</li> <li>• Reduce impacts on climate change.</li> <li>• Be a Negative Landfill.</li> </ul>	

## Other indicators

In addition to the GRI indicators associated with material topics, Ibema has chosen to report indicators related to topics considered relevant internally. They are:

Topics	Disclosures
GRI 305: 2016 EMISSIONS	305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7
GRI 403: OCCUPATIONAL HEALTH AND SAFETY 2018	403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10



# Message **from Management**



**GRI 2-22, 2-25**

It is no news that changes are happening at a faster pace. Technologies are created to make our daily lives easier, and we see work processes that are continuously improved and professions that appear to have been created for a science fiction movie and which are now a reality. Nevertheless, while some changes have gained momentum for good purposes, they have also gained momentum for evil purposes. Here, I would like to speak specifically about climate and the environment – it is not an exaggeration that we are on the brink of catastrophe when it comes to climate change.

In March of this year, the Intergovernmental Panel on Climate Change (IPCC) released the Synthesis Report on Climate Change 2023. In the text, the entity made it clear that there was no longer any doubt that these were human-made activities, especially through emissions of greenhouse gases (GHG), which has led to global warming. While before there could be some trace of uncertainty about it, even if for few, now there is no more.

We have also seen the damage that the rampant use of plastic has caused in the environment. Recently, the scientific community discovered a new disease, “plasti-

cosis,” which affects seabirds as a result of the ingestion of plastic particles. Furthermore, researchers found that the largest accumulation of oceanic plastic in the world, the Great Pacific Garbage Patch, is so significant that it even has an ecosystem of its own, which could lead to an environmental imbalance.

That is why the industry needs to place sustainability as one of its pillars. At Ibema, we are pioneers in environmental actions, including the rational use of water and the fact that we are zero landfills. In 2022, we made commitments to reduce water consumption by 25% at our unit in Turvo, Paraná to recycle 20,000 metric tons of garbage that would be referred to landfills and to reduce our CO<sub>2</sub> emissions per metric ton of production by 70%. We also opened the container for the *Estação Preço de Fábrica* project, installed in front of our headquarters in Embu das Artes, in the Greater São Paulo region. There, it is possible to deliver glass, cardboard, white paper and paperboard for recycling, in exchange for fair prices. For those who make a living from recycling, it is a significant income gain.

It should be noted that these points are in line with consumer expectations: 7 out of 10 respondents (i.e., 70%) to the Ipsos study “Global attitudes towards a plastic pol-

lution treaty,” conducted in 34 countries, stated that they support rules global efforts to end plastic pollution. In Latin America, the percentage rises to 77%. Cardboard is a key ally in this battle. It is no coincidence that Ibema has received two important industry awards as the best paperboard supplier in 2022: the Graphprint Award, held by Agnelo Editora, and the Fernando Pini Graphic Excellence Award, from the Brazilian Association of the Graphic Industry (ABIGRAF).

For the next few months, while changes are getting faster and faster, we wish to speed up Ibema’s ESG (Environmental, Social and Governance) actions. The challenges we impose on ourselves require speed to be resolved. What once seemed daring now sounds conservative. At Ibema, we have the proposal to “pack the future,” and this future needs to be habitable. It needs to arrive. And it needs to arrive now.

Enjoy your reading!

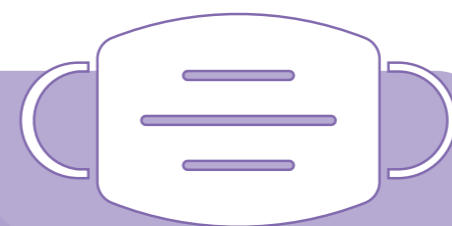
**Nilton Saraiva**  
CEO



**At Ibema, we have the proposal to “pack the future,” and this future needs to be habitable. It needs to arrive. And it needs to arrive now.**



# Fighting the **Covid-19 Pandemic**

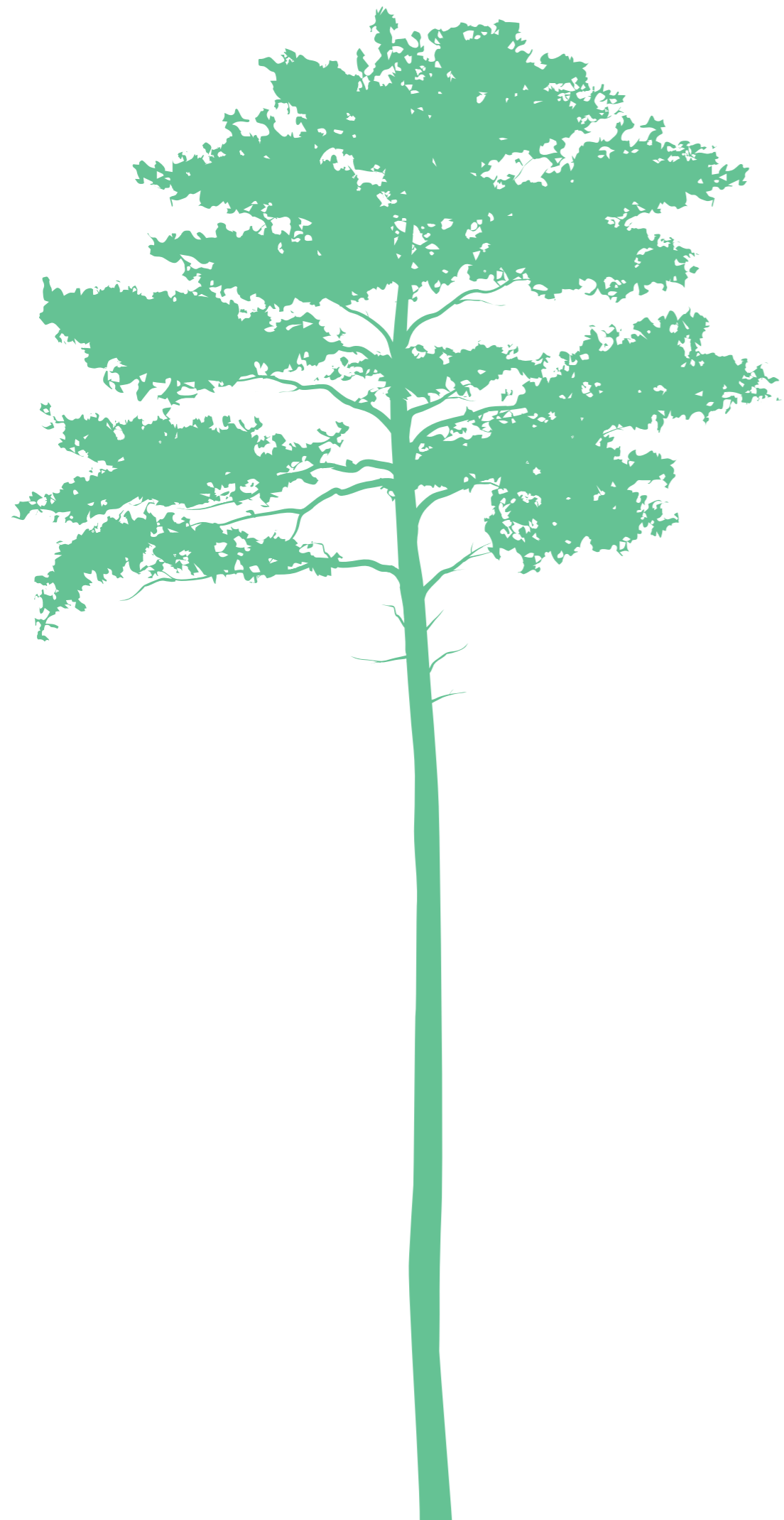


The COVID-19 pandemic context influenced Ibema's Social Investment. Faced with a scenario still fighting the pandemic, during 2022 resources, structures were mobilized and a series of initiatives were developed with the communities close to its operations.

Among the initiatives adopted by Ibema, the following stand out::

- Reinforcement of guidelines in internal channels and social networks on the necessary care to face the virus;
- Realization of rapid tests (antigen) for all symptomatic cases that presented themselves;
- Hiring another nursing professional to carry out triage and testing at the Turvo unit;
- Hiring a psychologist to assist our employees;
- Frequent review and update of COVID-19 protocols in line with Ministry of Health guidelines;
- Implementation of *Apoio Pass*, an online platform and call center, in partnership with SODEXO, a service that offers psychological, financial, and legal assistance to all company employees.





# 2022 Highlights





Recognition by  
**GPTW (Great Place to Work)** for the 4th consecutive year



**VOA Project (Former NOA Project):** The initiative brings better profitability to the Embu das Artes plant



2022 Graphprint Award in the Paperboard Category: Featured as the best paperboard supplier



For more information click on the icons.



Record adjusted EBITDA of BRL 214,677 million.



*Ibema Embala:* The customer loyalty pilot project offers several service packages



Fernando Pini Graphic Excellence Award 2022: Awards for the most relevant companies and professionals in the graphic market



138 Kv transmission line: Investment in a new energy transmission line in Turvo (PR)



Beginning of operations at *Ibema Florestal*.



Compliance Program Implementation: Incorporating even more transparency into the business



Garbage Biennial 2022: the company took a biodegradable solution to the Garbage Biennial in May 2022



Study of the implementation of a biomass boiler in Embu



Journey of digital transformation of processes and technologies.

### OBOTICÁRIO

*Estação Preço de Fábrica* in partnership with *O Boticário* and *GreenMining*: Initiative for the collection and disposal of paperboard, cardboard, and glass waste for recycling



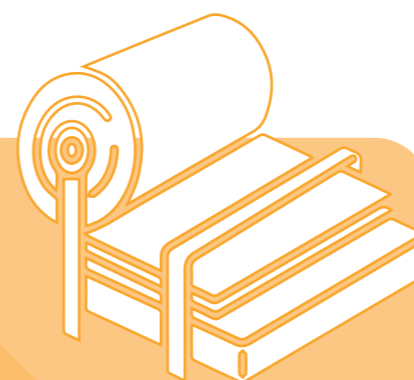
BCTMP plant: Feasibility study of a new BCTMP plant in Paraná with bleached chemical-thermomechanical pulp



New extruder in Embu: Acquisition of a second internal extruder to increase production capacity



**Ibema**





# Organizational profile

GRI 2-1, 2-2, 2-3

Created in 1956; its main activity being the production of paperboard, Ibema (Brazilian Paper Company) is a privately-held corporation (S.A.) headquartered at Avenida Sete de Setembro, 5739 (Edifício Priori - sala 401 - 4º andar), Água Verde, Curitiba/PR.

It is currently controlled by Ibemapar Participações S.A. (Ibemapar), holding company with share control of members of the founding families of the Ibema Group (Napoli and Gomes), and by *Suzano Papel e Celulose*, since 2016.

As of 2021, the company has opened a commercial representation office in Argentina.

Prioritizing the best Corporate Governance practices, Ibema has a fully professional and dynamic management, with the support of a Statutory Board and a Board of Directors, with members appointed by the shareholders (Ibemapar and Suzano).





Based on its vision of the future and business strategies, *Ibema Florestal* was created in 2022, with the objective of expanding and improving its position as a wood consumer in the region, maintaining the acquisition of local producers, but also practicing forestry in areas owned or leased.

The company is making a major contribution to the silviculture process to promote the planting of eucalyptus in the region and, thus, accelerate the return on investments, given that the demand for wood has been growing.

One of *Ibema Florestal's* strategies is to compose a balanced portfolio with the economic activities generated by land use, acquiring degraded areas for recovery and generation of carbon credits, in addition to seeking partnerships to develop sustainability projects that respect the local fauna and flora, including contributing to the recovery of native forests and the planting of the species that symbolizes Paraná, the Araucaria.

The company is also seeking to acquire areas under silvopastoral regime, a practice that aims to integrate trees, fodder, and animal grazing in a mutually beneficial way. For this, it has partners with expertise in the forestry sector and participates in associations and entities that keep the forestry theme on the agenda.

The perspective for 2023 is an even more robust planning, after the impulse given in 2022, both in the acquisition of new areas for planting and in the strengthening of partnerships with local producers and to continue consolidating its prominent role in forest management.



# Markets served

GRI 2-6

## Sectors served



## Internal Market



## Types of Customers



Printing Companies



Distributors



Customers and End Users

## External Market

Americas, Africa, Europe, and Asia



# Digital transformation

2022 was a period of major changes in processes and technologies for Ibema, which intensified its investments in digital transformation, seeking a significant improvement in the entire flow of information, either through the implementation of a more modern ERP – which brings solutions in state-of-the-art cloud –, or through initiatives to simplify internal processes, aiming at improving the customer experience and adopting digital tools that improve the relationship with the market and bring gains in productivity, quality and cost reduction.

In addition to productivity gains, with the implementation of ERP - SAP S4HANA and the Specialist Manufacturing Software - *Simula Trimpaper*, there are benefits in compliance, governance, and data analysis processes. All this translates into quality information for decision making. Investments were made in the restructuring of business reports (BIs - Business Intelligence) in various areas of the company, with emphasis on people analytics, inventory management and sales. The flexibility to grow and adjust quickly to market demands is fully in line with the technological structures created in recent years.

In addition, with the growing digitization of operations and the increase in cyber threats, Ibema continued its investment plan in cybersecurity. Robust practices and measures were implemented to guarantee data and information protection, actions were adopted for the integrity and functioning of the systems, thus mitigating interruptions and losses in the operational process.

The future of any business is to undergo a digital transformation. And this is the path that Ibema is following.

## Web Vision

Ibema has focused its investments on improving its processes, seeking technologies that guarantee high quality and performance products. Thinking this way, in 2022, the study and planning for Web Vision was also started, which is a project that will be first implemented at the Plant in Turvo, the purpose of acquiring this equipment is to create an image capture system thinking about the analysis of the paper surface. The proposal is to install high-resolution cameras on the paper machine that will constantly look for imperfections and send the information to a database, which will be evaluated in the laboratory. The gain that Web Vision will bring is related to the exchange of an error sampling system for a more automated system, this change will bring more reliability to the materials produced.



**In 2022, Ibema intensified its investments in digital transformation.**



# Industrial **Management**



**GRI 3-3**

Ibema has defined, in its strategic planning, investments to increase production volume, considering the period from 2022 to 2025. To put this into practice, it has the industrial management area, responsible for producing with the greatest possible efficiency and reducing operational losses. In order to achieve excellence in the management of industrial costs, the company intends to focus on reducing losses and proper use of resources, which contributes to Ibema becoming a benchmark in its segment.

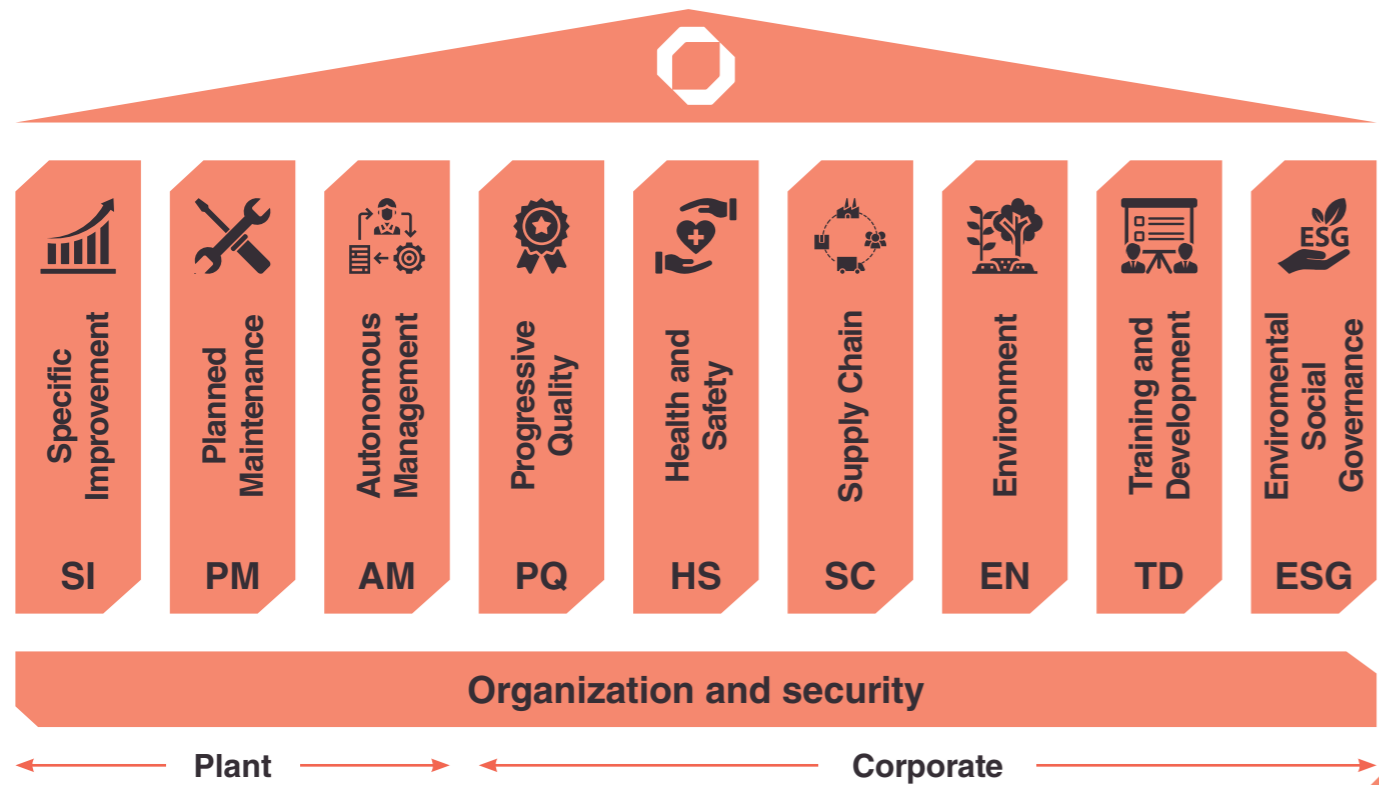
In this sense, the company has an integrated management policy, structured based on ISO 9001 (Quality Management) and ISO 14001 (Environmental Management), in addition to periodic internal and external audits that guarantee that the documents necessary for a safe op-

eration are in accordance with the rules and legislation in force.

Through the Ibema Excellence System – SEI, a continuous improvement program implemented in 2018, the company aims to achieve excellence in all processes, seeking to be a competitive and sustainable company within its segment.

SEI is structured around nine pillars and aims to achieve zero loss following a specific methodology (WCOM - World Class Operations Management). The system is connected with Ibema's strategy and mainly uses Lean Agile Management to guarantee the dialogue cadence (shift/ daily/ weekly/ monthly) seeking the expected result through the indicators, always aiming at continuous improvement.

**SEI: Pillars and features**



**In 2022, the ESG pillar was created to monitor the indicators and projects linked to Ibema's commitments, in addition to centralizing the management of the company's initiatives and development goals with sustainability, governance and social issues.**



**Specific Improvement:** provides support to the Managing Committee to define the cost and volume improvement strategy, improves productivity and flexibility by reducing setup time and non-aggregating activities. It also maintains plant cost deployment and OEE (Overall Equipment Effectiveness) across the plant and productivity analysis.



**Planned Maintenance:** the intention is to increase the reliability of the factories and reduce maintenance costs, through the development of the Preventive Maintenance system, based on time and condition. This pillar supports the Autonomous Management pillar



**Autonomous Management:** organizes the direct participation of production operators in the early detection of abnormalities and simple maintenance tasks, including daily checks. Deploys simple preventive maintenance tasks to allow maintenance technicians to work on process improvements. As a result, operators are gradually assigned responsibility for equipment, product, and the production environment, which represents a culture change in the process.



**Progressive Quality:** defines conditions and process variables to deliver a quality product, in addition to establishing a system to eradicate sources of losses and maximize customer satisfaction, through the optimization of products and processes integrated with existing quality systems.



**Health and Safety:** develops the Accident Prevention System, ensuring safety improvements in the workplace. This pillar provides techniques for assessing risks and developing preventive and corrective contingency measures.



**ESG:** created in 2022, this pillar aims to monitor the indicators and projects linked to Ibema's commitments, in addition to centralizing the management of the company's development initiatives and goals with sustainability, governance and social issues.



**Logistics:** this pillar maps several areas to obtain greater efficiency of machines, activities, and people, reducing operating time, costs, delivery time and inventories and improving production sequencing to make the company more competitive. Another objective is to simplify the process flow and make it lean, fundamental to integrate the factory into the global supply chain, moving from a product to a product flow factory. The tool used to make the lean flow is the Value Stream Mapping, which helps to describe the current state of the system and apply the necessary improvements, reducing the 7 Wastes.



**Environment:** in charge of the Environmental Compliance and Incident Prevention System, this pillar is responsible for reducing losses through changes in practices, processes and behaviors and developing a management system to integrate the environment with operational excellence. After diagnosing the factory's environmental performance, the pillar deploys a group of actions related to the process, utilities, and behaviors, which include water, energy, waste, pollutants, and noise. All of this contributes to enriching the entire management system.



**Training and Development:** acts as a robust base on which to build the construction of the entire chain's other pillars. The main attributions are: develops training systems linked to the company's goals; performs skills assessment (gap analysis) and development for all functional areas; supports change in models involving autonomous teams in manufacturing and provides people development (skills and leadership).

### WCOM Methodology

The SEI program follows the WCOM methodology, a management system focused on continuous improvement and the constant search to reduce losses and costs in all processes, through the active participation of all employees. For this, a set of management excellence methods, improvement projects and control and analysis tools are used.

Each pillar of the program is made up of a multidisciplinary team, including 4 to 6 employees, and the process is supervised by the Management Committee, formed by the CEO and other directors, who meet monthly to monitor goals and results. All identified adjustment needs are recorded in the minutes and forwarded to those responsible, who present the deviations or improvements identified at the next meeting.

### Projects

In 2022, 16 improvement projects were carried out that stood out for bringing excellent results to the company, both in terms of productivity and cost reduction. The projects took place at the Turvo and Embu plants, some with a corporate impact, such as increasing the availability of mechanical pulp, increasing the OEE of paper machines, reducing scrap by discarding, reducing specific defects, and reducing breakdowns at critical points.

At Turvo, a 7% reduction in water consumption was achieved, a 1% increase in paper machine OEE and a 4% increase in finished product production.

At Embu das Artes, the highlights were the 14% reduction in water consumption, a 1% increase in paper machine OEE and a 6% increase in finished product production.

# Infrastructure

GRI 203-1



Turvo

	2022	2021	2020
Total Area	592.9 m <sup>2</sup>	592.9 m <sup>2</sup>	592.9 m <sup>2</sup>
Manufacturing Area	29,856 m <sup>2</sup>	29,856 m <sup>2</sup>	29,856 m <sup>2</sup>
Current production capacity	105,000 t/year	100,000 t/year	90,000 t/year
Employees and third parties	453 owned	490 owned	490 owned
	54 third parties	35 third parties	35 third parties



Embu das Artes

	2022	2021	2020
Total Area	61,550 m <sup>2</sup>	61,550 m <sup>2</sup>	61,550 m <sup>2</sup>
Manufacturing Area	20,000 m <sup>2</sup>	20,000 m <sup>2</sup>	20,000 m <sup>2</sup>
Current production capacity	52,000 t/year	50,000 t/year	50,000 t/year
Employees and third parties	189 owned	180 owned	180 owned
	137 third parties	107 third parties	99 third parties



Araucária

	2022	2021	2020
Total Area	25,500 m <sup>2</sup>	25,500 m <sup>2</sup>	25,500 m <sup>2</sup>
Manufacturing Area	12,000 m <sup>2</sup>	12,000 m <sup>2</sup>	12,000 m <sup>2</sup>
Current production capacity	7,000 t/year	7,000 t/year	6,000 t/year
Employees and third parties	35 owned	36 owned	37 owned
	12 third parties	10 third parties	10 third parties

**Note for alteration of quantitative information for previous periods:** The figures for 2020 and 2021 for the Araucária plant have been corrected. In 2020, 12,000 m<sup>2</sup> of total area was reported, of manufacturing area in 2020 and 2021, 11,500 m<sup>2</sup> were reported. For the Embu das Artes plant in 2020, a total area of 82,954 m<sup>2</sup> was reported. The numbers for 2020 and 2021 have been corrected in the table above.

The main projects carried out by Ibema in the infrastructure area are listed below:

### BCTMP Plant



In 2022, Ibema began a feasibility study for a new bleached chemical-thermomechanical pulp (BCTMP) plant in Turvo. At an advanced stage of analysis, the project includes a long-term supply contract with Suzano, which owns 49.9% of the company. An increase in mechanical pulp production of up to 160 thousand tons per year is estimated. The new BCTMP plant will meet the current mechanical pulp demand of both companies, in addition to serving as support for future expansions in paperboard production. The project will also expand new direct and indirect work posts.

### New extruder in Embu



The acquisition of a new extruder is directly related to the opportunity to expand Ibema's share in the cups and trays segment, a sector that, year after year, has been growing as a result of the demand for sustainable packaging.

The decision also considers that the industry's current extrusion capacity is saturated. Therefore, priority is given to increasing production capacity. It should also be noted that, as the extrusion process at Ibema is 100% internalized, the movement will generate new jobs at the plant.

### Improvements project in Embu



At the Embu das Artes plant, several improvements were made to the infrastructure, such as renovations to the locker rooms, bathrooms, and restaurant to serve employees more efficiently.



Workplace Safety projects were also carried out with LPRO (Survey of Occupational Hazards and Risks) and PTC (Cultural Transformation Plan).

### Study of biomass boiler implementation in Embu



At the Embu das Artes factory, steam is generated through 3 boilers that use natural gas as fuel, which burns cleaner, more efficiently and with better thermal performance than other gases. However, natural gas is a fossil fuel, non-renewable and has the disadvantage of containing toxic contaminants that must be eliminated in the refining process and, during its burning, it emits, even if in reduced quantities, atmospheric pollutants (such as carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NOx) and, to a lesser extent, carbon monoxide and some low molecular weight hydrocarbons, including methane, due to incomplete combustion).

In 2022, Ibema, in line with its environmental and social policies, completed the studies and decided to replace these 3 boilers (equipment with higher maintenance costs and technological limitations), manufactured in 1974, by a new boiler, more modern and economical. This new

process will burn plant biomass as fuel, generating heat energy with the emission of less polluting gases. It will be ecologically sustainable and correct because the emitted carbon balance is zero.

The studies carried out were mainly based on reducing costs and construction time, seeking the best logistics alternative for the project, and following the standards for reducing gas emissions following the goals established by Ibema in 2022.

### 138 Kv transmission line



The company invested a total of BRL 46 million in a new power transmission line, which feeds both the Turvo factory and the surrounding residential village, leading to better quality in power delivery (elimination of outages and interruptions).







# Customer Portfolio and Management



As the third paperboard manufacturer in Brazil, Ibema is present in the Americas, Africa, Europe, and Asia. Its total annual production reaches 161 thousand tons and currently has more than 900 direct and indirect employees. Its two manufacturing units are located in Embu das Artes (SP) and in Turvo (PR). In the first, the focus is on recycling, that is, the transformation of waste and shavings into new products. The second manufacturing plant is focused on the production of products from virgin fiber in planted forests. In addition, it has a distribution center in Araucária (PR), an administrative office in Curitiba (PR) and another in Buenos Aires, Argentina.

Located in Greater São Paulo, the Embu das Artes unit works like a great fortress, it is a veritable “shavings forest.” It is a funding hub within the city, with the main ob-

jective of turning the circular economy around, based on a strategic vision that is already being developed at the company and can be demonstrated through new products and portfolio alignment. With that in mind, Ibema continued to invest in circular economy growth in 2022, aiming to become a post-consumer product reference in Brazil.

Currently, **the company's portfolio comprises 11 products**, including: Supera, Supera White, Supera W Print, Impona, Impona White, Naturale, Ritagli White 35, Ritagli Cream 35, Royal Blister, Royal Coppa Coating and Royal Coppa SC. The main segments served are: cosmetics, pharmaceuticals, direct contact with food, home hygiene, couplings, personal hygiene, bags, pre-packaged foods, premium packaging, cupstock, blister packs, fast-food delivery, frozen foods, cigarette trays and packaging.



**Ibema invests in circular economy growth, aiming to become a post-consumer product reference in Brazil.**



### **Ibema Ritagli**

In 2022, the Ritagli line had an important growth in the two existing versions (Cream and White).

In view of the objective of becoming a reference in the market, throughout 2022 Ritagli was presented to an important range of end-users, many of whom found value in the circular economy concept and in the product's quality.

The product underwent changes in its composition, increasing the percentage of post-consumer material. From 50% recycled fibers to 55% (35% post-consumer and 20% post-industrial). This change was especially motivated by the discourse of consumer goods industries that aimed to increase the percentage of recycled material in their packaging.

Ritagli is a product that responds to environmental objectives, the ESG objectives of the consumer goods industry and the conscious consumer's wishes.

# Awards

To know the consumer's real needs, it is necessary to be connected and attuned to the market. For this reason, Ibema revamped its portfolio through rebranding, established partnerships with renowned brands and daily supports Brazil's environmental shift with raw material for truly sustainable packaging.

Recognition for these initiatives came through two important industry awards as the best paperboard supplier in 2022: the **Graphprint Award**, held by Editora Agnelo, and the **Fernando Pini Award for Graphic Excellence**, from the Brazilian Graphic Industry Association (ABIGRAF).

This result shows that the company knows how to make contact and maintain close relationships, one of the main values that govern the business, in addition to thinking outside the box and acting with courage. Even in the face



**Recognition for these initiatives came through two important industry awards as the best paperboard supplier in 2022.**

of the 2022 challenges, the awards are a thermometer of both the quality of products and service. The rebranding carried out and the efficient work with printers and consumer goods manufacturers (brand owners) result in greater harmony with the market.

Held for 21 years, the Graphprint Award recognizes highlights in the graphics industry through research with the sector, with the participation of professionals working in the market. Ibema believes that the expansion of production capacity, portfolio diversity, high performance of products and investments in improving equipment were the main characteristics for winning the award, further increasing its recognition not only as a supplier of raw materials, but also as a company that develops efficient packaging solutions. The award highlighted the company in the Paperboard Category, as the best paperboard supplier.

The Fernando Pini Award, held 30 years ago, is one of the most respected awards in the world, which strictly follows the criteria of ABIGRAF (Brazilian Graphic Industry Association) to select the most relevant companies and professionals in the graphics market.

Through an exhibition, Ibema also participated in the 2022 **Garbage Biennial**, in São Paulo, acting as a protagonist by presenting a solution for a more sustainable world, focused on recycling and reuse of packaging in the industrial process. The stand portrayed the importance of changing habits on a daily basis, through education and awareness of all those involved, since recycling is a collective chain.



**2022 Graphprint Award in the Paperboard Category**



**Fernando Pini Graphic Excellence Award 2022**



**Garbage Biennial 2022**

# Customer Management

Ibema's direct customers are the printing companies, responsible for purchasing the company's raw material and transforming it into packaging. End-users are indirect customers, made up of consumer goods industries and delivery startups or fintechs. Even though it is not a direct supplier, Ibema maintains a specification and development relationship with this third link, seeking to understand expectations and commitments assumed and to develop technology and solutions with these audiences.

The market is increasingly looking for renewable source packaging and the perspective is that this trend will strengthen in the coming years. For this reason, Ibema believes in the circular economy as a way to engage its value chain, maintaining a diverse and close relationship with its customers.

## **Ibema Embala**

The pilot project called *Ibema Embala* is a customer loyalty initiative, seeking to improve the customer's shopping experience and create stronger loyalty bonds. For this, several service packages were launched to increase this public's loyalty.

Among these services are the opportunities to use cash-back, the opportunity to offer consultancy financed by the company to improve the client's business, presentation of more specific training and sales campaigns. Throughout 2022, the project categorized customers according to a purchase score, generating a series of benefits according to each category.

## **Biweekly clipping**

Thinking about innovation trends, the company sends a biweekly clipping (news selection) to the customer base, including successful cases and information related to the paperboard area.

**Ibema believes in the circular economy as a way to engage its value chain, maintaining a diverse and close relationship with its customers.**

# NPS Results

The NPS (Net Promote Score) metrics provide an overview of customers and consumers' impression. They measure customer satisfaction in various processes or relationship areas.

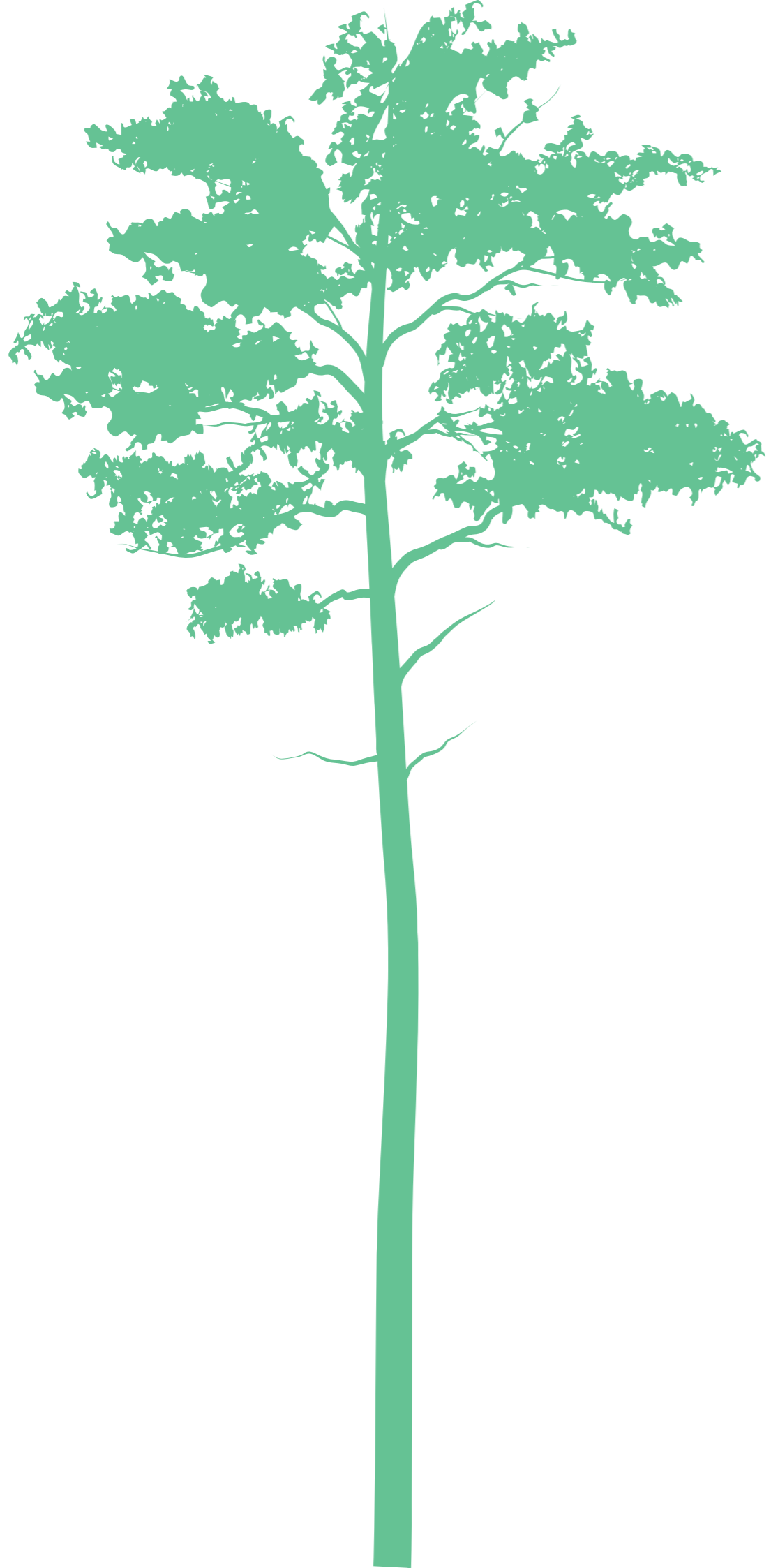
The survey was applied to the customer base in the Brazilian and international markets and 133 responses were obtained. The results obtained for 2022 were below those for 2021, both in terms of satisfaction, 80% in 2021 and 78% in 2022, and in the NPS, with 51 in 2021 and 42 in 2022.

The main points pointed out by customers are related to the quality and speed of information, delivery time and the customer portal, which was offline as of May 2022.

All these points are directly related to ERP system's migration, which went through an expected period of stabilization.

In view of the results, a large part of the leadership met on NPS Day to obtain a diagnosis of the report and create the respective action plans for course corrections and improvements. A feedback is expected to be given to customers by the end of May 2023.





# Corporate Governance **and Ethics**



GRI 2-23, 2-24

In addition to the visible part of the company's work, Ibema's packages also contain well-being, experiences, and many stories, as they go from hand to hand every day, packaging the dreams and desires of thousands of people. With care, empathy and courage, the company meets the needs of customers with transformative solutions, contributing to a more sustainable world for all.

An important ally as a guide for this conduct and values is the Code of Conduct, applied in all of Ibema's business units, including employees, suppliers, representatives, service providers and commercial partners. The document presents non-negotiable ethical and moral principles for the company, such as, for example, respect for equality, good internal relations, protection of data and information, compliance with laws, rules, and regulations, as well as guidance on combating exploitation and child labor, transparency, and conflict of interests.

The Code of Conduct is available on the Ibema website and contains explanatory videos and access to records of reports, allegations, and complaints. Access can be made through the website <https://canaldeetica.com.br/ibema> anonymously.

Between the end of 2022 and the beginning of 2023, the company started to produce five more specific policies, in addition to a periodic review of the Code of Conduct. The main objective of the new policies is to provide full transparency and create standards for the company's daily activities in Brazil and abroad.

**Ibema Policies:**

1. Anti-Corruption Policy;
2. Competitive Corporate Policy;
3. Conflict of Interest Policy;
4. Communication Policy;
5. Supplier Policy

This is how Ibema continually works to increase its credibility and protect its reputation in the eyes of the market and stakeholders, with the direct participation of all employees, who are encouraged to apply the principles, values, and mission in their daily lives.



# Purpose

- Pack the future



# Values

- We believe in the role of courage
- We Think Outside the Box
- We do it with Care

Ibema's strength is versatility, and its paths are wide. To highlight this positioning, two additional brand concepts were created in 2022. They highlight the company's care for the planet, respecting nature as a raw material and reducing waste sent to landfills.



## EMBU – Plantando o Futuro

The "Plantando o Futuro" ("Planting the Future") slogan conveys a powerful message about the environmental and sustainable benefits of recycling.

It underscores the company's commitment to sustainability and preservation of the environment, suggesting that, by recycling materials, Ibema is planting the seeds for a better future, where natural resources are used in a responsible and renewable way.

It highlights the importance of raising awareness of recycling and encouraging more responsible consumption practices. Just as plants need care and attention to grow, the message conveyed is that, by recycling, Ibema is cultivating a stronger environmental awareness and encouraging everyone's participation in protecting the planet.



## TURVO – Natureza que Embala

The "Natureza que Embala" ("Nature that Packs") slogan conveys a message of commitment to environmental preservation and the responsible use of natural resources.

It highlights the connection between nature and the packaging produced from virgin fiber paper, conveying the idea that its products are made with renewable inputs, such as wood fibers sourced from sustainably planted forests and that they are designed to minimize environmental impact.

# Governance structure and its composition

GRI 2-9, 2-10, 2-11

Currently, Ibema (Brazilian Paper Company) – organized as a privately held corporation – is governed by bylaws that define the company's main guidelines. It also has a shareholders' agreement, in force since 2016, when the company underwent a corporate reorganization. Since then, it has been controlled by two shareholders: *Ibema Participações* (Ibemapar, a holding company owned by members of the company's founding families) and *Suzano Papel e Celulose*, with a 50.1% and 49.9% stake, respectively.

The corporate documents guide the activities of directors and officers and direct the definitions, assumptions and competences, form of corporate governance practices, among other aspects.

The company has a Board of Directors composed of four effective members, two representing each shareholder, with a two-year term of office. Suzano participates in the body with two business directors and *Ibema Participações* acts through a family representative, who is the chairman of the board, and an independent director.

Ibema determines specific criteria for nominating members in all its committees, always emphasizing the best corporate governance practices. Such criteria take into account the diversity of experience and knowledge on

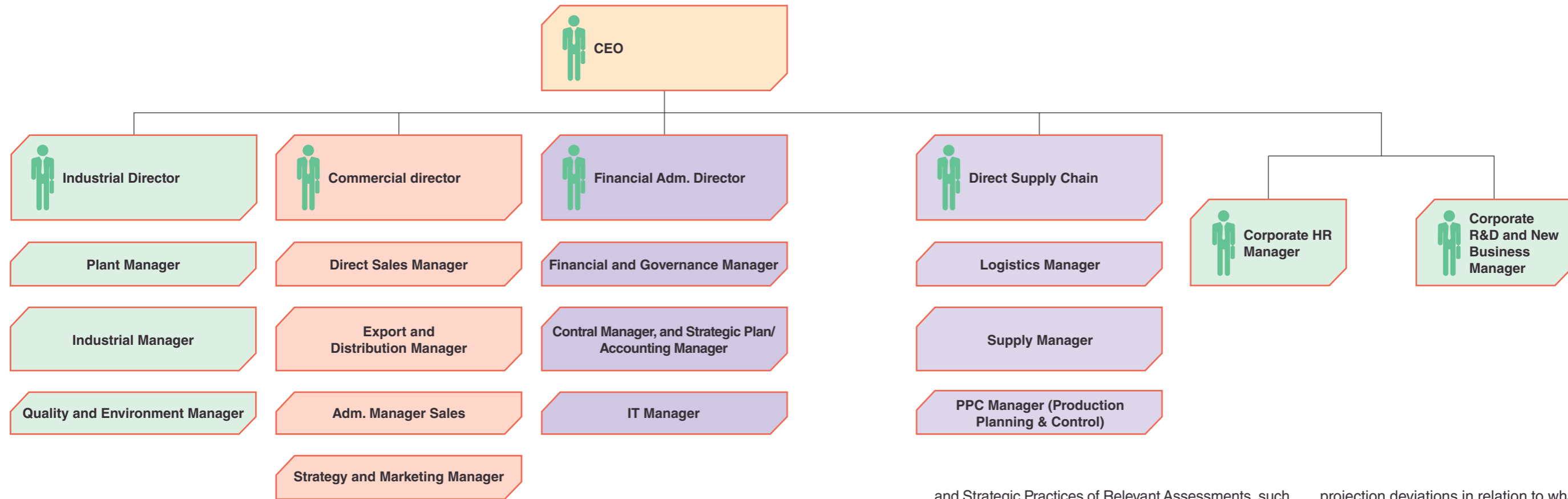
the most diverse topics, behavior, age group, gender, prioritizing the multiplicity of views and arguments and assertive, safe, and qualified decision-making processes.

The company often conducts formal annual performance appraisals as a way of reviewing its contributions. The evaluations are reported both to the Board of Directors and to the members of the committees and the executive board.

Ibema's management is made up of the Chief Executive Officer and four boards, as per the organization chart below. The election takes place every two years, with the last edition taking place on 11.03.2021. Senior management is supported by committees and working groups.

**An important ally as a guide of Ibema's conduct and values is the Code of Conduct, applied in all of business units, including employees, suppliers, representatives, service providers and commercial partners.**

## Organization chart



## Committees

### Ibema SEI (Ibema Excellence System) Management Committee

The Management Committee's main focus is the continuous improvement that permeates the company's entire production chain. It puts into practice specific methodologies for each type of loss, seeking to reach high levels of operational excellence. WCOM is used as a management and methodological support system, with the aim of evolving and improving operational indicators, increasing efficiency, and reducing losses through a structured and standardized system.

In addition, WCOM provides: adequate support at the corporate and divisional levels; training and development of committee members and everyone involved in decision-making; homogeneous, deep, and controlled deployment in the units and total and permanent focus on reducing operating costs.

The Management Committee is made up of the company's Chief Executive Officer, other areas of interest directors and managers. The meetings are held monthly and bring together the main leaders of pillars and projects, with the purpose of monitoring these processes.

### People Committee

The Committee is responsible for organizational performance strategies and operates essentially on three fronts.

- 1) Organizational Performance Strategies, which include the Management and Performance Assessment Program, Structured Succession Plan and Position and Salary Policy;
- 2) Climate, which covers Integrated Plans for Continuous Improvement of the Organizational Climate, Programs

and Strategic Practices of Relevant Assessments, such as the one required to participate in the Great Place to Work Guide, and actions to reinforce the Ibema employer brand;

- 3) Purpose and Values, which includes Ibema's Cultural Transformation process, based on intentions and values, as well as organizational diversity and inclusion policies and practices.

It comprises the Chief Executive Officer, Human Resources Manager, Chairman of the company's Board of Directors and Vice President of People at Suzano.

### Tax/Financial Committee Ibema and Suzano

Its attribution is to analyze the company's results and financial projections. The agenda includes validating compliance with cash management policies, derivatives, debt, and financial assets, in addition to monitoring financial risks management, which includes contract clauses and other sensitive topics, such as impacts of corporate changes in financial contracts. It also acts as a preparatory body for eventual decision-making to be taken to the Board of Directors, such as the need for funding and

projection deviations in relation to what was approved in the policies.

It comprises the Financial Manager, Strategic Planning Manager, Controlling Manager at Ibema and Treasurers at Suzano. They meet quarterly or whenever necessary to discuss priority matters.

### Opportunities and Crises Committee

Created in 2020, from the beginning of the pandemic, the Committee aligns action strategies in the face of Covid-19 and its impacts on the supply chain. Comprised of the entire company's leadership and health and safety professionals, the group holds weekly meetings.

### ESG Committee

Formed in 2021, the Committee's main focus is to strengthen existing practices and introduce other actions that positively impact the communities in which Ibema operates, in addition to creating strategies to reduce the impacts associated with the emission of Greenhouse Gases and global warming.



Commitments and targets for sustainability and environmental, social and governance balance are discussed at Committee meetings, always seeking alignment with the challenges posed by the United Nations Sustainable Development Goals (SDG), commitments resulting from the COP, among other global panels that move towards a sustainable economy and productivity model.

It is made up of representatives from R&D, Sales and Marketing, People and Culture, Environment, Finance and Corporate Governance. The meeting is monthly or when necessary.

In 2022, the Committee became part of Ibema SEI, becoming a Pillar that operates and conducts its actions within the program's guidelines.

### Ethics and Integrity Committee

Created in December 2021, the meetings take place monthly or as needed, with the aim of assessing the adequacy of the documents and indicatives presented, as well as discussing the approval of the proposed documents, requesting clarifications, and judging the validity or otherwise of the documents.

It is made up of members from People and Culture, Corporate Governance, Administrative-Financial Board, Legal and Board of Directors.

### Strategic Committee

Formed in 2021, the Strategic Committee comprises the Board of Directors, CEO and CFO of the company, who

hold bimonthly meetings. The committee's objective is to discuss strategic investments and monitor Ibema's strategic planning.

### Financial Management Committee

Responsible for analyzing the company's results and financial projections, including validating compliance with cash management policies, derivatives, debt, and financial assets. It also oversees financial risk management, which includes contract clauses and other sensitive topics, such as impacts of changes in the business in relation to financial contracts. It acts as a preparatory tool for making final decisions by the Board of Directors, such as capital requirements.

It comprises the Financial Director, Financial manager, Financial Planning manager, Controllershship at Ibema and Treasury at Suzano. Meetings happen monthly.

### Other Governance and Management aspects

- **Top Team:** periodic debates and agreements between boards and managers;
- **Performance:** monthly meeting between managers (managers and directors) to analyze results and projections;
- **Strategy Day:** monthly meetings with executives to discuss the company's strategy;
- **Critical Supply:** in addition to the daily supply of inputs to the factory, there are committees to deal with emergency or critical situations that could cause a disruption in the production process.

## Compliance Program Implementation

The Corporate Governance area for Ibema is a new and growing area, the year 2022 was a year of much evolution, of understanding, structuring, and mapping of risks.

Ibema also started relevant projects, mainly regarding business continuity plan and Crisis Management.

In 2023, the company will proceed with the publication and training of the new policies, will work to mitigate the compliance risks mapped, among other expected deliveries.

# Role, delegations, and assessments of the highest governance body

GRI 2-12, 2-13, 2-14, 2-17, 2-18

The company values and cares for economic growth, environmental conservation, and social care since its foundation, as these principles are part of its purpose and permeate its development. In this sense, in 2022, Ibema promoted debates that fostered its position and actions and commitments to minimize the destruction of natural resources and social inequality.

The highest governance body, the Board of Directors, discussed the topic in several meetings and also approved, during the year, the Sustainability Commitments and Goals. Being attentive to the main impacts of the business is a top priority for Ibema, which is why it involved all its employees so that they are prepared for the sustainable development challenges.

Among the responsibilities of the Board of Directors (CA) is the direction and monitoring of the company's strategy, in addition to monitoring and evaluating the CEO's performance. The Board is responsible for approving the incorporation of a company, acquisitions or disposals, approval of the annual budget, approval of expansion projects, investments and funding, management of corporate risks and deliberation on the distribution of profit sharing in the company.

The Board of Directors is assisted by strategic committees, responsible for reporting topics relevant to business

sustainability, with emphasis on the Strategic Committee, Financial Administrative Committee and People Committee. The Board periodically monitors the performance of ESG goals and commitments, which also represent concerns raised by key stakeholders. Simultaneously with this management, the company reports to the Board of Directors the results of other fronts and connections with its stakeholders, with emphasis on employee engagement through the GPTW (Great Place to Work) survey and the NPS (Net Promoter Score) survey, which, among other aspects, points out the perception of customers and indicators regarding Ibema's Ombudsman Channel.

With bimonthly and extraordinary meetings whenever necessary, the Board evaluates the economic and financial results and deliberates on specific topics such as CAPEX, strategy, and socio-environmental engagement actions.

Currently, the company's main executive is the Chief Executive Officer (CEO), assisted by four directors: Administrative-Financial Director, Commercial Director, Industrial Director, and Supply Chain Director. Each of their mandates lasts for 2 years, with direct election made by the Board of Directors. In addition to coordinating the directors' actions and directing the execution of activities related to the company's general planning, the Chief Executive Officer is responsible for keeping the members of the Board of Directors informed about the company's activities and the progress of its operations.

# ESG Management

## GRI 2-22

With an eye toward the future, Ibema works continuously to include ESG issues in its actions and projects, in order to offer a beneficial return for society as a whole. In this second year of ESG management, the company remains attentive to mitigating the impacts of its main processes and activities, from natural resources that are raw materials to post-consumption packaging.

In 2022, the company continued its work with the multi-disciplinary group formed to reflect and act on issues involving ESG needs and priorities at Ibema, reinforcing the commitments assumed in the previous year and launched for the market in 2022 along with the goals defined to contribute to the environment and society where it operates. In this sense, the ESG Committee contributes to this construction and to carrying out the actions defined within the company with regard to the engagement of employees and other stakeholders.

Concern for the environment is frequent within Ibema. An example of this is the conscientious use of natural resources: the Embu das Artes unit has a closed circuit, in which

all the water collected is treated and returned to the production process. In 2021, the company also reached the Zero Landfill mark, which means that all production waste is properly disposed of, without going to common dumps.

The launch of the new Sustainability Report, focusing on ESG, is another example of the company's serious and committed action regarding the topic, starting with the definition of goals and commitments for the future, with prioritization of environmental issues. The forestry sector has broad visibility in the environmental area, so it is a great responsibility to present ESG initiatives as clearly and transparently as possible.

One of the five pillars of the company's Strategic Planning addresses the sustainability of the business, with an in-depth look not only at the company's financial and growth issues, but also at the positive return for society, offering a counterpart that really makes a difference in the world. Commitment to the ESG agenda is also a competitive advantage when establishing partnerships with companies that already have a robust and complex ESG area, as they value not only product quality, but also Ibema's strategic vision for the topic.



The Executive Board is responsible for managing the business in accordance with the Bylaws or the Shareholders' Agreement, with direct participation of the General Meeting and the Board of Directors. Administrators are also responsible for managing environmental and social impacts and, in particular, for preparing the Strategic Plan.

The financial results are reported bimonthly to the Board of Directors, and each year the budget and investment portfolio (including Risk Mitigation, Competitiveness, Legal Demand, Operations and Maintenance Fixed Assets) are approved. The Board validates the company's strategy and associated strategic investments.

With regard to the Sustainability Report, the construction of the GRI indicators and the confirmation of Ibema's material topics are monitored by the ESG Pillar, with the approval of the Chief Executive Officer, who is appointed by the BoD to validate and authorize the publication of

the GRI Report. All information and indicators relevant to the business are disclosed to the board according to the periodicity of the agendas.

Annually, the Board of Directors carries out an internal assessment among its own members, through a debate on the progress of the meetings and the decisions taken throughout the year. It is a reflection to improve the body's productivity in relation to the direction of the organization's entire management. In 2022, the priority topic, Employee Safety, was instituted in all Board meetings.

The company also has the practice of targets linked to PPR (Profit Sharing Program), with the objective of ensuring the management of impacts on the economy, environment, and people. All employees participate in the program and have their goals associated with their responsibilities and challenges.

## Participation in Associations

### GRI 2-28

Ibema actively participates in industry associations, either in projects or in committees, or even as a member of these entities' governance bodies.

Association	Governance body in which Ibema has representation
ABRE - Brazilian Packaging Association	Participates in its committees and board
IBA - Brazilian Tree Industry	Deliberative Council (CEO of Ibema)
Two Sides – Instituto TS Brazil	Member of the Board of Directors and member of the Committee for the Valuing of Paper and Cardboard Packaging, both occupied by the International Business and Distribution Manager at Ibema
Sinpacel - Union of Pulp and Paper Industries)	Technical Board (R&D Director of at Ibema)
ABTCP - Brazilian Technical Association of Pulp and Paper	Associate
Packaging Institute	Possible supporter
ABIGRAF - Brazilian Association of the Graphic Industry	Associate



# Reputation



## GRI 3-3, 2-26

In order to maintain a high level of competitiveness in the market, Ibema takes care of its reputation in all areas of activity, focusing on creating business strategies inspired by good environmental, social and governance practices. In this way, the company works continuously to identify potential reputational risks, through the Corporate Governance Area, which manages the topic together with the Administrative-Financial Board.

Throughout 2022, the company identified its main risks and impacts and prepared action plans to mitigate or eliminate them. The implementation of the Corporate Governance Area made it possible to start the Compliance Program, which is expected to be completed in May 2023. Its fundamental objective is to disseminate the culture of combating corruption and fostering transparency.

Ibema is committed to taking a solid position to meet the best ethical guidelines and be in line with current legislation, in order to be recognized in this area by all stakeholders. For this reason, it is always on the lookout to combat any illegal act that may harm the development of its activities.

One of the sensitive points identified is the chain the company is part of, which directly impacts its reputation in the market. Even though it is outside Ibema's management area, it increasingly puts its Code of Ethics and Conduct into practice, providing for the extension to partners and developing procedures with the Supply Chain area so that suppliers are approved within pre-established criteria.

Currently, the company also has a Corporate Risks area, responsible for monitoring the implementation of planned actions for prioritized risks. In addition, Ibema undergoes several certifications carried out by annual audits, including financial management, which is evaluated every year by auditing companies.

Ibema periodically establishes targets and indicators for all employees that present objective actions to support the mitigation of reputation risks, according to each one's functions and responsibilities.

If there are complaints or grievances involving the company's reputation, they should be forwarded to the Ibema Ethics Channel, available 24 hours a day, seven days a week. The report can also be made through the <https://canaldeetica.com.br/ibema> or by calling 0800 300 4481, anonymously.

## Steps planned for the 2022 Compliance Program

### Wave 01 - CREATION

- **PHASE 1:** Culture Check, Tone at The Top, Awareness and Communication.
- **PHASE 2:** Compliance Risk Assessment, Risk Map and Action Plan and Heat Map.
- **PHASE 3:** Code of Policies, Communication and Training Plans.

### Wave 02 - EXECUTION AND CONSOLIDATION

- **PHASE 1:** Communications and Training, Compliance, Operational and Due Diligence Committee.
- **PHASE 2:** KPIs, Controls, Investigations and Responses.
- **PHASE 3:** Review, Continuous Improvement and Final Report.

# Ethics

## GRI 205-1, 205-2, 205-3, 406-1

Much more than a company that produces paper for various products and segments in Brazil and the world, Ibema is passionate about what it does and does not compromise on high quality, integrity, ethics, and its values.

Committed to the best standards of ethics and transparency, the company includes a specific clause on corruption in all its contracts, managed by the Procurement and Legal areas. Thus, each contracted company certifies that it is aware of all the laws that curb corrupt practices and harmful acts against public administration in general, in accordance with Law No. 12.846/2013 (Business Anti-Corruption Law); No. 12.529/2011 (Antitrust Law); nº 8.249/1992 (Administrative Improbability Law); nº 8.666/1993 (Public Procurement Law); and nº 9.613/1998 (Money Laundering Law) and the Brazilian Penal Code.

In addition, contracted parties are responsible for complying with legal regulations involving their administrators, employees, agents, collaborators and any third parties in general (including subcontracted parties). The fight against practices such as bribery, fraud, influence peddling, extortion and undue advantage is also included in the contracts, and each contractor must carry out internal training so that all its suppliers, agents, employees, collaborators in general, providers and any subcontractors are in line with Ibema's requirements.

Failure to comply with these requirements is considered a serious breach and may result in contractual termination for just cause.

Ibema maintains clear and direct communication with all its partners about its anti-corruption policies and procedures, through contracts, integrations, and new actions, which will be established in the Compliance Program. Currently, the company provides the following channels, so that any stakeholder can report cases that are in disagreement with the Code of Conduct, policies, procedures, and guidelines:

- Ethics Channel, through the [www.canaldeetica.com.br/ibema](http://www.canaldeetica.com.br/ibema)

- Telephone 0800 300 4481 - 24 hours a day, every day of the week

To ensure that all dealings are carried out in an independent and specialized manner, Ibema hires an external company, responsible for receiving, analyzing, and classifying all complaints. It also prepares a work plan response to verify the reported information and uses a specific methodology, in accordance with the law, to evaluate and investigate all registered complaints. Through this process, the company guarantees confidentiality, anonymity, and the prohibition of retaliation against the complainant.

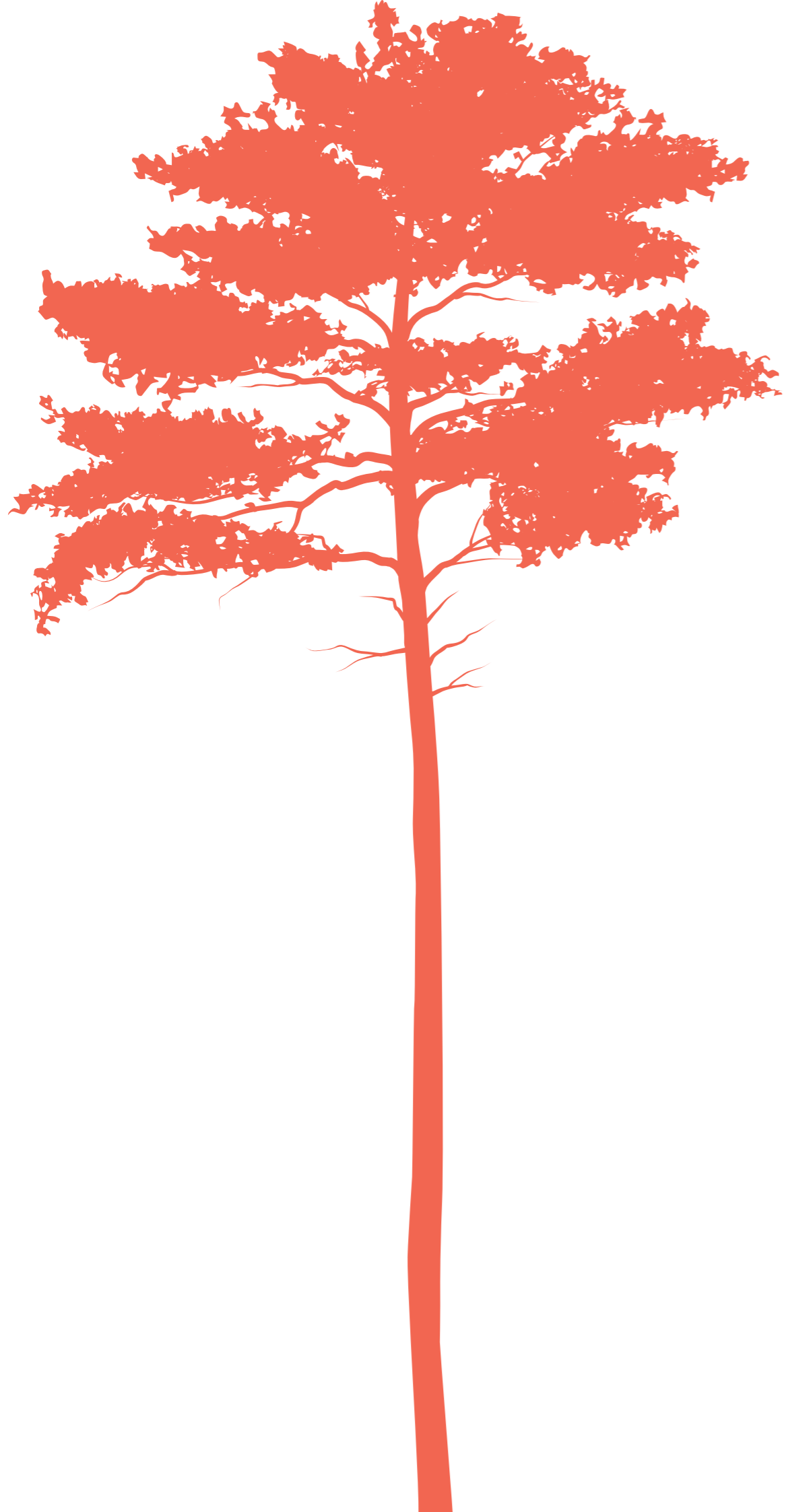
After being sent, the report can be followed through a protocol on the website or by telephone. All complaints received by the Ethics Channel are handled and investigated by the Ethics Committee, which manages and returns the protocols to the whistleblowers. The committee is made up of members from the Financial, People & Culture, Governance, Legal and Board of Directors areas, who analyze, investigate, decide on measures to correct problems, and respond to the whistleblower.

## Conflicts of Interest

### GRI 2-15

The company does not tolerate situations in which conflicts of interest may bring risks of any kind to corporate sustainability, ethical standards, and financial results. Therefore, each area obeys the communication plan and the approval workflow related to mapping, risk assessment, investment value and action plan management. All reports are evaluated and monitored by the Executive Committee and Board of Directors.

Risk Management acts as a supervisor and conciliator between the parties, always focusing on business continuity through risk mitigation. Currently, Ibema is in the process of creating and reviewing policies, including the Conflict of Interests Policy.



# Corporate Risk **Management**



### GRI 3-3

Through the Risk Management area, Ibema constantly seeks to anticipate events of an operational, financial, image and reputation nature that do not jeopardize the strategic plan's execution or the achievement of expected results. Thus, it carries out studies with the objective of being proactive in macro risks matters, with emphasis on the risks of Climate Effects.

Attentive to the monitoring of various external factors that may impact business continuity, the company works together with various stakeholders to prevent and map risks in a timely manner so that criticality is worked on as quickly as possible, avoiding the risk materializing.

Risk Management at Ibema also establishes the concepts, activities, and responsibilities necessary for the construction, consolidation, analysis, prioritization, and management of the entire process. Within the applied methodology, it follows a mapping with a clear definition of the mitigation project's scope for each risk. Among its objectives, targets, and indicators, it is worth mentioning: mitigating 100% of each action plan's actions within the Base Plan (BP) of each year, mapping new risks anticipating their materialization and monitoring deviations, interruption, or delay of mitigating actions.

All engagement in the area follows the methodology (framework) applied and the communication plan with all those involved. After completing each action plan, evidence of mitigation, acceptance, transfers, or elimination of the mapped risk is demonstrated. Even after mitigation, each risk continues to be systematically monitored, validating its severity (probability vs. impact).

Working in Corporate Risk Management since 2019, Ibema has a clear and objective view of this type of risk to be mitigated within the Base Plan (annual), anticipating reduction for the next three years. Within its Roadmap, it also works on global macro risks, anticipating and prioritizing corporate risk mitigations beyond its corporate units. The company is also planning to establish internal and external auditing in its Corporate Risk Management processes.



#### Ibema's Strategic Risks under monitoring

1. Accident at Work - SESMT
2. Increased Production Cost
3. Image and Reputation
4. Default
5. Unavailability of Raw Material or Production Inputs
6. Information for Decision Making
7. Interruption or Increase in Logistics Costs
8. Operation Stoppage or Interruption
9. Contingent Liabilities (Tax, Labor, Environmental, Civil)
10. Loss of Sales/Reduced Market Share
11. Loss of Sales/Reduced Market Share (Pricing)
12. Data loss or leakage
13. Losses arising from Exchange Variation
14. Inventory Losses
15. Quality/Compliance of products

#### The sources of the company's risks are classified into:

- **Administration and Corporate Processes:** Operation support processes that may or may not be comprehensive to all units (Financial, Accounting, IT, Controlling, Procurement).
- **Organizational Context:** Combination of internal and external issues that may have an effect on the organization's approach to developing and achieving its objectives.
- **Operation:** Initially applied in manufacturing units, it can also be used in the concept of any operational process.
- **Stakeholders:** Person or organization that can affect, be affected by, or perceive itself to be affected by, a specific decision or activity.
- **Research and Development:** Planning new products or processes.
- **Applicable Legal Requirements:** All legal requirements (legislations) – federal, state, and municipal – applicable to the Ibema business context.

#### Communication of critical concerns

##### GRI 2-16

Each month, the Risk Management area prepares a consolidated report showing the evolution of actions proposed

by the business areas to mitigate risks, also including the general status of the development of the stages of each monitored risk. When critical situations occur, the risk manager contacts Risk Management by telephone and email to assess the form of extraordinary reporting (with the option of face-to-face or remote meeting). Then, accesses the SGI (Ibema Management System) and carries out risk mapping or analysis (Qualiex - Risks).

After this initial process, the area's management assesses whether it is necessary to include the topic on the board's meeting agenda for validation, approval, and alignment. In the next stage, the area's director includes the topic on the agenda for the meeting with Risk Management, which is then forwarded for approval by the executive committee and knowledge of the Board of Directors (CA).

Regarding concerns about liquidity indicators, Ibema reports to the CEO, presenting any risks through the Administrative-Financial Committee (CAF), which is responsible for including the topic on the Board of Directors' meeting agenda, if the factors of risk check are triggered. Every year, or according to specific needs, the Board is updated on the risks mapped and monitored for the next base year.

In 2022, the Board of Directors was notified about two critical concerns. One of them refers to the impact of the tax change on the reduction of the IPI rate and the other to the impact of the change in the Regulations of the Central Bank of Argentina, with regard to the flow of payment for imports in the country.



# Economic and Financial **Management**



Ibema has BRL 290.64 million in capitalization and total assets of 714.25 million. It has a 50.10% equity interest held by *IBEMA PARTICIPAÇÕES S/A* and 49.90% by *SUZANO PAPEL E CELULOSE S/A*.

As for financial investments, in 2022 Ibema reached an average percentage of 104% of the CDI. This maximization was supported by the strategy foreseen in the Company's financial policy, which relied on more assertive cash availability forecasts and orientation towards more effective financial products, among other allocation factors.

The sales volume in 2022 was 149,856 tons, against 147,304 tons in 2021, representing a growth of 1.73%. In Brazil, 110,426 tons were sold (not considering the sales volume of cartons for cups), representing a share reduction of 0.2% (15.5% in 2022 - 15.7% in 2021), consolidating its position of **3rd place in the ranking of national paperboard producers**.

In the foreign market, being present in more than 25 countries, there were 32,823 tons against 35,332 tons in 2021, representing a 7.10% reduction compared to the previous year,

## Economic and Financial Aspects

The Company had net revenue of BRL982.7 million in 2022, representing an increase of 28.7% compared to 2021.

Product costs in 2022 were BRL 665.1 million, an increase of 24.2% compared to 2021.

With this result, Gross Profit for 2022 reached BRL317.5 million, representing an increase of 39.1% compared to 2021. Administrative and commercial expenses totaled BRL122.2 million in 2022, an increase of 25.1% compared to 2021.

Cash generation was BRL 53.9 million, net of investments, reaching BRL 120.6 million in free cash in 2022 (BRL 66.7 in 2021), leading the Company to a deleveraging of 0.56 in relation to its annual EBITDA (deleverage of 0.46 in 2021).

## EBITDA Composition (in millions of BRL)

	2019	2020	2021	2022
Net Revenue	492,559	561,941	763,812	982,730
Net profit	40,693	99,547	88,228	65,042
(+/-) Financial result, net	11,785	(21,133)	(2,171)	914
(+) Depreciation and amortization	13,586	13,946	15,711	15,890
(+) Income Tax and Social Contribution	14,629	49,508	43,016	23,404
EBITDA	80,693	141,868	144,784	105,250
(-) PIS and COFINS credits (net of expenses)	-	31,791	-	-
(+) Donation of the 138 Kv transmission line	-	-	-	46,539
(+) Tax contingencies	-	-	-	62,888
ADJUSTED EBITDA	80,693	110,077	144,784	214,677
% on net revenue	16.4%	19.6%	19.0%	21.84%

Note: Information taken from Ibema's 2022 Financial Statements, document audited by PWC on March 22, 2023.

## Current Liquidity

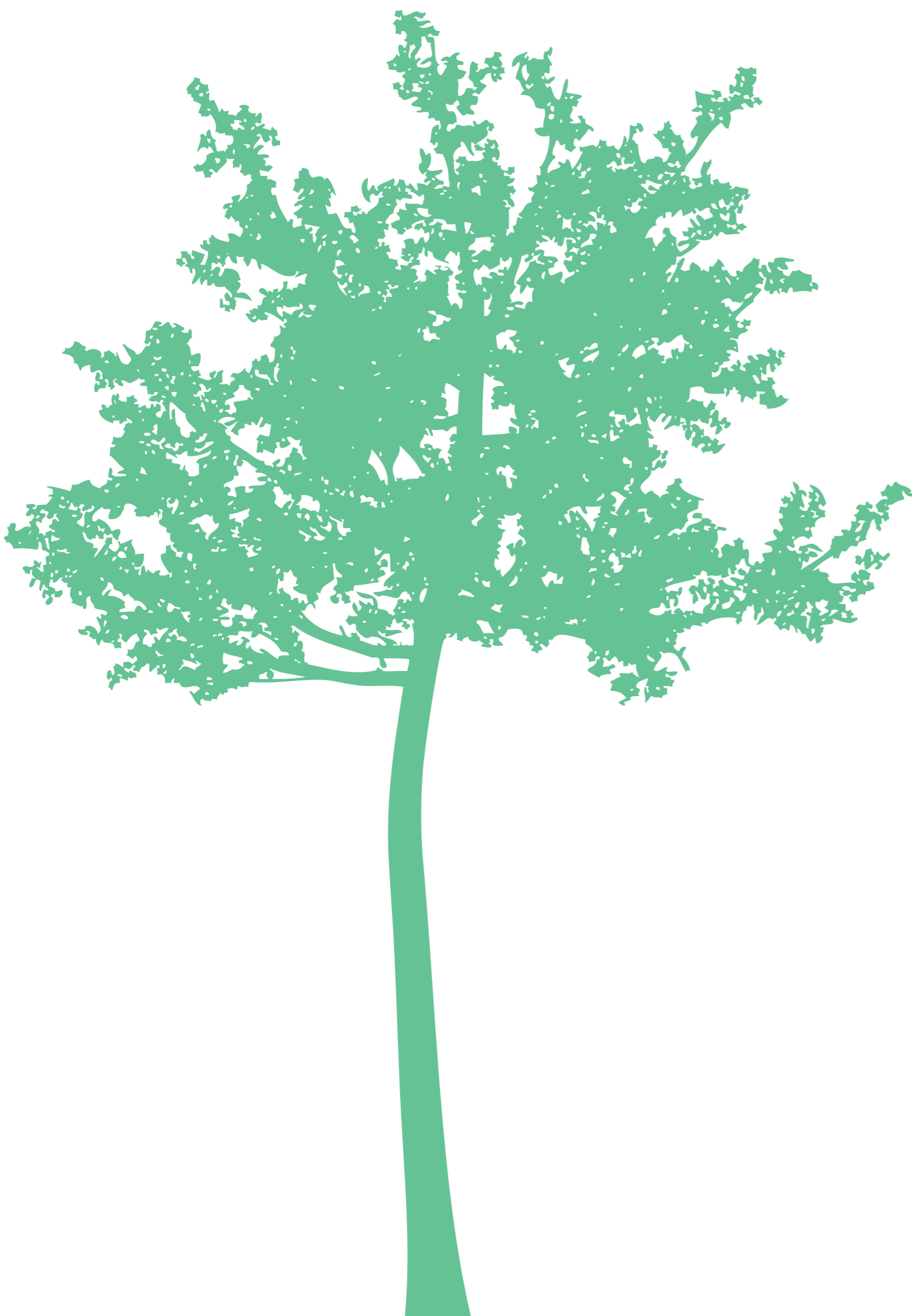
Current liquidity (Current Assets / Current Liabilities) reduced from 1.24 in 2021 to 1.12 in 2022.

## Added value statement (in millions of BRL) – GRI 201-1

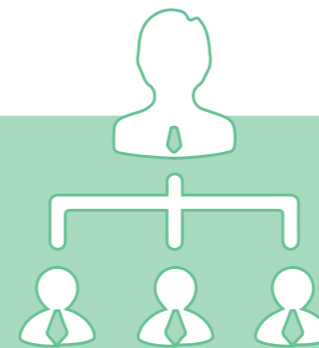
<b>REVENUES</b>	<b>1,251.08</b>
<b>Sales of goods, products, and services</b>	<b>1,207.34</b>
Provision for doubtful debtors - Reversal/Constitution	0.17
Non-operational	43.56
<b>INPUTS PURCHASED FROM THIRD PARTIES (includes ICMS and IPI)</b>	<b>600.05</b>
Consumed raw materials	513.54
Cost of goods and services sold	0.00
Materials, energy, third-party services, and others	86.51
Loss/Recovery of Assets	0.00
<b>GROSS VALUE ADDED</b>	<b>651.03</b>
<b>WITHHOLDINGS</b>	<b>15.89</b>
Depreciation, amortization, and depletion	15.89
<b>NET ADDED VALUE PRODUCED BY THE ORGANIZATION</b>	<b>635.14</b>
<b>ADDED VALUE RECEIVED IN TRANSFER</b>	<b>21.86</b>
Equity Income	0.01
Financial income	21.85
<b>TOTAL ADDED VALUE TO DISTRIBUTE</b>	<b>657.00</b>
<b>DISTRIBUTION OF VALUE ADDED</b>	<b>541.75</b>
Personnel and charges	94.61
Taxes, fees, and contributions	285.71
Interest and rent	48.49
Interest on equity and dividends	14.70
Retained earnings / loss for the year	97.98
Community investments	0.25
<b>Accumulated economic value (generated economic value minus distributed economic value)</b>	<b>-21.86</b>







# People **Management**






# Profile and diversity

GRI 2-7, 2-8, 2-30, 405-1, 405-2

Ibema believes that investing in people on a daily basis is the secret to success, which is why it offers various benefits and training for its employees. The year 2022 ended with a staff of 994 employees, including 753 employees and 238 who are not employees (175 third parties, 15 temporary workers, 12 interns, 5 statutory employees and 34 apprentices).




People management is carried out by the Human Resources area.




## Total workers by employment contract and gender – GRI 2-7, 2-8, 2-30

			
Its own employees	586	167	753*
Third-party employees (permanent contract)	173	53	226
Third-party employees (temporary contract)	07	08	15
Total (its own and third-parties)	766	228	994

\* 100% of its own employees are covered by collective bargaining agreement.



## Diversity of governance bodies and employees – GRI 405-1

Functional Category Its own employees by Gender			
Operational	468	86	554
Administrative	73	81	154
Coordination	20	06	26
Management	11	03	14
Board	04	01	05

Functional Category Third parties by Gender			
Operational	180	61	241
Administrative	-	-	-
Coordination	-	-	-
Management	-	-	-
Board	-	-	-

	Operational	Administrative	Coordination	Management	Board
<b>Its own employees by Age Group</b>					
Under 30	201	37	-	-	-
Between 30 and 50	312	100	24	14	3
Over 50	41	17	2	-	2
<b>Total</b>	<b>554</b>	<b>154</b>	<b>26</b>	<b>14</b>	<b>5</b>

## Percentage of total employees by functional and diversity category (%) – GRI 405-1

Functional Category Its own employees by Gender		
Operational	84.48	15.52
Administrative	47.40	52.60
Coordination	76.92	23.08
Management	78.57	21.43
Board	80.00	20.00

Functional Category Third parties by Gender		
Operational	74.69	25.31
Administrative	-	-
Coordination	-	-
Management	-	-
Board	-	-

	Operacional	Administrativo	Coordenação	Gerência	Diretoria
<b>Its own employees by Age Group</b>					
Under 30	36.28	24.03	-	-	-
Between 30 and 50	56.32	64.94	92.31	100	60
Over 50	7.40	11.03	7.69	-	40

## Total workers by employment contract and region – GRI 2-7, 2-8

	Headquarters (Curitiba/PR)	Factory Turvo/ PR	Distribution Center of Araucária/PR	Factory Embu das Artes/SP	Office Argentina
Its own employees	74	453	35	189	2
Third-party employees (permanent contract)	21	56	12	137	0
Third-party employees (temporary contract)	1	6	2	6	0

**Note<sup>1</sup>:** All Ibema employees, both owned and outsourced, work full time.

**Note<sup>2</sup>:** Among owned employees, the five Directors are considered, who are not counted among the employees with permanent contract, as they hold statutory positions.

Ratio of base salary and compensation between men and women by employee category – GRI 405-2

Functional category	Base salary ratio between women and men*	Remuneration ratio between women and men*
Board	0.72	0.49
Management	0.85	0.84
Coordination	0.91	0.54
Administrative	0.79	0.61
Operational	0.71	0.66

\* The ratio is calculated by dividing women's base salary and compensation by men's base salary and compensation. The calculated values include all Ibema units.

In 2022, Ibema carried out its first Demography and Culture Census, in partnership with an external, specialized, and independent consultancy, with the objective of offering a complete diagnosis, with a detailed analysis of the culture and its current state of maturity in the Diversity, Equity and Inclusion (DE&I) themes, with fundamental elements for the company to direct its actions, promote and value diversity, inclusion and respect for human rights.

Data collection took place between the 7th and the 27th of November 2022 with a total of 647 respondents, which represents 81% of the organization's engagement.

The survey also featured qualitative interviews with 14 people aged 20 to 54 from different levels of the organization. Another important milestone was the creation of an affinity group composed of female leaders in the organization, with the aim of understanding reality, listening to women, and bringing development and market content, in addition to talking about empowerment and career.

This was just the starting point on this journey, because in 2023, the company will take the next steps, adopting a Diversity Committee, preparing the DE&I policy and training leaders for the theme and for an increasingly diverse environment.

# Training and education

GRI 3-1, 3-2, 3-3

Ibema defined "Training and Education" as a material topic, as it sees that there are real and potential impacts, both positive and negative, related to productivity, safe environments, organizational climate, and employee engagement, in addition to the social impact.

Investment in training directly increases motivation in the work environment and employee engagement in expanding their knowledge and leveraging their potential, increasing their productivity. This item is part of the climate survey with GPTW (Great Place to Work), when assessing how much people perceive the company's investment in their development through the training offered and the scholarships made available. It's no wonder that Ibema was recognized for the 4th consecutive year in the GPTW (Great Place to Work) award.

In the communities where Ibema operates, the level of education is lower, therefore, the company understands the need to invest in education actions to generate a positive social impact and encourage access to education, also improving the workforce's qualification.

Ibema is also focused on retaining talent, continuously encouraging opportunities for growth and professional career development for its employees. In addition, thinking about promoting safe environments to work in, in addition to motivational factors, the company invests in Occupational Safety training, as it believes that this initiative considerably reduces the risk of accidents at work.

Boosting education through improvements in the performance of Basic Education in the areas in which it operates, as well as investing in the development of employees, are fundamental commitments at Ibema, and this reflects in direct impacts for all stakeholders. Thus, it is possible to improve the qualification level of professionals, raise the quality of deliveries and team engagement.

In 2022, when ESG goals and commitments were disclosed to the market, the company reinforced its commitment to basic education in the regions where it operates, including offering the resumption of studies for all employees who have not yet completed high school and also formatting an education program aimed at communities.

**Ibema was recognized for the 4th consecutive year in the GPTW (Great Place to Work) award.**



To ensure the management and effectiveness of internal training, evaluation forms are used, as well as the monitoring of training requests. In accordance with the ESG commitments, indicators and ways of monitoring actions were built to analyze progress, such as a schedule of detailed actions monitored monthly by the ESG pillar.

Ibema is also making a positive contribution to the city of Turvo, Paraná, with courses and training aimed at the community, in partnership with SESI/SENAI, providing professional education, in addition to engaging in the Education Partner Industry Program, which encourages young people and adults to resume their studies and complete basic education through EJA (Youth People and Adult Teaching).




The outlook for 2023 is to improve potential assessments and act on employees' individual development plans, raising their performance and preparing them for succession. Another focus is the digital transformation of the G&C (People and Culture) area, using systems to have greater agility and control over people data, including analytics to monitor indicators.

Ibema's goal for the coming years is to consolidate the winning culture through the purpose and values that were revised in 2021, and which need to be constantly practiced on a daily basis. Another objective is the construction of a specific policy and the implementation of an Internal Committee to manage topics such as Diversity, Equity, and Inclusion, in order to guarantee an environment that increasingly respects differences.

In 2022, Ibema launched the **Leadership Academy**, a program to develop leaders' behavioral and technical skills, with the theme, "Cohesive Teams." The first training cycle was held for operational leaders, supervisors, specialists, managers and, finally, for the directors. This is just the beginning of the Leadership Academy, which must continually develop and train leaders and contribute to improving team performance.

In addition to the mandatory safety training, in 2022, the company carried out a monthly training course aimed at raising safety culture awareness, reinforcing the commitment to zero accidents.

**Average number of training hours by gender and functional category – GRI 404-1**

			
Number of its own employees	585	166	751
Training hours offered	7,945	3,200	11,145
Average training hours	13.58	19.28	14.84

Functional category	Number of its own employees	Training hours offered	Average training hours
Board	5	324	64.80
Management	14	372	26.57
Coordination	25	644	25.76
Administrative	150	1,668	11.12
Operational	557	8,137	14.61
<b>Total</b>	<b>751</b>	<b>11,145</b>	<b>14.84</b>

**Main training carried out in 2022**

• **Safety Training:** mandatory training to meet regulatory health and safety standards (NR'S) and ensure a safe work environment for all employees, in addition to awareness training for zero accidents and risk hunting.

• **Technical Training:** specific training for the respective positions, aimed mainly at the operational public. Examples: Film Extrusion and Troubleshooting, Industrial Automation, Cutting and Creasing, Rewinding Process, Vibration Analysis, among others.

For 2023, the goal is to go even further, with the launch of *Escola do Papel*, a program aimed at developing technical skills related to the paper business with specific tracks for the areas of paper production, maintenance, and managers, with an overview of the sector and main challenges such as recycling and circular economy, carbon market, reduction of emissions, ESG, among others. Registration opened in 2022 and the first classes are already starting.

• **PPGCP (Program for Preparation of Pulp and Paper Managers):** conducted in partnership with ABTCP (Brazilian Technical Association of Pulp and Paper), the program offers opportunities for the development of newly graduated professionals in Chemical or Production Engineering, facilitating access to the labor market. They are trained by professionals from reference companies in the segment, including topics such as people management, sustainability and pulp and paper. They carry out guided technical visits to companies in the paper segment, carrying out Coaching and Mentoring work.

To measure the training's effectiveness, the effectiveness assessment is used, which aims to analyze the evidence of improvements made from the application of acquired knowledge/developed skills. The evaluation is carried out by the manager and monitored by the DHO area. If the expected level of effectiveness is not achieved, then a plan is drawn up with the actions that must be implemented to achieve the appropriate objectives. The records accompanying the training are: Effectiveness Assessment; Request for Training, Courses and Events; Attendance and Participation List and Evaluation of Training Reactions.

**In 2022, Ibema launched the Leadership Academy, a program to develop leaders' behavioral and technical skills.**

## Competency management and continuous learning programs

GRI 404-2

To promote employees' daily learning, Ibema offers various training courses, mandatory or not, on various subjects considered important for the best performance of each activity. In addition, it develops acclimatization activities for new employees and offers subsidy policies for undertaking technical, undergraduate, and graduate courses.

The leadership is also trained with the knowledge and desirable attributes for the continuous and joint development of people management, always taking into account the essential behaviors that are within the purpose and that guide Ibema's culture. From this, the company disseminates its operating strategy internally and connects the development of employees to the business reality.

Through the Education and Development Incentive Program, the company provides scholarships that include Technical and Vocational Courses, MBA, Graduate, Masters, and Languages.

For employees in career transition or retirement, Ibema presents a booklet with important tips for professional replacement, considering career analysis, qualification, personal objectives, and the job market. The guidelines also address financial organization, updating resumes and social networks, expanding networking, registering on digital platforms, and developing new knowledge and skills. Therefore, the outplacement plan seeks to help employees understand their decisions and career investment choices, also including an emotional health session, guidance and tips on financial management, behavior, and career.

Within the scope of competence management programs, Ibema's main ways of acting are filling out performance and potential assessment forms, registering in the feedback system and the Performance Forums stage, to discuss and expand feedback even further. PDI'S (Individual Development Plan) are also prepared, with guidelines to improve the performance and behavior of employees through the 70/20/10 methodology, in which 70% of




Based on daily learning and leadership trained, the company disseminates its operating strategy internally and connects the development of employees to the business reality.

knowledge is acquired in practice, 20% in learning with other employees who have more experience and 10% through courses and formal training.

Currently, all employees receive formal feedback from managers through *Crescer*, the performance evaluation program that analyzes the essential competencies for the business, based on the internal Culture and Purpose drivers (behaviors) and on the pillars of results (deliveries). The evaluation is carried out every six months with all audiences.

The People and Culture area monitors the results of assessments and the preparation and execution of Individual Development Plans, directing employees towards development actions throughout the year. In 2022, in addition to evaluating performance, the company analyzed the potential of employees with high performance in the performance cycle, focusing on those who occupy a leadership position. This contributed to people development and career acceleration processes, in addition to encouraging recognition and retention.

### Percentage of employees receiving performance and career development reviews by gender and employee category – GRI 404-3

			
No. of its own employees who received analysis	521	140	<b>661</b>
No. of its own employees	585	166	<b>751</b>
% by gender	89%	84%	<b>88%</b>

Functional Category	No. of its own employees who received analysis	No. of its own employees	% by functional category
Board	4	5	80%
Management	14	14	100%
Coordination	21	25	84%
Administrative	133	150	89%
Operational	489	557	87%
<b>Total</b>	<b>661</b>	<b>751</b>	<b>88%</b>

# Health and Safety

GRI 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10

Ibema adopts practices and guidelines to ensure the health and safety of all workers, as this is a top priority issue for the company, which has safety teams working locally with risk analysis, educational campaigns, and incident investigations.

Through a safety management system based on legal requirements, the company follows NR 1, which established the PGR (Risk Management Program), and NR 7, which implements the PCMSO (Medical Control and Occupational Health Program). Such programs were instituted based on the guidelines of the ISO 45001 standard, the actions of which are controlled and validated by specific systems via software (Qualiex).

The Occupational Health and Safety management system covers all employees and third parties. It is the responsibility of employees to report immediately to leadership in the event of an accident or incident in the workplace. There is no distinction in dealing with occurrences, as the main objective is not to point out culprits, but to identify and act to eliminate or mitigate the root causes.

## Hazard identification, risk assessment and incident investigation

Through the Risk Management Program (PGR), the company conducts field surveys through interviews with employees. Thus, it is possible to identify existing occupational hazards in the work environment. The quality of this information is measured through a PGR Risk Matrix and the results of the implementations are measured through the frequency and severity rate indicators monitored by the SESMT (Specialized Services in Safety Engineering and Occupational Medicine).

**Ibema adopts practices and guidelines to ensure the health and safety of all workers, has safety teams working locally with risk analysis, educational campaigns, and incident investigations.**

Through the Safety Label tool, from the Ibema SEI Program, each employee can identify a dangerous condition. In this case, he puts a red tag on the risk location and forwards it to the SESMT/Manager to solve the problem. Monitoring is carried out through control and management of labels and employees have the option of openly dialoguing with managers to report any condition that poses a risk during the execution of their activities.

Ibema also carries out campaigns to encourage awareness and risk identification practices, in which employees are rewarded when they point out risk conditions. Each one of them is also aware of the company's Health and Safety Policy, which gives the employee the right to refuse any activity that may cause harm.

Every occurrence is immediately communicated to the immediate superior, who carries out the necessary analyzes and formal communication in the relevant groups. Occurrences are opened in the Qualiex system, with the due analysis of causes and their respective action plans and responsible parties, presenting evidence of the intended action's execution.

## Occupational health services

Occupational health is managed by monitoring the PCMSO – Occupational Health Medical Control Program, with the proper correlation of the risks indicated in the PGR. The company also carries out campaigns aimed at the health and well-being of employees, such as Yellow May, Pink October, and Blue November, with in-depth analyzes of the work environment, which must be healthy and safe. If possible risks to occupational health are identified, a control and mitigation plan is drawn up.

To ensure the participation, consultation, and communication of employees on occupational health and safety, Ibema has several search mechanisms, such as GPTW (Great Place to Work), with insertion of evaluations related to SSO (Occupational Health and Safety) and the way how employees evaluate and understand the management system. In addition, the company holds monthly awareness meetings on the subject.

Ibema also has the CIPA (Internal Accident Prevention Commission), with monthly meetings to deal with complaints and reports on health and safety conditions in the work environment, including the implementation of prevention actions. In addition to CIPA, the company has SESMT, medical and nursing staff and Occupational Safety technicians, who offer assistance for the development of a safe and healthy environment for everyone.

### Worker health promotion

At Ibema's medical outpatient clinic, there are health professionals available to all employees and service providers. Vaccination, STI (Sexually Transmitted Infections) and smoking campaigns are also carried out at the site, in addition to the "Na medida certa" initiative, addressing topics such as obesity, blood pressure control, healthy eating, among others.

The company also has ISO 9001, ISO 14001 and FSC® (C004702) certification, which bring an innovative approach to preventing and mitigating risks to employees and their operations. Such norms establish specific standards and ensure that suppliers and partners maintain constant attention to the safety and health of workers. In addition to these certifications, Ibema has a supplier evaluation system and an SSO management mechanism, with a mapping of the main risks in its field of activity.

### Work-related injuries

In 2022, the main highlight in the health and safety area is the improvement in Ibema's safety data. In this sense, joint work was carried out with the factories, coordinated by the People and Culture (GC) team and by SESMT, prioritizing industrial efficiency linked to the reduction of the number of incidents and accidents within the manufacturing units.

In both of Ibema's operational units there was investment in Survey of Occupational Hazards and Risks (LPRO), through the mapping of areas. Several actions were also implemented to raise employee awareness, such as structural improvements in the protection of machinery and equipment, in accordance with NR-12.

#### Work-related injuries – GRI 403-9

	Number	Rate	No. of hours worked
Its own 2022	2	1.68	1,192,213.55
Its own 2021	7	6.00	1,167,193.34
Its own 2020	4	3.44	1,163,677.37
Third-parties 2022	-	-	325,520.00
Third-parties 2021	3	9.88	303,505.00
Third-parties 2020	3	18.27	164,226.00

**Note:** data referring to the Turvo and Embu das Artes manufacturing units. The main type of injury recorded was superficial cuts. Rates were calculated according to the formula "total work-related recordable injuries/total hours worked (1,000,000)."

**Ibema has a supplier evaluation system and an SSO management mechanism, with a mapping of the main risks in its field of activity.**



Circular  
**Economy**





GRI 3-3, 203-2

This is a topic defined by Ibema as a priority for its activities, as consumers increasingly seek alternatives for ecological packaging. In addition, new regulations aim to reduce the waste volume sent to landfills or dumps, therefore, it obliges consumer companies (indirect customers of the company) to seek recycling solutions or sustainable destinations for their materials.

In this sense, the company's main strategic objective is to offer customers and brand owners packaging solutions that adhere to their sustainability commitments and that are in line with society's consumption trends, based on the responsible handling of virgin fiber or recycling of materials, post-consumer.

Through communication and commitments disclosed by official channels (traditional media, social network, videos, mailings, etc.), combined with direct contact with brand owners made by executives, some brands showed interest in structurally participating in projects that aim to recycle their own waste. In addition, there is regional communication work with the community to ensure the adherence of collectors and the population in general with regard to the Embu das Artes collection point.

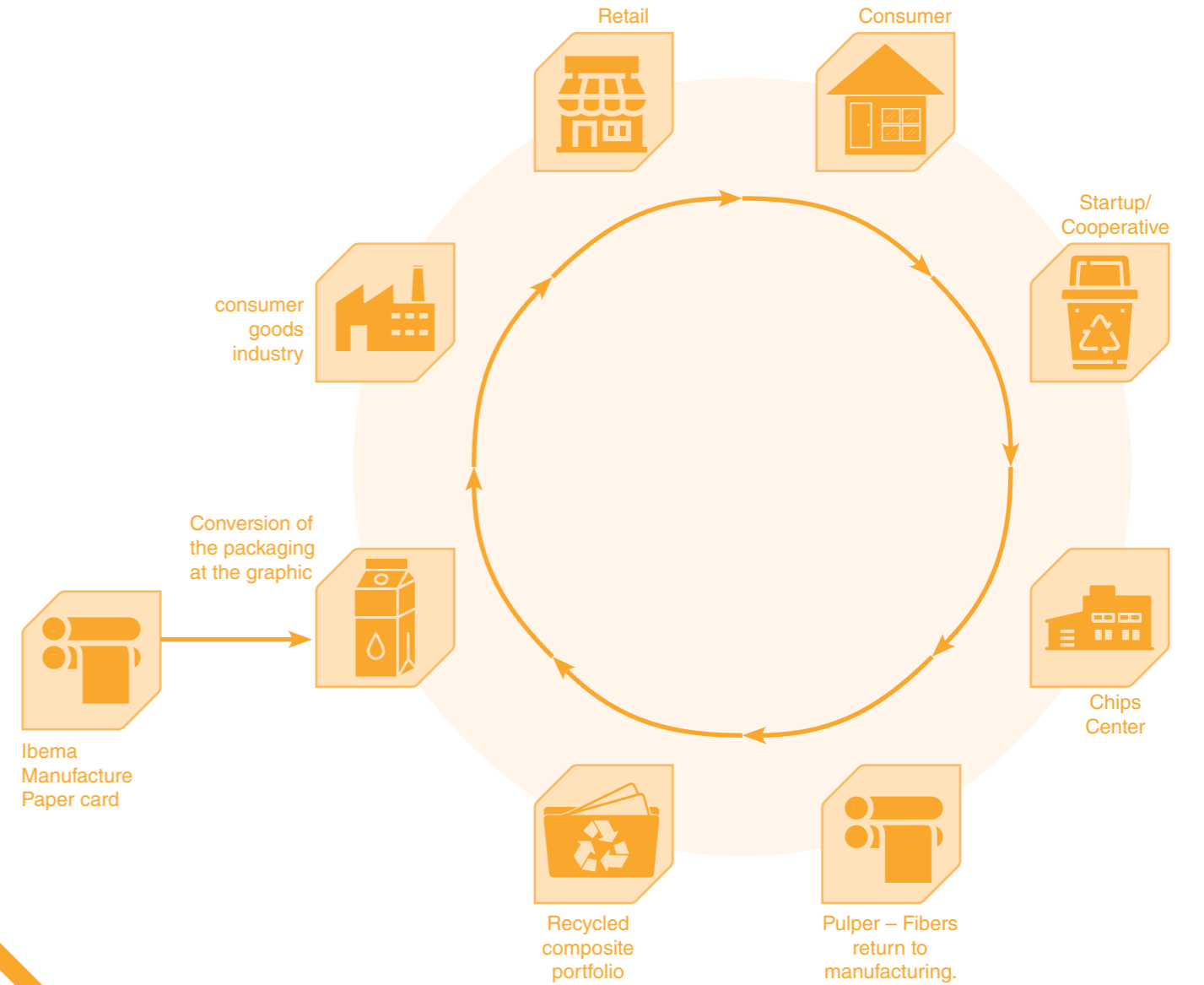
To achieve this objective, some actions will have to be structured in the coming years:

- Development of new sources/origin to capture post-consumer trimmings;
- Cooperatives;
- Waste managers and certifiers;
- Partnerships with end-users and waste logistics startups for material upcycling (collection, recycling, and transformation into new packaging);
- Installation of a waste collection point at the Embu das Artes factory;
- Monthly follow-up on the number of recycled post-consumer material, categorized by type of shavings and origin.



**The goal stipulated by Ibema is to recycle 20,000 tons of post-consumer waste by 2025. In 2022, was reached 20% of this goal.**

In 2022, Ibema recycled approximately 4.1 thousand tons of waste, avoiding negative social and environmental impacts. Following what was presented in the previous year's Sustainability Report, the company maintained the Zero Landfill proposal, that is, 100% of the waste generated was sent to other types of treatment/disposal.



## Projects developed in 2022 Voa Project (Former NOA Project)

The VOA project aims to optimize the results of the Embu das Artes plant through an analysis of the pillars of versatility, opportunity, and adaptability.

Throughout 2022, Ibema sought to identify the best portfolio for the Embu plant according to its characteristics, such as: machinery, location, customer profile, recycling capacity and market trends, projecting this portfolio until 2027.

In addition to MIX, VOA analyzes other projects that aim to improve the factory's efficiency in terms of productivity, flexibility, agility, and cash cost reduction.

### Factory Price Station Project with O Boticário and Green Mining

In 2022, during the Garbage Biennial, a waste collection project was launched at the Embu das Artes plant, in the form of a container, where any individual can dispose of recyclable material (glass or cardboard). Understanding the importance of generating income through recyclables for many Brazilian families, collectors or individuals will receive a higher value than what is practiced in the market, as the project has reduced the number of links in the chain, such as cooperatives.

Monetization will be done according to the calculated weight (by PIX or food card) and the entire operation will be managed by the waste logistics company Green Mining, together with Ibema and *Grupo Boticário*.

In addition to the social issue involved in this project, Ibema focuses on two other aspects for this initiative: environmental; as the project will make it possible to reduce the sending of materials to landfills or to the environment; the educational issue: it is believed that from the moment that people understand the importance of their attitudes towards waste, they begin to separate it properly, making it possible to recycle these materials.

The project had a total investment of BRL 120,000. With a balance above BRL 10, it is already possible to withdraw the amounts available in the application and transfer them to a bank account.

**In 2022, Ibema recycled approximately 4.1 thousand tons of waste, avoiding negative social and environmental impacts**

# Materials

## GRI 301-2

In 2022, the use of recyclable inputs at the Embu das Artes plant corresponded to 21.97% of the total inputs consumed by the manufacturing unit. In the Turvo unit, the value was equal to 9.84%. In all, the company used 8,466,407.94 kilos of trimmings from third parties.

The trimmings used in Ibema's production are classified into pre-consumer trimmings (material resulting from leftover materials from the printing processes and which was not sent to the final consumer) and post-consumer trimmings (materials resulting from consumer use and

which are discarded for the recycling market, acquired by Ibema for use in the internal process).

The material is received by the logistics area for checking and, subsequently, sent to production. The Supplies sector carries out the work of developing suppliers, in accordance with the approval procedure. The environment area, in turn, is responsible for asking suppliers to issue the MTR (Waste Transport Manifest), so that Ibema can then issue the Waste Disposal Certificate, since the shavings are classified as waste, suppliers as waste generators and companies that receive them as final recipients.

## Materials used in 2022 – GRI 301-1

Material	2022			2021
	Cellulose	Renewable or non-renewable	External or internal supplier	Total Ibema (kg)
Its own pulp	59,023,973.4	Renewable	External	57,191,653.94
Pulp provided by third parties	19,666,766.6	Renewable	Internal	17,278,065.5
Its own shavings	47,691,921.3	Renewable	External	44,304,401.21
Trimmings supplied by third parties	18,324,396.1	Renewable	Internal	16,713,825.00
Electricity and water	8,466,407.94	Renewable	External	9,671,769.51
Industrial gas	93,901.37	Renewable	External	76,200.73
Chemicals	9,190,626.00	Non-renewable	External	8,378,995.04
Renewable chemicals	12,847,081.81	Non-renewable	External	9,433,219.7
Produtos químicos renováveis	26,291,542.08	Renewable	External	30,199,098.25

Note for alteration of quantitative information from previous periods: The following information was reported in the GRI 2021: Pulp: 54,167,174.86 kg, owned pulp: 19,790,658.00 kg, pulp supplied by third parties: 38,335,573.04 kg in 2021, owned trimmings: 5,426,253.00 kg, trimmings supplied by third parties: 10,334,831.22 kg, owned waste: 9,570,916.00 kg, chemicals: 85,118,807.96 kg, renewable chemicals: 2,828,882.47 kg. The numbers referring to 2021 have been corrected in the table above.

# Waste

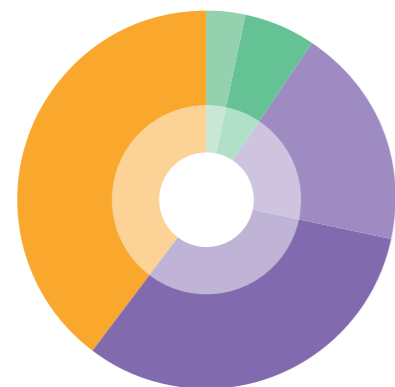
GRI 3-3, 306-1, 306-2, 306-3, 306-4, 306-5

Ibema understands that the Waste theme is extremely important and should be treated with priority, as waste generation is something inherent to paper manufacturing. The company continuously monitors the issue, looking to reduce generation at the source, reuses internally when applicable and sends to an appropriate final destination (such as recycling, co-processing, and composting) all waste that cannot be reused in its production process.

Since April 2021, Ibema's two industrial plants have not sent any waste to sanitary or industrial landfills, achieving the Zero Landfill goal, and aiming for a more appropriate and sustainable environmental destination. In 2022, of the total waste generated at the two units, 100% were correctly disposed of, that is, they did not go to landfills, by the company itself or by third parties. At the Turvo plant, less than 5% is considered hazardous waste and almost 40% of the total is reused internally in the industrial process.

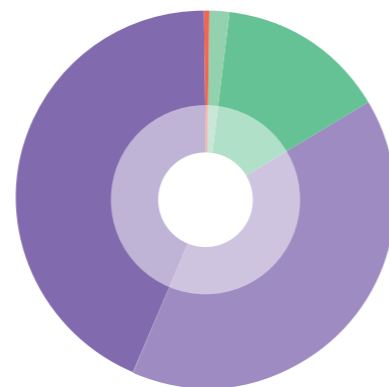
## waste destinations generated

At the Turvo Plant, the generation and subsequent disposal carried out in 2022 (out of a total of 8,366.65 T generated).



3,58% – reverse logistics  
 5,94% – co-processing  
 19,08% – composting  
 31,86% – composting  
 39,53% – reused in the process

At the Embu das Artes Plant, these waste destinations (out of a total of 5,211,836 T generated)



0,11% – incineration  
 1,97% – reverse logistics  
 14,37% – co-processing  
 40,18% – composting  
 43,37% – composting

**In 2022, of the total waste generated at the two units, 100% were correctly disposed of, that is, they did not go to landfills**

Aligned with the guidelines of the National Solid Waste Policy (PNRS), the company classifies waste in accordance with ABNT NBR 10,004/2004 and meets all the requirements of environmental agencies for proper disposal. In addition, Ibema has an Integrated Quality and Environment Policy, in compliance with the requirements of NBR ISO 14001/2015, and has an environmental management system certified by an external body.

With a team specialized in the environment to deal with the management of waste generated at the factories, Ibema has a contract with companies experienced in waste management. Through a Lean Manufacturing program, called the Ibema Sei Program (Ibema Excellence System), the company puts into practice the important Environmental Pillar, which has environmental indicators and targets linked to waste management.


Goal	Realized	Goal achievement
 Turvo	85.0 kg of waste per ton produced	42.36 Kg /T <input checked="" type="checkbox"/>
Embu das Artes	100 kg of waste per ton produced	83.8 Kg /T <input checked="" type="checkbox"/>

Currently, the company has avoided 13,470.17 tons of waste.



## Waste Generated

GRI-306-3

### Turvo




Waste composition	Waste description	Total weight (in t)
 Hazardous Waste (Class I)	Container for chemical products, batteries, lamps, ashes, paint sludge, contaminated solids, lubricating oil;	407.96
 Non-Hazardous Waste (Class II)	Reverse logistics pallets and disposal pallets, pulper waste, ETE Fiber, ETE sludge, rubble, computer scrap, glass, boiler ash, wire, metal, paper, plastic, tube, wood bark in general, waste organics, resin tapes, fiber residues from mechanical pulp.	7,958.68
<b>Total</b>		<b>8,366.64</b>




## Embu das Artes

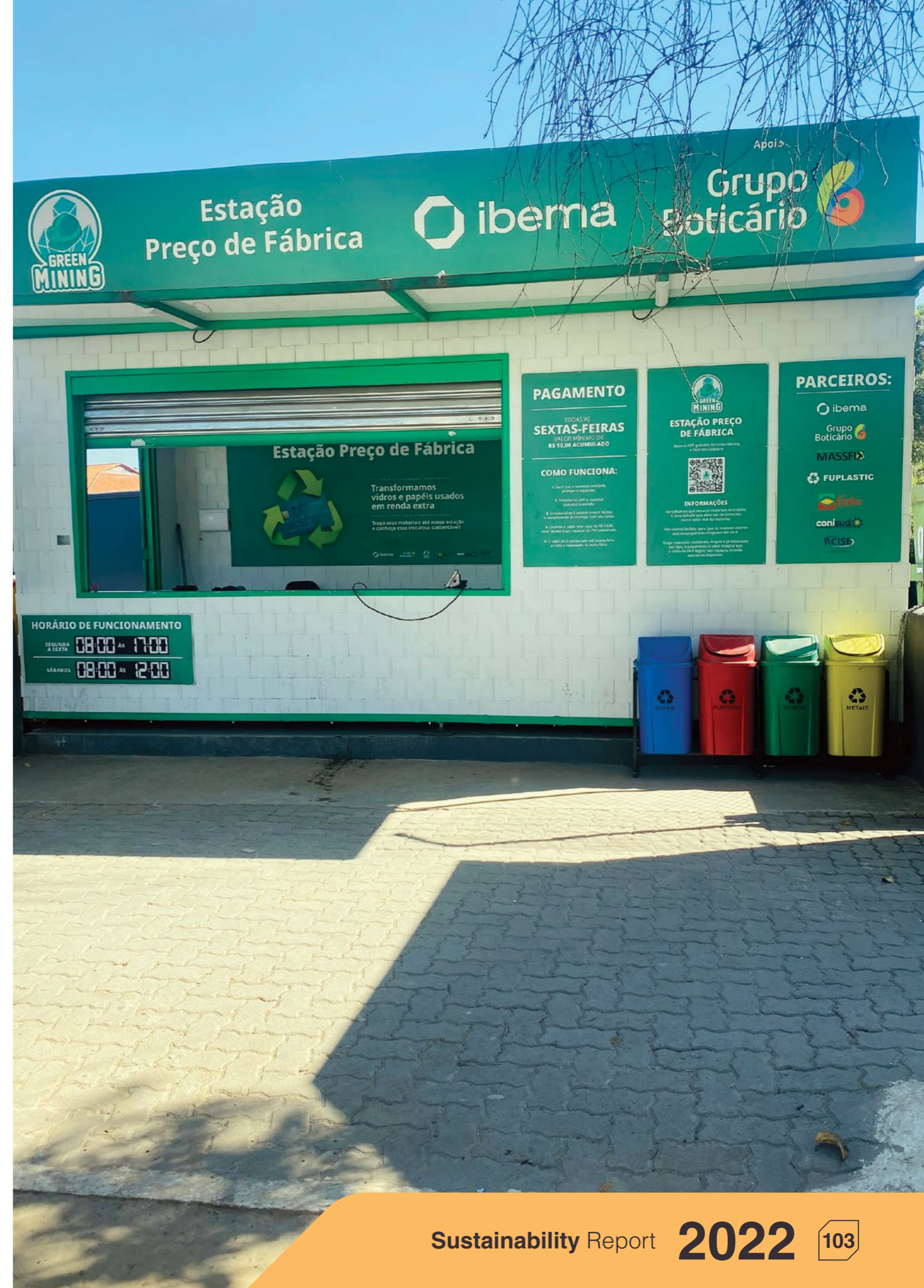
Waste composition	Waste description	Total weight (in t)
 Hazardous Waste (Class I)	Chemical product container, maintenance cloths, batteries, lamps, electronic waste, medical waste, lubricating oil, contaminated waste in general.	107.54
 Non-Hazardous Waste (Class II)	Pallets, Sludge, rubble, metal, wood, pulper waste, plastics, paper, organic, ingested leftovers, polyethylene sludge, refuse and tubes.	5,104.29
<b>Total</b>		<b>5,211.83</b>

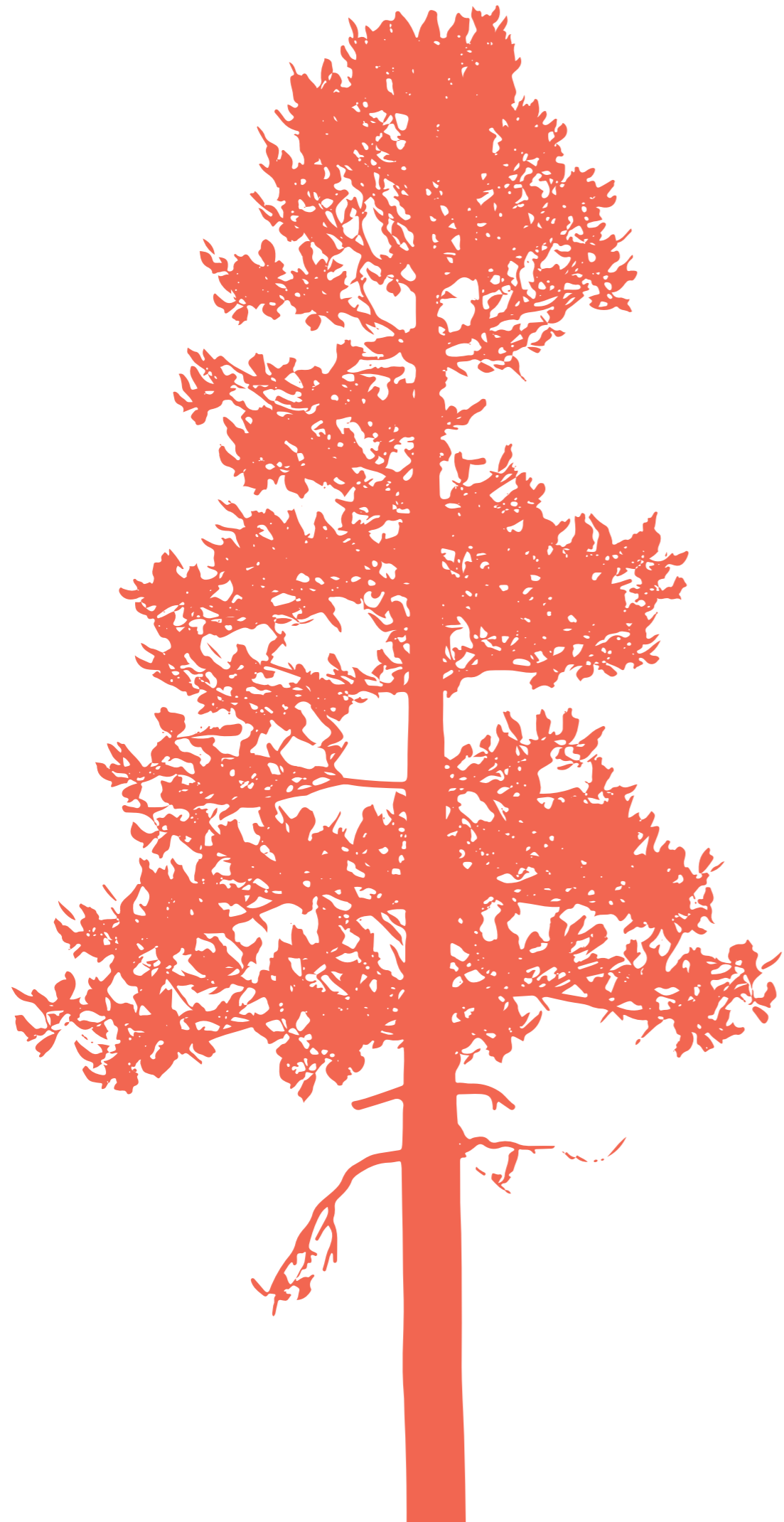
## Waste diverted from disposal - By type of recovery

GRI-306-4

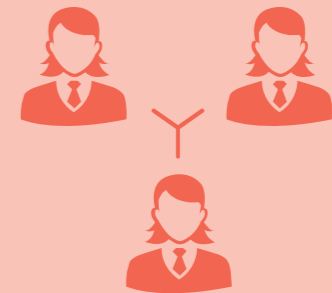
Hazardous waste	At Ibema	Outside Ibema	Total weight (in t)
 Preparation for reuse	0.00	100.5	100.5
 Recycling	0.00	5.77	5.77
 Blending for co-processing	0.00	390.25	390.25
<b>Total</b>	<b>0.00</b>	<b>496.52</b>	<b>496.52</b>

Non-hazardous waste	At Ibema	Outside Ibema	Total weight (in t)
 Preparation for reuse	3,307.50	6,745.38	10,052.88
 Recycling	0.00	2,257.96	2,257.96
 Blending for co-processing	0.00	662.81	662.81
<b>Total</b>	<b>3,307.50</b>	<b>9,666.15</b>	<b>12,973.65</b>





# Social Management



# Suppliers

GRI 204-1, 308-1, 308-2, 408-1, 409-1, 414-1, 414-2

In the market in general, 2022 was a year heavily pressured by the issue of supply and demand. In this scenario, Ibema maintained a large offer in the paperboard segment, despite pressure on costs and economic and political instability.

In this context, the company worked continuously in partnership with its suppliers, to maintain the full functioning of its activities and maintain a healthy relationship with its partners, advancing in the understanding of the chain, identifying improvements, and evolving in the use of tools for monitoring suppliers. Currently, Ibema's main suppliers are from the pulp, wood, chemicals, and chips segments, in addition to important partners that supply indirect materials and services.

Even without a formal policy for contracting local suppliers, the company has a fundamental criterion that prioritizes the physical proximity of these partners to carry out negotiations. Most of them are in the Southeast and South regions, and, in 2022, a total of 63.20% of the budget for purchases and contracts was allocated to suppliers located in Paraná or São Paulo, states where Ibema's manufacturing plants are located. In the previous year, Ibema considered contracting 455 suppliers, 75 of which were selected based on socio-environmental criteria, representing a total of 16.48%.

Based on the concern with the evaluation of its suppliers, Ibema implemented, in 2021, the Linkana Portal, for the registration and approval of this public of interest. In this tool, each supplier to be registered receives an invitation, fills in their data and attaches the requested documentation. For critical suppliers (providing raw materials, packaging, paper cutting and extrusion services, transport services and environmental and safety materials and services), it is mandatory to fill out questionnaires, which include social and environmental issues, unless the supplier has ISO 14001 certification. The documentation is approved by the SGI (Ibema Management System), Environment, HR and other areas involved.

The Linkana Portal also performs monitoring of critical suppliers every 6 months, through consultation with various public bodies, including the Department of Labor Inspection and the Brazilian Institute for the Environment and Renewable Natural Resources - IBAMA. If the CNPJ (Corporate Taxpayer Registration) has any impediment in these bodies, the supplier is automatically eliminated from the selection process.

In 2022, Ibema monitored, on average, 197 suppliers considered critical. Of this total, only two presented an effective risk (1%), however, they have already settled their disputes with IBAMA. No suppliers were identified with pending issues related to the social sphere during the year.

**Ibema works continuously in partnership with its suppliers, identifying improvements and evolving in the use of tools for monitoring.**

# Community

GRI 413-1, 413-2

Ibema, following the "doing it tactfully" value, is very concerned about possible negative impacts on the communities surrounding its factories. For this reason, it carries out several actions aimed at this public through an annual calendar that lists the risks of impacts mitigated through strategic planning.

The year 2022 was one of many achievements and interactions with the community. In 2023, the company intends to maintain this proximity and carry out joint work to seek improvements with the communities' city hall.

**Currently, the company understands that its most significant negative impacts are:**

- Increased risk of accidents for people and animals in the region;

- Commitment to the quality of the road network;
- Discomfort caused by dust;
- Disorganization of local communities' way of life.

## Corporate projects and incentives

Ibema has an annual calendar of actions to work on topics such as Education, Health, and Citizenship in communities. In Turvo, for example, there is a Community Center and also a community leader who involves the population in all actions. In 2022, all incentive programs had a direct social impact on this community.

Below, the company lists the main projects carried out to strengthen ties with the communities surrounding its factories:

### Adult Education Incentive Programs (EJA)



Opportunity for employees and community members to complete their studies in Elementary and High School. The company also entered into a partnership with SESI/SENAI for Professional Qualification, offering training courses. Number of people assisted: Community - 95 people; Employees - 15 people. Another initiative was the Career Fair, with the participation of universities in the presentation of training courses for the community in Turvo/PR. In all, nine teaching institutions held lectures for approximately 300 people.

### Papel Amigo Program



Donation of wastepaper to school and non-school institutions to create recreational activities. In total, 15 institutions were assisted in the municipalities of Turvo, Guarapua-va and Boa Ventura do São Roque.

### Aconchego Program



Warm Clothing Campaign collected clothes for people in socially vulnerable situations in Turvo/PR and Embu das Artes/SP (via CRAS and CREAS). Total pieces collected: 5,274. Families served: 480 in Turvo and 100 in Embu das Artes. During the year, the clothes were also sent to SESI to help families in social vulnerability and to Turvo Indigenous Villages.



### D-DAY - Citizenship

Development of citizenship actions in the Turvo community in partnership with the Faxinal da Boa Vista Basic Health Unit, CRAS, UCP University and Sebrae, offering various services such as issuing documents, entrepreneurship lectures, recreational activities for children, oral health awareness campaigns and health care. Number of consultations - Health: 203; Citizenship: 39; Lectures: about 300 participants. There was also the distribution of 400 dental hygiene kits.



### Christmas without hunger

Food collection for 205 families in the indigenous community of Turvo and 100 families in socially vulnerable situations in Embu das Artes.



### IBEMARTE

Consists of a support program for artisans from the Turvo community, whose objective is to make handicrafts from papermaking waste materials. The project offers the professionalization of artisans, availability of raw materials and training in business management (pricing of parts, notion of sales and safety at work). In all, 13 artisans were assisted.



### July Celebration

The event was held in partnership with the Turvo community and there was a collection of values for infrastructure improvements at the State College (expansion of the vegetable garden), at the Municipal School (improvements in the teachers' room and in the sand court) and in the CMEI (emergency repairs and purchase of a SMART TV). Investment by Ibema was approximately BRL 12,000, in addition to labor. The collection by the schools was approximately BRL 20 thousand. All improvements were carried out in 2022.



### Community Center Renovation

A total of BRL 18,000 was invested to improve service at the Community Center in Turvo. The site hosts free courses and workshops for the community, among other activities.



### Renovations at Ibema's Residential Village in Turvo

With an investment of BRL 230,000, it was possible to renovate the houses and improve common areas, such as the Village's Squares, with a focus on improving the quality of life of employees residing in the region, and the Ibema Village in the vicinity of the Turvo plant, with the revitalization of houses and republics that are made available to employees. The project goes beyond improving infrastructure and aims to bring, together with social responsibility, more resources, and opportunities for social, cultural, and economic development to the region.



### Hospital Bom Pastor

Every month, Ibema contributes BRL 2,500 to the hospital in Turvo/PR, guaranteeing the maintenance of 3 beds for the community.



### Tax Incentive Law and Fund for the Elderly

In 2022, Ibema contributed BRL 10,000 to Hospital Angelina Caron, in Curitiba. The investment, made through *Fundo do Idoso*, helps finance a research project, including equipment and infrastructure. In return, the hospital will partner with the UBS of Faxinal da Boa Vista, sharing study results and supporting the training of health professionals to care for the elderly.



# Environmental **Management**





GRI 2-27

Always seeking the best practices in its activities, Ibema continuously develops mechanisms for robust environmental management in line with the main national guidelines. The legal requirements associated with environmental legislation are verified in the internal and external audit processes of the EMS - Environmental Management System, in accordance with ISO 14001:2015.

The company also uses the system of a contracted company to manage the Environmental and Occupational Health and Safety requirements, required by law. The SGLegis system monitors such applicable requirements and the company's main legal documents are inserted in the Legal Documents System (GDL) for proper monitoring of deadlines and analysis of compliance with conditions by the consultancy. Ibema also has an audit to verify the level of compliance with legislation.



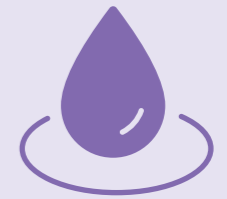
# Water and effluents

GRI 3-3, 303-1, 303-2, 303-3, 303-4, 303-5

For Ibema, water consumption and the generation of effluents is an issue of extreme importance, since water is one of the main inputs in the paper production process. Therefore, the company manages it properly and uses an environmental management system certified by an external body in compliance with the ISO 14001:2015 standard.

In order to mitigate the risks of environmental pollution, the company seeks to understand and manage the actual and potential impacts of the effluent treatment activity. Ibema's current treatment system is highly efficient and meets all the parameters required by law, and it is also possible to reuse the treated water in the industrial process, thus minimizing the withdrawal of water from the river.

At the Embu das Artes plant, for example, the water used in the production process is captured directly from the Embu River (Ribeirão Ponte Alta) tributary, which passes through the company's internal Water Treatment Station, so that it is adequate to the standards of use in the production process. After industrial use, the water is discarded through process effluents, being directed to treatment at the Industrial Effluents Station and returned to the SABESP concessionaire collector, meeting current legislation standards and with a quality superior to that of the water collected from the river. The interconnection of the effluent in the SABESP concessionaire system reduces the risks of an environmental impact, since after ejection the effluent is sent to the Basic Sanitation Company's Treatment Station.



**In order to mitigate the risks of environmental pollution, Ibema seeks to understand and manage the actual and potential impacts of the effluent treatment activity.**

In order to comply with legislation requirements, the company conducts a monthly analysis of effluents, pursuant to Art. 19A of State Law Regulation No. 8468/76. Effluents are only discarded after proving that they are meeting these parameters. In addition, daily analyzes are carried out following internal procedures and, every semester, analyzes are carried out in accordance with CONAMA no. 430/2011.

In this sense, the Embu das Artes plant seeks not only to mitigate its negative environmental impacts, but also has the purpose of generating a positive environmental impact, returning to the river and the environment an effluent with a higher quality than the water captured in the body of water.


At the Turvo plant, the water used in the industrial process is captured directly from the Marrecas River and then sent to the Water Treatment Station so that it meets internal standards. Afterwards, the effluent is directed to the company's Effluent Treatment Station and returned to the river.

In addition to being in line with environmental agencies, Ibema is careful and cautious with regard to the use of this natural resource. In its water collection grant, the


collection of 300m<sup>3</sup>/h of water was allowed, however, the company works with only 50% of the allowed, aiming at preserving the flow of the river. It also carries out periodic monitoring, monthly and fortnightly, in accordance with current legislation (CEMA 70/2009, CONAMA 430/2011, CEMA 81/2010), in order to guarantee the quality of use and disposal. It also evaluates, daily, the pH and Sedimented Solids parameters to quickly detect any deviation in the treatment. After investigating the causes and due resolution, the effluent is segregated and released for disposal.

The current targets and indicators on the subject are established for the continuous improvement of processes, aiming at a smaller capture and also the greater use of water in the production chain. The Water Consumption Indicator, for example, is monitored through the volume used by the production volume in tons. Such indicators are monitored daily at production meetings and discussed at monthly meetings with the board of directors (steering committee meetings), through the Environment Pillar, which is part of the Ibema SEI Program - Ibema Excellence System.


#### Water consumption:

Goal	Realized	Goal achievement
 Turvo 12.6 m <sup>3</sup> /T produced	11.2 m <sup>3</sup> /T produced	✓
Embu das Artes 4.25 m <sup>3</sup> /T produced	3.48 m <sup>3</sup> /T produced	✓

#### Effluent generation:


Goal	Realized	Goal achievement
 Turvo 11.5 m <sup>3</sup> /T produced	10.47 m <sup>3</sup> /T produced	✓
Embu das Artes 4.05 m <sup>3</sup> /T produced	2.68 m <sup>3</sup> /T produced	✓

#### Water withdrawal (in megaliters)<sup>1</sup> – GRI-303-3

	2022	2021	2020
 Surface water	1,444.41	1,538.66	1,478.84
Subterranean water	21.43	31.12	22.99
Third-party water	1.97	4.34	-
<b>Total</b>	<b>1,467.81</b>	<b>1,574.12</b>	<b>1,501.83</b>

1. All water captured by Ibema is considered fresh water, that is, it has total dissolved solids less than or equal to one thousand mg/L.


#### Water consumption (in megaliters) – GRI-303-5

	2022	2021	2020
 Total water consumption of all areas (in megaliters – water intake minus discharge)	128.30	149.82	260.00
Water storage (in megaliters) <sup>1</sup>	0.260	0.260	0.260

1. Water is stored at Ibema only in the portion between collection and delivery to the factory.

Note of alteration of quantitative information from previous periods: Water storage values for the years 2020 and 2021 have been corrected. A value of 260 megaliters of storage had been reported for both years. The numbers have been corrected in the table above.

#### Disposal of effluents (in megaliters)<sup>1</sup> - By destination – GRI 303-4

	2022	2021	2020
 Surface water	1,337.54	1,244.08	1,182.59
Third-party water	-	180.22	182.05
<b>Total</b>	<b>1,337.54</b>	<b>1,424.30</b>	<b>1,364.64</b>

1. All effluent discarded by Ibema is considered fresh water, that is, it has total dissolved solids less than or equal to one thousand mg/L. The effluents discarded by Ibema do not contain substances that raise concerns.

# Climate Change

GRI 201-2, 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7

The topic of climate change has gained even more strength in the world in recent years. The global target is to reduce Greenhouse Gas (GHG) emissions to curb global temperature rise below 1.5°C, as defined after discussions held in the Paris Agreement (2015) and COP26 (2021).

Seeking to generate greater engagement and generation of shared value with customers, and in line with what has been carried out in the last two years, the company works to consolidate the GHG emission inventory for scopes 1 and 2. For 2023, the novelty will be the inclusion of Scope 3 in the inventory, broadening the look at Ibema's entire supply chain and also monitoring carbon emissions with suppliers.

Another important evolution contemplated the Carbon Footprint. Over the last year, the company has concluded the carbon footprint in two products and has started the same process in three other products. For the coming years, Ibema intends to deepen this process, in order to increasingly reduce GHG emissions.

The Carbon Footprint's development, together with the updated inventory with scopes 1, 2 and 3, will allow an analysis exercise in Ibema products' life cycle, allowing a clearer view of the entire production process, from the collection of raw material until product disposal after use. All this will ensure that Ibema has a more complete perspective of the product it is delivering to the market, informing customers and suppliers about the Carbon Footprint, the Life Cycle and the impacts linked to the products.



**Over the last year, Ibema has concluded the carbon footprint in two products and has started the same process in three other products.**



Another important 2022 highlight was the commitment to reduce water consumption at the Turvo plant by 25%, further improving the water consumption figures per ton at the plant and following the benchmarking model of the Embu das Artes plant. For 2023, the idea is to prepare a program focused on Climate Change, which will keep all teams active and committed to the purpose of reducing the company's emissions, presenting opportunities to reduce water consumption and encourage recycling, among other initiatives.

Currently, the potential impacts/risks to which the company is exposed, considering climate change, are the scarcity or reduction of important natural resources for the company's production process, such as water, gas, wood, and chips, as well as flooding, which can result in stoppages and closures of the company's factories and warehouse. The company also foresees the incorporation of actions that positively impact the reduction of CO<sub>2</sub> emissions in its production process.

Other risks, considered high or critical, are:

- Lack of wood during rain periods;
- Paper Machine Stoppage;
- Failure in Water Collection;
- Factory Shutdown and Closed Warehouse in Embu das Artes - DFE - Flooding;
- Risk of Environmental Accident;



- Water Crisis;
- Power Generation Failure;
- Rain Scarcity and Absence of Forests.

All risks undergo a valuation, which includes operational stoppages, compliance with legislation and other factors. In the mapping, carried out jointly with the Technical (engineering) and Supplies area, scopes for mitigating each risk are quoted. Currently, the Management Policy and Communication Plan is responsible for mapping, classifying severity, approval workflow at hierarchical levels and executing action plans.

The current map of Ibema's Corporate Risks is built from information and perceptions collected in the processes, projects, and corporate obligations, including all business areas and stakeholders, managers, directors, and presidency, as well as the analysis of the organizational context and the relationship with stakeholders. With direct participation of the Executive Committee (Directors and Chief Executive Officer) and the Board of Directors, the annual budget for CAPEX and Opex (one-off and recurring) is approved for annual mitigation of the Risk Portfolio.

Finally, Ibema is constantly working to monitor and reduce the effects of climate change. The topic was defined as a priority within the company's Strategic Plan, as it is a factor directly linked to business continuity.

**GHG emissions from Ibema industrial plants [tCO<sub>2</sub>e]**  
 GRI 305-1, 305-2, 305-3, SASB RR-PP-110a.1, SASB RT-CP-110a.1

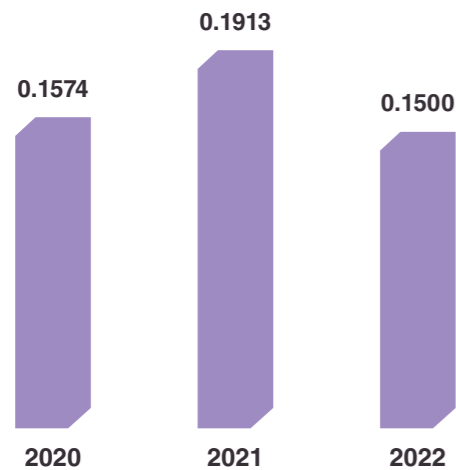
	2020	2021	2022	2021 x 2022 (%)
 Scope 1	18,622	20,860	21,877	5
 Scope 2	4,983	10,927	3,783	65

Notes:

1. Scope 1 considers, in addition to CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and HFCs. Emissions from PFCs, SF<sub>6</sub> and NF<sub>3</sub> are zero, according to the Greenhouse Gas Inventory. No emissions of these gases were identified in operations.
2. Scope 2 considers CO<sub>2</sub> emissions.
3. The approach chosen for the calculation was the operational control and base year of 2022.
4. The only sources of emission factors and global warming potential (GWP) used were those from the GHG Protocol.
5. Ibema's biogenic emissions are scope 1 and total 42,268 tCO<sub>2</sub>e for the 2020 base year, 45,378 tCO<sub>2</sub>e for the 2021 base year and 57,845 tCO<sub>2</sub>e for the 2022 base year.
6. The process of carrying out the inventory is conducted by the Environment and Sustainability areas with the support of an external consultancy.
7. The variation in emissions in 2022 is mainly due to Scope 2, referring to the Emission Factor reduction of energy purchased from the National Interconnected System (SIN).
8. For the year 2023, work will begin to collect Scope 3 of the GHG Inventory.

**Emissions intensity – GRI 305-4**

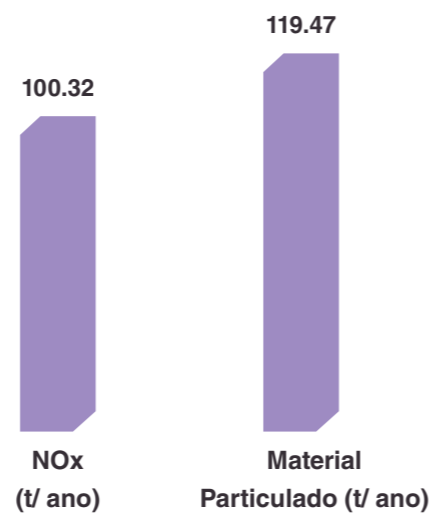
tCO<sub>2</sub>e (scope 1 and 2 emissions)/ tons produced



**Note:** the gases included in the calculations are the same used for the definition of scope 1 and scope 2 emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and HFCs)

**Note for alteration of quantitative information from previous periods:** The following information was reported in the GRI 2021: base year 2020: 0.4155 Kg Co<sub>2</sub>e/T Produced and base year 2021: 0.4749 Kg Co<sub>2</sub>e/T Produced. The numbers for 2020 and 2021 have been corrected in the table above.

**NOx, SOx, and other significant atmospheric emissions in 2022 – GRI 305-7, SASB RR-PP-120a.1, SASB RT-CP-120a.1**






**Note 1:** The methodologies used in the calculation follow the rules of the Brazilian Association of Technical Standards (ABNT) and CETESB. Emission sources are natural gas and/or biomass (chip) fired boilers. Measurements are carried out by a contracted company, at predetermined periods, to assess the emission sources from the boilers.

**Note 2:** No other type of significant atmospheric emissions were identified.

# Energy

GRI 302-1, 302-2, 302-3, 302-4, 302-5

In 2022, the company established specific targets to reduce its electricity consumption, and all were duly achieved. At the Turvo plant, for example, the result was very positive and total consumption was 2.95% below expectations. At the Embu das Artes plant, the result was 1.33% lower than planned, exceeding expectations.

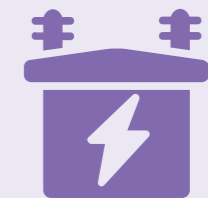
Goal	Realized	Goal Achievement
 TURVO	0.524 MWh/T Produced	0.509 MWh/Ton Produced 
EMBU	0.531 MWh/T Produced	0.524 MWh/Ton Produced 

Ibema also mapped the main opportunities for improvement in management regarding the consumption of electricity, natural gas, steam generation and industrial processes. Consumption issues are being carefully evaluated at the Turvo unit, which is in the process of acquiring new equipment.

In order to improve the chip consumption measuring process that supplies the biomass boiler, in 2022, at the Turvo plant, a moisture and chip volume meter was purchased, with installation scheduled for May 2023. To further increase the gain efficiency, the company will invest in replacing the automatic valves in the boiler's bottom discharge system.

As for the risks and uncertainties associated with the use of biomass, from a regulatory point of view there is no governmental signal against its use. There is a possible risk related to an increase in the fuel price and, therefore, Ibema will seek to produce its own fuel in the coming years. Regarding supply, Ibema seeks to select large and well-structured suppliers.

Electricity, natural gas, and biomass consumption indicators are monitored daily and reported in production meetings and also in monthly board meetings, which are part of the Ibema SEI program. Such indicators are calculated through the ratio between consumption and production volume in quantity of produced tons. For the other fuels, consumption records are made by the user areas.








**In 2022, the company established specific targets to reduce its electricity consumption, and all were duly achieved.**

## Energy consumption within the organization

GRI 302-1, SASB RR-PP-130a.1, SASB RT-CP-130a.1




### Consumption of fuels from non-renewable sources (in GJ)

	2022	2021	2020
 Gasoline	432.44	383.65	331.17
 Diesel	3,752.86	4,051.53	3,405.33
 Lubrax Oil	412.35	371.28	0.08
 Natural Gas	332,427.00	318,956.61	228,783.48
 Liquefied petroleum gas	47,414.87	45,718.89	40,653.27
<b>Total</b>	<b>384,439.28</b>	<b>369,481.96</b>	<b>273,173.33</b>

### Fuel consumption from renewable sources (in GJ)

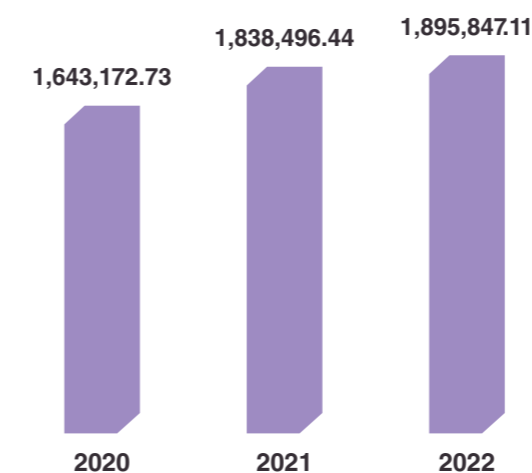
	2022	2021	2020
 Ethanol	35,78	20,09	11,99
 Biomass	517,865,41	501,038,15	466,718,00
<b>Total</b>	<b>517,901,19</b>	<b>501,058,24</b>	<b>466,729,99</b>

## Total energy consumption (in GJ)

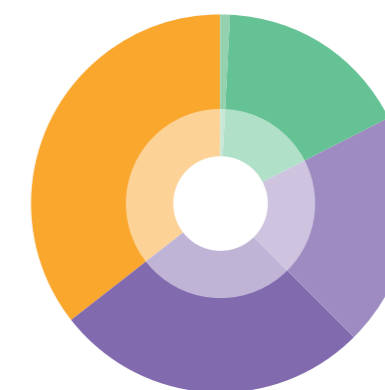
	2022	2021	2020
 Electricity consumption	317,323.56	305,668.80	288,432.00
 Cooling consumption <sup>1</sup>	0.08	0.00	0.00
 Steam consumption <sup>1</sup>	676,183.00	662,287.44	614,837.41
<b>Total</b>	<b>993,506.64</b>	<b>967,956.24</b>	<b>903,269.41</b>

1.1 - Ibema's self-generated energy sources are refrigeration and steam totaling 676,183.08 GJ.

### Total energy consumption (GJ)<sup>1</sup>



SASB RR-PP-130a.1, RT-CP-130a.1



0.002% – Percentage of renewable energy (excluding biomass)  
 16.74% – Percentage of electricity from the grid  
 20.28% – Percentage of non-renewable energy  
 27.32% – Percentage of energy provided by biomass  
 35.66% – Percentage of self-generated energy

1. Total energy consumption refers to the sum of the total amounts of renewable and non-renewable fuels consumed with the amounts of electricity and steam consumed, in accordance with the GRI methodology.

## Energy intensity within the organization – GRI 302-3

### Energy intensity<sup>1</sup>

	2022	
	Embu	Turvo
Total energy consumption (GJ)	772.679.2	1.123.168.07
Gross production volume (t)	58.223.00	112.844.00
Energy intensity (GJ/t)	13.27	10.00

1. Ibema does not monitor energy consumption outside the organization. For the year 2023, work will begin to collect Scope 3 of the GHG Inventory, which has an interface with this theme.

# Biodiversity

GRI 304-1, 304-2, 304-3

In its organizational structure, Ibema has an Environmental Management, with dedicated professionals to work on environmental and sustainability issues, in which negotiations related to the Biodiversity theme are on the agenda.

Ibema has environmental procedures and it is their practice to always evaluate in advance any intervention that may be carried out in the company, analyzing the possible environmental impacts, not only in the internal areas of the company but also in its surroundings and operations.

Any intervention to be carried out, in which possible impacts on the environment are identified, a consultation is carried out with the relevant environmental agencies, whether municipal, state, or federal, in order to comply with environmental legislation.

Ibema has a duly certified Environmental Management System, in accordance with ISO 14001:2015, which undergoes periodic audits, aiming at the continuous improvement of processes.

The Embu das Artes plant is located in a municipality whose territory is located in the Spring Protection Area. In this way, Ibema maintains an environmental preservation area of approximately 20 thousand square meters around its factory, preserving the vegetation that is close to the Permanent Preservation Area (APP), in the surroundings of Ribeirão do Alto, an Embu River tributary.

The Turvo plant, located in Paraná's inland, also has Environmental Preservation Areas totaling 7.4911 hectares, located near the Marrecas River, as well as an extensive area around the building facilities, prioritizing the preservation of the existing vegetation on the site, in order to preserve biodiversity.



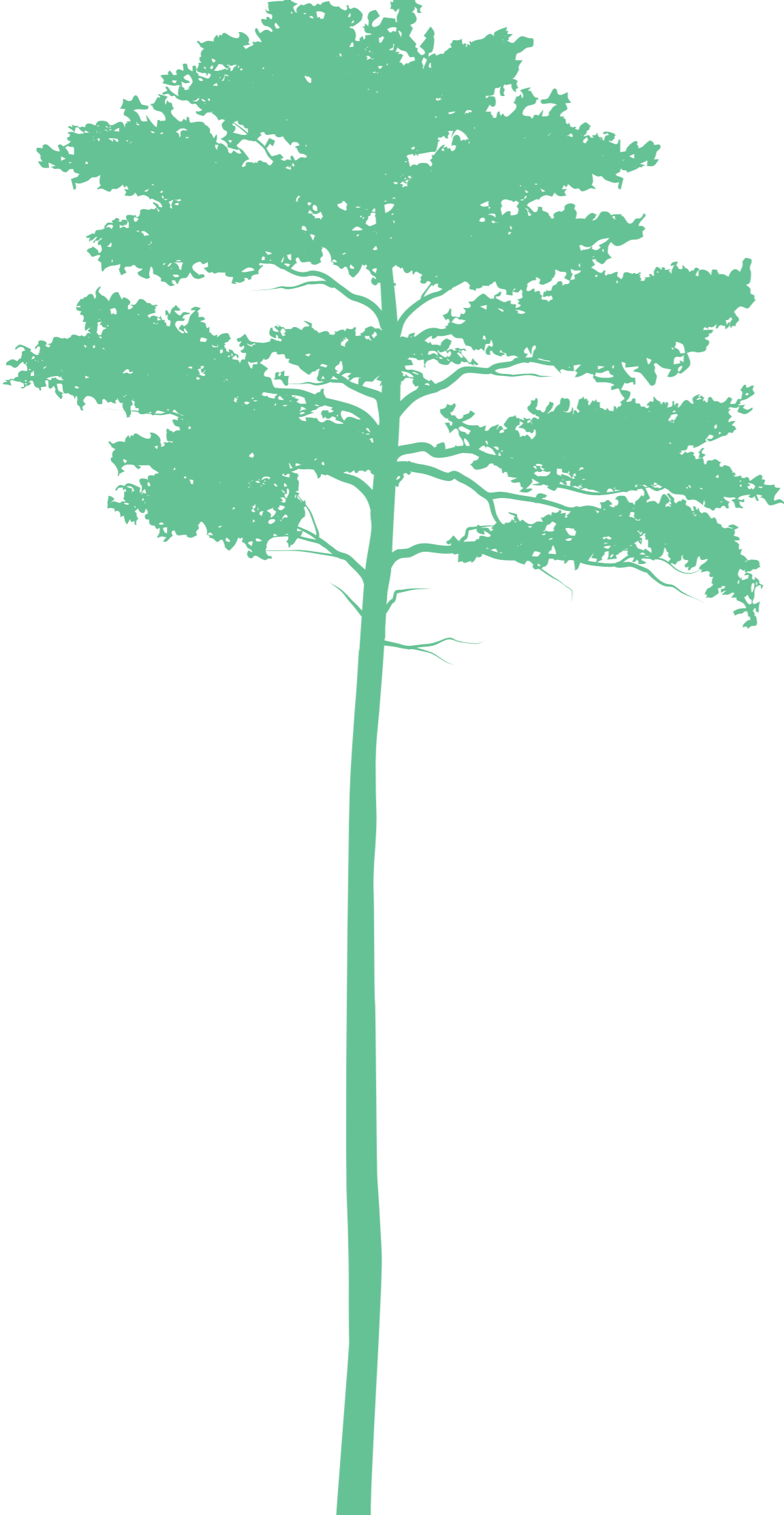
**Ibema has a duly certified Environmental Management System, in accordance with ISO 14001, aiming at the continuous improvement of processes.**

The APP located next to the Turvo industrial plant, aims to replace the existing exotic vegetation with native vegetation in order to restore ecological functions such as attraction and locomotion of wild fauna, protection of the soil and the banks of the Marrecas river, reduction of the

coefficient of surface runoff of rainwater and increase the recharge capacity of the water table.

During 2022, no impact of Ibema's activities, products and/or services on biodiversity in the areas where it operates was identified.





# Commitments



In recent years, business progress has been a major highlight for the company, committed to continuing to grow sustainably and fulfilling its Packing the Future purpose. But this will only be possible with responsible action, which returns value to society and continually presents solutions for environmental and social issues, based on ethical and transparent management.

In this sense, Ibema defined five medium and long-term commitments, with the aim of increasing competitiveness in the market and occupying the position of a company that, in fact, offers effective solutions to the great current

challenges. Such commitments are aligned with the internal purpose and values, strategic objectives, ESG strategies and also with the UN 2030 Agenda for Sustainable Development and global agreements.

For the coming years, Ibema has listed bold goals that complement these commitments, detailing the guidelines that will help implement all of them in practice. These are actions that contribute to the growth of the company itself and, at the same time, drive the development of the entire community around the company's manufacturing units.



## Reduction in water consumption



### Commitment

Sustainably manage water in our industrial processes.

### Our goal or ongoing actions

Reduce specific water consumption at the Turvo plant by 25% (base year 2021) by 2024.

### Our advances

Compared to 2021, we had a 7% reduction per ton produced in water consumption. This result was obtained through improvements and controls of internal manufacturing processes. The study for a significant improvement in the industrial process' filtering system was also completed.

### What we will do in 2023

We will consolidate the new paper machine filtration process.



## Negative Landfill



### Commitment

Be a Negative Landfill ensuring that all waste generated by Ibema is not sent to landfills and contributing to the correct disposal of solid packaging waste from the market.

### Our goal or ongoing actions

Recycle 20,000 tons of waste by 2025 that would be sent to landfills (post consumption trimmings).

### Our advances

Achieving the annual recycling targets in 2021 and 2022. The VOA Project mapped commercial, industrial and supply projects and initiatives to optimize the Embu das Artes portfolio and outlined growth challenges for the recycled card line, such as the case of Ritagli and Ritagli Cream. From the recycling goal of 3,500 tons for 2022, we recycled 4,061 tons of post-consumer waste (which represents 20% of the final goal).

In addition, we strengthened circular economy partnerships with end-users and created new sources of input for post-consumer trimmings for the plant. The best example was the launch of the Factory Price Station project in October 2022, which, to date, has already collected more than 90 tons of paper and cardboard.

### What we will do in 2023

The VOA Project continues to be the driver of initiatives related to recycling and the respective portfolio. We have the challenge of growing again in the Ritagli and Ritagli Cream lines and finalizing the change in the composition of the card from 30% post consumption to 35%. Several other circular economy partnerships are being formed and even the existing ones are growing, as is the case of the Ciclo Bom project, which brings scraps from paper cups to the plant. The project started with Starbucks in 2023 will also have important new partners. In addition, there are projects that will get off the ground in 2023 related to reverse logistics with direct printing clients. It will be another source of input for chips, further enhancing the recycling concept.





## Diversity, Equity, and Inclusion



### Commitment

Ensure a diverse, equal, and inclusive work environment.

### Our goal or ongoing actions

By 2030, increase the total number of women by 30%, including in leadership positions.

### Our advances

In 2022, Ibema carried out, in partnership with an external, specialized, and independent consultancy, its first Census of Demography and Culture, data collection took place between the 7th and 27th of November 2022 with a total of 647 respondents, which represents 81% of the organization's engagement.

The survey also featured qualitative interviews with 14 people aged 20 to 54 from different levels of the organization. Another important milestone was the creation of an affinity group composed of female leaders in the organization, with the aim of understanding our reality, listening to our women, and bringing development and market content, in addition to talking about empowerment and career.

### What we will do in 2023

In 2023 we will break down the Census into practical actions, Elaboration of our Diversity, Equity and Inclusion policy, formation of a DE&I Committee, definition of ambassadors for diversity themes and formation of a group for work advancement. Training of all leadership for a diverse and inclusive environment.



## Reduce impacts on climate change in areas where Ibema operates



### Commitment

Reduce impacts on climate change in areas where Ibema operates.

### Our goal or ongoing actions

Reduce CO<sub>2</sub> emissions by 70% per ton of production by 2030. (Scope 1 and 2 - Base year 2020).

### Our advances

Compared to 2020, emissions per ton produced were reduced by approximately 5%. This result is due to small process actions and continuous monitoring of the main detractors.

We have made progress on the installation project for the new boiler, which will be essential for meeting this commitment and goal.

### What we will do in 2023

We expect to reach the end of the year with a significant advance in the new boiler's installation, with completion scheduled for the second half of 2024. Another action that is scheduled for 2023 is the neutralization of scope 2 emissions.



## Boost Education



### Commitment

Boost education by improving the performance of basic education in the regions where we operate.

### Our goal or ongoing actions

Promote learning opportunities by 2024 for 100% of Ibema employees with incomplete primary and secondary education. Implement the Ibema Education Program, ensuring quality education for 3,000 students and education professionals in Turvo by 2030.

### Our advances

In 2022, Ibema entered into a partnership with Sesi-Senai for the Education Partner Industry Program, which offers education for young people and adults who did not complete Elementary School II and High School. Free classes are offered, in a face-to-face connected modality, with pedagogical monitoring of all of the national base's curricular subjects. In addition to regular training, a professional qualification is also offered which, in this program, is Digital Inclusion. The forecast for training is 18 months for each schooling (which may be shorter, through the validation test and elimination of subjects - ENCEJA), following a schedule of enrollments per subject. Disciplines are not dependent and, therefore, enrollments take place throughout the year. The Program is offered to the entire Turvo community, including employees and non-employees. In 2022 we had 02 students graduated, we ended the year with another 07 in training and 74 active enrollments.

Another initiative was, in partnership with Colégio Estadual do Campo Faxinal da Boa Vista, the participation in the Aluno Nota 10 Program implemented by the principal, in which part of the prize was the guarantee of vacancies in the Young Apprentice Program of Ibema for the 3 best placed students. For the award, the following requirements were considered: educational development, evolution, grade, and attendance.

### What we will do in 2023

In 2023, we will continue with the Education Partner Industry Program, focusing on employees whose primary and secondary education has not been completed. The incentive will be carried out through reinforcement in communication, conversation with managers and support from the Human Resources area. Participation in the Aluno Nota 10 Program, in partnership with the School, will also be maintained. In 2023, in partnership with SENAR - National Rural Learning Service, the Digital Inclusion Line Program will also be offered to the entire community. The Program consists of courses in Basic Computing, Excel, and Dashboards.





# GRI Standards **Content Summary**



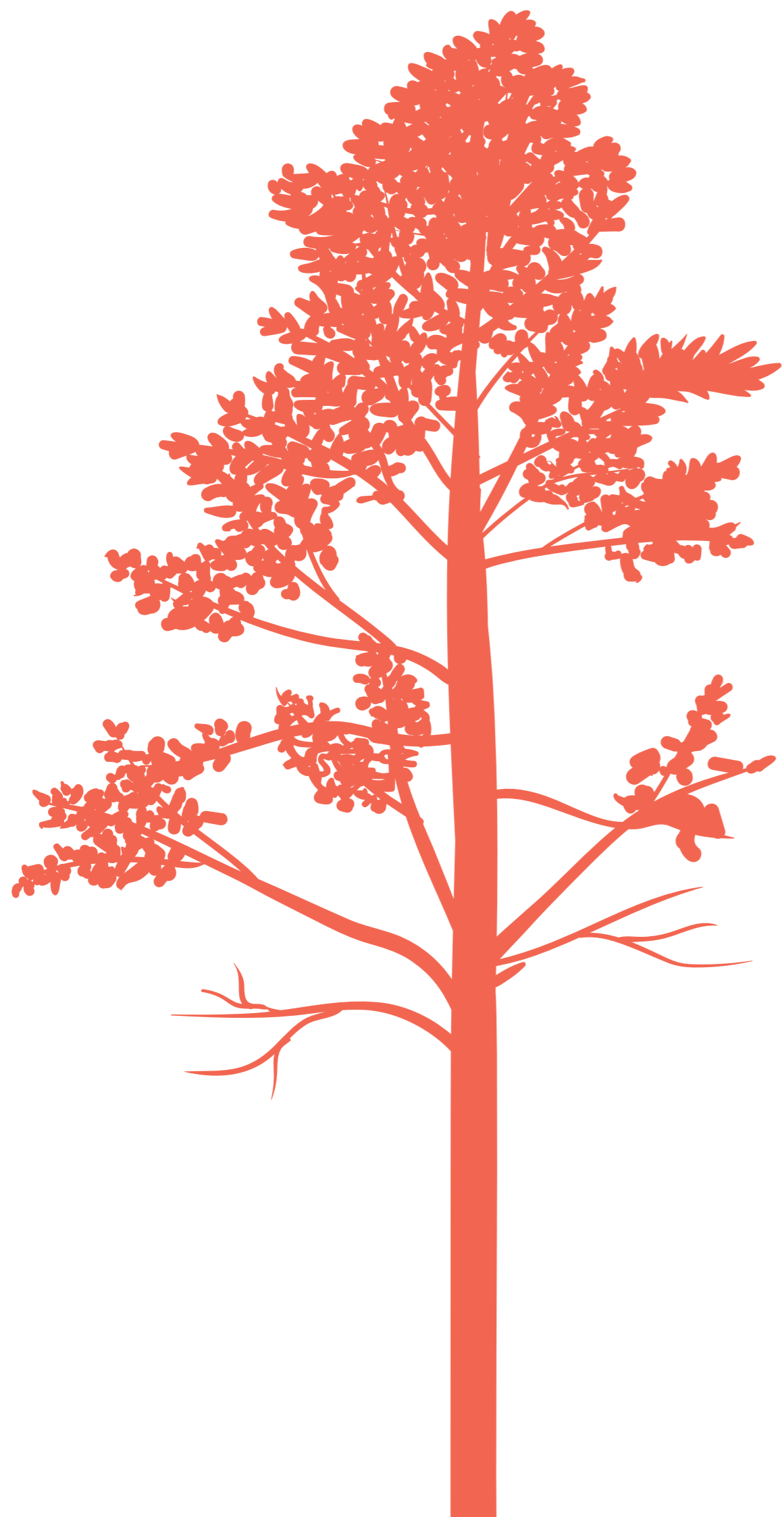
GRI Standards	Disclosure	Note	Page	Omission
<b>GENERAL STANDARD CONTENT</b>				
<b>THE ORGANIZATION AND ITS REPORTING PRACTICES</b>				
GRI 2-1	Organizational details		6, 32	
GRI 2-2	Entities included in the organization's sustainability report	IBEMA COMPANHIA BRASILEIRA DE PAPEL does not have entities included in its financial statements. It is a privately held company and is not made up of multiple entities.	6, 32	
GRI 2-3	Report period, frequency and point of contact		6, 32	
GRI 2-4	Information reformulations	The reformulation was included due to the need to correct quantitative information from previous periods referring to GRI 203-1, GRI 301-1, GRI 303-5 and GRI 305-4 indicators. The correct information can be found in the respective indicators.		
GRI 2-5	External assurance	This report did not have external verification.		
<b>ACTIVITIES AND WORKERS</b>				
GRI 2-6	Activities, value chain and other business relationships		36, 37	
GRI 2-7	Employees		82, 83	
GRI 2-8	Workers who are not employees		82, 83	
<b>GOVERNANCE</b>				
GRI 2-9	Governance structure and composition		60 to 64	
GRI 2-10	Appointment and selection of the highest governance body		60 to 64	
GRI 2-11	Chairman of the highest governance body		60 to 64	
GRI 2-12	Role of the highest governance body in overseeing impact management		65, 66	
GRI 2-13	Delegation of responsibility for managing impacts		65, 66	
GRI 2-14	Role of the highest governance body in overseeing impact management		65, 66	
GRI 2-15	Interest conflicts		71	
GRI 2-16	Communication of critical concerns		75	
GRI 2-17	Collective knowledge of the highest governance body		65, 66	
GRI 2-18	Evaluation of the highest governance body's performance		65, 66	
GRI 2-19	Compensation policies	Regarding Policies, Ibema had an update on the job and salary policy's implementation, which brought market studies to analyze the remuneration of employees.		
GRI 2-20	Process for determining compensation	The organization defines its remuneration policies through an internal committee, formed by the Administrative Council, Directors, Managers and Remuneration Consultants, who are hired through a company specialized in remuneration policies.		
GRI 2-21	Total annual remuneration index	The ratio between the total annual remuneration earned by Ibema's highest-paid employee and the total annual remuneration earned by all of the company's employees is 10.52, whereas the ratio between the remuneration raise granted to Ibema's highest-paid employee and the average remuneration raise granted to all of the company's employees was 2.28% in 2022.		
<b>STRATEGIES, POLICIES AND PRACTICES</b>				
GRI 2-22	Statement on the sustainable development strategy		20, 21, 67	
GRI 2-23	Commitment policies		58, 59	
GRI 2-24	Incorporating policy commitments		58, 59	

GRI 2: STANDARD CONTENT 2021

GRI Standards	Disclosure	Note	Page	Omission	
GRI 2: STANDARD CONTENT 2021	GRI 2-25	Processes to remedy negative impacts	20, 21		
	GRI 2-26	Mechanisms for seeking advice and raising concerns	70		
	GRI 2-27	Compliance with laws and regulations	112	There were no fines, sanctions, or non-monetary punishments for non-compliance with environmental laws or regulations.	
	GRI 2-28	Affiliation to associations	66		
	<b>STAKEHOLDER ENGAGEMENT</b>				
	GRI 2-29	Approach to stakeholder engagement	8, 9		
	GRI 2-30	Collective agreements	82		
	GRI 3-1	Process for determining material topics	10 to 17		
GRI 3-2	List of material themes	10 to 17			
<b>MATERIAL THEMES</b>					
<b>REPUTATION</b>					
GRI 3: MANAGEMENT APPROACH 2021	GRI 3-3	Management of material themes	70		
Procurement Practices 2016	GRI 204-1	Proportion of spending on locally-based suppliers	106		
	GRI 205-1	Operations assessed for risks related to corruption	71		
GRI 205: ANTI-CORRUPTION 2016			71	No training was carried out on anti-corruption policies and procedures, which is expected to take place in early 2023, according to the Compliance Program. Only governance body members received training on this topic.	
	GRI 205-2	Communication and training about anti-corruption policies and procedures	71	In 2022, there was no record of confirmed corruption cases.	
Environmental assessment of suppliers 2016	GRI 308-1	New suppliers that were screened using environmental criteria	106		
	GRI 308-2	Negative environmental impacts in the supply chain and measures taken	106	In 2022, no suppliers with pending issues related to the social scope were identified. As for the environmental scope, 02 suppliers presented pending issues in the certificate and/or public consultation by IBAMA, however, both have already regularized such pending issues.	
Child labor 2016	GRI 408-1	Operations and suppliers at significant risk for incidents of child labor	106		
Forced or compulsory labor 2016	GRI 409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	106		
Local communities 2016	GRI 413-1	Operations with local community engagement, impact assessments, and development programs	107, 108, 109		
Local communities 2016	GRI 413-2	Operations with significant actual or potential negative impacts on local communities	107, 108, 109		
Social evaluation of suppliers 2016	GRI 414-1	New suppliers selected based on social criteria	106		
Social evaluation of suppliers 2016	GRI 414-2	Negative social impacts in the supply chain and measures taken	106		
<b>SOLID WASTE</b>					
GRI 3: MANAGEMENT APPROACH 2021	GRI 3-3	Management of material themes	100, 101		
Effluents and Waste 2020	GRI 306-1	Waste generation and significant waste related impacts	100, 101		
Effluents and Waste 2020	GRI 306-2	Waste by type and disposal method	100, 101		

GRI Standards	Disclosure	Note	Page	Omission
Effluents and Waste 2020	GRI 306-3	Significant spills	101, 102	
Effluents and Waste 2020	GRI 306-4	Waste diverted from disposal	102	
Effluents and Waste 2020	GRI 306-5	Waste directed to disposal	100, 101	
<b>TRAINING AND EDUCATION</b>				
GRI 3: MANAGEMENT APPROACH2021	GRI 3-3	Management of material themes	85, 86, 87	
Training and education 2016	GRI 404-1	Average hours of training per year per employee	86	
Training and education 2016	GRI 404-2	Programs for upgrading employee skills and transition assistance programs	88, 89	
Training and education 2016	GRI 404-3	Percentage of employees receiving regular performance and career development reviews	89	
<b>EFFLUENTS</b>				
GRI 3: MANAGEMENT APPROACH2021	GRI 3-3	Management of material themes	113, 114, 115	
Water and effluents 2018	GRI 303-1	Interactions with water as a shared resource	113, 114, 115	
Water and effluents 2018	GRI 303-2	Management of water discharge-related impacts	113, 114, 115	
Water and effluents 2018	GRI 303-3	Water withdrawal	113, 114, 115	
Water and effluents 2018	GRI 303-4	Water discharge	113, 114, 115	
Water and effluents 2018	GRI 303-5	Water consumption	113, 114, 115	
<b>INDUSTRIAL MANAGEMENT</b>				
GRI 3: MANAGEMENT APPROACH2021	GRI 3-3	Management of material themes	42, 43, 44	
Economic performance 2016	GRI 201-1	Direct economic value generated and distributed	78, 79	
GRI 201: ECONOMIC PERFORMANCE 2016	GRI 201-2	Financial implications and other risks and opportunities due to climate change	116, 117	
Energy 2016	GRI 302-1	Energy consumption within the organization	45, 46, 47	
Energy 2016	GRI 302-2	Energy consumption outside of the organization	119, 120, 121	
Energy 2016	GRI 302-3	Energy intensity	119, 120, 121	Ibema does not monitor energy consumption outside the organization. For the year 2023, work will begin to collect scope 3 of the GHG Inventory, which has an interface with this theme.
Energy 2016	GRI 302-4	Reduction of energy consumption	119, 120, 121	
Energy 2016	GRI 302-5	Reductions in energy requirements of products and services	119, 120, 121	
Energia 2016	GRI 302-5	Reduções nos requisitos energéticos de produtos e serviços	119, 120, 121	
<b>CIRCULAR ECONOMY</b>				
GRI 3: MANAGEMENT APPROACH2021	GRI 3-3	Management of material themes	96, 97, 98	

GRI Standards	Disclosure	Note	Page	Omission	
Materials 2016	GRI 301-1	Materials used by weight or volume	99		
Materials 2016	GRI 301-2	Raw materials or recycled materials used	99		
Indirect economic impacts 2016	GRI 203-2	Significant indirect economic impacts	96, 97, 98		
Biodiversity 2016	GRI 304-1	Owned, leased, or managed operating units within or adjacent to environmental protection areas and areas of high biodiversity value located outside protected areas	122, 123		
Biodiversity 2016	GRI 304-2	Significant impacts of activities, products, and services on biodiversity	122, 123		
Biodiversity 2016	GRI 304-3	Habitats protected or restored	122, 123		
<b>CORPORATE RISK MANAGEMENT</b>					
GRI 3: MANAGEMENT APPROACH2021	GRI 3-3	Management of material themes	74, 75		
GRI 305: EMISSIONS 2016	GRI 305-1	Direct (Scope 1) GHG emissions	116, 117, 118		
	GRI 305-2	Energy indirect (Scope 2) GHG emissions	116, 117, 118		
	GRI 305-3	Other indirect (Scope 3) GHG emissions	116, 117, 118		
	GRI 305-4	GHG emissions intensity	116, 117, 118		
	GRI 305-5	Reduction of Greenhouse Gas (GHG) emissions	The reduction projects are still in the study phase for implementation.	116, 117, 118	
	GRI 305-6	Emissions of substances that deplete the ozone layer (ODS)	The Montreal Protocol does not apply to Ibema's activities.	116, 117, 118	
	GRI 305-7	NOx, SOx, and other significant atmospheric emissions		117	
Occupational health and safety 2018	GRI 403-1	Workers representation in formal joint management–worker health and safety committees	90 to 93		
	GRI 403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	90 to 93		
	GRI 403-3	Workers with high incidence or high risk of diseases related to their occupation	90 to 93		
	GRI 403-4	Worker participation, consultation, and communication on occupational health and safety	90 to 93		
	GRI 403-5	Worker training on occupational health and safety	90 to 93		
	GRI 403-6	Promotion of worker health	90 to 93		
	GRI 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	90 to 93		
	GRI 403-8	Workers covered by an occupational health and safety management system	90 to 93		
	GRI 403-9	Work-related injuries	92		
	GRI 403-10	Work-related ill health	90 to 93		
Diversity and equal opportunity 2016	GRI 405-1	Diversity of governance bodies and employees	82, 83		
Diversity and equal opportunity 2016	GRI 405-2	Ratio of basic salary and remuneration of women to men	84		
Non-discrimination 2016	GRI 406-1	Incidents of discrimination and corrective measures taken	71		



# SASB Content **Summary**





This report was prepared in accordance with the SASB indicators for the *Pulp and Paper and Containers and Packaging* sector.

Disclosure topics and accounting metrics						
Theme	Accounting metrics	Category	Measurement unit	Code	Page	Note
Greenhouse gas emissions	Scope 1 gross global emissions	Quantitative	tCOe,	RR-PP-110a.1	118	
	Scope 1 gross global emissions, percentage covered by emission limitation regulations	Quantitative	tCOe Percentage (%)	RT-CP-110a.1	118	Ibema does not currently have emission limitation programs or regulations. This topic is under study.
Air quality	Direct atmospheric emissions of the following pollutants: (1) NOx (excluding N2O), (2) SO2, (3) volatile organic compounds (VOCs), (4) particulate matter (PM), (5) dangerous air pollutants (HAPs)	Quantitative	Ton	RR-PP-120a.1	118	
	Direct atmospheric emissions of the following pollutants: (1) NOx (excluding N2O), (2) SO2, (3) volatile organic compounds (VOCs), (4) particulate matter (PM)	Quantitative	Ton	RT-CP-120a.1	118	
Energy Management	1) Total energy consumed, (2) percentage of grid electricity, (3) percentage of biomass, (4) percentage of other renewable energies	Quantitative	Gigajoules (GJ), Percentage (%)	RR-PP-130a.1	121	
	(1) Total energy consumed, (2) percentage of grid electricity (3) renewable percentage, (4) total self-generated energy	Quantitative	Gigajoules (GJ), Percentage (%)	RT-CP-130a.1	120, 121	



# Credits

## **General coordination - Ibema**

Financial Management and Governance and Quality and Environment Management

## **Writing, Editorial Consulting, Graphic Design and Layout**

Visão Sustentável

## **Selection, collection, and analysis of GRI disclosures**

Visão Sustentável

## **Pictures**

Ibema Archive

## **Illustrations**

Designed by Kjpargeter / Freepik

