



Sustainability  
Report  
**2021**

# About the Report

 ibema



# General information

[GRI 102-50](#), [102-51](#), [102-52](#), [102-53](#), [102-54](#)

This is Ibema's second sustainability report. For the elaboration, the GRI Standards was used, in the Essential option. This edition reports on Ibema's performance in the period between January 1 and December 31, 2021. The previous report was published on December 21, 2021. The organization's sustainability reporting cycle is annual.

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 41 98412-4930



# Stakeholder engagement

GRI 102-40, 102-42, 102-43, 102-44

Ibema maintains a continuous rapport with its stakeholders with greater daily interaction, with the aim of building relationships that allow for the anticipation of risks and the analysis of public-to-public needs, as well as the crossing of this information with its own demands. The Company seeks to engage them through dialogue, reciprocity, trust and actions that focus on each party involved, in order to ensure the continuity of business for all parties.








In 2021, we further strengthened our proximity to financial institutions, through business rounds in which we take consolidated information, projections for the year, and strategic ambitions for the coming years. We also presented broad views regarding governance and the ESG journey.

Alongside end users, we strengthened our operations through partnerships that focused on sustainability, such as the project implemented alongside Starbucks. More information about this project is available on [page 52](#).

For the construction of the 2021 sustainability report and, subsequently, our ESG management, we took an important step in mapping interests. Our material topics were defined based on the main concerns of our stakeholders.

Based on this mapping, in addition to preparing this report, interests will serve as input for us to start our action plans to address, prevent or mitigate stakeholder concerns.

## Engagement approach and concerns raised

Stakeholder	Engagement approach	Concerns raised in 2021
 Employees	Internal Communication (Email, murals, and others); Coffee with the President; Communication campaigns; Social networks; Institutional website; Newsletter; Survey using the GPTW (Grate Place to Work) methodology; Ombudsman and Ethics Hotline.	Solid Waste; Guarantee of Origin of the Raw Material; Supplier; Reputation; Circular Economy; Corporate Risk Management.
 Community around the plants	Dialogue and action through the community center; Onsite visits; Local media (radio).	Solid Waste; Effluents; Local development; Reputation; Industrial management; Circular economy; Human rights; Corporate risk management.
 Suppliers	Monitoring of the main suppliers in the supply chain; Negotiation meetings, online and face to face. Solid waste; Effluents; Training and education; Financial results; Reputation; Industrial management; Circular economy; Human rights.	Solid Waste; Effluents; Training and education; Financial results; Reputation; Industrial management; Circular economy; Human rights
 Financial institutions	Submission of financial reports annually or as required; Roadshow of strategic projects and other topics.	Effluents; Guarantee of Origin of the Raw Material; Suppliers; Financial results; Reputation; Circular economy; Human rights; Corporate risk management.
 Legal and commercial representation	Online and face-to-face meetings.	Solid waste; Training and education; Local development; Reputation; Industrial management; Circular economy; Corporate risk management.
 Customers and end users	Semi-annual surveys using the NPS (Net Promote Score) methodology; Customer portal; Online and face-to-face meetings; Social networks; Marketing emails; Partnership actions for the market; Approaching end users through internal areas such as Research & Development, Supplies, and Sustainability.	Local Development; Financial results; Reputation; Circular economy; Human rights; Corporate risk management.
 Senior management	Monthly meetings of the Board of Directors and periodic meetings of the Strategic Committee, the latter body meeting every two months on average. Weekly board meetings.	

# Materiality process

GRI 102-46, 102-47, 102-49, 103-1

For the preparation of the 2021 sustainability report, Ibema carried out a materiality definition process, following the GRI Standards (Global Reporting Initiative Standards), which consist of mapping, identifying and evaluating the topics and the respective disclosures (indicators) that are the most relevant to the organization and its stakeholders.

The materiality process, as well as the stakeholder consultation, was conducted through an online system. The company invited strategic stakeholders to respond to a pre-defined questionnaire.

The preparation of the questionnaire was based on the guidelines of the GRI Standards and relevant topics for the paper industry. It was structured around three major topics: Environmental Performance; Social Performance; Economic Performance, and Product Management. Each of them includes seven subjects to be selected in order of importance. Thus, in total, opinions were assessed in relation to 21 different subjects.

Six groups of stakeholders were defined for the construction of this engagement: legal and commercial representation; community around the plant; financial institutions; supplies; customers and end users; and employees. To contrast the opinion of stakeholders, Ibema's vision, represented by senior management, was required. In total, 97 people participated in the engagement.

The survey showed that, at this moment, seven topics are configured as the most relevant for stakeholders and for Ibema. After identification, the material topics were analyzed and validated by the company's senior leadership.





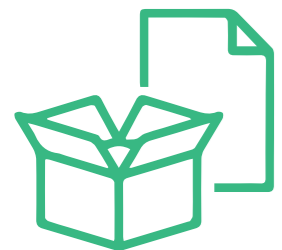



Each material topic presented below was correlated with the disclosures of the GRI Standards and with the Sustainable Development Goals (SDGs), as well as the groups of strategic stakeholders (internal and external) directly and indirectly affected by the company's impacts linked to the topics.



## Material topic

### Legend







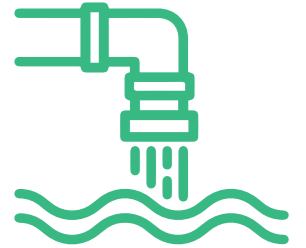








 Senior Management	 Customers and End Users	 Employees	 Community Around the Plant	 Suppliers	 Financial Institutions	 Legal	 Commercial Representation	■ Directly impacted stakeholder groups	■ Indirectly impacted stakeholder groups
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Material topic	Why is it a material topic?	INTERNAL LIMITS (internal audiences impacted by the topic)	EXTERNAL LIMITS (external audiences impacted by the topic)	Alignment with Ibema's Commitments	SDG
<p>Reputation</p> 	<p>Reputation is essential to maintain positive competitiveness in the market. This concept gains greater relevance as the company seeks business strategies that are based on good environmental, social and governance practices.</p>			<ul style="list-style-type: none"> <li>• Being a Zero Waste company</li> <li>• Boosting education</li> <li>• Ensuring a diverse, equal and inclusive work environment</li> <li>• Reducing impacts on climate change</li> <li>• Sustainable management of water in our industrial processes</li> </ul>	
<p>Solid waste</p> 	<p>Like most production processes, the generation of waste becomes inherent in the paper production process. Thus, we consider it a key material topic to be properly managed.</p>			<ul style="list-style-type: none"> <li>• Reducing impacts on climate change</li> <li>• Being a Zero Waste company</li> </ul>	

## Material topic

### Legend
























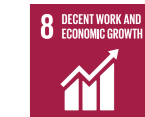







								
Senior Management	Customers and End Users	Employees	Community Around the Plant	Suppliers	Financial Institutions	Legal	Commercial Representation	<span style="color: red;">■</span> Directly impacted stakeholder groups <span style="color: black;">■</span> Indirectly impacted stakeholder groups

Material topic	Why is it a material topic?	INTERNAL LIMITS (internal audiences impacted by the topic)	EXTERNAL LIMITS (external audiences impacted by the topic)	Alignment with Ibema's Commitments	SDG
 <p>Training and education</p>	Investments in education and training help us to raise quality levels and increase productivity with a focus on customer and employee satisfaction.			<ul style="list-style-type: none"> <li>Boosting education</li> <li>Ensuring a diverse, equal and inclusive work environment</li> </ul>	  
 <p>Effluents</p>	In the paper production process, water is one of the main inputs used, subsequently generating effluents, which we consider to be a key material topic to be properly managed.			<ul style="list-style-type: none"> <li>Reducing impacts on climate change</li> <li>Sustainably managing water in our industrial processes</li> </ul>	     

## Material topic

### Legend

 Senior Management	 Customers and End Users	 Employees	 Community Around the Plant	 Suppliers	 Financial Institutions	 Legal	 Commercial Representation	■ Directly impacted stakeholder groups	■ Indirectly impacted stakeholder groups
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Material topic	Why is it a material topic?	INTERNAL LIMITS (internal audiences impacted by the topic)	EXTERNAL LIMITS (external audiences impacted by the topic)	Alignment with Ibema's Commitments	SDG
 <p>Industrial management</p>	Industrial management is essential for focusing on sustainable practices and producing with the least possible environmental impact, connected with the organization's strategies to meet ESG metrics.		 	<ul style="list-style-type: none"> <li>Reducing impacts on climate change</li> <li>Being a Zero Waste company</li> <li>Training and education</li> <li>Ensuring a diverse, equal and inclusive work environment</li> <li>Sustainably managing water in our industrial processes</li> </ul>	           
 <p>Circular economy</p>	The Circular Economy has been a major topic in the sustainability commitments of companies, as increasingly conscious consumers seek more ecological packaging alternatives. Additionally, new regulations aim to reduce the volume of waste destined for landfills or dumps, therefore requiring consumer companies (our indirect customers) to seek recycling solutions or sustainable destinations for their materials.		 	<ul style="list-style-type: none"> <li>Reducing impacts on climate change</li> <li>Being a Negative</li> <li>Landfill</li> <li>Education and training</li> </ul>	          



## Material topic

### Legend

								
Senior Management	Customers and End Users	Employees	Community Around the Plant	Suppliers	Financial Institutions	Legal	Commercial Representation	<span style="color: red;">■</span> Directly impacted stakeholder groups <span style="color: black;">■</span> Indirectly impacted stakeholder groups

Material topic	Why is it a material topic?	INTERNAL LIMITS (internal audiences impacted by the topic)	EXTERNAL LIMITS (external audiences impacted by the topic)	Alignment with Ibema's Commitments	SDG
Corporate risk management 	Ibema understands risk management as the main way to prevent Operational, Financial, Image and Reputation events from jeopardizing the execution of the strategic plan or the achievement of the Company's results.		     	<ul style="list-style-type: none"> <li>• Boosting education</li> <li>• Ensuring a diverse, equal and inclusive work environment</li> <li>• Sustainable management of water in our industrial processes</li> <li>• Reducing impacts on climate change</li> <li>• Being a Zero Waste company</li> </ul>	           

# Highlights of 2021





Incentive project to recycling in partnership with Starbucks



Creation of the Corporate Governance area



1.5% increase in Base Plan EBITDA through the SEI Program



implementation of the Linkana portal for registration and approval of suppliers



Structuring the NOA Project, which aims to position Ibema as the main player in the Brazilian market in the context of paperboard recycling and to have the most compliant recycled portfolio to enable the Brand Owners' sustainability commitments

## OBOTICARIO

Incentive project to recycling in partnership with Boticario



Launch of the Ethics Hotline



Automation of the Risk Management process



Low water uptake at the Embu das Artes plant



Zero Waste (Turvo plant)



Creation of the Supply Chain Board



Partnership with BRDE Labs and startups to enable new solutions



Completion of the New Transmission Line (conducted by Ibema Participações)

Message from  
the President

The logo consists of a large, dark grey, stylized letter 'I' with a white, geometric, multi-faceted shape inside it, resembling a stylized 'B' or a modern 'I'.

ibema

**GRI 102-14**

The year 2021 was crucial for us in terms of results. We consolidated great performance in relation to 2020, achieved record production, matured our strategic planning, became a zero-waste company at the Turvo plant and zeroed all our debts, bringing the prospect of starting an investment cycle.

We started the year in a pandemic scenario, with a large number of dismissals combined with high demand, which generated an above-average production volume and became a major challenge for the company. Despite that, we remained focused on keeping customers supplied – something we achieved despite high production costs, which demonstrates the effectiveness of our pricing policy.

Our partnership with suppliers was also essential throughout 2021. Despite the limitations of supply, we remained close, following price increases, maintaining dialogue, and carrying out the necessary repositioning, which allowed us to advance in our understanding of our supply chain, identify opportunities, and keep our plants up and running.

Sustainability will always be an opportunity for Ibema. Our products and strategy have this focus. We are part of a segment with strong ESG results, which motivates

us even more to follow this path. More than that, Ibema’s goal is also to contribute to the achievement of end users’ commitments in matters related to sustainability.

In 2021, we created a sustainability committee composed of the financial and corporate governance, human resources, marketing and commercial, R&D and environment areas. We have matured a lot so far and, today, we can say that all ESG decisions at Ibema are referred to this collegiate body. There is a lot to develop, however, and our current challenge is to connect the other areas of the company to these purposes.

Our focus until then was to improve efficiency and to look at what could be done in-house. From now on, the discussion is about how to increase our capacity. In this sense, in 2021, we created a project area that focuses on taking advantage of the opportunities offered by our partnerships with customers and suppliers. We started to learn about climate change, how to improve our carbon footprint, and how to help society understand the scale of the challenge we are facing.

Strengthening the governance of our company is a continuous commitment. In 2021, we implemented the corporate governance area, which is building a Compliance program to start in July 2022.

We have implemented internal control areas and, throughout the year, we began to use a Risk Management Methodology in an automated way, which provide us with greater agility and focus on solutions and keeps us attentive to external factors that may impact the continuity of our business.

Throughout 2021, we were committed to Ibema Ritagli, a paperboard with 50% recycled fiber, 30% of which consists of post-consumer material. This major challenge has connected us to startups and enabled us to work on projects such as partnerships with major brands in the market, encouraging the recircularity of packaging.

With an emphasis on promoting the circular economy, we searched the market for a reverse logistics certificate, which attests to the origin of the input, a traceability tool for the process of reinsertion of recycled inputs, in line with Brazil’s National Solid Waste Policy (PNRS).

Ibema’s purpose is to “pack the future,” and to do that, we start from our fortresses – our Turvo plant, which offers high efficiency and performance in the production of virgin fiber, and the Embu das Artes plant, a scrap center focusing on recycling, which diverts waste from landfills and contributes to the Circular Economy.

Expectations for 2022 are positive, as our products are in high demand. Our goal is to grow at the pace of the market. Our goals are sectoral, which brings us closer to our competitors. We wish our products, as well as the entire pulp and paper industry, to perform well in ESG aspects.

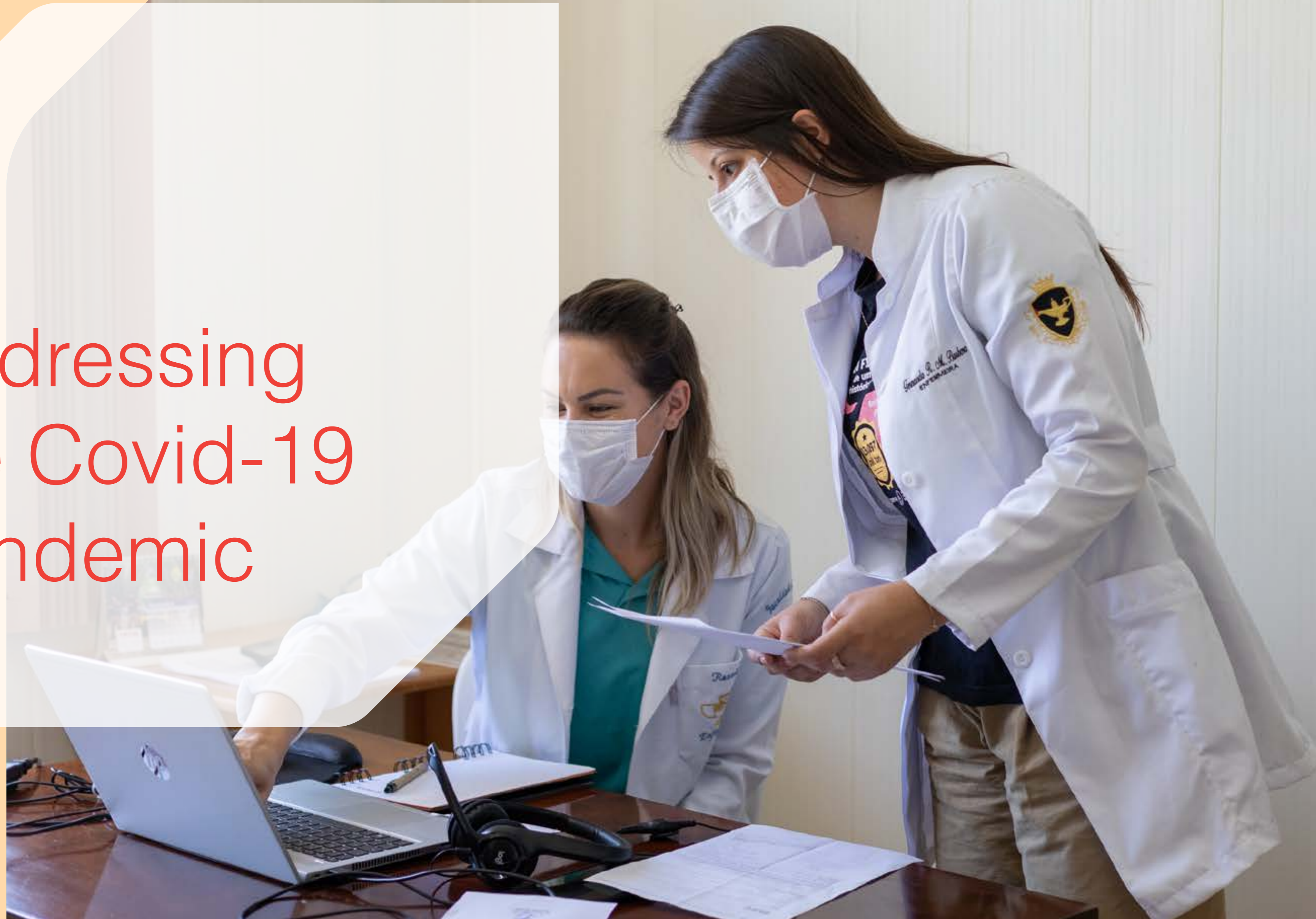
The production of our first sustainability report in 2020 brought us many lessons. We have matured in our discussions and wish to show, throughout this report, the interesting developments experienced by us in 2021, which is I kindly invite you to read this report.

**Nilton Saraiva**  
CEO



**Sustainability will always be an opportunity for Ibema. We are part of a segment with strong ESG results, which motivates us even more to follow this path.**

# Addressing the Covid-19 Pandemic



**GRI 203-1**

Throughout 2021, the year in which we still felt the impact of the COVID-19 pandemic, Ibema had the great challenge of meeting production volumes, which rose at the same time as the number of leaves. As a result of the pandemic, the packaging market was faced with greater demand. Conversely, the company had 72 people on leave across the two plants. Consequently, the financial impact of hiring new employees was challenging. The company, however, remained focused on taking care of employees and maintaining the supply to customers.

Our team strengthened sanitization points across the company to ensure that employees had easy access to prevention measures at all plant and office locations. Temperature control was implemented for all employees and other service providers prior to the start of activities at the units.

Vaccination against influenza was already an annual practice within Ibema, and this year was no different: the vaccination campaign took place at all our units, with the aim of protecting people from other viruses such as H1N2 and flu virus, in addition to contributing to the health control and well-being measures for employees and their families. The company also made donations to the Unidos Pela Vacina (“United for the Vaccine”) Movement, which provided the purchase of supplies for storage and vaccination in the Turvo region.

Our communication team actively acted in the dissemination of informative materials about the disease and the main protection measures for employees. Live sessions were held periodically, keeping employees in-

formed about all decisions made by the Crises and Opportunities Committee. Additionally, we reinforced all personal hygiene measures during the Daily Safety Dialogue (DSD), as a way of educating and reinforcing good practices in the company.

Face-to-face activities were optionally resumed for administrative teams with the delivery of a return kit (containing masks, hand sanitizer, and tissues) to ensure the maintenance of care.

**Training**

The pandemic accelerated the need to use new spaces in the work environment, which is why training was carried out using Microsoft’s online tools to facilitate the interaction and daily activities of our employees, with a view to Digital transformation. The package of courses offered included a summary of Office 365 (all products contained), Power Platform, Intranet and Collaboration, Team Management and Collaboration, and Project Management Tools.

**Investment in infrastructure**

Throughout the year, the company made donations to the Bom Pastor Hospital and health units for the purchase of medication, protective equipment and oxygen to combat the COVID-19 pandemic, in addition to ensuring the maintenance of 3 beds for the community. Through the Unidos Pela Vaccina Movement, a vaccine conservation chamber and other vaccination supplies were acquired, which enabled the inauguration of the Filadélfia Basic Health Unit, in the municipality of Turvo, in the state of Paraná (PR).





IBEMA





# Organizational profile

GRI 102-1, 102-3, 102-4, 102-5, 102-7

Ibema (Companhia Brasileira de Papel), headquartered at Avenida Sete de Setembro, 5739 (Edifício Priori, room 401, 4th floor) Água Verde, Curitiba, PR is a privately held corporation (S.A.), in existence since 1956 and controlled by Ibemapar Participações S.A. (Ibemapar), a holding company operating the shareholding equities of members of the founding families of the Ibema Group (Napoli and Gomes).

Since 2016, Ibema has included Suzano Papel e Celulose and Ibema Participações in its shareholding.

Ibema concentrates its manufacturing operations in Brazil, opening in 2021 a commercial representation office in Argentina.

Ibema has a fully professional and dynamic management, which values the best practices of Corporate Governance, and its administration is composed of a Statutory Board and a Board of Directors, in turn appointed by the shareholders (Ibemapar and Suzano).



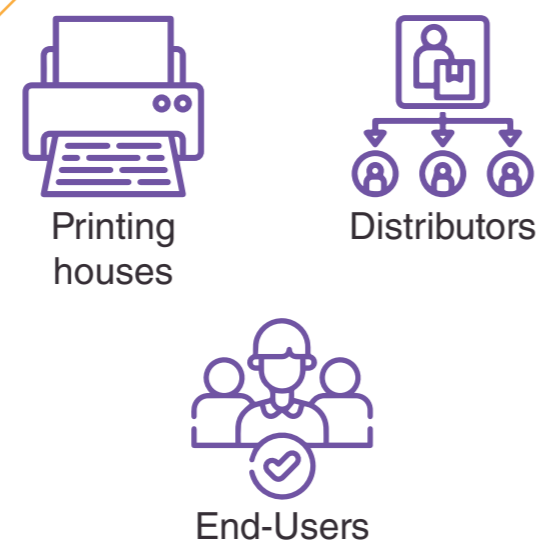
# Markets served

GRI 102-6

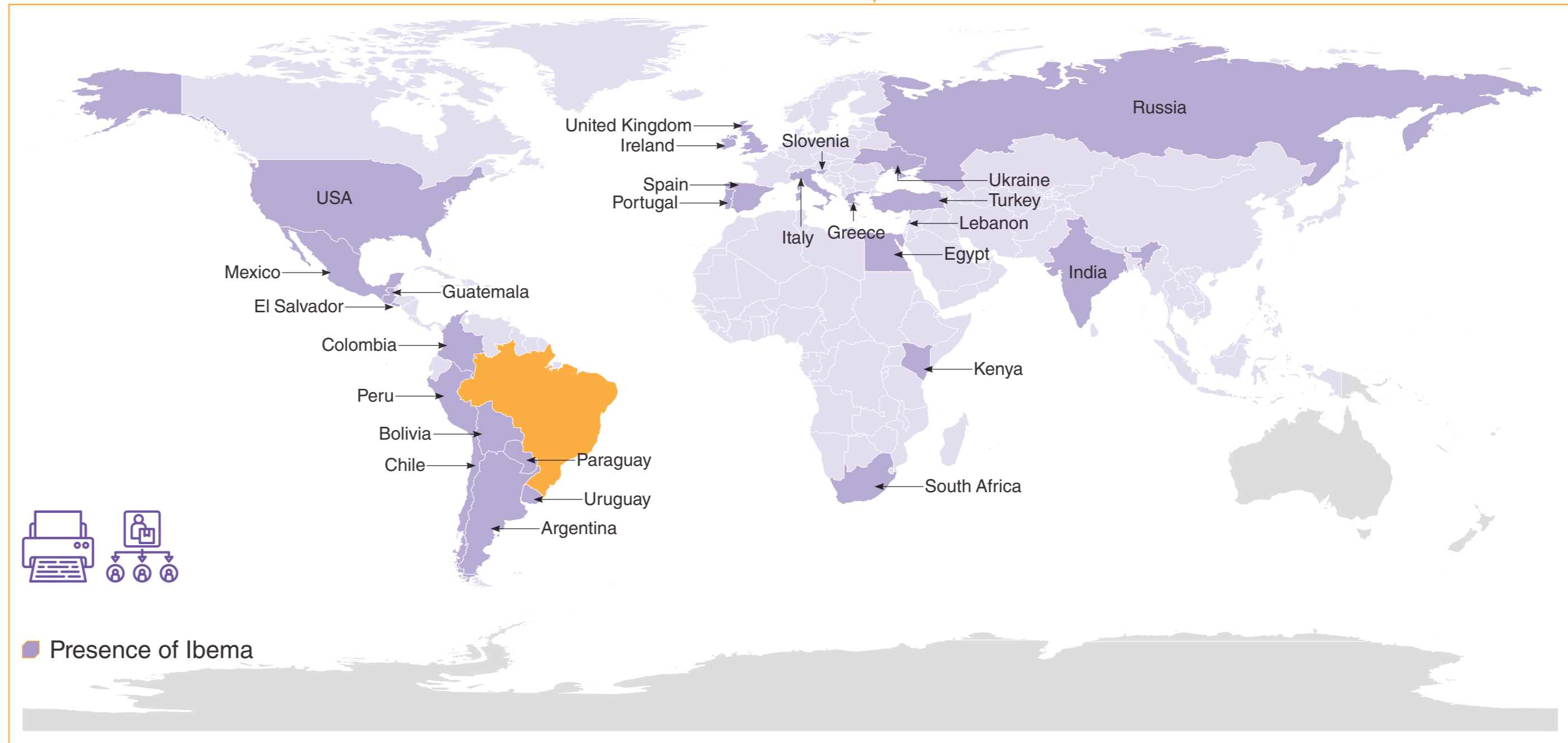
## Industries served



## Customer types



## Industries served



# Technology

The year 2021 was strategic year for Ibema in relation to the automation of manufacturing plants. The company carried out its economic planning to make applications in the next five years. Additionally, the company continued to intensifying its investments in digital transformation, seeking significant improvement throughout its information flow, as well as opportunities arising from innovation, positively reaching employees, suppliers, products, and customers, while seeking to activate value through strong collaboration between the business and technology while prioritizing projects that bring gains in productivity, quality, and cost reduction.

**The company continued to intensifying its investments in digital transformation, seeking significant improvement throughout its information flow, as well as opportunities arising from innovation.**

## Switching from current ERP to the current version of SAP in the cloud

Digital transformation remains a topic of great relevance for business. At Ibema, this has been no different: we have advanced in our digital journey in search of competitive advantages and with a focus on improving our customers' experience. In 2021, we underwent a profound transformation, making and working on the development of two core systems for our business, which were implemented in 2022: the 100% cloud-based SAP S4HANA ERP and the Specialist Manufacturing software platform Simula Trimpaper.

Consequently, we raised the level of availability and information security of our systems, resulting in fewer interruptions in operations and productivity gains. We also gained strength in Governance and Compliance, in addition to simplifying organizational processes. With the implementation of these two modern architecture systems, Ibema becomes lighter and more flexible to make quick decisions based on data, in order to meet the demands of our customers and support the company's growth plans.

## Partnership with BRDE Labs and startups to enable innovative solutions

In 2021, Ibema was one of the companies selected to participate in the BRDE Labs program – a program by the Far South Regional Development Bank (BRDE), in partnership with the startup hub Hotmilk, from the Pontifical Catholic University of Paraná (PUC-PR).

Created to accelerate the development of the innovation environment in the South region of Brazil, its goal was to



promote projects at the state level, linked to the needs of local ecosystems and aligned with the State Government.

The process started with awareness raising, which leveraged the launch of challenges for open innovation of solutions; training, which fostered the internal cultural transformation, through which employees went through

knowledge trails, and finally, Open Innovation, which ensured contact with several startups to ensure a better definition of innovation strategies. Ibema followed its discussions and projects with two startups. One of them focused on internal IT services in the cloud while the other focused on customized solutions in post-consumer reverse logistics.



# Industrial Management



**GRI 103-1, 103-2, 103-3**

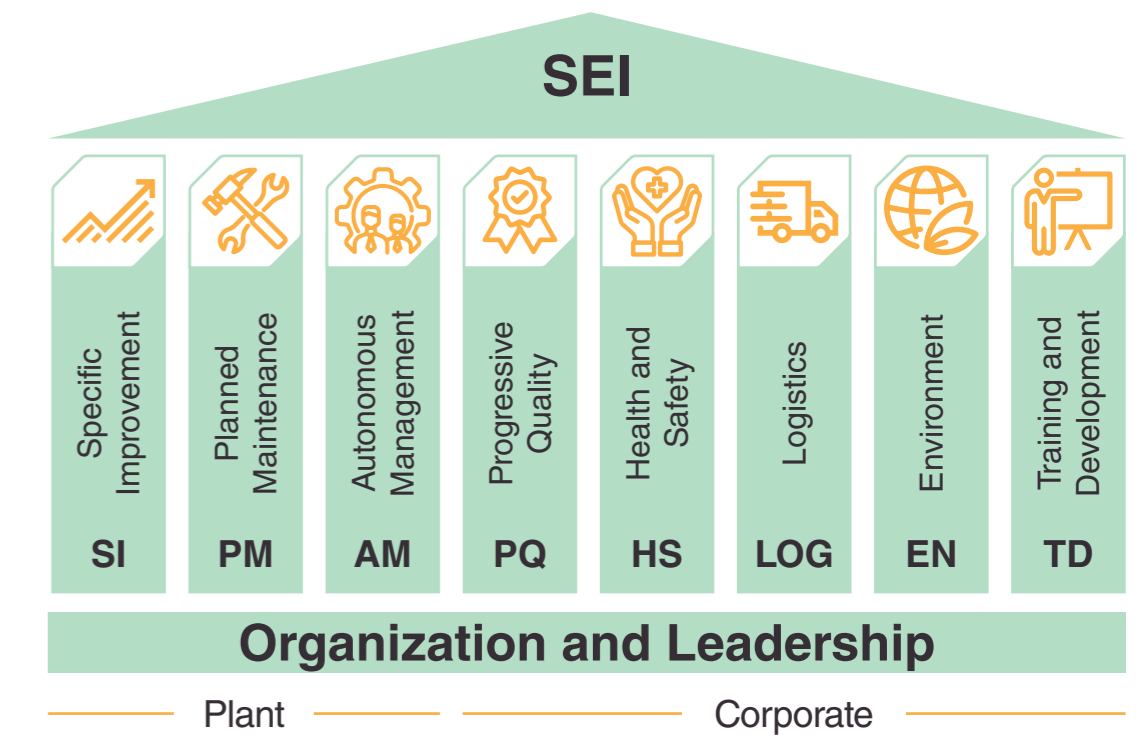
In its strategic planning, Ibema plans to invest, between the years 2022 and 2025, in increasing production volume, with an estimated 33% increase in production capacity. Industrial management is essential to produce as efficiently as possible and reduce operational losses. The company's goal is to achieve excellence in the management of industrial costs, with a focus on reducing losses and appropriate use of resources while enabling the company to be a leader in the segment in which it operates.

To this end, Ibema has an integrated management policy, based on the ISO 9001 (Quality Management) and ISO 14001 (Environmental Management) standards, as well as conducting periodic internal and external audits in order to ensure that all documents necessary for a safe operation are in full compliance with the rules and legislation in force.

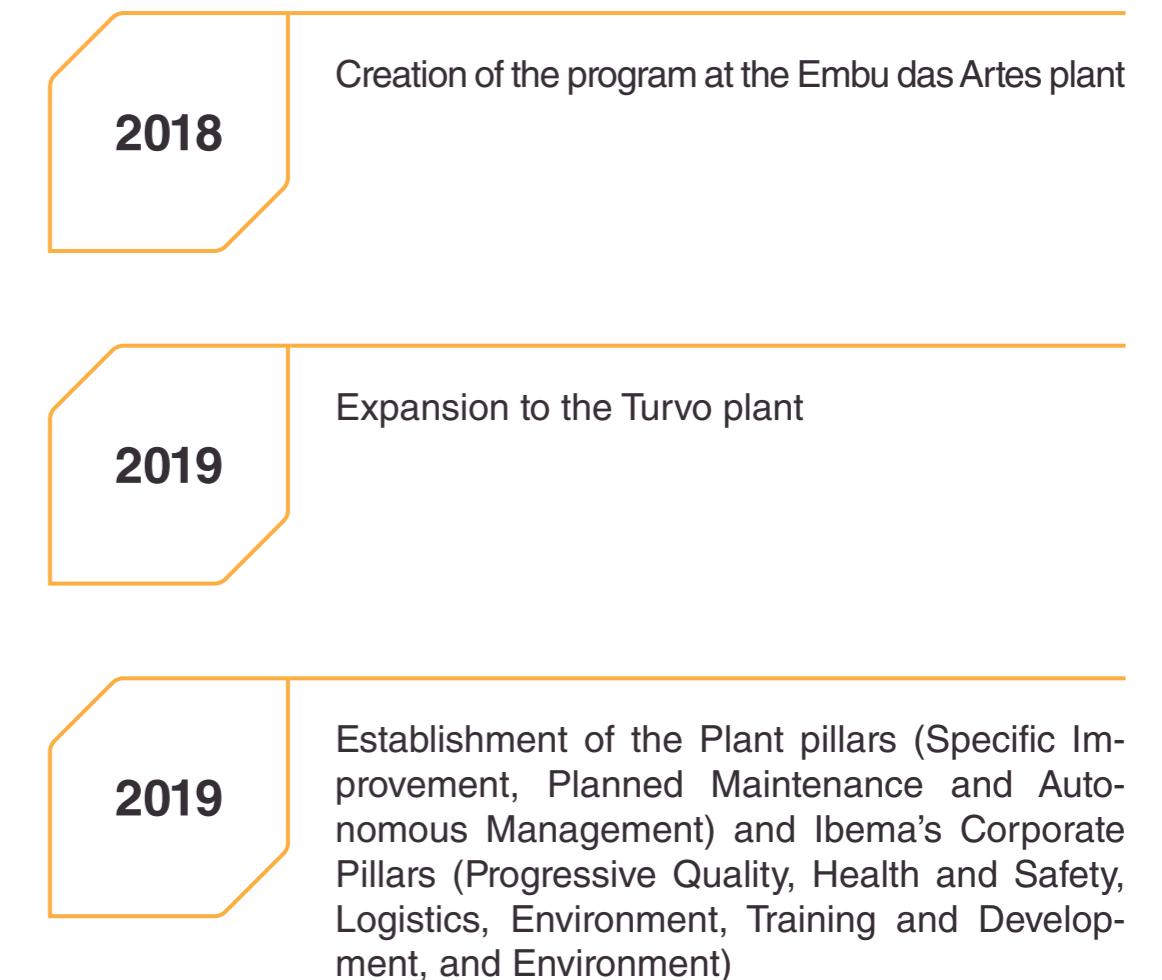
In 2018, the company established the Ibema Excellence System (SEI), a continuous improvement program that aims to provide the necessary Industrial evolution for IBEMA, which will position our company as a nationwide leader in the paperboard supply chain, generating sustainable growth and the satisfaction of Shareholders, Customers, and Employees.

It is a program composed of eight pillars, each with a mission, vision, and strategy. Their respective indicators are monitored and presented in daily and monthly meetings, with the definition of preventive and corrective actions, recorded in an FCA (Fact, Cause and Action) form.

**SEI: Pillars and functionalities**

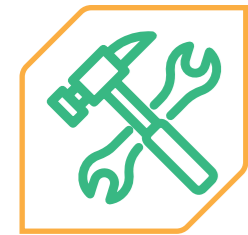


**SEI timeline**

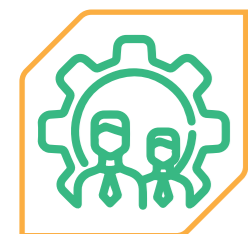




**Specific Improvement:** It supports the Steering Committee in the definition of the cost and volume improvement strategy and enhances productivity and flexibility by reducing setup time and non-aggregating activities. It also maintains plant cost deployment and OEE (Overall Equipment Effectiveness) across the plant and carries out the productivity analysis.



**Planned Maintenance:** It aims to increase the reliability of plants and reduce maintenance costs through the development of a Preventive Maintenance system, based on the time and conditions. This pillar supports the Autonomous Management pillar.



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



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



**Health and Safety:** It 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.



**Logistics:** This Pillar maps several areas to ensure greater efficiency of machines, activities, and people, while reducing operating time, reducing costs, delivery time, and inventories, and improving production sequencing to make the company more competitive. This Pillar contributes to simplifying the process flow in order to ensure its leanness – a state that is fundamental to integrate the plant into the global supply chain, shifting 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:** It is responsible for the Environmental Compliance and Incident Prevention System, reducing losses by changing practices, processes, behaviors and the management system in order to integrate the environment with operational excellence. After diagnosing the plant's environmental performance, this Pilar deploys a group of actions related to the process, utilities, and behaviors, covering water, energy, waste, pollutants, and noise, while contributing to enriching the entire management system.



**Training and Development:** It acts as a foundation on which the other pillars of the entire chain and values are built. It develops training systems linked to the company's goals and performs skills assessment (gap analysis) and development for all functional areas. It also supports model change (that is, autonomous teams in manufacturing) and provides people development (skills and leadership).



### WCOM methodology

The program follows the WCOM (World Class Operations Management) methodology, a management and support system, which focuses on continuous and consistent improvement to eliminate losses and reduce costs in all processes, through the active participation of all employees through a set of methods of excellence in management and control and analysis tools.

In addition to the Program Specialist and Steering Committee, an expert consultant provides support, guidance and methodology training. Each pillar of the Program is composed of a multidisciplinary team of four to six employees, and the process is supervised by the steering committee, which is composed of the CEO and other directors, who meet on a monthly basis to monitor goals and results. All identified adjustment needs are recorded in minutes and forwarded to those

in charge, who present the highlighted deviations or improvements at the following meeting.

### Projects

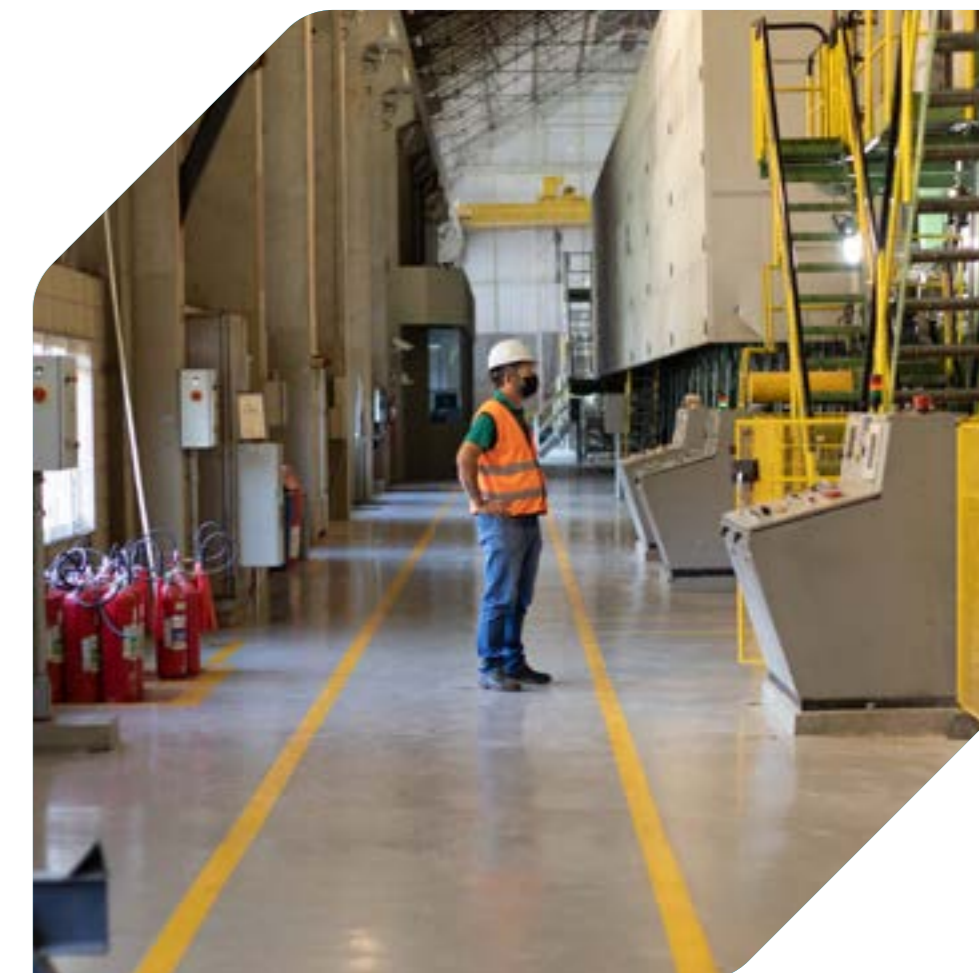
In 2021, the manufacturing plants (Turvo and Embu das Artes) developed a number of projects with an emphasis on operational improvement. Consequently, Turvo stood out with a **10% reduction in water consumption, a 2.7% increase in the OEE of the paper machine, and an 8.86% increase in the production of finished products.**


At Embu das Artes, we can highlight the 7.5% reduction in water consumption, the 1.8% increase in the OEE of the paper machine, and the 15.8% increase in the production of finished products.


In 2021, the SEI program aimed to increase EBITDA by 1.5% in relation to the Base Plan, fully meeting the established goal.


## Infrastructure

GRI 102-48



 Turvo		
	2021	2020
<b>Total Area</b>	592.900 m <sup>2</sup>	592.900 mil m <sup>2</sup>
<b>Manufacturing Area</b>	29,856 m <sup>2</sup>	29,856 m <sup>2</sup>
<b>Current production capacity</b>	100,000 t/year	90,000 t/year
<b>Internal and outsourced employees</b>	490 internal 35 outsourced	490 internal 35 outsourced

 Embu		
	2021	2020
<b>Total Area</b>	61,550 m <sup>2</sup>	82,954 m <sup>2</sup>
<b>Manufacturing Area</b>	20,000 m <sup>2</sup>	20,000 m <sup>2</sup>
<b>Current production capacity</b>	50,000 t/year	50,000 t/year
<b>Internal and outsourced employees</b>	180 internal 107 outsourced	180 internal 99 outsourced

 Araucária		
	2021	2020
<b>Total Area</b>	25,500 m <sup>2</sup>	12,000 m <sup>2</sup>
<b>Manufacturing Area</b>	11,500 m <sup>2</sup>	11,500 m <sup>2</sup>
<b>Current production capacity</b>	7,000 t/year	6,000 t/year
<b>Internal and outsourced employees</b>	36 outsourced 10 outsourced	37 outsourced 10 outsourced

# Portfolio and Client Management





GRI 102-2

Ibema is the third largest paperboard manufacturer in Brazil. It is present in the Americas, Africa, Europe, and Asia and has an annual production of 150,000 metric tons. It currently has over 900 employees (direct and indirect), with two manufacturing units. One of them is located in Embu das Artes, in the state of São Paulo (SP), and focuses on recycling, that is, transforming waste and scrap into new products. The other plant is located in Turvo, Paraná (PR), where the focus is on the production of products made from virgin fiber, that is, planted forests. The company also has a distribution center in Araucária, PR, as well as an administrative office in Curitiba, PR and another in Buenos Aires, Argentina.

Ibema sees its Embu plant as a fortress. Located in greater São Paulo region, the unit is set to become a “woodchip

forest” – a collection hub within the city, able to promote the circular economy. This strategic vision is already happening in the company and can be demonstrated through the new products and the alignment of the portfolio. **Therefore, in 2022, we will continue to invest in the growth of the company’s circular economy, so that it can become a leader in post-consumer products in Brazil.**

Its portfolio consists of 13 products: Supera, Supera White, Impona, Impona White, Naturale, Ritagli, Ritagli Cream, Royal Freddo, Royal Quartz, Royal Blister, Royal Coppa, and Royal Coppa SC. They serve several segments, such as cosmetics, pharmaceuticals, direct food contact, home hygiene, couplings, personal hygiene, bags, pre-packaged foods, premium packaging, Cupstock paper, blister packs, fast-food delivery, frozen foods, trays, and cigarette packs.



## New releases in 2021

In 2021, the Company launched two new products: IBEMA NATURALE and IMPONA WHITE.

**IBEMA NATURALE:** A natural-colored paperboard, translating nature (wood color) into paperboard. Intended especially for the food and cosmetics segments, it has 70% less chemicals in its formulation than conventional paperboards, and its high rigidity allows reducing the weight of packages while maintaining the same structural characteristics.



**IMPONA WHITE:** The new white version of Impona, a leading cardboard paper in the segment and acknowledged for its versatility of application. It replaced the ART PREMIUM line, providing greater rigidity and a new possibility for white packaging, especially in the editorial and promotional markets.



# Customer management

Our links in the chain include printing houses, who are direct customers of Ibema and who are responsible for the manufacture of packaging. Indirect customers include end users, consumer goods industries, and delivery startups or fintech companies. Also, although Ibema is not a direct supplier, it has a specification and development relationship with the third link of the production chain. Therefore, the understanding of the expectations and commitments assumed and development of technology and solutions alongside them is one of Ibema's strategy.

The understanding of the expectations and commitments assumed and development of technology and solutions alongside them is one of Ibema's strategy.

The demand for packaging from renewable sources is a reality in the market, being expected to become even stronger over time. Ibema believes in the circular economy and has been working to engage its value chain in this regard, which is why it interacts in different ways with its customers.

## Customer relationship channels

In 2021, the customer portal was launched. It is a platform created to facilitate interaction with customers from the commercial relationship, development, innovation, sustainability, and logistics areas, among other interactions with end users.

In 2022, improvements will be implemented to the communication flow between Ibema and the customer, in various areas (especially with the Commercial and Technical Service teams) in order to ensure a quick and efficient process.

## Ibema Embala

During the year, we also developed Ibema Embala, a loyalty program in which customers are categorized according to a purchase score, with a series of benefits generated for each category. The idea is to implement a cashback system within the program.

## Biweekly clippings

With an eye for innovation, the company sends a biweekly clipping to our customer base featuring success stories and information related to the paperboard area.



# NPS results

NPS metrics provide an overview of the impression of customers and consumers regarding an organization. They measure customer satisfaction in different processes or relationship areas.

The NPS, or Net Promoter Score, is a research methodology created to measure the level of customer loyalty. Its goal is to identify strengths and weaknesses of the business, which can be leveraged or addressed in the long term in order to deliver an increasingly better experience at all points of contact with the brand.

For 2 years, Ibema has carried out this survey with its customers annually. The last edition, held in 2021, featured plenty of innovations. Some changes were made that allowed transforming data into even more learning, and the goal is to continue promoting improvements that are perceived with each new edition.

The survey was sent to our domestic and international customer base, being approached in Portuguese, English, and Spanish. One new feature lies in the fact that, in addition to evaluating the opinion of our customers, we also sent the survey to our brand owners' mailing list, as the goal was to understand the perceptions of this public, which is key in influencing the purchase of our product.

From 610 contacts, we obtained 204 responses, which represents an effectiveness of 33.4%.

Ibema's NPS showed that the company is in an area of quality and is already recognized for several positive points. The points that need to be improved in each area were also mapped and transformed into action plans. We continue to work daily to pack a future with excellence alongside our customers.

Ibema's NPS showed that the company is in an area of quality and it's already recognized by several positive points.



## How is the comparison with previous years?

In 2020, out of **455 customers**, **153 responded**, representing a **34%** return.

In turn, in **442 customers**, **122 responded**, representing **28%**.

## What was evaluated?



Product quality



Customer Portal



Knowledge about social responsibility and sustainability initiatives



Satisfaction with each area (Commercial, Sales Administration, Logistics, Finance, Quality, and R&D)

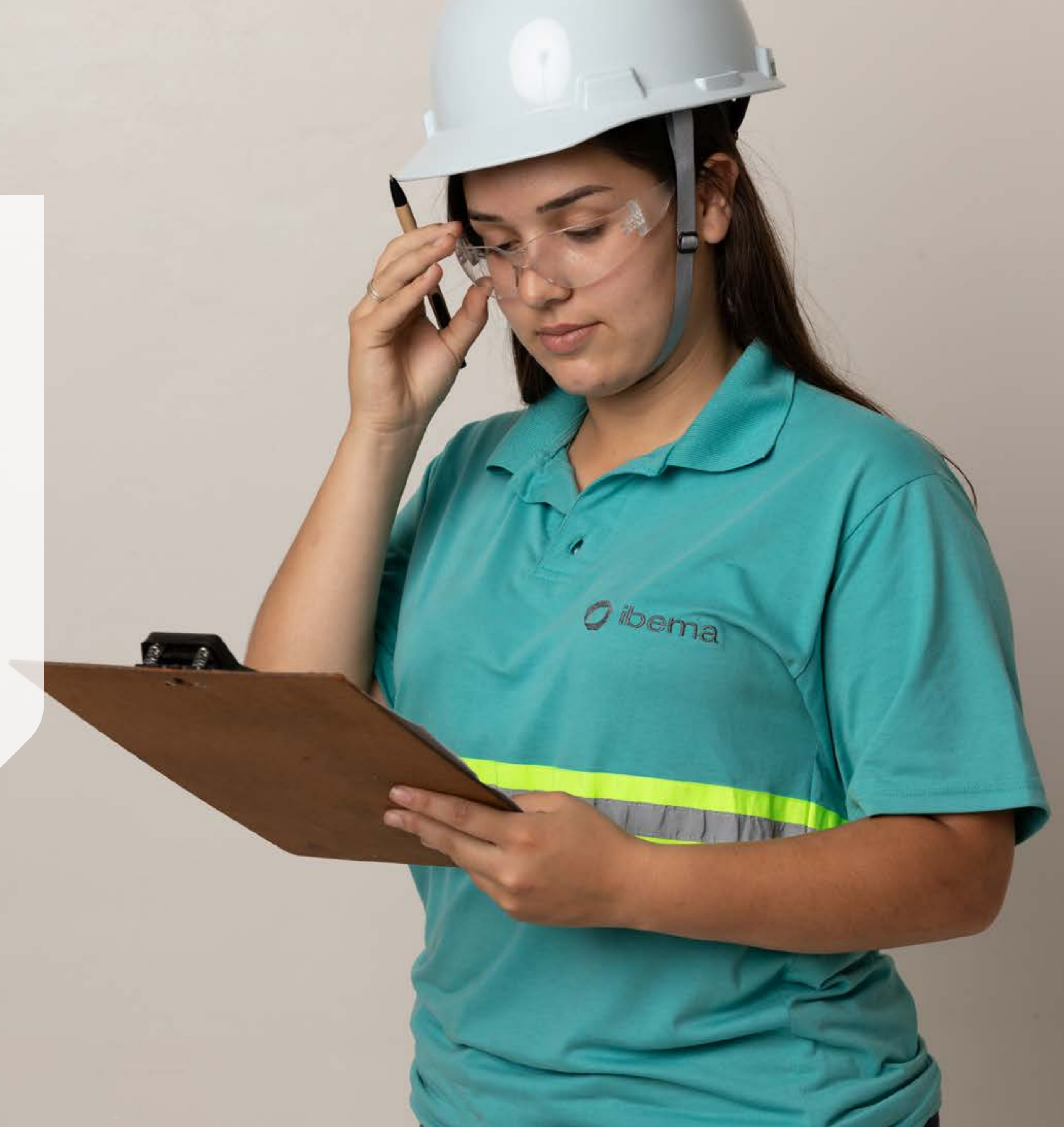
## How much would you recommend Ibema to another company?

**61%** of the participants gave a score from **9 to 10**, generating an **NPS of 51**. This shows that the company is in an area of quality and is **recognized for several positive points**.

## Main points that motivated this rating:

**Service, relationship, trust, and product quality.**

# Corporate and Ethical Governance



**GRI 102-16**

More than products, Ibema packs well-being, experiences, and stories. Packages that are passed from hand to hand, every day, carrying the wishes of thousands of people. From the simplest everyday things to surprising moments, we take care so that everything reaches its destination while being protected. This care is reflected in the way we conduct our relationships, with tact and empathy.

Thinking big and beyond the box, we meet the needs of our customers and surprise them with solutions that are capable of transforming their business. Because more than being a part of our history, believing in the role of courage is what makes our daily work.

Thus, we leave our mark every day, contributing to the creation of an increasingly sustainable world for people, companies, and society as a whole.

We are Ibema, and this is how we face the challenges that make us evolve together.

**The year 2021 marked the revision of our Code of Conduct, a major driver of our conduct and values**, applicable to all our business units. This step aimed to review, disseminate and

educate our employees and partners about our policies and internal codes and brought with it the ethical pillars based on our purpose. With the code revised, it was time to train employees on the changes made. The first event was a launch live session, which was followed by a series of training sessions for the entire company.



**Purpose**

- To pack the future



**Values**

- We believe in the role of courage
- We think outside the box
- We do it with tact



# Corporate governance practices

## GRI 102-18

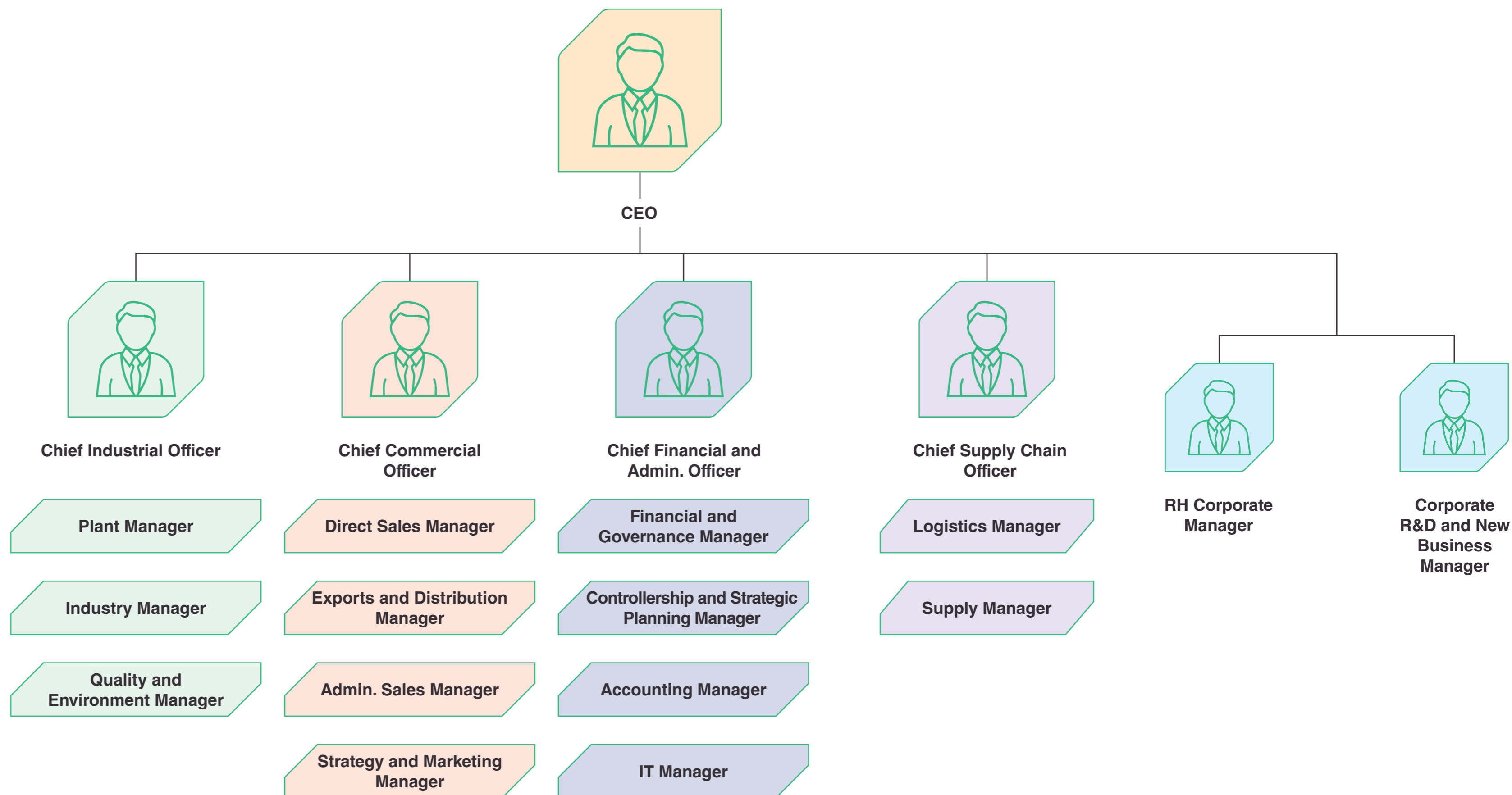
Ibema – Companhia Brasileira de Papel is a privately held corporation governed by its Bylaws and by a Shareholders’ Agreement, the latter of which has been in force since 2016, when the Company underwent a corporate reorganization. Since then, it has been controlled by two shareholders: Ibema Participações (Ibemapar, a holding company that controls the shareholding equities of members of the founding families of the Company) and Suzano Papel e Celulose, with 50.1% and 49.9%, respectively.

The corporate documents provide guidance on the definitions, premises and competences, form of corporate governance practices, among others, for the performance of the directors and directors.

The Board of Directors is composed of four effective members – two representing each shareholder – and the term of office is of two years. Suzano’s positions are occupied by two business directors while those of Ibema Participações are occupied by a family representative, who serves as the body’s president, and an independent director.

The Company’s management is composed of the Chief Executive Officer and four boards, as per the organizational chart below. Election takes place every two years, the last edition having taken place in December 2019. Senior management is supported by committees and working groups.

## Organizational chart



## Committees

The Board of Directors is advised by internal committees, and in 2021, the governance structure was improved with the creation of three new Committees: Ethics and Conduct, ESG, and Strategic.

### Steering Committee

The goal of the SEI steering committee is to reduce and eliminate operational losses and those relating to the entire production chain, using specific methodologies for each type of loss, in order to raise the level of excellence of operations. It uses WCOM as a management and support system. Meetings are held on a monthly basis. Also monthly, the committee meets with pillar and project leaders.

### Environmental Committee

One of the committees that supports the steering committee is the environmental committee, which acts by encouraging the entire value chain in the incorporation of sustainability actions, aiming at promoting a sustainable future. Ibema is committed to becoming a leader on the subject in the paperboard packaging market. The group is responsible for monitoring management indicators and for the decision-making process. It is composed of the corporate environmental supervisor and their respective teams and meets on a weekly basis.

### People Committee

This Committee is responsible for organizational performance strategies, which include the Performance Management and Evaluation Program, Structured Succession Plan, and Position and Salary Policy. It also works on the Climate fronts, which include the Integrated Plans for Continuous Improvement of the Orga-

nizational Climate, Programs and Strategic Practices for Relevant Assessments, such as the one required for participation in the Great Place to Work Guide, and actions to strengthen the Ibema employer brand. A third front is related to the Purpose and Values, which includes the Ibema Cultural Transformation process, based on purpose and values, and organizational policies and practices for diversity and inclusion.

Comprised of the Chief Executive Officer, the Human Resources Manager and the Chairman of the Company's Board of Directors, as well as Suzano's Vice-President of Personnel, it meets as requested by Ibema.

### Ibema and Suzano Tax/Financial Committee

Its duty is to assess the Company's results and financial projections. The agenda includes validating compliance with cash management policies, derivatives, indebtedness, and financial assets, as well as monitoring financial risk management, which includes contract clauses and other sensitive topics such as the impact of corporate changes on financial contracts. It also acts as a preparatory step for specific decision making to be taken to the Board of Directors, such as funding needs and deviations from the estimates in relation to what was approved in the policies, among other items. It is composed of the Chief Financial Officer and the Financial, Financial Planning, Controllershship and Treasury managers. It meets on a monthly basis.

### Opportunity Committee

This committee was created in 2020, following the start of the pandemic, aiming to align action strategies against COVID-19 and its impacts on the supply chain.

The collegiate board is composed of the entire Company's leadership and professionals in the area of security and health and holds its meetings on a weekly basis.

### ESG Committee

It was created in 2021, with the aim of strengthening existing practices and adopting others that have a positive impact on the communities in which Ibema operates, in addition to reducing impacts related to climate change and other industry challenges related to the topic. It is composed of representatives from the R&D, Commercial and Marketing, People and Culture, Environment, Finance and Corporate Governance areas, who meet on a monthly basis and whenever there are extra agenda items to be addressed.

The Committee discusses and prepares the Company's ESG goals and commitments. It seeks alignment with the company's strategy, the UN Sustainable Development Goals, and the commitments generated through COP26, among other public commitments that support the sustainable model of the planet.

### Ethics and Conduct Committee

Created in December 2021, it is composed of members from the People and Culture, Corporate Governance, Internal Controls, Administrative and Financial Management and Legal areas, as well as the Board of Directors. Meetings take place on a monthly basis, with the aim of evaluating the consistency of the actions and evidence presented, as well as deciding on the approval of proposed actions, requesting clarifications and judging actions as valid or not.

## Strategic Committee

Created in 2021, it is composed of the Board of Directors, the CEO, and the CFO. It acts in the deliberations of strategic investments and monitoring of the Company's strategic paths. It meets every 2 months.

## Other areas of governance and management

- **Petit Compensation Committee:** composed of a multi-area group, including the HR, R&D, Commercial, Financial Administration and Logistics areas, which meets for special demands to discuss compensation strategies;
- **Top Team:** deliberations and recurring alignments between directors and managements.
- **Performance:** weekly meetings with the leadership (managers and directors) to analyze the results and projections;
- **Strategy Day:** monthly meetings with the leadership to discuss the Company's strategies;
- **Human Capital Working Group:** focusing on discussing diversity, inclusion, integration, and celebration, as well as employer branding;
- **Petit 5S Committee:** biweekly meetings of plant leaders and their teams to address issues related to the organization, cleanliness and standardization of industrial areas.
- **Supply:** triggered in crisis situations to mitigate or solve supply problems.

## Governance changes in 2021

### Supply Chain Board

In 2021, the Company structured a new Supply Chain department, composed of the Procurement, Logistics, Warehouse, Forestry and PCP (Production Planning and Control) areas. The Technology Board was discontinued.

### Corporate Governance

Ibema seeks to consolidate itself in increasingly strong and sustainable corporate governance practices. In order to achieve this objective, it implemented in 2021 the areas of Corporate Governance, Internal Controls, and Strategic Planning.

The area is led by a manager, a Governance analyst and a junior apprentice. Through this department, the company has strengthened and unified the pillars of Corporate Risk Management and LGPD, implementing the Compliance Program starting in 2022.

The Internal Controls area was implemented in September 2021. Conducted by a manager and an In-

ternal Controls analyst, it aims to provide access to important and easily accessible information, enable the efficient and effective conduct of the activities of the business areas and, mainly, act effectively in ensuring compliance with internal processes in accordance with established policies and guidelines.

The Strategic Planning area, created in January 2021, is led by a manager and aims to understand the guidelines that will lead to the organization's growth, through scenario analysis, goal setting, and other attitudes that lead to the desired objective.

The Utilities and Boiler area, at the Embu das Artes unit, was incorporated by the Maintenance Planning area.

The Quality Control area became part of the Environment, Quality Assurance and SGI area.

The Wood Yard and Mechanical Pulping areas became part of the Utilities area at the Turvo plant.

## 8.2. ESG management

### GRI 102-29

The year 2021 was the first in which Ibema stopped looking at ESG issues individually across its departments and began to see the company as responsible for part of the solution. After the diagnosis and publication of the first sustainability report, Ibema dedicated itself to understanding how to position itself and act consistently, with a positive impact on the planet and society.

We then set up a multidisciplinary group to reflect and act on behalf of the company's ESG needs and priorities. Together, we define that commitment is a public action by the company, whereas the goals act as a complement to the commitments, in order to show the way to go in a clearer manner.

That marked the construction of commitments and goals, which can be read on [page 67](#). These commitments were carried out by the ESG Committee, through the engagement of all members. Part of the construction consisted of conducting a market survey to find out how other players and end users were positioned on the subject.

Each area represented in the committee was responsible for structuring one commitment and one goal, and subsequently, meetings were held to adjust all impacts,

with figures presented and deliberations on the transparency and continuity of the proposals.

Throughout the study, Ibema focused on building direct thinking that is easy for all audiences to understand and which could, above all, convey our commitment to the climate change agenda, the need to emphasize the recycling chain, and the structuring of social investments for the development of the communities where we are located.

During the year, we also issued our greenhouse gas emission survey (using the GHG Protocol tool), in addition to preparing the carbon footprint report for two of our main products and achieving Zero Waste rates in our plants ([page 54](#)).

The Company continued to invest heavily in activities to improve the quality of life of employees and the communities around the plants, operating the day care center in the village around the Turvo plant, to house the children of employees and the local community, alongside the Municipality of Turvo, as well as investing in the training of its employees, with the granting of scholarships for technical, higher, postgraduate courses and programs for minor apprentices and internships for students, in addition to promoting campaigns



and social programs, donation of resources for the fight against COVID-19, crafts training program, and youth development program in partnership with the National Industrial Apprenticeship Service (SENAI), among others.

Senior leadership continued to act in a robust and organized manner regarding the direction and deliberations for economic, environmental and social management. Agendas such as corporate risks, social investment, continuity and transparency of economic management

remained as fixed guidelines for the Board of Directors and Executive Board.

Finally, the Company implemented the Corporate Governance area ([page 32](#)), whose main focus in 2022 will be the implementation of a Compliance Program.

Also in 2021, we revised our Code of Ethics and Conduct and launched our Ethics Hotline ([page 35](#)), which is managed externally to ensure greater transparency and care in addressing the information received.

## Participation in associations

### GRI 102-13

Ibema actively participates in industry associations, projects and committees or, alternatively, as a member of the governance bodies of these entities.

Association	Governance body in which Ibema has representation
ABRE (Brazilian Packaging Association)	Participates in its committees
IBÁ (Brazilian Tree Industry)	Deliberative Board (CEO of Ibema)
Two Sides – Instituto TS Brasil	Member of the Board of Directors and member of the Committee for the Promotion of Paper, Paperboard and Cardboard Packaging, both occupied by the International Business and Distribution Manager of Ibema
Sinpacel (Union of the Pulp and Paper Industries)	Chief Technical Officer (R&D Director of Ibema)
Amcham Curitiba	Member
ABTCP (Brazilian Technical Association of Pulp and Paper)	Member



# Reputation



# Ethics

GRI 103-1, 103-2, 103-3, 307-1, 419-1

Ibema understands that its reputation is essential to maintaining its competitiveness in the market, particularly with an emphasis on business strategies that are based on good environmental, social and governance practices. The company has been working to identify any reputational risks that it may face. The management of the topic is under the responsibility of the Corporate Governance Area, alongside the Administrative-Financial Board.

In 2021, the company identified its risks and impacts, preparing action plans to mitigate or eliminate them. For Ibema, maintaining a good image and a commendable repu-



tation from the standpoint of stakeholders requires positioning and a solid culture of zeal with ethics and the law. The company's goal is to be even more solid and firm regarding the importance of complying with the rules and fighting illicit acts.

One of the possible limiting points identified by the company is the chain to which we belong, which impacts our reputation in the market. Therefore, the company has been putting into practice its code of ethics and conduct, providing for its extension to our partners and developing procedures with the Supply Chain area so that our suppliers are approved within pre-established criteria.

Ibema also has the Corporate Risks area, which monitors the effectiveness of actions created for prioritized risks.

We have several certifications that are subject to annual audits, as well as our financial management, which is evaluated on an annual basis by auditing companies.

Complaints or claims involving the Company's Reputation must be directed to the Ibema Ethics and Conduct Hotline, available 24 hours a day, seven days a week. Reports can be filed through the website <https://canaldeetica.com.br/ibema> or by phone at 0800 300 4481, anonymously.

GRI 205-1

The agreements signed by Ibema, managed by the Procurement and Legal areas contain a specific clause on corruption, according to which the contracted companies declare that they are aware of all laws that prohibit corrupt practices and harmful acts against the public administration in general, including, among others, Act 12,846/2013 (Corporate Anti-Corruption Act), Act 12,529/2011 (Antitrust Act), Act 8,249/1992 (Administrative Misconduct Act), Act 8,666/1993 (Public Bidding Act), and Act 9,613/1998 (Money Laundering Act), and the Brazilian Penal Code.

Contractors undertake to ensure compliance with legal regulations by themselves, their administrators, employees, agents, and employees, and any third parties (including subcontractors). These include practices such as bribery, fraud, influence peddling, extortion, and improper advantage, among others. The contractor is responsible for instructing and training its suppliers, agents, representatives, employees in general, suppliers and any subcontractors on the highest standard of ethics and integrity throughout the term of the agreement.

Failure to comply with the standards is considered a serious violation and may result in contractual termination with cause.

## Interest conflicts

GRI 102-25

The Company does not tolerate situations where conflicts of interest may bring risks of any nature to corporate sustainability, ethical standards, financial results, and any other indicator.

Each area undergoes the communication plan and approval workflow related to mapping, risk assessment, investment value, and action plan management. All reports are assessed and monitored by the Executive Committee and the Board of Directors.

Risk Management acts as a supervisor and conciliator between the parties, always valuing business continuity through risk mitigation.

# Corporate Risk Management



**GRI 103-1, 103-2, 103-3**

The main purpose of risk management at Ibema is to prevent events of an operational, financial and image and reputation nature from harming the execution of the strategic plan or the achievement of the Company's results, as the impacts related to risks affect each business area of the organization.

The company continuously works in synergy with various stakeholders, with the aim of preventing and mapping risks in sufficient time so that the criticality can be addressed, avoiding materialization of the risk. We also remain attentive and monitor a number of external factors that may impact the continuity of the business.

Our Risk Management was implemented in 2019, covering all company units and undergoing audits on an annual basis. Until May 2021, it was under the responsibility of the Information Technology area, and as from June 2021, it became the responsibility of the Corporate Governance area. Both areas are part of the Administrative-Financial Board.

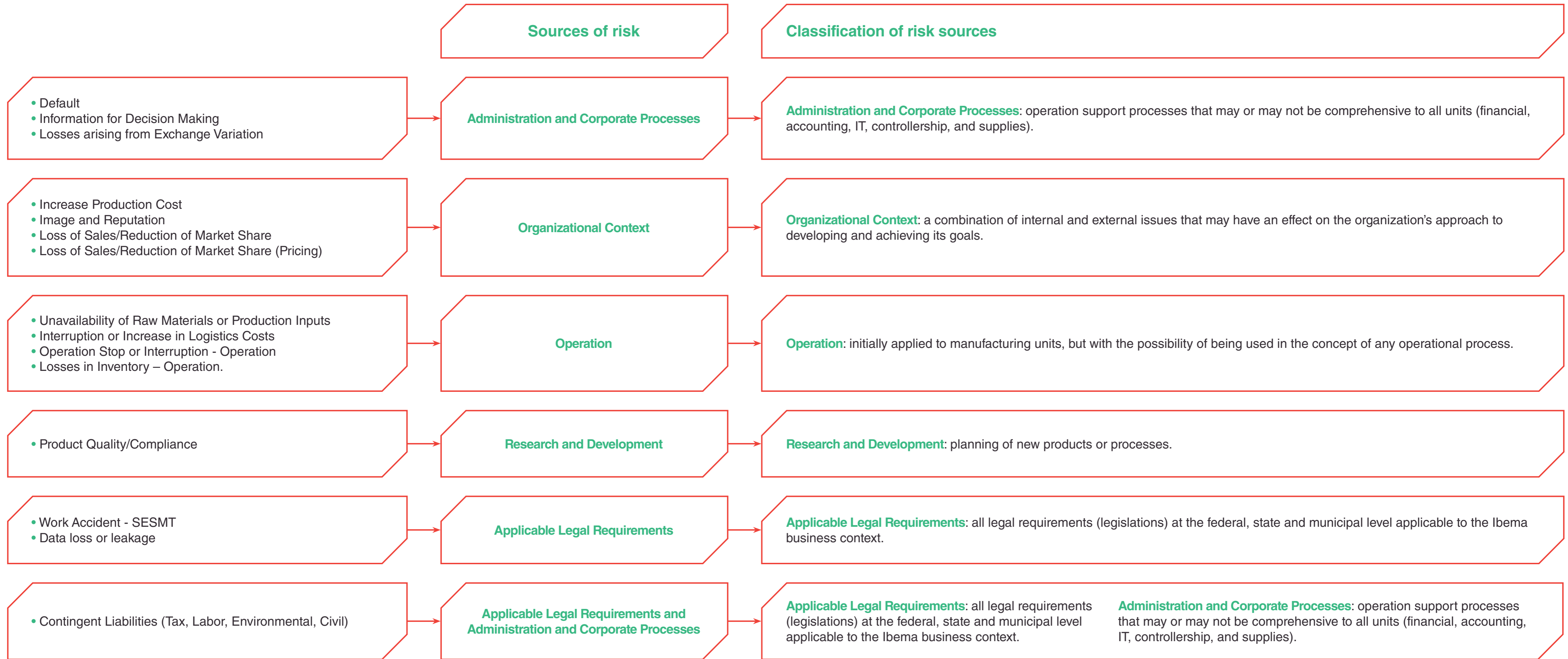
The company's purpose is to mitigate 100% of the shares of each action plan within the Base Plan for each year, map new risks prior to their materialization, and monitor deviations, interruption or delay in mitigating actions.

With an emphasis on improving and associating security and robustness in the mapping, monitoring and management process, in 2021, we also automated our risk management process, through the implementation of the Risk and Action modules of the Qualiex system, already used by Ibema for policy management and processes.

Also in 2021, we carried out a validation of our performance model and maturity in Management. To do this, we had the external support of a consulting firm with solid experience in the market. According to the Risk Maturity Framework model, created to help organizations evaluate their risk management process and identify points for process improvement, Ibema was classified as a Mature Management company. When compared to the market, the company stands out in the pillars of Appetite and Strategy, Risk Report and Analysis, and Data and Technology.



## Ibema's strategic risks in monitoring



## Precautionary principle

GRI 102-11, 102-30

The precautionary principle is the basis for Ibema's risk management. Managers of the business areas, supported by the risk management team and other directors build risk and opportunity analyses, which are evaluated, as well as risk maps, in a corporate manner, by the Executive Risk Committee.

The Committee deliberates on the best strategy for working with corporate risks and opportunities and, whenever necessary, shares with the Board of Directors the maps for the joint construction of solutions.

## Communicating critical concerns

GRI 102-31, 102-33, 102-34

Each month, the Risk Management area prepares a consolidated report on the evolution of the actions proposed by the business areas to mitigate risks, as well as the current status of the phases of each monitored risk.

In critical situations, the risk manager carries out extraordinary reporting for risk mapping or analysis. The risk is evaluated and reported in the appropriate forums, such as the Executive Committee and/or Board of Directors (BOD).

Each year or as critically necessary, the board of directors is updated on all risks mapped and monitored for the next base year. In 2021, 28 critical issues were

reported to the BOD. All of them addressed Risks with Severity (Probability vs. Impact) greater than or equal to 12. The mechanisms adopted to address and resolve them comprised submitting the risk assessment in case it occurs, the value for mitigation and the incidences, if they occurred.

The prioritized and approved risks have detailed action plans for each stage of the mitigation evolution. These actions may have an assigned investment (CAPEX), whose monitoring is carried out by the Company's Projects office.

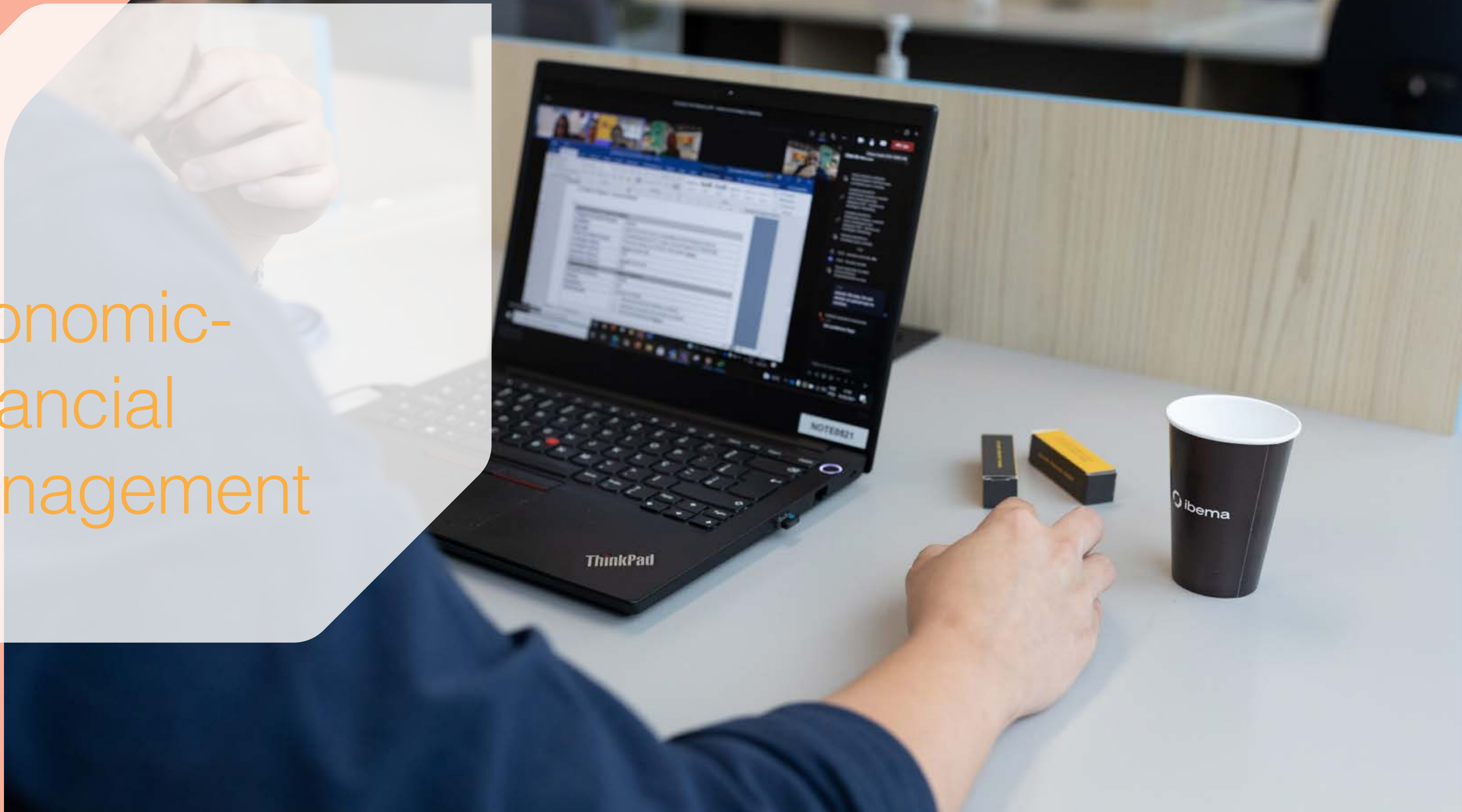
Mitigation actions are monitored on a monthly basis by the Corporate Governance Area. Any need for movement of financial resources and/or rescheduling of shares is reported and resolved, where applicable, by the Executive Committee.

The risks prioritized in this base period had the following Risk Sources:

- Management and Corporate Processes – 5 risks
- Organizational Context – 4 risks
- Operation – 10 risks
- Applicable Legal Requirements – 9



# Economic- Financial Management





**GRI 102-7**

Ibema has R\$235.35 million in capitalization and R\$582.03 million in total assets. It has a 50.10% equity interest in IBEMA PARTICIPAÇÕES S/A and 49.90% in SUZANO PAPEL E CELULOSE S/A.

In 2021, the Company contracted non-deliverable forwards (NDF) to manage the exchange rate exposure in foreign currency flows, for hedging purposes. We emphasize that the strategy for contracting these derivative financial instruments is defined in a policy approved by the Board of Directors, and all the conditions provided for in this policy were fully met.

Regarding financial investments, in 2021, we reached an average percentage rate of 107% of our Interbank Deposit Certificate (CDI). This maximization was supported by the strategy provided for in the Company's financial policy, which included more assertive cash availability forecasts and guidance for more effective financial products, among other allocation factors.

Our sales volume in 2021 was 147,304 metric tons, compared to 130,356 metric tons in 2020, representing an increase of 13%. In Brazil, there were 110,426 metric tons (without considering the sales volume of

cup paperboard), representing a share increase of 1.2% (15.7% in 2021; 14.5% in 2020), consolidating its position **in the third place in the Brazilian rankings of paperboard producers.**

In the foreign market, there were 35,332 metric tons, representing stability in relation to the previous year, being present in more than 25 countries (the number of countries served in 2021 was 25% higher than in 2020).

**Economic and financial results**

The Company had a net revenue of R\$763.8 million in 2021, representing an increase of 35.9% compared

to 2020. Product costs in 2021 were R\$535.5 million, showing a 40% increase compared to 2020.

With this result, the Gross Profit for 2021 reached R\$228.3 million, representing an increase of 26.9% compared to 2020. Administrative and selling expenses totaled R\$97 million in 2021, with an increase of 15% compared to 2020. The bank's net debt decreased by R\$89.6 million (net debt of R\$22.9 in 2020), moving to an available free cash of R\$66.7 million in 2021, leading the Company to a deleveraging of 0.46 in relation to its annual EBITDA (leverage of 0.16 in 2020).

**EBITDA breakdown**

	2019	2020	2021
<b>Net Revenue</b>			
	492,559	561,941	763,812
Net Income	40,693	99,547	88,228
(+/-) Financial result,	11,785	(21,133)	(2,171)
(+) Depreciation and amortization	13,586	13,946	15,711
(+) Income Tax and Social Contribution	14,629	49,508	43,016
<b>EBITDA</b>	<b>80,693</b>	<b>141,868</b>	<b>144,784</b>
(-) PIS and Cofins credits (net of expenses)		31,791	
<b>ADJUSTED EBITDA</b>	<b>80,693</b>	<b>110,077</b>	<b>144,784</b>
% on net revenue	16.4%	19.6%	19.0%

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



## Current liquidity

Current liquidity (Current Assets / Current Liabilities) increased from 1.19 in 2020 to 1.24 in 2021.

## Value-added statement (in millions of R\$)

GRI 201-1

<b>REVENUES</b>	944.96
Sales of goods, products and services	946.55
Provision for doubtful accounts – Reversal/Constitution	0.36
Non-operational	-1.95
<b>INPUTS PURCHASED FROM THIRD PARTIES (includes ICMS and IPI)</b>	554.31
Raw materials consumed	422.49
Costs of goods and services sold	-
Materials, energy, third-party services and others	131.81
Loss/Recovery of Assets	-
<b>GROSS VALUE ADDED</b>	390.66
<b>WITHHOLDINGS</b>	15.71
Depreciation, amortization and depletion	15.71
<b>NET VALUE ADDED PRODUCED BY THE ORGANIZATION</b>	374.95
<b>ADDED VALUE RECEIVED IN TRANSFER</b>	18.48
Equity in the earnings of subsidiaries	-
Financial income	18.48
<b>TOTAL ADDED VALUE TO BE DISTRIBUTED</b>	393.42
<b>VALUE-ADDED DISTRIBUTION</b>	433.19
Personnel and charges	73.31
Taxes, fees and contributions	235.81
Interest and rent	22.08
Interest on equity and dividends	13.23
Retained earnings / loss for the year	88.23
Investments in the community	0.53
Cumulative economic value (economic value generated minus economic value distributed)	-18.48





# People Management

# Profile and diversity

GRI 102-8, 102-41

Ibema ended 2021 with a staff of 939 employees, including 783 internal staff and 156 outsourced workers (139 permanent and 17 temporary). The management of this framework is carried out by the Human Resources area..

## Total workers by employment contract and gender

GRI 102-8

	Male	Female	Total
Internal staff	609	174	783*
Outsourced workers (permanent contract)	119	20	139
Outsourced workers (temporary contract)	10	7	17
<b>Total (internal and outsourced)</b>	<b>738</b>	<b>201</b>	<b>939</b>

\* 100% of the internal staff are governed by collective bargaining agreements.

## Total workers by employment contract and region

GRI 102-8

	Headquarters (Curitiba)	Turvo plant	Araucaria Distribution Center	Embu plant
Internal staff	78	481	42	182
Outsourced workers (permanent contract)	4	22	10	103
Outsourced workers (temporary contract)	0	10	0	7

Note: All of Ibema's own and third-party employees work full-time.



## Total workers by employee category and gender

GRI 102-8

	Internal	Operational	Administrative	Management	Supervision	Board	Total
Male	500	75	12	22	4		613
Female	82	83	3	1	1		170
<b>Internal</b>	<b>120</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>129</b>
Female	22	5	-	-	-	-	27

Note: Considers the five Directors among internal employees, not being counted among employees with a permanent contract, as they hold statutory positions.

# Training and education

GRI 103-1, 103-2, 103-3, 404-3

Ibema is committed to training and developing its employees, as well as promoting education through improvements in the performance of Basic Education in our areas of operation. In this way, the company improves its level of professional qualification, increases productivity, reveals new talent, and increases the quality of deliveries and the engagement of teams.

## Average number of hours of training by gender and employee category

GRI 404-1

	Number of internal employees	Training hours offered	Average hours of training
	609	4,224.00	6.94
	174	281.00	1.61
	783	4,505.00	5.75

Employee category	Number of internal employees	Training hours offered	Average hours of training
Board of Directors	5	265.00	53.00
Management	15	283.00	18.87
Supervision	23	1,760.00	76.52
Administrative	158	275.00	1.74
Operational	582	1,703.00	2.93

Since 2018, the company has carried out the climate and satisfaction survey in partnership with GPTW (Great Place to Work). The People and Culture area is responsible for the management of training and surveys the needs alongside the areas and managers. The information gathered serves as a basis for planning new investments in training and education and ensures connection with business needs. Complaints or claims can be filed through the “Fale com o RH” (“Contact HR”) link on our intranet portal or through the Ombudsman’s channel.

## Main trainings held in 2021

**Paperboard Training – Tappi:** Our R&D and People and Culture teams carried out an important training session alongside one of the best institutions in the world in the pulp and paper sector, the Technical Association of the Pulp and Paper Industry, Inc. (TAPPI). This was a great opportunity for employees who work with the paper machine to learn and develop with international professors.

**Sales Force Training:** Training on the Strategic Impact on Selling Solutions for the sales back office team.

**Safety Training:** Mandatory training to meet regulatory health and safety standards (NRs) and ensure a safe working environment for all our employees, in addition to awareness training for zero accidents and risk hunting.

**Technical Training:** Aimed mainly at the operational public, addressing topics such as polymer technology for wastewater treatment plants, cutting and creasing, paper machine water consumption, audit of the drying section, and modern drying screens, among others.

**Leadership Development Program (PDL):** Aimed at training our managers in soft and hard skills to manage teams with content focused on Effective Communication, Human Relations and Public Speaking, Chief Happiness

Officer Course, participation of our executives in the Leadership Program, held in partnership with AmCham (American Chamber of Commerce of Curitiba) and addressing Ambidextrous Leadership for Innovation.

**Pulp and Paper Managers Preparation Program (PPGCP):** Conducted in partnership with the Brazilian Pulp and Paper Technical Association (ABTCP), it aims to provide opportunities for the development of professionals who have recently graduated in Chemical or Production Engineering and facilitate access to the job market. The program is given by professionals from leading companies in the segment and addresses topics such as people management, sustainability, and pulp and paper, featuring guided technical visits to companies in the paper segment.

**Coaching and Mentoring:** Throughout 2021, we worked on the development of our leadership audience, and according to the individual needs raised by the performance appraisal, we carried out the Coaching processes, which consists of the development of skills and abilities to achieve planned results through focus and effective actions, in addition to Mentoring with senior professionals to guide and share experiences and knowledge with younger professionals, who are starting in a new position or changing careers.



## Education incentive programs

GRI 404-2

The search for qualified labor at the plants is a challenge for the company, which has been helping to minimize these impacts by carrying out professional training courses and training for the local community, in partnership with the Social Industry Service and the National Industrial Apprenticeship Service (SESI/SENAI). The company also remains engaged in strengthening the Education Partner Industry Program in order to encourage young people and adults to resume their studies and complete basic education at all plants. The use of online tools for this training provided classes with audiences from different locations.

Ibema also develops the Education and Development Incentive Program, through which it provides scholarships for its employees, encouraging them to seek new academic knowledge and improve their performance in their role.

To evaluate the training, the company uses the evaluation of effectiveness, which aims to analyze evidence

of improvements made from the application of acquired knowledge or developed skills. The procedure is performed by the manager and monitored by the Human and Organizational Development (HOD) area. When the expected result is not achieved, an action plan must be prepared and followed up in order to achieve the training objectives.

In turn, Crescer (“Grow”), our semi-annual Performance Appraisal Program, which assesses core competencies for the business, based on our drivers of Culture and Purpose and the pillars of results (deliveries), assesses the performance of employees with the goal of generating an environment of sharing, self-knowledge, and growth. In it, the leader plays the role of facilitator and is required to identify, recognize and record the performance of his team, providing followers with individual feedback on their strengths and areas to develop.

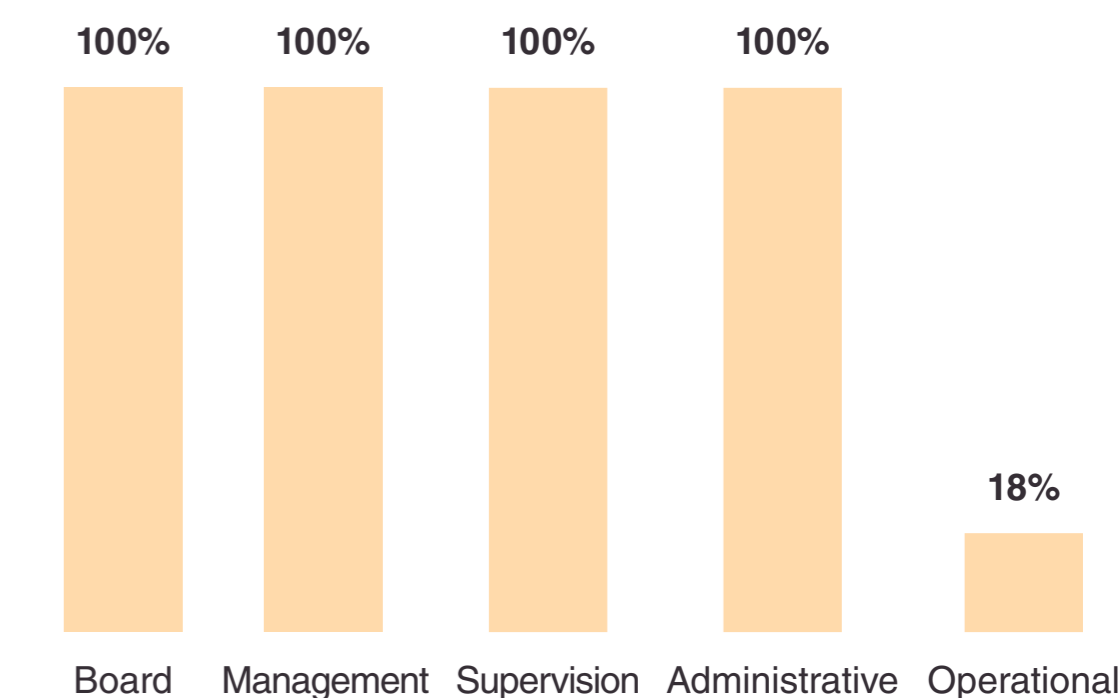
### Actions for dismissed employees

For employees dismissed in 2021, we prepared a professional outplacement booklet with career tips and guidelines so that professionals can reposition themselves in the market or even organize the next steps in three spheres: emotional health, financial management, and career transition. We further

have vacancies in executive positions at the Outplacement service, a consulting department with the purpose of guiding and preparing employees who have been fired from the company so that they can be professionally relocated in the job market.

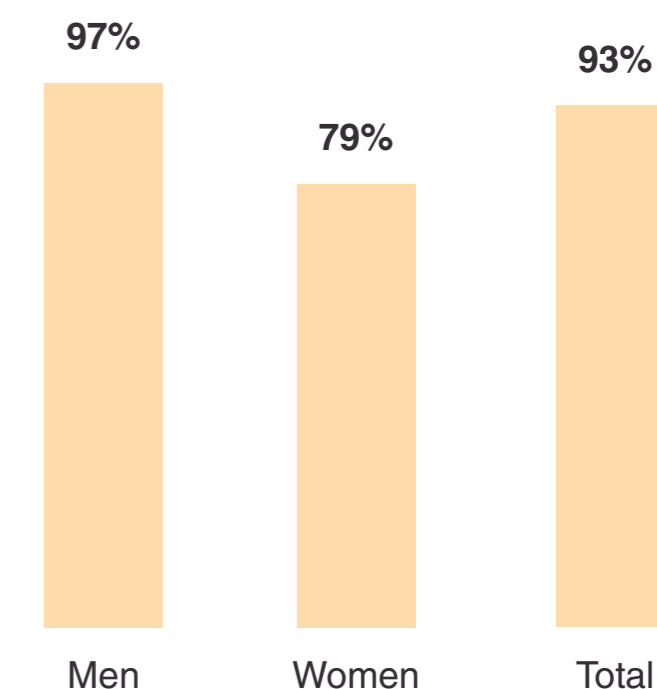
## Percentage of employees by employee category who received performance and career development appraisals

GRI 404-3



## Percentage of employees by employee category who received performance and career development appraisals

GRI 404-3



# Health and safety

GRI 403-1, 403-6, 403-9, 403-10

Safety, for us, is a premise and top priority at all times, and as part of our care for everyone who works in our company, we adopt practices to ensure the integrity and health of everyone. Safety teams work at the local level through risk assessments, educational campaigns, incident investigations, and creation of action plans, among other assignments.

**Safety, for us, is a premise and top priority at all times, and as part of our care for everyone who works in our company, we adopt practices to ensure the integrity and health of everyone.**

Ibema has an occupational health and safety management system based on legal requirements, following the NR1 and NR7 standards. The system was implemented based on ISO system guidelines, with actions that are controlled and validated by specific systems through the Qualiex software platform.

The system covers all of the company’s internal and outsourced staff, and it is everyone’s responsibility to immediately report to the leadership any occupational accident or incident suffered or witnessed. There is no distinction in the treatment of occurrences, and the main goal is not to identify culprits, but rather to seek to identify and act in the elimination or mitigation of root causes.

The organization includes a medical clinic in the vicinity of the company, which is staffed by health professionals, who are available to both internal staff and service providers. To receive services, employees only need contact or go to the outpatient clinic.

Voluntary health promotion services and programs follow the annual schedule validated by health professionals in line with the calendars pre-established by government agencies, such as Pink October, Blue November, vaccination campaigns, STD prevention, and anti-smoking campaigns, which are held events held alongside

the Internal Workplace Accident Prevention Week (SI-PAT). We also have campaigns related to other specific health risks, such as “Na Medida Certa” (“In the right measure”), on obesity, blood pressure control, healthy eating, and other topics focused on quality of life.

In 2021, there were no recordable occupational diseases, fatalities resulting from work-related illnesses or from work-related injuries, or work-related injuries with major consequences, among internal or outsourced staff.

Hazards identified by the company with a high potential to generate accidents with major consequences include exposure to electricity, work at heights, confined space and proximity to points of grabs. As a form of prevention, the company adopts the Risk Manage-

ment Program (PGR) linked to the Occupational Hazards and Risk Survey (LPRO), which uses a control hierarchy based on risk categorization.

Hazards that pose a risk to health include exposure to noise, heat sources, whole-body vibration, and chemical agents (dust and other products with caustic or alkaline characteristics). Nevertheless, there is no evidence that correlates health issues with exposure to such hazards.

## Work-related injuries

GRI 403-9

	Internal 2021	Outsourced 2021	Internal 2020	Outsourced 2020
Number	7	3	4	3
Rate	6.00	9.88	3.44	18.27

Note: Data referring to the Turvo and Embu das Artes plants. The main types of injuries recorded were superficial cuts, abrasions and dislocation of the lower limbs caused by accidents such as “hitting and pressing.” Rates were calculated according to the formula (total recordable work-related injuries/total hours worked) \* 1,000,000 of worked hours.



# Circular Economy





**GRI 103-1, 103-2, 103-3, 203-2**

The circular economy has been a major topic in Ibema's sustainability commitments, as consumers are increasingly looking for more ecological packaging alternatives. Additionally, new regulations aim to reduce the volume of waste destined for landfills or dumps, therefore requiring consumer companies (our indirect customers) to seek recycling solutions or sustainable destinations for their materials.

**Our strategic goal is to offer customers and brand owners packaging solutions that adhere to their sustainability commitments** and are in line with society's consumption trends, whether from the responsible management of virgin fiber or from the recycling of post-consumer materials.

In 2021, the company recycled approximately 2,600 metric tons. This generates a direct impact on revenue for cooperatives and collectors, technological development for certifiers and startups, which are required to guarantee traceability of recycled material and reduction of the amount of

waste in landfills or dumps, bringing social and health benefits to society, in addition to reducing of methane emissions. It also generates the engagement of employees who perceive in the circular economy the purpose of packaging the future and results for shareholders who see in the company the link between ESG actions and results.

Currently, the company has the Sustainability and Marketing areas to manage the topic. We also rely, however, on the involvement of several areas such as Marketing, Commercial, R&D, Industrial, Strategic Planning, and Controllershship.

**Engagement in the Circular Economy**

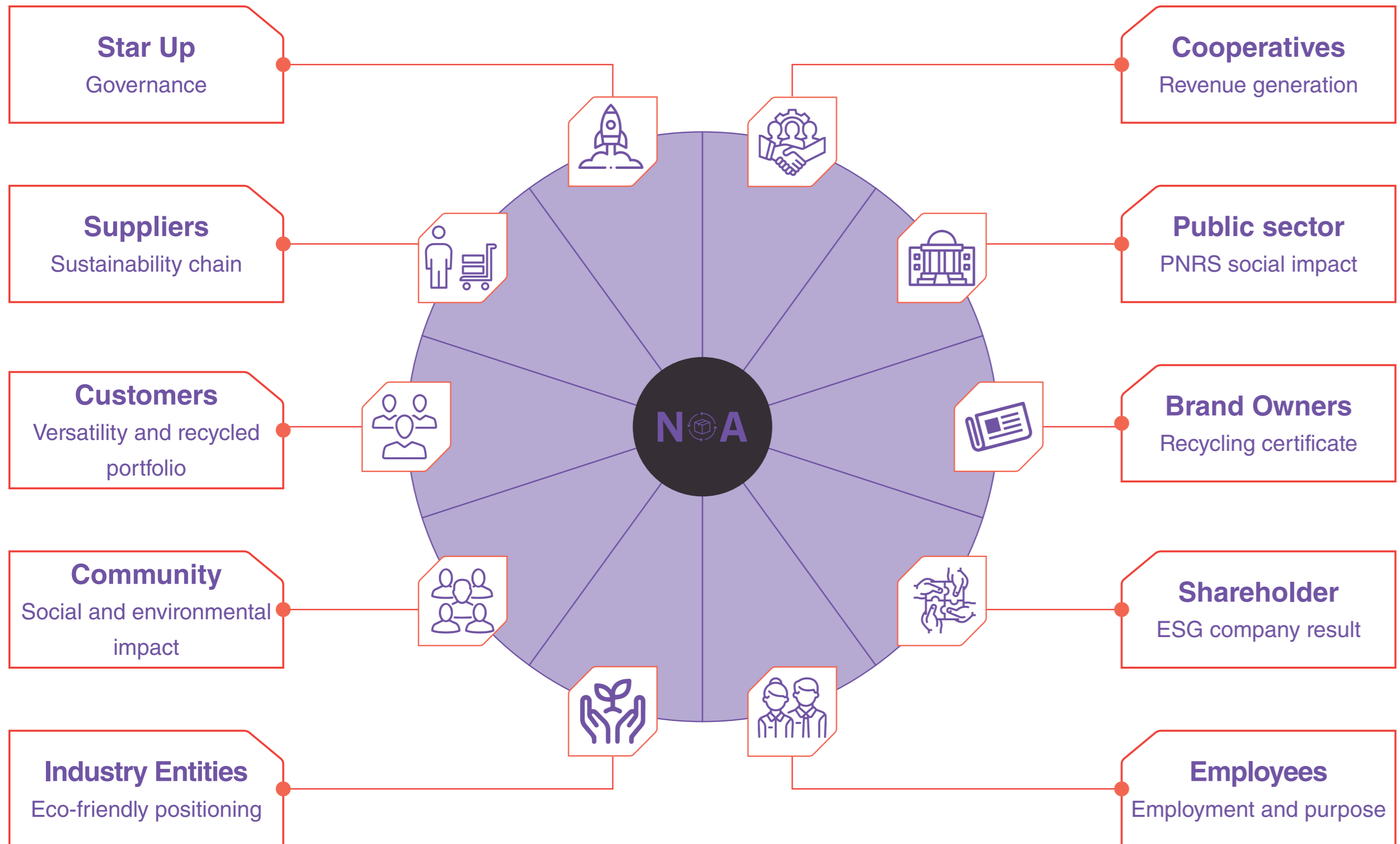
In line with its commitment to the circular economy, in 2021, the company served as a sponsor at f the Circular Economy Forum and the Circular Economy Observatory of the Brazilian Packaging Association (ABRE), which aims to map the domestic circular economy chain and hire startups to enable logistics reverse using the blockchain technology, as can be seen on [page 51](#)



## NOA

Throughout 2021, Ibema structured the New One Again (NOA) project. A program with the goal of verifying the feasibility of using the Embu das Artes plant to be the basis of its portfolio and positioning strategy with a circular economy appeal. To this end, all technical restrictions and impacts of each area were mapped in order to draw up action plans to enable the portfolio connected with the needs of our customers (Brand Owners).

Our purpose is to pack the future, improving results and generating value for all stakeholders.



**The company's goal is to recycle 20,000 metric tons by 2025.** To this end, we have several initiatives and projects aimed at enabling new ways of capturing woodchips and providing Brand Owners with the recycling of their packaging, thereby ensuring a recycling certificate.

Every two weeks, meetings are held to report on the progress of the NOA Project with the entire board. The following indicators are used to assess the effectiveness of the program: EBITDA margin per metric ton of the Embu plant; Sales volume of Ritagli and Ritagli Cream; and total metric tons recycled.

### Projects developed in 2021

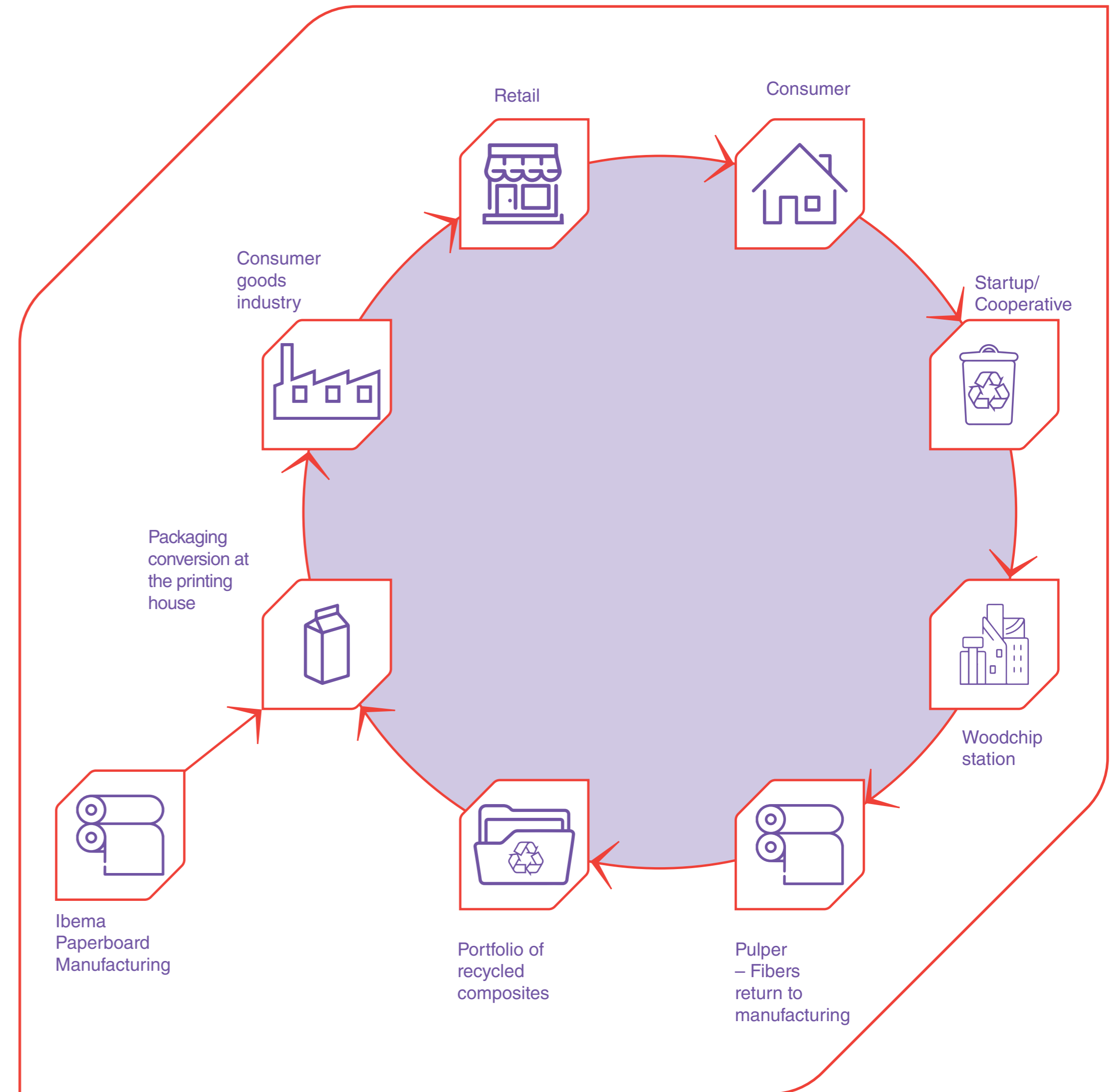
Throughout 2021, Ibema's Research and Development area focused its efforts on replacing plastic, improving existing packaging in the portfolio and developing more sustainable products. We remain strong with the development of new barriers and will have important releases still in 2022 with the potential to change the paper market as a whole. These barriers will make it possible to replace plastic in packaging for direct contact with wet and greasy products, accelerating the reduction in the use of packaging from non-renewable sources.

Another important development was Ibema Naturale, a paperboard with 70% less chemicals when compared to the coated white model. Naturale does not use bleaching chemicals in its fibers, which makes it

an extremely sustainable board. It has an unrivaled rigidity in the market, enabling our end customers to reduce the grammage and weight of their packages, generating a financial gains per metric ton of material and a benefits across the supply chain, with a reduction in the value of freight.

Finally, last year, we started a study to increase the use of post-consumer materials in our paperboards manufactured at the Embu das Arts plant, in São Paulo. We have thus reinforced our ESG objectives, working mainly on Social and Environmental issues, so that the paper used by consumers can be turned into new packaging. Consequently, our Ibema Ritagli and Ritagli Cream papers have been gaining space in the market, increasing the share of post-consumer paper in its formulation and contributing even more to packaging the future of the planet.

**Partnerships with startups:** Ibema has a great challenge to capture its raw material in retail, in order to reinsert it into the manufacturing process, connecting us to the circular economy and to reverse logistics startups. We ended 2021 establishing a connection with leading startups in the market and began to structure the supply chain, returning this waste to our Embu das Artes plant. All startups undergo our legal assessment regarding their system of operation and the framework of their activities with the National Policy on Solid Waste.



**Ciclo Bom (“Good Cycle”) Project with Starbucks:**

A partnership between Starbucks, Ibema and the reverse logistics startup Green Mining. In it, paper cups are recycled and become cup sleeve. We put a collector with a faucet in some Starbucks units, where the consumer can sanitize their cup and discard it in the collector, which will later be collected by our logistics operator. The cups are sent to our Embu plant, where plastic is converted into steam and energy, and the paper fiber is used to produce Ritagli cardboard. Part of Starbucks cups are produced with Royal Coppa, and there is a project for the strap to be used as thermal protection to be made with Ritagli.



**Estação Fábrica (“Factory Station”) Project with O Boticário:**

A waste collection hub located in Embu, in the form of a container, where any person can dispose of material, whether it is glass, cardboard or paper. Monetization will be according to the deposited weight. The entire operation is managed by the waste logistics company Green Mining, alongside Ibema and O Boticário. Collectors or individuals receive a significantly higher value than that practiced in the market, as it reduces the number of links in the chain, such as co-operatives, when making the deliveries directl.



# Materials

**GRI 301-2**

In 2021, the use of recyclable inputs at the Embu das Artes plant corresponded to 7.47% of the total inputs consumed by the plant. At the Turvo unit, the value was equal to 0.60%. In total, the company used 9,671,769.51 kilograms of woodchips from third parties.

The woodchips used in Ibema’s production are classified into pre-consumer woodchips (material resulting from leftover materials from the printing process-

es and which was not referred to end consumers) and post-consumer woodchips (material resulting from use by consumers and which are discarded for the recycling market, which we acquire for use in our process).

The material is received by the logistics area for checking and later referred to production. The Supply Sector carries out the work of developing suppliers, according to the approval procedure.

**Materials used in 2021**

**GRI 301-1**

Material	Total for Ibema (kg)	Renewable or non-renewable	External or internal supplier
Pulp	54,167,174.86	Renewable	External
Own portfolio	19,790,658.00	Renewable	Internal
Portfolio supplied by third parties	38,335,573.04	Renewable	External
Own woodchips	5,426,253.00	Renewable	Internal
Woodchips supplied by third parties	10,334,831.22	Renewable	External
Own tailings	9,570,916.00	Renewable	Internal
Industrial gas	8,378,995.04	External	Non-renewable
Chemicals	85,118,807.96	External	Non-renewable
Renewable chemicals	2,828,882.47	Renewable	External



# Environmental Management

# Waste

GRI 103-1, 103-2, 103-3, 306-1, 306-2, 306-3, 306-4, 306-5

Waste generation is inherent in industrial processes, which is why it is one of the priority topics to be managed in our environmental management system.

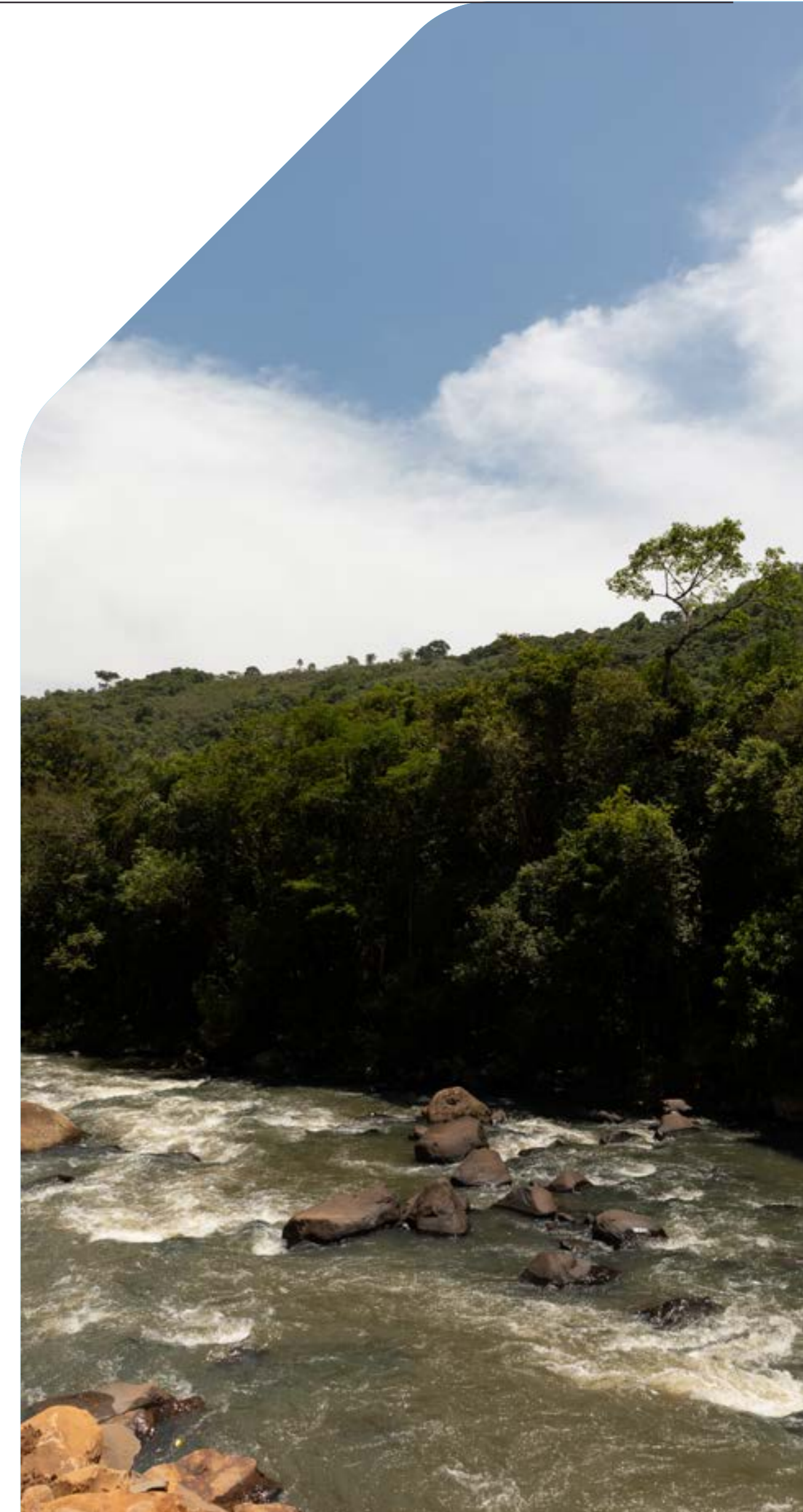
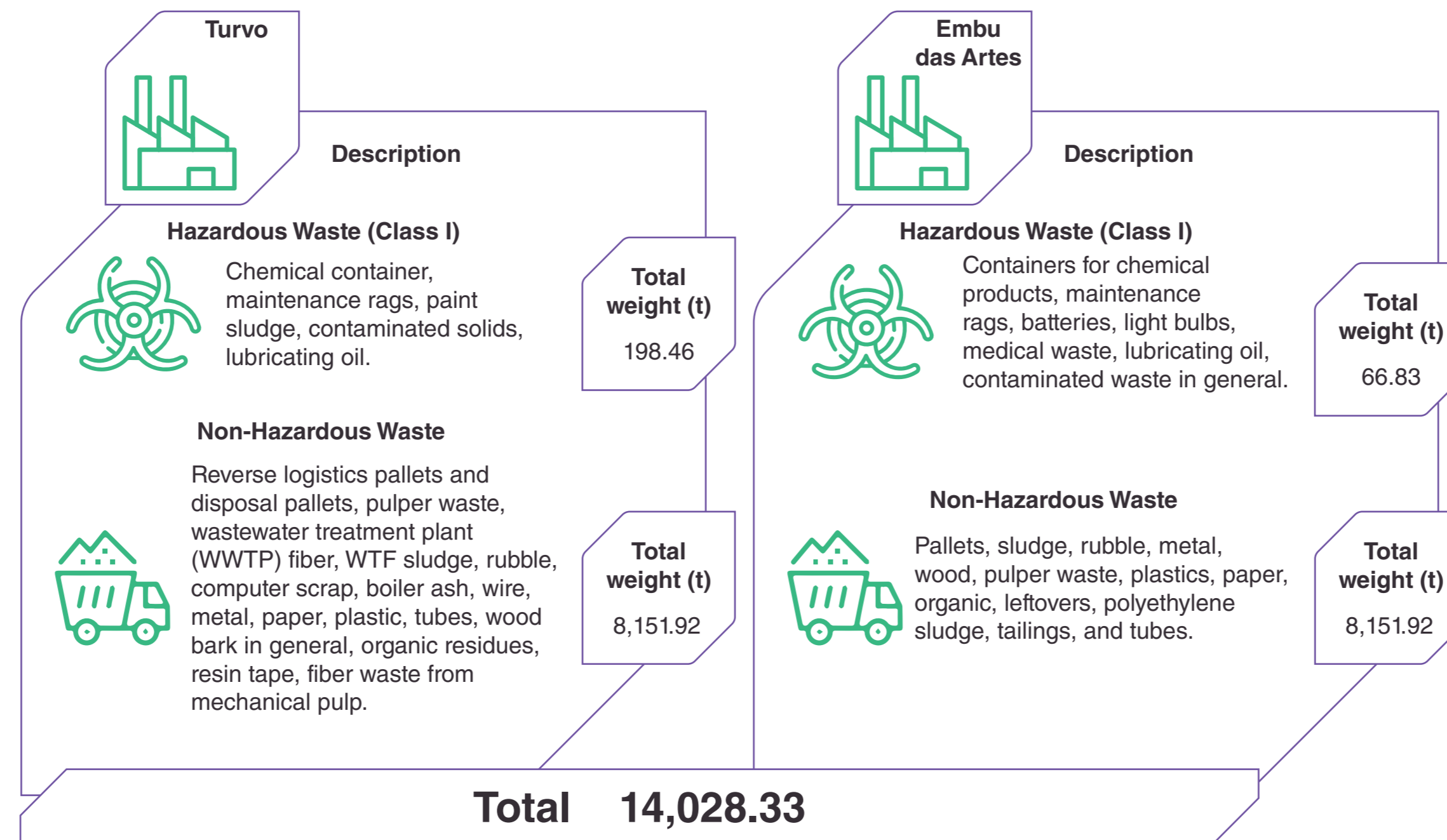
Ibema monitors the amount of waste generated in order to reduce generation at the source, promote internal reuse where applicable, and destine waste that cannot be reused in its production process for appropriate final disposal through recycling, co-processing, and composting processes.

Always seeking best practices, in April 2021, we achieved our Zero Waste goal at our Industrial Plants, aiming at an environmentally appropriate and sustainable disposal of all waste and tailings generated and not destined for industrial or sanitary landfills.

The largest volume of waste generated by the Company is classified as non-hazardous and can therefore be recycled or reused. Of the 14,000 metric tons of waste generated in 2021, 90% were diverted from disposal, either through reuse, recycling, co-processing or composting, by the Company itself or by third parties.




Always seeking best practices, in April 2021, we achieved our Zero Waste goal at our Industrial Plants.

## Generated waste GRI 306-3





### Waste diverted from disposal

GRI 306-4

Hazardous waste		At Ibema	Outside Ibema	Total
	Reuse	0	127.00	127.00
	Recycling	0	0.23	0.23
	Blending and co-processing	0	138.06	138.06
<b>Total</b>				265.29

### Waste destined for disposal

GRI 306-5




Non-hazardous waste		At Ibema	Outside Ibema	Total
	Aterro	-	511.43 <sup>1</sup>	511.43
Hazardous waste		At Ibema	Outside Ibema	Total
	Aterro	-	0.04 <sup>2</sup>	0.04

1. Amount referring to the disposal of sludge from the Turvo WWTP, which was destined for the landfill from January to March 2021 (before reaching the Zero Waste milestone)

2. Value referring to the outpatient waste from Embu, which is destined for incineration, the value being irrelevant compared to the total amount of waste generated.

### Waste diverted from disposal

GRI 306-4





Non-hazardous waste		At Ibema	Outside Ibema	Total
	Reuse	3,724.83	3,915.66	7,640.49
	Recycling	0	2,320.61	2,320.61
	Blending and co-processing	0	2,372.33	2,372.33
<b>Total</b>				12,333.43

The company follows the guidelines of the National Solid Waste Policy (PNRS), performs the classification of waste according to the ABNT NBR 10,004/2004 standard, and meets all the requirements of environmental agencies for their appropriate disposal.

The company has an Integrated Quality and Environment Policy, in compliance with the requirements of NBR ISO 14,001/2015, having its environmental management system certified by an external agency.

The plants have a dedicated environmental team to address the management of the waste generated in our Plants, and Ibema has contracts with companies that specialize in waste management, to carry out the environmentally correct final destination.

The company also has a Lean Manufacturing Program, called Ibema SEI (Ibema Excellence System) Program, whose Environment Pillar has environmental indicators and goals linked to waste management.

		Target	Accomplished	Target achievement
	Turvo	57 kg of waste/metric ton produced	38.9 kg of waste/metric ton produced	
	Embu das Artes	100 kg of waste/metric ton produced	94.6 kg of waste/metric ton produced	

Ibema has a system of internal and external audits carried out periodically with the Environmental Management System (SGA) and the Environment Pillar, in addition to the workgroup focused on the 5S program for the waste area, in which the daily monitoring of waste generated and discarded is carried out, in addition to checks regarding their correct sorting.

Once deviations are identified in the established indicators, a root cause analysis of the problem

is carried out to prepare an action plan in order to achieve the established goals.

Any external or internal demand referring to complaints, improvements or any observation regarding the subject must be forwarded to the Environment department for the appropriate treatment, through email, telephone or contact made directly at the company's front desk.

### Supply chain

As paperboard manufacturers, we have products that are used as raw material for the production of packaging, that is, we do not directly address end consumers, acting rather in the acquisition of waste related to products that are generated in other stages of the value chain.

Our suppliers undergo an approval process before providing services to Ibema, and we

carry out audits on document processes on a regular basis, as well as on companies throughout the approval process.

All supplier documentation is monitored by the Procurement area, which developed a supplier documentation management system during 2021, which was put into operation in 2022.







## Zero Waste

The Turvo Plant stands out in the process of reuse of generated waste, with 44.61% of the total amount generated at the plant being reused. The company seeks to reuse as much as possible of the waste that can be incorporated into its processes, such as pine bark and fiber waste from the mechanical pulp process.

In April 2021, we implemented the Zero Waste system at the Turvo plant, where none of the waste generated in our process is destined for an industrial landfill. A major challenge overcome throughout the year (which had as a benchmark Ibema's Embu plant itself, which has practiced Zero Waste since 2020), since, due to the unit's location, far from urban centers, its main challenge was to seek alternatives of treatment for the

sludge from the WWTP and the subsequent destination for Composting. This process required commitment and efforts on the part of the Environment and Supplies team to develop a supplier that could meet this company's demand.

With regard to generation, the company does not have hazardous waste that is directly linked to the production process, and the amount generated is extremely low in relation to the total amount generated.

The unit has established a partnership to manage the waste with final disposal companies, which are duly approved to receive the generated waste. This management includes the rental of dumpsters, removal,

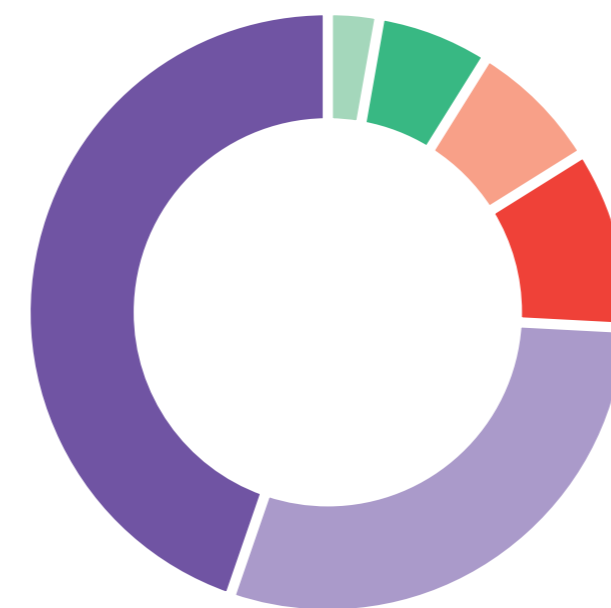
transport and referral to the final destination, and submission of all documentation to Ibema, such as certificates of final destination and quantitative reports.

The Environment department is responsible for managing the information, which is inserted in control sheets, and transforming them into monitoring indicators.

At the Embu plant, which also has had a Zero Waste system since 2020, and all waste generated is destined for composting, co-processing, recycling, or reverse logistics. The unit has partnered with company that manages the waste alongside final disposal companies, which are duly approved to receive the generated waste.

In April 2021, we implemented the Zero Waste system at the Turvo plant, where none of the waste generated in our process is destined for an industrial landfill.

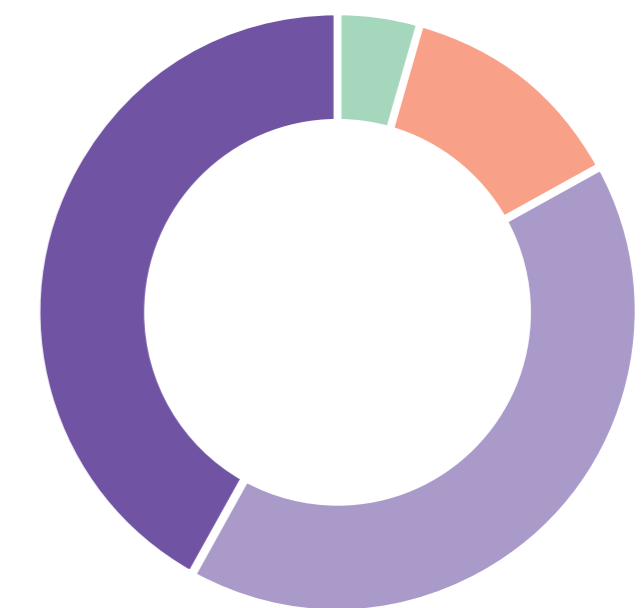
Destination of waste generated at Turvo



- Co-processing
- Industrial landfill
- Reverse logistics
- Composting
- Recycling
- Reused in the process

Note: Of this amount, only 198.46 metric tons corresponded to hazardous waste, generated by internal maintenance activities and contaminated by oil, grease, paint, or chemicals.

Destination of waste generated at Embu das Artes



- Co-processing
- Reverse logistics
- Recycling
- Reused in the process

Note: Of this amount, only 66.83 metric tons corresponded to hazardous waste, generated by internal maintenance activities and contaminated by oil, grease, paint, or chemicals.

# Water and effluents



GRI 103-1, 103-2, 103-3, 303-1, 303-2, 303-3, 303-4, 303-5

Water is one of the main inputs used in the paper production process, subsequently generating effluents, which Ibema considers one of the main items to receive adequate management. The company has an Integrated Quality and Environment Policy, in compliance with the requirements of NBR ISO 14001/2015, its management system being certified by an external agency.

At the Embu das Artes plant, the water used is collected directly from the tributary of the Embu River (Ribeirão Ponte Alta), undergoing the treatment process at the water treatment plant so that it can be adapted to the standards of use of the production process. Sub-

sequently, the water is discarded, being directed to the company's wastewater treatment plant and returned to the collection system of the SABESP water utility, in accordance with current legislation and providing superior quality in the water captured in the river.





The Turvo unit is located in a rural area. In it, water is captured directly from the Marrecas River, also undergoing the treatment process at the water treatment plant to meet the standards of the production process. Subsequently, it is discarded through the process effluents, being directed to the industrial wastewater treatment plant and returned to the Marrecas River. The plant has a permit to capture 300 cubic meters per hour, but the company captures 50% of the allowed volume, with a maximum flow of 150 cubic meters, in order to meet production demands and preserve the river's flow.

At Turvo, impacts may occur related to the processes of disposal of effluents along the Marrecas River.

In accordance with the requirements of environmental agencies, all effluent generated in the company is duly treated in order to meet the release grant conditions. After treatment, the effluent is released into the Marrecas River, where Ibema also conducts water harvesting and is responsible for effluent disposal, meeting the standards established in the legislation and ensuring, at least, the same quality as the water as harvested water. At this plant, the water and wastewater treatment department is composed of 6 operators who work in relay shifts to ensure the continuous operation of the WWTP.

The Company's goals and indicators related to the topic are established with the aim of ensuring the continuous improvement of our products, aiming at lower harvesting rates and better utilization of water in our production process. The water consumption indicator is followed up through the volume utilized by the production volume in metric tons and monitored daily at production meetings, as well as being presented by the Environment Pillar at monthly meetings with the steering committee, which is part of the Ibema SEI Program.

The Company's goals and indicators related to the water and effluents are established with the aim of ensuring the continuous improvement of our products.

		Target	Accomplished	Target achievement
	Turvo	11.60 m³/T produced	11.37 m³/T produced	
	Embu das Artes	4.50 m³/T produced	3.18 m³/T produced	

The purpose of Embu das Artes effluent management is related to having no negative impacts on the environment through the incorrect disposal of pollutants into water bodies and compliance with the applicable legislation. It also has the purpose of generating a positive environmental impact, as we discard effluents with a higher quality than the water harvested in the water body.

All effluent generated by Ibema in Embu das Artes is duly treated, in order to ensure compliance with Article 19A of Decree 8,468, in force in the State of São Paulo. After treatment, the effluent is released into the collection system (SABESP outfall), where it is also sent to an effluent treatment station.

The water and effluent treatment department at the Embu unit is composed of one operator per work shift.


The station works in rotating shifts to ensure 24/7 operation. Management is carried out through quantitative indicators of water harvesting and treatment, harvested water quality, and discharged effluent. Control mechanisms are implemented through the daily monitoring of indicators of amounts of water harvested, sludge generated, effluent discharged, and effluent quality.

Once deviations are identified in the established indicators, a root cause analysis of the problem is conducted to ensure the preparation of an action plan in order to achieve the established goal.

Any external or internal demand regarding complaints, improvements or any observation must be forwarded to the Utilities department for the appropriate treatment.

### Disposal of effluents (in megaliters)<sup>1</sup>


GRI 303-4

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

1. All effluent discarded by Ibema is considered freshwater, that is, it has total dissolved solids less than or equal to one thousand mg/L. Effluents discarded by Ibema do not contain substances of concern.

### Water abstraction (in megaliters)<sup>1</sup>


GRI 303-3

	2021	2020
 Surface water	1,538.66	1,478.84
Groundwater	31.12	22.99
Third-party water	4.34	–
<b>Total</b>	<b>1,574.12</b>	<b>1,501.83</b>

1. All water captured by Ibema is considered freshwater, that is, it has total dissolved solids less than or equal to 1,000 mg/L.

### Water consumption

GRI 303-5

	2021	2020
 Total water consumption of all areas (in megaliters – water abstraction minus disposal)	149.82	260.00
Water storage (in megaliters) <sup>1</sup>	260.00	260.00

1. Water storage at Ibema occurs only in the phase between harvesting and shipment to the factory.



# Climate change

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

Climate change is a global phenomenon that has been potentiated as a result of human actions and is able to trigger a series of consequences with the increase in the planet's average temperature. The Paris Accord (2015) aimed to keep global temperature rise below 2°C and, preferably, limit this rise to 1.5°C.

Contrary to common thinking, it has already been proven that an increase of 1.5 C° is able to cause differences on Earth in several areas, such as the appearance of heat waves, storms, droughts, problems in agriculture, and rising sea levels.

The main cause of this problem is the emission of greenhouse gases (GHG) from the burning of fossil fuels. Other ways to contribute to climate change include fires caused by the misuse of land or forests and deforestation, which in 2018 generated 44% of the GHGs emitted in Brazil.

In the post-pandemic world, a significant increase in the emission of gases was observed in the energy industry. Global emissions of energy-related carbon dioxide (CO<sub>2</sub>) increased by 6% in 2021.



Additionally, Brazil remains as the fourth largest emitter of polluting gases on the planet. With this in mind, the topic is considered in Ibema's business strategy. The company understands that the continuity of its business is closely associated with the effects of climate change. Therefore, a study is planned for 2022 to map potential risks and mitigation methods that bring innovation and safety to the company's processes.

The potential impacts for the company generated by the risks associated with climate change are scarcity or reduction of natural resources, which are part of the company's production process, such as water and wood. All risks undergo a valuation, if they occur. This assessment includes operational stops, compliance with legislation, and others. In the mapping, the value for mitigation will also be raised.

The preparation of the Company's GHG emissions inventory provided us with a vision of our emissions, enabling us to map opportunities for improvement. Ibema's goal is to reduce CO<sub>2</sub> emissions in its processes. At the Embu das Artes plant, we aim to install a new boiler, which will significantly reduce the unit's GHG emissions.

## GHG emissions from Ibema industrial plants [tCO<sub>2</sub>e]

GRI 305-1, 305-2


	2020	2021	2020 x 2021 (%)
 Scope 1 <sup>1</sup>	18,622	20,860	12
 Scope 2 <sup>2</sup>	4,983	10,927	119

Notes:

- Scope 1 considers, in addition to CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O.
- Scope 2 of both plants considers CO<sub>2</sub> emissions.
- The approach chosen for the calculation was that of operational control, and the base years are 2020 and 2021.
- The only sources of emission factors and global warming potential (GWP) used were those from the GHG Protocol.
- Ibema's biogenic emissions are in Scope 1 and total 42,268 tCO<sub>2</sub>e for the base year 2020 and 45,378 tCO<sub>2</sub>e for the base year 2021.
- In 2022, we prepared the inventory for the base year 2021 and took the opportunity to review the inventory for the base year 2020, so that they could stay in the same database, resulting in a negligible change in the consolidated data for E1 and E2.
- The variation in emissions in 2021 is mainly due to Scope 2, referring to the increase in the Emission Factor of energy purchased from the National Interconnected System (SIN). In turn, the small change in in Scope 1 is due to a number of interventions in our boiler, which resulted in higher fuel consumption; this issue has already been addressed in our investment plan for boiler replacement.

## Emission intensity

GRI 305-4

	2020	2021	2020 x 2021 (%)
 KgCO <sub>2</sub> e (Scope 1 and 2 emissions) / metric ton produced	0.4155	0.4749	14

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>, and N<sub>2</sub>O)

# Energy

## GRI 102-48, 302-1, 302-4



In 2021, Ibema had a 4% reduction in energy consumption when compared to the previous year at its Industrial Plants. The company is employing efforts to reduce its energy consumption, and a study is being conducted to replace the existing engines at the Plants with high-efficiency motors. At the Turvo Plant, 10 engines that had a significant consumption of electricity were replaced.

It is increasingly necessary to invest in renewable energy sources. The company has been seeking partnerships with renewable energy suppliers, with the aim of combining the use of clean energy with reduced consumption and, subsequently, lower costs and greenhouse gas emissions.






In 2021, the main opportunities for improvement in the management areas were mapped, referring to the con-

sumption of electricity, natural gas, steam generation, and manufacturing processes. The Turvo Plant is in the process of acquiring new equipment, and consumption issues are being carefully evaluated to adjust consumption metrics. At Embu, the main initiative in 2021 was the preparation of the project to change the energy matrix from natural gas to biomass.

Consumption Indicators for electricity, natural gas and biomass are monitored daily at production meetings and are presented by the Environment Pillar at the monthly meetings of the steering committee, which are part of the Ibema SEI Program. These indicators are fed by the ratio between consumption and production volume in number of metric tons produced. For the other fuels, consumption records are made by the user areas.

	Target	Accomplished	Target achievement
 Turvo	0.516 MWh/T produced	0.507 MWh/T produced	✓
 Embu das Artes	0.531 MWh/T produced	0.519 MWh/T produced	✓

## Consumption of fuels from non-renewable sources (in GJ) GRI 302-1

	2021	2020
 Gasoline	383.65	331.17
 Diesel	4,051.53	3,405.33
 Lubrax oil	371.28	0.08
 Natural gas	318,956.61	228,783.48
 Liquefied petroleum gas	45,718.89	40,653.27
Total	369,481.96	273,173.33

## Consumption of fuels from renewable sources (in GJ) GRI 302-1

	2021	2020
 Ethanol	20.09	11.99
 Biomass	501,038.149	466,718.00
Total	501,058.24	467,279.88

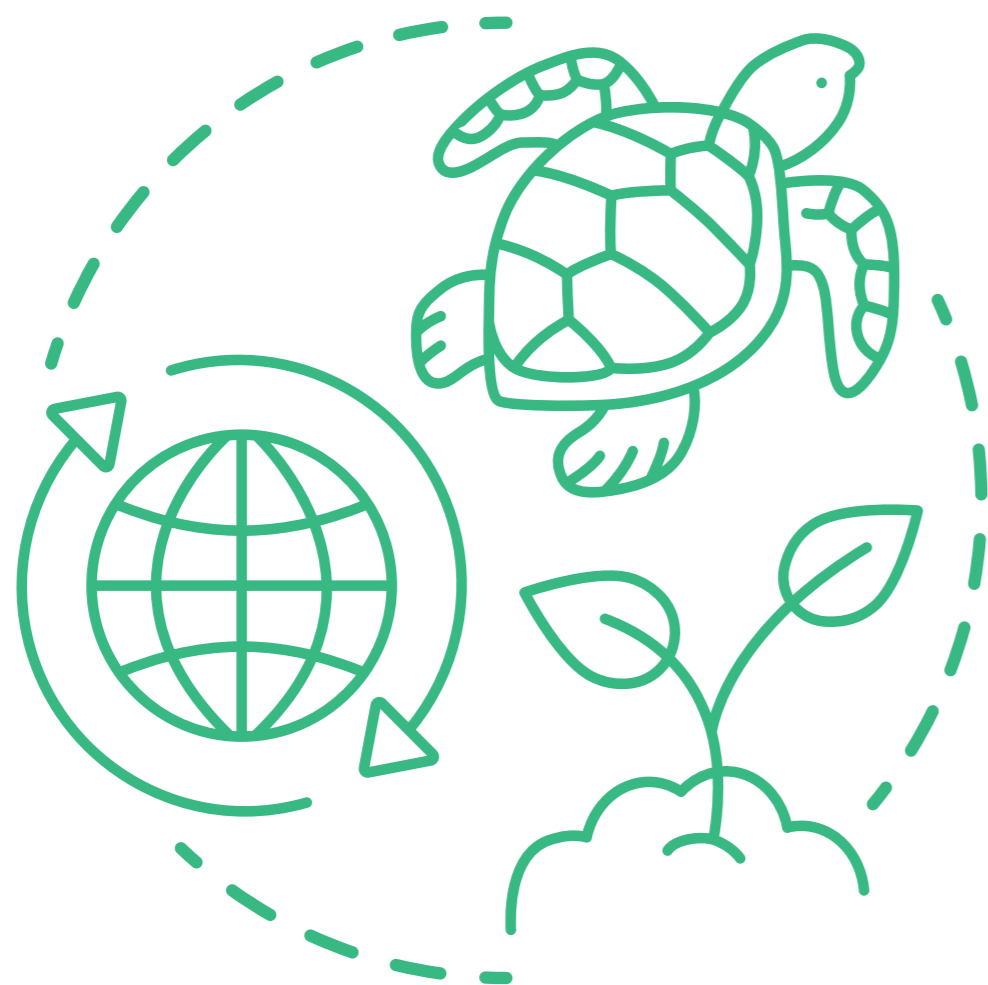
# Biodiversity

## GRI 304-1

The Embu das Artes plant, located in the São Paulo metropolitan area, has an environmental preservation area of 20,000 square meters. It is located next to the Permanent Preservation Area, near Ribeirão do Alto, a tributary of the Embu River, and duly preserved by Ibema, contributing to the maintenance of local biodiversity.

At the Turvo Plant, located in the interior of the state of Paraná, we also have Environmental Preservation areas located near the Marrecas River, which are duly reserved by the company, as well as an extensive area around the facilities, preserving the existing vegetation on the site.

The company has an environment department exclusively dedicated to the monitoring of environmental issues. For any intervention to be carried out in the company, which we understand as having the possibility to cause environmental impacts, we consult with municipal, state or federal environmental agencies for the appropriate guidance. The company has a duly certified Environmental Management System, in accordance with ISO 14001:2015, which is periodically audited. The company follows the conditions required in its Operating License issued by the environmental agency (CETESB).





# Social Management

# Suppliers

GRI 102-9, 203-1, 204-1, 308-1, 414-1

The year 2021 was particularly challenging in terms of supply and costs. On the one hand, there was a very sharp growth as a result of the pandemic and the high demand for paper, while on the other hand, the supply chain was not fully prepared. Consequently, suppliers were required to establish quotas, as did Ibema, in order to avoid leaving customers without supplies.

**Ibema has great concern about the evaluation of your suppliers. So in 2021, was implanted the Linkana portal for registration and approval of suppliers.**

Identifying the real value of the products was also a challenge for the company, as the industry as a whole lost its benchmarks, due to the consequences of the pandemic, such as supply, demand, and speculation. Therefore, the partnership with our suppliers was essential in overcoming the period.

As a strategy, the company remained close to its suppliers, followed price increases, and carried out the necessary repositioning, which generated a high cost throughout the year. Nevertheless, Ibema is proud to say that it remained fully operational, maintaining a healthy relationship with its partners, advancing in the understanding of the chain, identifying improvements and evolving in the use of supplier monitoring tools.

Ibema's main suppliers are in the pulp, wood, chemicals and shavings segments. Additionally, important partners provide us with indirect materials and services. In 2021, 1,350 suppliers were hired by the company, totaling R\$721,822,197.61 in payments throughout the year.

Currently, the company does not have a formal policy for hiring local suppliers, but the criterion of proximity to the plants is preferred when closing negotiations. Our main suppliers are located in the Southeast and South regions of Brazil, and 64.50% of the purchase and contract budget was allocated to suppliers located in either Paraná or São Paulo – the states where Ibema's manufacturing plants are located.



The transfer freight between the Turvo unit and the Araucária distribution center, for example, was carried out by a carrier based outside the plant's region. In 2021, the company negotiated the service with two local carriers in an annual contract of R\$6 million. The mechanical pulp yards were also unified by a company in the region, with contract of R\$200,000.

In the previous year, Ibema considered hiring 591 suppliers, of which 96 were selected based on social and environmental criteria, representing a total of 16.24%.

Ibema is deeply concerned regarding the evaluation of its suppliers. Therefore, in 2021, the Linkana portal was implemented for registering and approving suppliers.

In it, suppliers to be registered receive an invitation, fill in their data and attach the requested documentation, according to the supply cluster. Critical suppliers

– who provide raw materials, packaging, paper cutting and extrusion services, environmental and safety materials and services, and transport services – are required to fill in questionnaires, which include environmental issues, unless a particular supplier has the ISO 14001 certification. The documentation undergoes an approval process at the SGI, Environment and other areas involved.

## Supplier development

Acting in the development and engagement of the chain is a commitment of Ibema. The company seeks to support its suppliers so that improvements are made, which also has an impact on us as customers. Focusing on transparency, trust and a relationship where all parties can win, Ibema seeks to have effective communication with its partners, in order to identify solutions that increase productivity, reduce costs, and preserve the reputation of the chain as a whole.



# Community

## GRI 413-1, 413-2

For Ibema, tact and relationships are important so that we can pack the future every day. With this in mind, we understand how important it is to monitor adverse social impacts resulting from our activities in the communities where we operate.

For the year 2022, the company is set to prepare a Social Impact Matrix, weighing factors such as severity, frequency, probability and scope of impacts identified in each of our business units.

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

- The increased risk of accidents involving people and animals in the region;
- Compromising the quality of the road network;
- Nuisance caused by dust;
- Sporadic water or power outages.

## Corporate projects

### Cuide Bem (“Take Good Care”) Project

An environmental education activity, involving students from schools in the communities where we operate, especially on dates such as Water, Environment and Arbor Days.

### Equilíbrio (“Balance”) Project

Campaigns focused on the health and quality of life of employees and communities (Pink October, Blue November, Vaccination, Diabetes and Hypertension Campaigns, Fight against Dengue, Domestic Violence, and Child and Youth Sexual Exploitation and Abuse, etc.)

### Ibema Campaign for Life

Carrying out campaigns for blood donation, in partnership with local blood centers.

### Infrastructure investment in Turvo

#### GRI 203-1

In 2021, Ibema invested R\$13.4M in electricity projects in the city of Turvo, which impacted the communities around its plant and will allow for an increase in production capacity and the possibility of expanding the business. This should contribute to increased revenue, tax collection, and job creation. So far, around 100 jobs have been created, most of them for residents of local communities.



**Leitura É Diversão (“Reading is Fun”) Project**

Encouraging reading, writing, text interpretation, creativity and socialization using the Turvo Community Center Library.



**Aconchego (“Snuggle”) Program**

Warm clothing campaign and collection and distribution of clothes throughout the year, benefiting people in situations of greater social vulnerability in the vicinity of the plants.



**Ibema Solidarity Christmas Campaign**


Donation of Christmas gifts to institutionalized or socially vulnerable children, through “letters sent to Santa Claus,” attended by Ibema employees. In 2021, the campaign focused on the donation of food and basic baskets to serve vulnerable families in the municipalities where we operate. Almost 7 metric tons of food were donated, benefiting 300 families.



# Our Commitments to Packaging the Future

Qualidade  
que muda  
o mundo.



 ibema

Qualidade  
que muda  
o mundo.


Qualidade  
que muda  
o mundo.



The progress of Ibema's business is notorious. Nevertheless, it is impossible to grow sustainably and fulfill our purpose of **Packing the Future** without prioritizing responsible action that adds value to society and presents solutions to environmental issues supported by transparent management.


With the goal of increasing competitiveness in the market and occupying the position of a company that really brings solutions to the great current challenges, Ibema has defined five medium- and long-term commitments, which are aligned with our purpose, our strategic objectives, our values, our ESG strategies, and the UN Agenda 2030 for Sustainable Development and global agreements.

Ibema has bold goals for the coming years, which complement its commitments, showing what will be done so that they are, in fact, achieved. These are actions that will contribute to the growth of the company itself and, at the same time, to the development of the entire community around our units.



**Commitment**  
Sustainable management of water in our industrial processes.

**Our goal or actions in progress**  
To reduce by 25% the specific consumption of water at the Turvo plant (base year 2021) by 2024.



**Commitment**  
To reduce impacts on climate change in Ibema's areas of operation.

**Our goal or actions in progress**  
To reduce CO<sub>2</sub> emissions by 70% per metric ton of production by 2030 (Scope 1 and 2 – Base year 2020).




**Commitment**  
To be a Zero Waste company, ensuring that all waste generated by Ibema is not sent to landfills and contributing to the correct destination of solid waste from packaging on the market.

**Our goal or actions in progress**  
To recycle, by 2025, 20,000 metric tons of waste that would be destined for sanitary landfills (post-consumer woodchips).



**Commitment**  
To ensure a diverse, equal and inclusive work environment.

**Our goal or actions in progress**  
By 2030 to increase the number of women by 30%, including in leadership positions.



**Commitment**  
To boost education by improving the performance of basic education in the regions where we operate.

**Our goal or actions in progress**  
To promote, by 2024, learning opportunities for 100% of Ibema employees with incomplete primary and secondary education.

To implement the Ibema Education Program, ensuring quality education for 3,000 students and education professionals in Turvo by 2030.



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



### UN commitment

To encourage local actions to reduce CO<sub>2</sub> emissions, adapt society to climate change and ensure access to clean and cheaper energy. To take urgent action to combat climate change and its impacts.

### COP\* target 26

50% reduction in emissions by 2030 (base year 2005).

### Our commitment

To reduce the impacts of change climate change in areas where Ibema operates.

### Our target

To reduce CO<sub>2</sub> emissions by 70% per metric ton of production by 2030 (Scope 1 and 2 – base year 2020).

### How we are going to do it

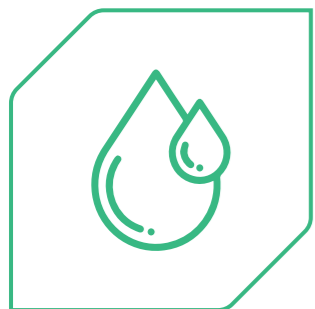
**Scope 2 (zero):** It proposes the adaptation of Free Energy agreements in the long term. The investment includes the acquisition of Energy Certificates until 2025.

**Scope 1 (reduce):** eduction by changing the boiler at the Embu das Artes unit. Gas boiler for biomass.

### What we will do in 2022

Preparation of the Project and license protocol for a new biomass boiler at the Embu das Artes unit.





## Water consumption reduction



### UN commitment

To ensure the availability and sustainable management of water and sanitation for all.

### Our commitment

To sustainably manage water in our industrial processes.

### Our target

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

### How we are going to do it

Implementing a new filtering system to use water in the screen and felt showers.

### What we will do in 2022

Increasing the productivity of the paperboard machine by modernizing equipment and adapting our portfolio while maintaining the same daily water consumption rate (in cubic meters).





## Zero Waste



### UN commitment

To handle solid waste more intelligently, that is, to reduce the volume of waste and ensure better disposal of waste.

Producing and consuming only what we need may positively impact our municipality and our planet.

### Our commitment

**To be a Zero Waste company, ensuring that all waste generated by Ibema is not destined for landfills and contributing to the correct destination of solid waste from packaging on the market.**

### Our target

**To recycle, by 2025, 20,000 metric tons of waste that would be destined for sanitary landfills (post-consumer woodchips).**

### How we are going to do it

- Obtaining a Zero Waste certification.
- Developing new markets for the Ritagli paperboard
- NOA Project.

### What we will do in 2022

Recycling 30.75% of the total amount proposed for 2025.

Structuring a program in partnership with end users and startups focused on capturing post-consumer woodchips.





## Boosting education



### UN commitment

To ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

### Our commitment

To improve the performance of basic education in the regions where we operate.

### Target 1

To promote, by 2024, learning opportunities for 100% of Ibema employees with incomplete primary and secondary education.

### Target 2

To implement the Ibema Education Program, ensuring quality education for 3,000 students and education professionals in Turvo by 2030.

### How we are going to do it

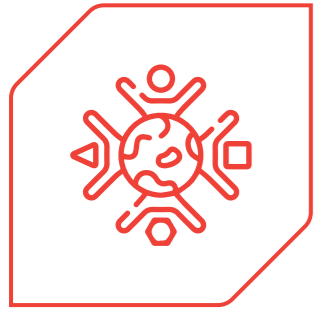
- Maintenance of current projects: Leitura É Diversão and Jovem em Ação Project;
- Career Fair – Partnerships with local universities;
- Courses for the community in partnership with SENAR/SENAI (Administrative, Warehouse, Forklift Operator, etc.);
- Mobile Library – provision of the collection to the community.

### What we will do in 2022

Courses (Administrative / Warehouse / Forklift Operator) for the community, in partnership with SENAR/SENAI.







## Diversity, equity and inclusion



### UN commitment

To achieve gender equality and empower all women and girls

### Our commitment

To ensuring a diverse, equal and inclusive work environment

### Our target

**By 2030 to increase the number of women by 30%, including in leadership positions**

### How we are going to do it

- Application of the Census in 2022;
- Increasing the percentage of people from diversity groups, positively evaluating the company's treatment in the 2022 survey compared to previous years;
- Preparation of a Diversity, Equity and Inclusion Policy by December 2023;
- Creation of a DEI Committee;
- Definition of ambassadors on the subject at Ibema by December 2022;
- Creation of affinity groups by July 2023.
- Construction of more women's restrooms, changing rooms, and breastfeeding rooms;
- "Para Elas" ("For Women") mentoring and development program.

### What we will do in 2022

Mapping and action plan for adjustments in the Company's environments. Development of training for women leaders, with the specific needs of the female universe



# GRI Content Index



GRI 102-55

GRI Standards	Disclosure	Notes	Page	Omission
<b>STANDARD GENERAL CONTENT</b>				
<b>GRI 101: FOUNDATIONS 2016</b>				
<b>ORGANIZATIONAL PROFILE</b>				
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GRI 102-4	Location of the operations of the organization		17	
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GRI 102-6	Markets served		18	
GRI 102-7	Scale of the organization		17	
GRI 102-8	Information on employees (internal and outsourced)		44	
GRI 102-9	Supply chain	It was not possible to estimate the number of suppliers in Ibema's supply chain.	64	Partially answered indicator.
GRI 102-10	Significant changes to the size, structure or shareholding structure	In 2021, the company did not undergo changes in size, structure or shareholding structure.	75	
GRI 102-11	Precautionary principle		39	
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<b>GOVERNANCE</b>				
GRI 102-18	Governance structure		30	
GRI 102-40	List of stakeholder groups engaged by the organization		4	
GRI 102-41	Collective bargaining agreements	Ibema does not monitor the collective agreements of third parties.	4	
GRI 102-42	Basis for identifying and selecting stakeholders to engage with		4	
GRI 102-43	<i>Approach adopted for stakeholder engagement</i>		4	
GRI 102-44	<i>Main topics and concerns raised with stakeholders</i>	After surveying the concerns of our main stakeholders, through the materiality survey, Ibema intends to analyze and structure measures to address these topics and concerns.		

GRI Standards	Disclosure	Notes	Page	Omission
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	GRI 102-54	Agreement option selected by the organization	This report has been prepared in accordance with the GRI Standards: Essential option.	3
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	GRI 102-56	External assurance	This report did not have external verification.	5, 35
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<b>GRI 103: FORMS OF MANAGEMENT</b>	GRI 103-1	Explanation of material topics and their limits		5, 35
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<b>GRI 307: ENVIRONMENTAL COMPLIANCE 2016</b>	GRI 307-1	Noncompliance with environmental laws and/or regulations		35
	GRI 308-1	New suppliers selected based on environmental criteria		64
<b>GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT</b>	GRI 308-2	Negative environmental impacts in the supply chain and measures taken	The periodic assessment of Ibema's suppliers does not include issues related to environmental impacts, and the company has an analysis of the total number of suppliers identified as having negative environmental impacts. The Supplier Management process is being reviewed in 2022, but there is no forecast for the implementation of this type of assessment.	76
<b>GRI 413: LOCAL COMMUNITIES 2016</b>	GRI 413-1	Community engagement programs, impact assessments and/or local development		65
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GRI Standards	Disclosure	Notes	Page	Omission
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	GRI 414-2	Negative social impacts on the supply chain and measures taken	77	
	The periodic assessment of Ibema's suppliers does not include issues related to social impacts, and the company has an analysis of the total number of suppliers identified as having negative social impacts. The Supplier Management process is being reviewed in 2022, but there is no forecast for the implementation of this type of assessment.			
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<b>GRI 302: ENERGY 2016</b>	GRI 302-1	Energy consumption within the organization	61	
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<b>CIRCULAR ECONOMY</b>				
<b>GRI 103: FORMS OF MANAGEMENT</b>	GRI 103-1	Explanation of material topics and their limits	5, 49	The actions described refer to the Embu das Artes plant. The Turvo plant does not have a circular economy and recycling strategy. We only guarantee in this plant the correct destination of our own waste, keeping it with the Zero Waste status.
	GRI 103-2	Management approach and its components	49	
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GRI Standards	Disclosure	Notes	Page	Omission
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# CREDITS

## General coordination – Ibema

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## Writing, editorial consulting, graphic design and layout

Visão Sustentável

## Selection, collection and analysis of GRI disclosures

Visão Sustentável

## Photos

Ibema archive

