



Sustainability  
Report

# 2023

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# Message from Management

GRI 2-22

We are proud to share the results and progress achieved in 2023 through this Sustainability Report. Ibema's performance in 2023 was remarkable, with important outcomes for the company. We made significant progress in several areas, especially in the forestry sector and the circular economy, which have become fundamental pillars of our corporate strategy.

In what was a challenging year for the paper industry we remained resilient and committed to excellence in all our activities. An oversupply from China, a key player in the market, took us by surprise, putting us at an unprecedented juncture and forcing us to recalculate our course, especially in the second half of the year.

The importance of ESG has demanded special attention. Regulations are advancing rapidly, with concrete and real requirements. We have dedicated ourselves to a critical analysis of this management and impacts in order to meet

the standards and frameworks and ensure the competitiveness of our products in the global market.

The year 2023 was the hottest on record according to the World Meteorological Organization (WMO). Over the course of the year Brazil recorded a record number of natural disasters, according to the National Center for Natural Disaster Monitoring and Alerts (CEMADEN). A total of 1,161 events (especially floods and landslides) resulted in the loss of 132 lives, with more than 74,000 people made homeless. It is clear that the El Niño phenomenon played a part in this scenario, but climate change, linked to year-on-year increases in global temperatures, cannot be ignored.

Meanwhile, plastic continues to be consumed excessively, disposed of incorrectly and recycled very little. Oceana, an international organization focused on preserving the oceans, points out that Brazil dumps around 325,000

tons of plastic into the sea every year. The country is the largest producer of plastic in Latin America and the fifth largest in the world. Plastic causes an even more serious problem in the form of microplastics (particles smaller than 5 mm), even if these are invisible to the naked eye. Several studies have already identified microplastics in the bodies of animals and humans. The impacts of this material on human health are still being researched, but the prognosis is not good.

As such, there is an urgent need to reduce the rampant use of plastic and we are highly committed to bringing sustainable substitutes to the market. Paperboard comes from a renewable source in managed forests and represents a key partner in the war against plastic pollution.

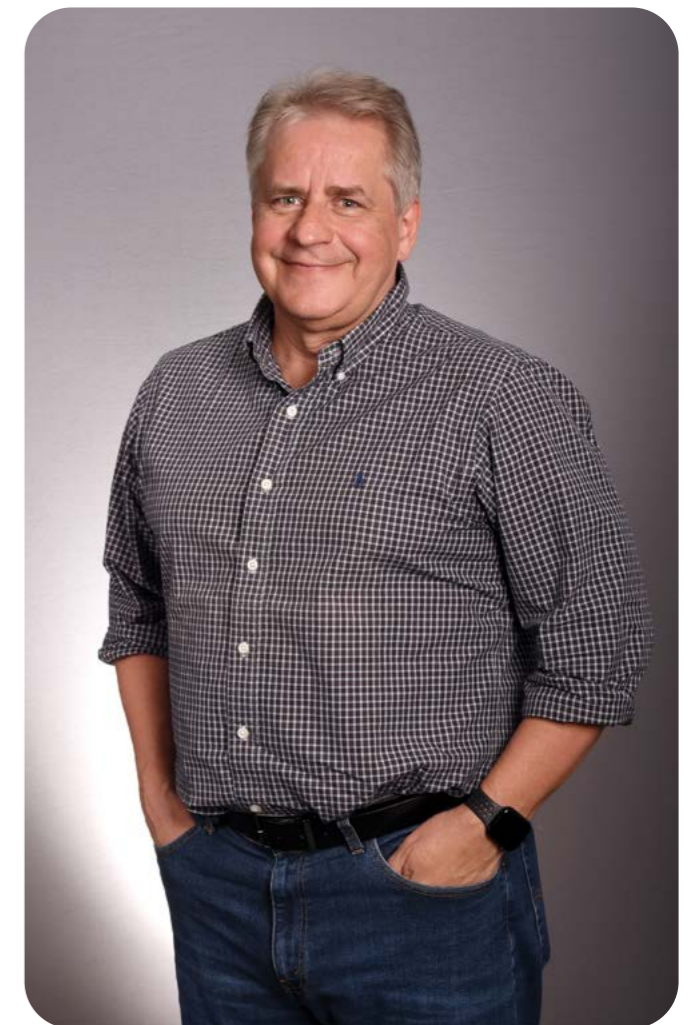
Our commitment to the circular economy is reflected in a portfolio focused on post-consumer recycled (PCR) materials and minimizing CO<sub>2</sub> emissions. We are determined to be recognized for our contribution to the circular economy, including the challenge of dealing with microplastics in the oceans. This highlights the importance of the *Estação Preço de Fábrica Recicla Embu* (Recicla Embu Factory Price Recycling Point) which consists of a container installed in front of our Embu das Artes (SP) plant to collect glass, cardboard, white paper and paperboard for recycling. We pay a fair price for the material, with a figure of around BRL 450,000 distributed.

The paper we receive in the container is directly incorporated into Ibema's production process to be transformed into the Ritaglii line of products, the most sustainable paperboard packaging option on the market.

Our sustainability strategy seeks to align our objectives with our customers' needs, with a focus on developing products that meet demand through increased recycling and sustainability.

These are strategies that combine economic growth with sustainability and give us the strength to fulfill our purpose of "packaging the future"; on the way towards creating a society that prioritizes the environment. We will only be able to fulfill this purpose if the future arrives. And here, as you will see in the following pages of this report, we're working every day to ensure that it does.

Enjoy your reading!



Nilton Saraiva  
CEO

**“We made significant progress in several areas, especially in the forestry sector and the circular economy, which have become fundamental pillars of our corporate strategy”**



“ I am the fruit of the transformation of one of humanity’s oldest inventions: paper. But my story begins much earlier.

I closely follow all the changes happening in the world, always with the role of helping you to evolve.

I’ve been a shade to protect you from the sun, I’ve made myself a hiding place and I’ve even had love stories imprinted on me...

But with the uncontrolled exploitation of nature and people’s lack of awareness my perfume is fading, my shade is diminishing and what was once shelter is now emptiness.

With so many changes and losses, I realized that I had to reinvent myself. But not alone!

I still have friends who are fighting to reverse and mitigate environmental impacts. In the meantime, we need your help.

Alongside my guardians and you, I emerge in a new form so that we can fight together.

From head to toe, I bring hope.

My hair brings life through forests and through paper scraps, demonstrating my constant transformation.

My body has the role of taking me everywhere.

Folds and scraps complete what gives me meaning.

On this long journey I met Ibema, who gave me new meaning in creating a better world together.

Soon I will be everywhere, and, with the help of technology, you’ll even find me in the palm of your hand. ”

Nice to meet you,  
I am Anaparas.



# 2023 Highlights



**Brazil and Argentina events**  
Events on sustainability and the circular economy for Ibema's customers, suppliers and partners.



**Creation of the Circular Economy Committee**  
Commitment to sustainable governance practices, consolidating the circular economy as a central pillar.



**Ibema Florestal**  
488 hectares of forest were planted in 2023.



For more information click on the icons.




**Estação Preço de Fábrica (Factory Price Recycling Point)**  
Initiative to collect and dispose of cardboard, paper and glass waste for recycling and its expansion in 2023.



**Creation of the Compliance Committee**  
Aims to guarantee Ibema's legal and ethical compliance.




**Equivalent self-generation**  
Agreement signed for self-generation of wind energy.




**Route to Maturity in the Circular Economy**  
Ibema was one of the companies selected to take part in the initial pilot of the self-assessment tool.




**Zero Waste Certification**  
Ibema has achieved Zero Waste Certification for its factories in Turvo and Embu das Artes and Distribution Center in Araucária.



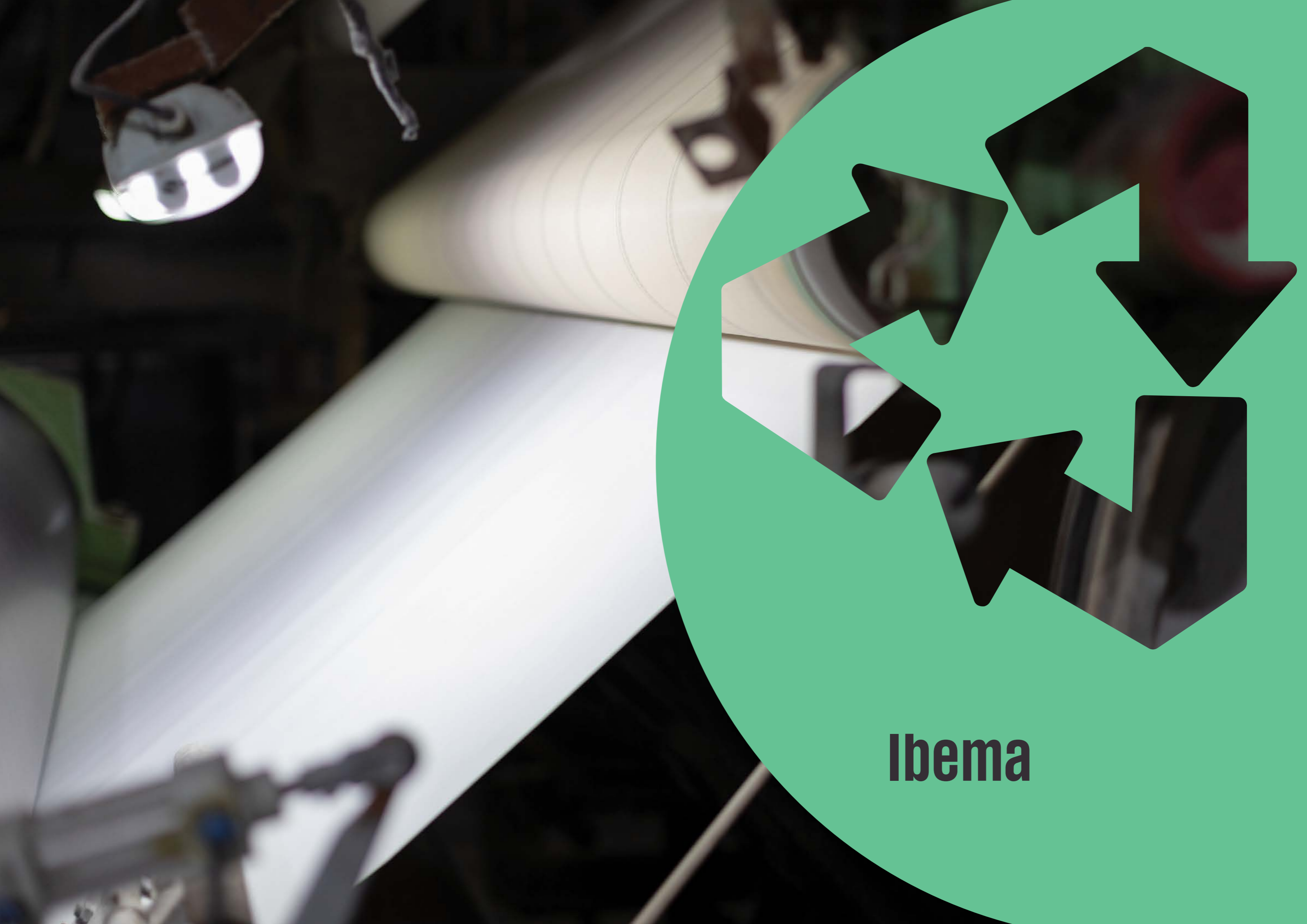
**Catalog Project**  
project focused on the reverse logistics process, in partnership with O Boticário.



**NPS result**  
The survey showed Ibema to be the company most associated with the themes of recycling, circular economy, and reverse logistics.



**Book - "A Systemic Transition to Circular Economy"**  
The book presents a global perspective and positions Ibema as a world reference case study in the context of the circular economy.



**Ibema**

# Organizational profile

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

Founded in 1956, Ibema (Brazilian Paper Company) stands out in the market for its paperboard production. It is a privately-held corporation, headquartered at Avenida Sete de Setembro, 5739, Edifício Priori, sala 401, 4º andar, in the Água Verde neighborhood of Curitiba, Paraná State, Brazil.

The company's management is shared between Ibemapar Participações S.A., the holding company that concentrates shareholder control and is linked to the founding families of Grupo Ibema (Napoli and Gomes), and Suzano Papel e Celulose, which joined the company in 2016.

Ibema expanded its operations to the international market in 2021, when it opened a commercial representation office in Argentina.

The company is committed to Corporate Governance standards and operates under a highly professional and dynamic management team. The management is supported by the experience of a Statutory Executive Board and a Board of Directors, both made up of members appointed by its shareholders, Ibemapar and Suzano.

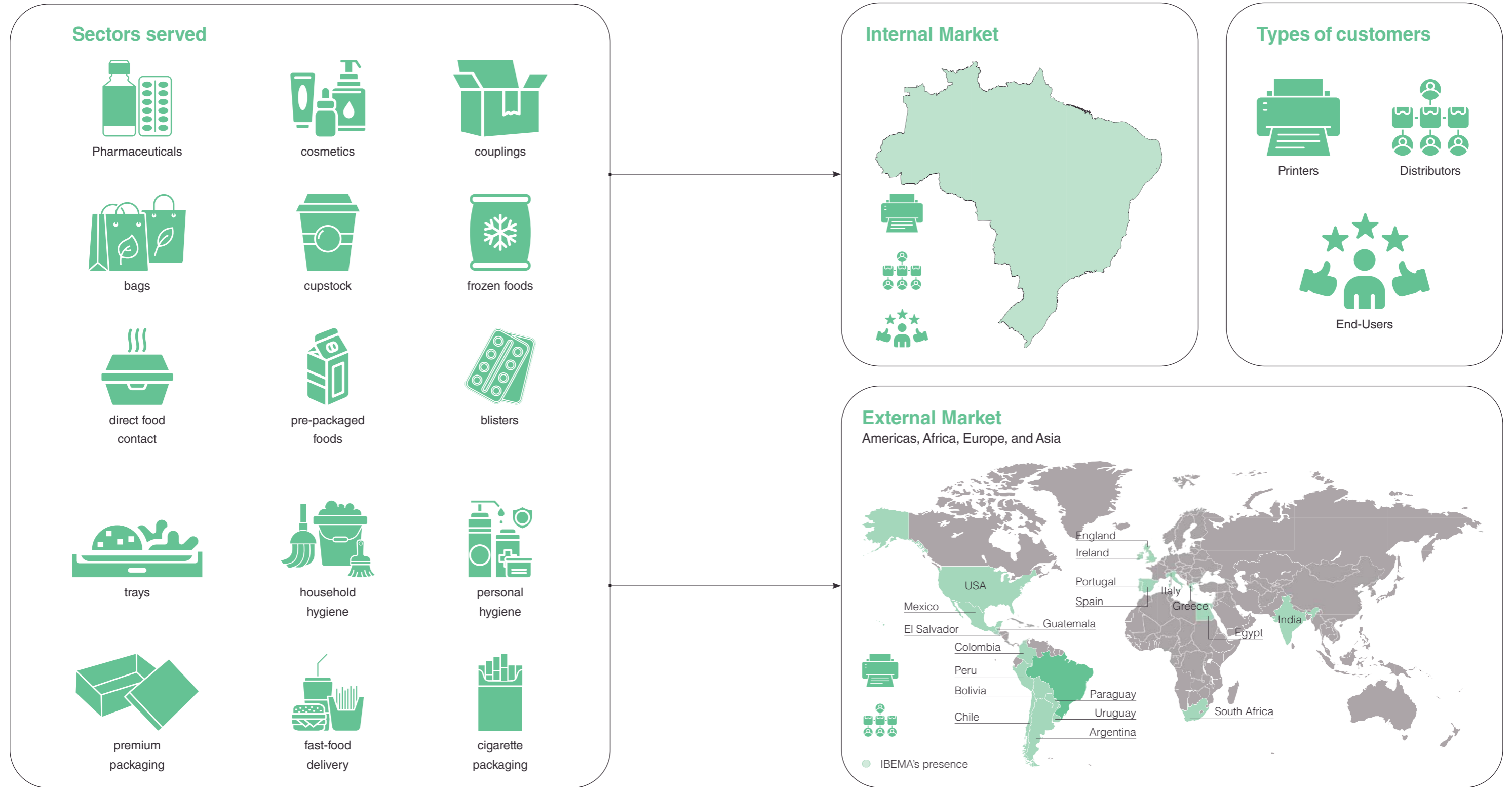




# Markets

## served

GRI 2-6





One of Ibema Florestal's strategies is to seek a balanced portfolio of economic activities related to land use by acquiring areas that guarantee the verticalization of raw materials through sustainable forest management. In addition, Ibema Florestal seeks partnerships to develop sustainability projects that respect the local fauna and flora, including contributing to the recovery of native forests and planting the *Araucaria* (Paraná pine), a species symbolic of Paraná State.

The company continues to invest in the forestry process in order to encourage planting of eucalyptus and pine in the region and thus speed up the financial return on investments. In 2023, 488 hectares of land were planted, 90% of which was eucalyptus and 10% pine. This brings the total to approximately 800 hectares of managed forests.

The outlook for 2024 is to continue planting and investing in eucalyptus and pine forests. The Pinhão Project will also be launched, with the goal of planting 400 Paraná pine trees in Permanent Preservation Areas (APP) to help preserve the environment and reinforce the company's leading role in forest management.





**HORÁRIO DE FUNCIONAMENTO**  
 SEGUNDA A SEXTA 08:00 AS 17:00  
 SÁBADOS 08:00 AS 12:00

**Estação Preço de Fábrica**

**AMENTO**  
**TRAS**

**GREEN MINING**  
**ESTAÇÃO PREÇO DE FÁBRICA**

Botico  
 N  
 FUPLA C  
 Embu  
 conisuda  
 ACISE

**Circular Economy**

GRI 3-3, 203-2

Ibema is setting out to be a leader in circular economy practices. This includes creating value through innovative product solutions and managing processes and projects that bring positive benefits for society and the environment. As such, this is being treated as a material issue for the company.

The company is committed to “Being Landfill Negative”, i.e. ensuring that no waste produced is sent to landfills and contributing to the proper management of solid waste from packaging in the market.

To reinforce this goal, Ibema has established new partnerships with new suppliers of post-consumer waste, including cooperatives and structural projects, thus strengthening the supply chain. The company consolidated existing partnerships and formed new ones with brand owners and reverse logistics startups to operationalize the upcycling of materials. This involves collecting, recycling, and transforming materials into new packaging.

The *Estação Preço de Fábrica* (Factory Price Recycling Point) project, which began in 2022 in Embu das Artes, continued to expand, increasing the amount of waste recycled correctly and generating income for local families. Ibema also continues to enrich its portfolio by developing products that use recycled raw materials, including Ritagli, which is made from 55% paper scraps, 35% of which are post-consumer.

Ibema’s circular economy practices create numerous positive impacts, including stimulating job creation along the value chain, promoting education about correct waste disposal and its social and environmental impacts, generating extra income from the separation and delivery of recyclable waste, and reducing the area of landfill disposal, thus reducing the vulnerability of local communities.

The effectiveness of these initiatives is tracked through monthly monitoring of the amount of post-consumer material recycled, categorized by type of paper scraps and origin. A Circular Economy Committee was set up with the participation of the areas involved to improve management and governance on the subject.

Engagement with stakeholders is strengthened through frequent communications on various platforms, including social networks, videos, emails, and public relations, and through direct contact with brand owners. Ibema also communicates with the local community to ensure the effective participation of waste pickers and the local population at the Embu das Artes collection point.

Ibema has been reaffirming its commitment to sustainability through the implementation of effective circular economy practices. These not only address the innovative recycling and reuse of materials, but also promote significant social and economic impacts. The company’s progress towards its goals demonstrates its dedication to a more sustainable future. Ibema not only promotes the circular economy, but also educates and empowers communities, contributing to building a more resilient and sustainable business and community ecosystem.

**Ibema’s goal is to recycle 20,000 tons of post-consumer waste by 2025.**

**Reduction in the volume of materials sent to landfills and dump sites, with the recycling of around 8,900 tons of waste between 2021 and 2023**



S007300

# Governance Management

Thinking big and outside the box, Ibema strives to meet its customers' needs with excellence, surprising them with solutions capable of transforming their business. It believes that the role of courage is fundamental in everyday life, a conviction that guides its actions and contributes to building a more sustainable world for individuals, companies, and society in general.

The Code of Conduct is an important ally in guiding conduct and values and is applied in all of Ibema's business units. The document incorporates principles based on respect, ethics, and transparency.

The Code of Conduct and Ethics is the responsibility of the Corporate Governance and Compliance sector. Approving and updating the Code is the prerogative of the company's highest governance body—the Board of Directors—and the approval process is coordinated by the People & Culture department.

The commitments set out in the policy apply to all of the company's business relationships and are published on

Ibema's website, where they are accessible to all stakeholders. Employees must read and sign this document when they join the company and existing employees undergo frequent retraining through formal and informal meetings, as well as receiving updates via social networks and the website.

The Code of Ethics and Conduct was revised in 2023 and its principles and guidelines apply to all employees, suppliers, service providers and business partners. Through the Code, Ibema makes a public commitment to respect diversity, equality and human rights and build long-lasting, transparent relationships.

In addition to the Code, four specific policies were created and approved to support the company's compliance risk management:

1. Anti-corruption Policy;
2. Supplier Policy;
3. Corporate Competition Policy;
4. Conflict of Interest Policy;

Ibema is constantly striving to strengthen its credibility and preserve its reputation in the eyes of the market and its stakeholders. This effort is a commitment shared by all employees, who are encouraged to incorporate the company's principles, values, and mission into their daily activities.



## Ibema's concepts of being



### TURVO - *Natureza que Embala* ("Nature that Packages")

**Commitment to environmental preservation and the responsible use of natural resources. Connection between nature and packaging produced with renewable inputs, such as wood fibers from sustainably planted forests designed to minimize environmental impact.**



### EMBU - *Plantando o Futuro* ("Planting the Future")

**Reinforcing the environmental and sustainable benefits of recycling.**

**Commitment to sustainability and the preservation of the environment. By recycling materials, Ibema is planting the seeds for a better future, where natural resources are used responsibly and renewably. Raising people's awareness of recycling and encouraging more responsible consumption practices. Just as plants need care and attention to grow, recycling cultivates a stronger environmental awareness and encourages everyone to take part in protecting the planet.**



## Values

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



## Purpose

- Package the future

# Governance structure and its composition

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

Ibema is guided by its values, best market practices and ESG precepts, and governed by a corporate governance model based on ethics and transparency. It is governed by bylaws that define the company's main guidelines. It also has a shareholders' agreement and is controlled by two shareholders: Ibemapar, a holding company owned by members of the founding families, and Suzano Papel e Celulose, with 50.1% and 49.9% stakes, respectively.

The main decision-making bodies at the strategic and operational levels are the Board of Directors and the Executive Board, each with its respective legal and statutory powers and duties. The members from the shareholder Suzano are executives from Suzano itself, while the member from Ibemapar is the shareholder's CEO and the fourth member is an independent board member.

The selection criteria for the respective positions considers the diversity of experience and knowledge in various areas

and behavior, ensuring coherent decision-making processes. Formal performance evaluations are conducted regularly.

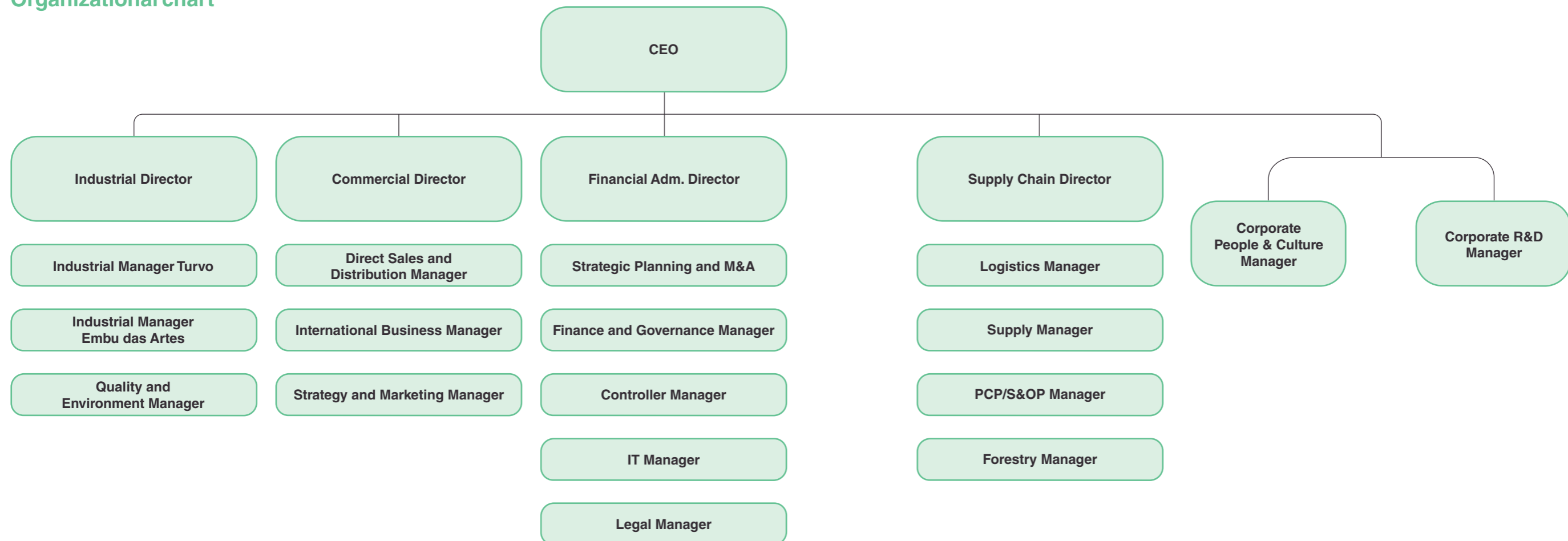
The company's highest governance body is the Board of Directors. Its main objective is to promote and preserve the company's assets, guaranteeing its growth and the continuity of all of its business activities.

Election or dismissal takes place at the General Shareholders' Meeting and is valid for two years, with the pos-

sibility of re-election. The last such meeting took place on April 29, 2022.

In the event of permanent impediment of any member of the Board, or their resignation or dismissal, a General Meeting of the Company is called immediately so that the respective shareholder can nominate and elect a new member of the Board.

## Organizational chart



## Committees

To optimize decision making it is essential to structure processes through the formation of strategic committees.



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

The committee's main focus is to promote continuous improvements in all sectors of the company, implementing specific methodologies to reduce losses and strive for operational excellence. The WCOM methodology is used as a management and methodological support system, with the aim of evolving and improving operational indicators, increasing efficiency, and reducing losses through a standardized system. The Steering Committee contains the CEO, other directors, and managers from strategic areas. It meets monthly to monitor processes.



### Risk Committee:

The purpose of this committee is to assess and approve risk mitigation investments. The company reviews its risk portfolio and categorizes risks in its heat matrix, which allows the committee to decide which investments will be made in the coming year. The committee meets annually and is made up of the company's Board of Directors, supported by the Corporate Governance area.



### Value Projects Committee:

The committee meets on a monthly basis with the aim of monitoring the evolution of CAPEX, i.e. monitoring the financial evolution. This involves being a funnel for projects, saving closed projects and proposing new investment projects, with the aim of guaranteeing the expected result for the year. After the management part, each project leader presents their progress report, highlighting the main achievements of the last month, next steps, physical and financial progress and whether there are any risks or points of concern in the project. This committee also functions as a support chain, as it includes the CEO, directors, managers, and project leaders.



### Financial Management Committee:

Its main objectives are to promote analysis of actual and projected economic performance, supervise compliance with policies, manage contractual risks (treasury covenants) and decide on any economic and financial issues. It is made up of the administrative-financial board, controllership and financial managers and the treasurer. This committee meets monthly and quarterly and reports on compliance with treasury policies to its shareholder's Treasury Management.



### Chemicals Committee

The Chemicals Committee plays an important role in managing and coordinating all activities related to the use, handling, and disposal of chemicals within the company. Its main objective is to ensure that all operations involving chemical substances are conducted safely, efficiently and in compliance with applicable regulations. The safety, processes, environment, quality, and logistics departments take part in this committee, as well as the chemical managers of the units. This committee meets on a monthly basis.



### Circular Economy Committee:

In 2023, Ibema established the Circular Economy Committee as part of its commitment to sustainable governance practices. This multidisciplinary committee is key to ensuring the regularity and accuracy of processes, as well as fully aligning operations with corporate values and beliefs. The committee's purpose is to consolidate the circular economy as a central pillar in the company's culture, ensuring that all sustainability practices are in sync with the company's business strategies.



### Compliance Committee:

Formed in 2023, it ensures Ibema's legal and ethical compliance, and supports policy development, compliance risk assessment, monitoring, education, communication, and continuous improvement. The committee contains representatives of the Governance, Marketing, People and Culture, Environment and Procurement departments and meets on a monthly basis.



### Crisis Communications Committee:

Ibema's Crisis Committee plays a different role from the Crisis Communication Center (a group of managers who deal with demands that can be communicated internally/externally), but their roles are complementary in the management of emergency situations. While the Crisis Communication Center acts in a more tactical and operational way, focusing on the execution of communications to combat possible crises, the Crisis Committee has a more strategic and supervisory role in making high-level decisions. It may involve the Board of Directors in delicate situations and acts decisively in corporate governance to support the development of control and response mechanisms.



### Strategic Committee:

Established in 2021, it is made up of the Board of Directors, CEO and CFO. Strategic investments and the company's direction are discussed at bimonthly meetings.



### People Committee:

The People Management Committee plays a key role in strategic pillars such as Performance Appraisal, Development and Remuneration Strategy, Succession Planning, Organizational Culture and Safety. Made up of leaders from Ibema and Suzano, the committee meets quarterly to align itself with the company's needs and make strategic decisions.

The committee's work is essential in strengthening the organizational culture and implementing strategic actions to promote the sustainable growth of the company. The committee works to ensure a comprehensive performance appraisal, develop professional development strategies, establish fair remuneration policies, plan leadership succession, cultivate a corporate culture aligned with values and purpose, and promote safety in the workplace.





## Board of Directors

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

The Board of Directors essentially directs the Executive Board in making strategic decisions for the company, providing well-founded technical support. It also monitors and evaluates the CEO's performance. The Board is also responsible for decisions related to: company incorporation, acquisitions and disposals, approval of expansion projects, the annual budget, investments in general and the allocation of funds, support for corporate risk management, as well as resolving on the distribution of dividends from the company's profits.

The Board is advised by strategic committees that are responsible for reporting on issues relevant to the sustainability of the business.

The Board monitors the company's performance in terms of established targets and results through regular meetings. It strengthens its engagement with employees through Climate Surveys, the Net Promoter Score (NPS) survey, a metric widely used to measure customer satisfaction and loyalty towards the company, and indicators collected through the company's Ombudsman Channel.

The Board meets monthly and, when necessary, calls extraordinary meetings to examine the financial results and make decisions on issues related to investments in capital goods (CAPEX), strategies and actions related to social and environmental engagement.

Ibema's executive sphere is headed by the Chief Executive Officer (CEO) and includes four executive directors: Commercial Director, Financial Director, Industrial Director, and Supply Chain Director. It is the CEO's job to report to the Board of Directors on the progress of the company's activities and its operations, in addition to managing the company's executive team and its general planning. The Executive Officers are responsible for managing corporate affairs in general and carrying out all necessary or appropriate actions, except for those attributed to the General Meeting or the Board of Directors by law, the Bylaws or the Shareholders' Agreement. In addition, the directors are responsible for managing environmental and social impacts in all areas of the company, with a particular focus on drawing up the Strategic Plan.

The Company's management team updates the Board of Directors on the financial results every two months. Once a year they submit the budget for analysis and approval, along with the investment portfolio, which covers risk mitigation, competitiveness, legal compliance, operations, and maintenance assets. In addition, they review and validate the Company's global strategy, as well as the associated strategic investments.

On an annual basis the Board of Directors formally appraises its own performance and that of the Executive Board. Based on this assessment, the body identifies areas that need to be improved in order to better fulfill its responsibilities.

In the management of ESG issues, Ibema focuses its efforts on the topics considered most relevant to the business, in accordance with the materiality definition process involving the main stakeholders.

The Board is responsible for defining and supervising the implementation of the sustainability strategy, as well as approving corporate policies related to the topic. The ESG team is responsible for disseminating the principles within the company. This group holds regular meetings with the management to assess progress and implementation of the Sustainability Commitments and Targets strategy launched by the company, as well as monitor compliance with public commitments and discuss critical issues that influence strategic decisions.

**Ibema considers literacy in climate, social and governance issues to be part of its DNA, which is why its values are essentially connected to these principles**

## Remuneration

GRI 2-19, 2-20, 2-21

The company's management adopts the practice of setting targets linked to the Profit-Sharing Program (PSP), with the aim of caring for and managing the impacts on the economy, the environment, and people. All employees participate in this program, with targets related to their specific responsibilities and challenges.

The definition of remuneration guidelines—involving job descriptions, job weighting, grid positioning and scoring—was established by an internal committee made up of People & Culture coordinators, managers, and directors of the organization. Currently, independent remuneration consultants are hired through a company specializing in remuneration policies.

## Risk Management

GRI 2-16

Every month, the Governance area draws up a consolidated report on the progress of the risk mitigation measures proposed by the different business units, as well as on the general status of each risk identified and prioritized. In critical situations, such as the materialization of

a significant risk, the communication process involves the Ibema Management System (SGI) and the Risk Manager contacting the Risk Management Department by telephone and e-mail to assess the emergency notification form.

The issue is presented and validated at regular meetings of the executive board, before being included on the agenda of the meeting with the risk management department for deliberation. The issue is then reviewed at regular meetings, submitted to the Executive Committee for approval and finally communicated to the Board of Directors.

With regard to concerns about liquidity indicators, the company informs the CEO of any risks through the Financial Management Committee. The latter, in turn, must put the matter on the agenda of the Board of Directors' meeting if any risk indicators are triggered.

Critical concerns are always present and permeate the routine of the company's Board of Directors as well as the Executive Board. During 2023, Ibema turned its attention to two main points: the Argentinian market due to the macroeconomic context, and the entry of new international players into the Brazilian domestic market.

## Participation in Associations

GRI 2-28

Ibema actively participates in industry associations, either through projects or committees, and sometimes as a member of their governance bodies.

Association	Governance body in which Ibema has representation
ABRE - Brazilian Packaging Association	Participates in its committees and board
IBÁ - Brazilian Tree Industry	Deliberative Council (CEO of Ibema)
Two Sides - Instituto TS Brasil	Member of the Deliberative Council and member of the Committee for the Promotion of Paper and Cardboard Packaging, both occupied by Ibema's International Business and Distribution Manager
Sinpapel - Union of Paper and Pulp Industries	Technical Board
ABTCP - Brazilian Technical Association of Pulp and Paper	Associate
Instituto de Embalagens (Packaging Institute)	Possible supporter
ABIGRAF - Brazilian Association of the Graphic Industry	Associate
APRE - Paraná Association of Forestry-Based Companies	Associate
FIEP - Federation of Industries of the State of Paraná System	Associate
Empapel - Brazilian Paper Packaging Association	Associate
ABITEC - Innovation and Graphic Technology Division of ABIGRAF National	Associate

## ESG Management

GRI 2-22

As part of its strategy and its care for the pillars that support the business, Ibema is dedicated to integrating ESG principles into its initiatives and projects, in order to provide benefits for society as a whole. The company is attentive to reducing the environmental impacts associated with its main processes and activities, ranging from the use of natural resources as raw materials to the handling of packaging after consumption.

To deepen its commitment to ESG issues, Ibema has built a multidisciplinary group to analyze the issue within the company and act on the needs and priorities that arise. This group reaffirms the commitments established in the

previous year and disclosed to the market, along with the targets set for contributing to the environment and the community in which the company operates. In this context, the ESG Pillar plays an important role, guiding the implementation of the actions defined and promoting the involvement of employees and other stakeholders.

Business sustainability is one of the five pillars of Ibema's Strategic Planning. This involves paying special attention not only to financial issues and growth, but also to having a positive impact on society. This commitment to the ESG agenda offers a significant competitive advantage, especially through the formation of partnerships with stakeholders who prioritize the sustainability agenda throughout the process chain.



# Compliance, Ethical Conduct, and Integrity

GRI 3-3, 2-25, 2-26, 205-1, 205-2, 205-3

Ibema is committed to mitigating any negative impacts generated by its activities that are not in line with its Purpose, Values and Corporate and Departmental Policies. By clearly mapping potential compliance risks in its business relationships the company is working to build

mitigating actions through Internal Controls. In addition to guiding the creation of policies, these controls support and monitor business activities. These controls are constant and alive, i.e. they require frequent monitoring and updating.



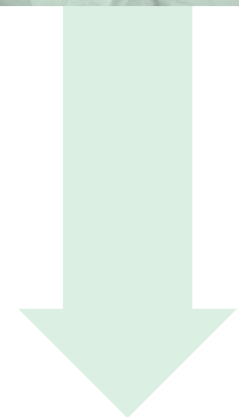
In 2023, Ibema made progress on several pillars that support the Integrity Program, including the expected standardization of conduct, integrity and transparency that is defined through the policies. With the support of senior management—which is fundamental to sustaining the company’s good practices—more than 40% of the workforce has received training on the Anti-Corruption, Conflict of Interest, Competition and Supplier Policies. The Code of Ethics and Conduct is the main driver of all the training sessions carried out.

Ibema is committed to generating results for its shareholders and all stakeholders, implementing the Internal area in 2023 and aims to end 2024 with defined and monitored controls in place for approximately 90% of its most important processes. This action is intended to prevent and avoid fraud and non-compliant conduct and generate positive, real, and sustainable impacts for the business.

The process is mostly monitored and measured via the reports received on the Ethics and Conduct Channel, as well as other channels such as conversations between executives and the People & Culture department. The effectiveness of the measures helps bring progress towards the established objectives.

Ibema’s Corporate Governance is an important issue for its stakeholders. This led to the decision to set up a governance area focused on Corporate Risk Management, compliance with the Brazilian Data Protection Law (LGPD - *Lei Geral de Proteção de Dados Pessoais*) and implementation of the Compliance Program. In order to do so, Ibema organized the creation of a team to meet this need. Progress in this area is communicated and disclosed annually, demonstrating the company’s commitment to transparency in the way it does business.

**Ibema made progress on several pillars that support the Integrity Program, including the expected standardization of conduct, integrity and transparency**



## Counseling and impact mitigation

GRI 2-25, 2-26

Much more than a company that produces paper for diverse products and segments in Brazil and around the world, Ibema is a business that packs dreams, stories, and feelings. This is only possible because it is passionate about what it does and, above all, because it is committed to quality, integrity, ethics, and values. There are three main priority fronts of action: prevention, detection, and mitigation.

Employees receive constant and periodic training on topics that concern the policies already in place and the Code of Ethics and Conduct. In addition, an external, independent, and specialized company receives, analyses and classifies any reports received. All complaints are recorded and investigated following a defined methodology and legal framework. This guarantees confidentiality and anonymity and prohibits retaliation against the whistleblower. All complaints are dealt with and followed up by the Ethics Committee, made up of the Finance, People & Culture, Internal Controls, Governance, and Legal areas and the Board. The committee analyzes, investigates, and takes corrective measures, as well as replying to the complainant.

Complaints or grievances related to breaches of the Code of Conduct, policies, procedures, and guidelines should be directed to the Ibema Ethics and Conduct Channel, which is available 24 hours a day, seven days a week. Reports can be made via the website <https://canaldeetica.com.br/ibema> or by calling 0800 300 4481, anonymously if desired. Employees, customers, suppliers, and the general public can use this channel to report any conduct that does not comply with ethical standards.

The most important objective in resolving any conflicts received through the channel is to provide transparent dialog and feedback, as well as actions aimed at continuous improvement of this contact. Other complaints or grievances can also be reported through the NPS, a survey used to gauge customer satisfaction and loyalty regarding Ibema's services and products. We strive to act assertively in our dealings with the parties involved in all the contacts we receive, with the aim of acting responsibly and safely. It is crucial to establish continuous improvements based on the feedback received if we are to improve the service processes provided to the general public.

All policies are reviewed annually, and training is provided. They are communicated through "Seeds of Compliance", which takes place both through digital internal communication channels (intranet, e-mail, corporate TV) and banners and posters in the units. The "Seeds of Compliance" are small "information pills" with visual appeal that highlight the main points of the policies to employees. All Ibema employees can contact the compliance team through the official channels if they have any doubts about the policies or the concepts of the Code of Ethics and Conduct. Important reports are provided, and calls are made at Top Team and Performance meetings in order for the senior management to endorse Ibema's compliance program.

In 2024, the first edition of *Café com Compliance* (Coffee with Compliance) will be held. This is a meeting with senior management that aims to include (in addition to the current state of the program) a conversation with other market leaders, with the main objective of engaging senior management as the biggest sponsor of the topic in the company.



## Environmental compliance

GRI 2-27

The legal criteria pertaining to environmental legislation are examined during both internal and external audits of the Environmental Management System (EMS), as established by the ISO 14001:2015 standard. In addition, Ibema uses specialized systems to manage Environmental Legal requirements and Occupational Health and Safety requirements. One system oversees the applicable legal requirements, while the other is used to contain the company's main legal documents. This enables proper monitoring of deadlines and analysis of compliance with conditions by the consultancy.

During 2023 there were no cases of non-compliance with laws and regulations.

## Conflicts of interest

GRI 2-15

Ibema follows clear rules to avoid conflicts of interest in any of its relationships. This topic is covered by the Code of Ethics and Conduct as well as the Conflict of Interest Policy. Each area of the company must declare any real or potential situation of conflict of interest in advance, by means of a form. They must also undertake not to get involved in situations that could involve a potential conflict. Both the Code of Ethics and Conduct and the Conflict of Interest Policy apply to all employees, board members, third parties and suppliers, without exception. Senior management is informed of potential Conflict of Interest situations and is supported by the Compliance Committee in decision-making. Stakeholders can report situations that appear to involve conflicts of interest through the Ethics Channel. The matter is treated with total confidentiality and fairness.

## Anti-corruption procedures

GRI 205-1, 205-2, 205-3

The contracts signed by Ibema are managed by the Procurement and Legal areas and contain a specific clause that addresses corruption issues. In this clause, the contracted company undertakes to respect all laws relating to the prevention of corrupt practices and those harmful to the public administration, as well as the Brazilian Penal Code. Contractors also undertake to ensure compliance with these laws by their managers, employees, and collaborators, and must provide training on ethics and integrity. Failure to comply with these rules is considered a serious infraction and may result in the termination of the contract for just cause. Ibema's Compliance Program was consolidated throughout 2023 and contributes to strengthening anti-corruption, legal compliance, risk management and senior management support mechanisms through constant training and communication.

The implementation of the Program aimed to cover the triad: prevention, detection, and response. Alongside the drawing up of policies, regulatory and compliance risks are also mapped along with action plans to monitor and mitigate them, with progress reported monthly to the company's board of directors. A communication and training agenda was also developed and more than 320 employees have already been trained, not only in the policies inherent to their activities, but also on the Code

**Ibema's Compliance Program was consolidated throughout 2023 and contributes to strengthening anti-corruption, legal compliance and risk management**

of Ethics and Conduct and on strengthening the use of the Company's Ethics Channel. Work has also begun on building mechanisms to monitor supplier compliance, as well as an exclusive Code of Ethics for suppliers, which is expected to be launched in 2024.

Although Ibema does not have a direct interface with the government, it is committed to establishing the conduct expected of its employees on issues related to everyday "petty corruption", bringing practical and common examples from everyday life into the communication. The goal is for 100% of employees to receive training by the end of 2024.

The main points that Ibema believes are important for avoiding cases of corruption refer especially to the example set by the upper leadership in adopting ethical practices and discourse, and to the assertive training conducted by the company's compliance department. Some of the mechanisms adopted by Ibema in this area

and fundamental to promoting an organizational culture that rejects corruption include:

- 1) **Code of Ethics and Conduct** in line with the Company's compliance risks;
- 2) **Regular training, education and communication** on ethical issues, legal compliance, and company policies.
- 3) **External whistleblowing channel** and reinforcement of the message of non-retaliation against good-faith whistleblowers;
- 4) **Due diligence** processes with partners and suppliers in order to assess issues related to the ethics and integrity of their business;
- 5) **Robust internal controls** with segregation of duties and independent monitoring;
- 6) Constant risk assessment in areas vulnerable to corruption;
- 7) **Accountability and enforcement** of clearly-established consequences for ethical violations, as well as ensuring their consistent and fair application.

## Communication and training about anti-corruption policies and procedures

GRI 205-2

Employees who received training about anti-corruption policies and procedures, by region and employee category

Region	Total number of employees	Total number of employees who received training	Percentage who received training (%)
Curitiba – PR	108	72	66.67
Turvo – PR	411	115	27.98
Embu das Artes – SP	180	122	67.78
Araucária – PR	21	11	52.38
Buenos Aires – ARG	2	1	50.00
<b>Total</b>	<b>722</b>	<b>321</b>	<b>44.46</b>

Employee category	Total number of employees	Total number of employees who received training	Percentage who received training (%)
Directors and CEO	5	5	100.00
Leaders	26	3	11.54
Managers	16	8	50.00
Experts	26	5	19.23
Coordinators	31	21	67.74
Operational	385	201	52.21
Professional	123	70	56.91
Technicians	110	8	7.27
<b>Total</b>	<b>722</b>	<b>321</b>	<b>44.46</b>



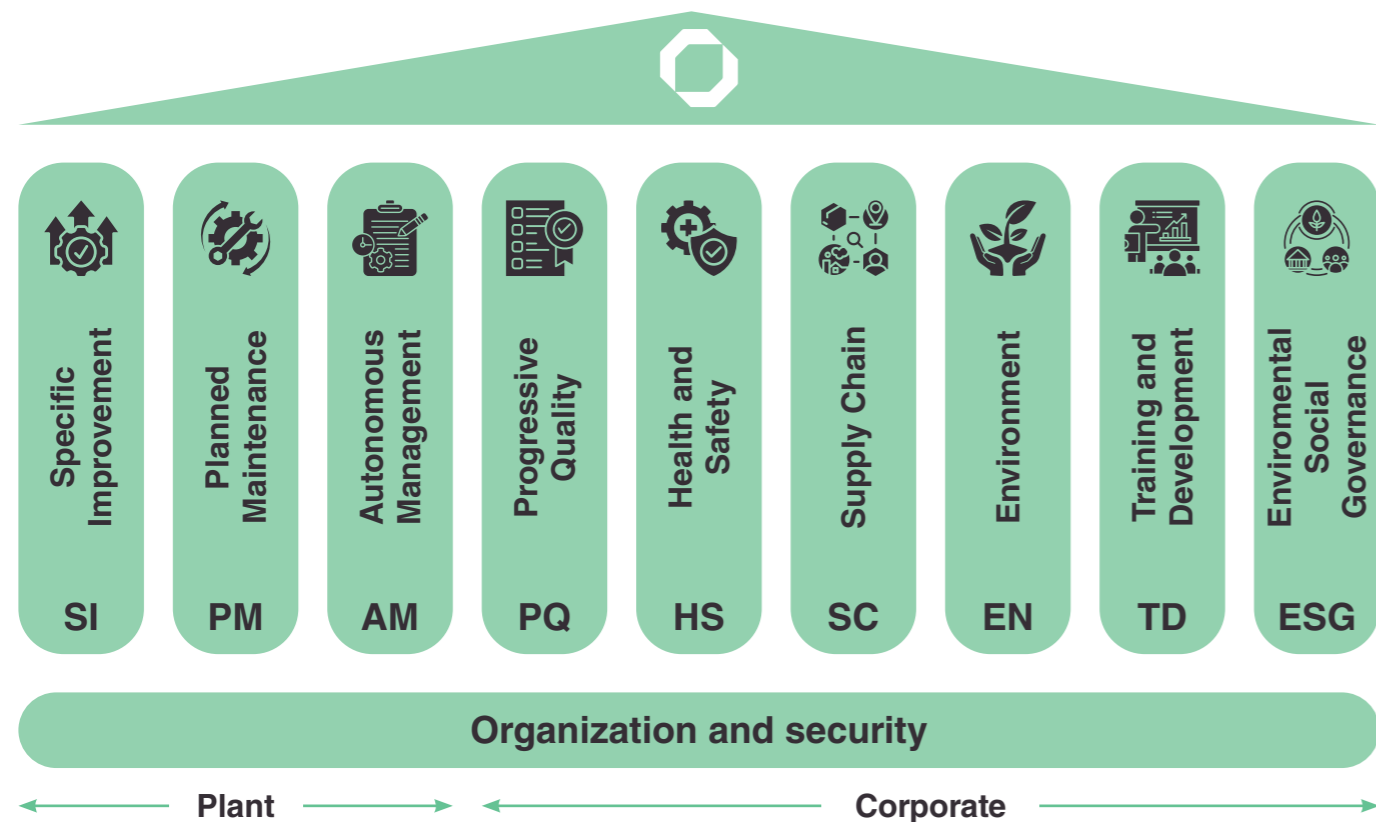


# Industrial Management

# SEI: Pillars and features

In its strategic planning, Ibema has defined investments to increase production volume over the period from 2022 to 2025. To put this into practice, it relies on the Industrial Management area, which is responsible for maximizing production efficiency and keeping operating losses to a minimum. To achieve excellence in industrial cost management the company intends to focus on reducing losses and making the best use of resources, which will help Ibema set the benchmark for the industry. To this end, the company has an integrated management policy in place based on ISO 9001 (Quality Management) and ISO 14001 (Environmental Management). It also conducts periodic internal and external audits to ensure that the documents required for safe operation are in accordance with current standards and legislation.

Through the Ibema Excellence System – SEI (*Sistema de Excelência Ibema*), a continuous improvement program implemented in 2018, the company aims to achieve excellence in all processes in order to be a competitive and sustainable company within the industry. The SEI is structured around nine pillars and aims to achieve zero loss by following a specific World Class Operations Management (WCOM) methodology. The system is connected to Ibema's strategy and mainly uses Lean Agile Management to guarantee the cadence of dialog (shift/daily/weekly/monthly). Expected results are tracked through indicators, with an eye on continuous improvement.



## Specific Improvement

Provides support to the Steering Committee to define the cost and volume improvement strategy. Improves productivity and flexibility by reducing setup time and non-value-added activities. It also maintains the deployment of plant costs and Overall Equipment Effectiveness (OEE) throughout the plant, and productivity analysis.



## Planned Maintenance

The intention is to increase plant reliability and reduce maintenance costs by developing the Preventive Maintenance system, based on time and condition. This pillar supports the Autonomous Management pillar.



## Autonomous Management

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



## Progressive Quality

Defines process conditions and variables to deliver a quality product, as well as establishing a system to eradicate sources of loss and maximize customer satisfaction by optimizing products and processes integrated into existing quality systems.



## Health and Safety

Develops the Accident Prevention System, guaranteeing safety improvements in the workplace. This pillar provides techniques for assessing risks and developing preventive and corrective contingency measures.



### ESG

Created in 2023, this pillar aims to monitor the indicators and projects linked to Ibema's commitments, in addition to centralizing the management of the company's development initiatives and targets with regard to sustainability, governance and social issues.



### Logistics

This pillar maps out various areas to obtain greater efficiency from machines, activities, and people, reduce operating time, costs, delivery time and stocks and improve production sequencing to make the company more competitive. Another objective is to simplify the process flow and make it lean, which is fundamental to integrating the factory into the global supply chain, moving from a product to a product flow factory. The tool used to create lean flow is Value Stream Mapping, which helps to describe the current state of the system and apply the necessary improvements, reducing the 7 Wastes.



### Environment

In charge of the Environmental Compliance and Incident Prevention System, this pillar is responsible for reducing losses by changing practices, processes and behaviors and developing a management system to integrate the environment into operational excellence. After diagnosing the plant's environmental performance, the pillar deploys a group of actions related to processes, utilities, and behaviors, including water, energy, waste, pollutants and noise. All this contributes to enriching the entire management system.



### Training and Development

Acts as a robust base on which to build the other pillars of the entire chain. The main tasks are: developing training systems linked to the company's goals; assessment of skills (gap analysis) and development for all functional areas; providing support for change in models involving autonomous teams in manufacturing, and developing people (skills and leadership).

### WCOM Methodology

The SEI program follows the WCOM methodology, which is a management system focused on continuous improvement and the constant search to reduce losses and costs in all processes, through the active participation of all employees. To achieve this, it uses a set of management excellence methods, improvement projects and control and analysis tools. Each pillar is responsible for a fraction of the results and aims to analyze and define where and how improvements will be made. The results are

monitored by the Steering Committee, made up of the CEO and other directors, who meet monthly to monitor targets and results. The actions needed to boost results are identified, recorded in the minutes, and forwarded to those responsible, and then management is implemented for each pillar.

### Projects

In 2023, 18 improvement projects stood out for bringing excellent results for the company, both in terms of productivity and cost reduction, bringing a total hard gain of BRL 2.7 million—an increase of 94% compared to 2022. The projects took place at the Turvo and Embu plants, some with a corporate impact, e.g. increase in Overall Equipment Effectiveness (OEE), a reduction in rejects, a reduction in breakdowns and an increase in productivity. There were also soft gain projects, such as flow reviews, definition and reviewing of processes and reductions in the competence gap.

Ibema has also launched four Autonomous Management Groups, which are groups of operators. The main objective of these groups is to guarantee the basic condition of the equipment by applying the 5S method and cleaning, inspection and lubrication standards. In addition, the use of safety and maintenance labels has been implemented, which serve to identify risks related to safety, quality and potential defects in the equipment, and this information is passed on to those responsible for the necessary repairs. For 2024, the company aims to strengthen these groups and create new ones, with the aim of developing the base of its plants, promoting lean management and operational excellence in search of better results.



**Ibema has an integrated management policy in place based on ISO 9001 (Quality Management) and ISO 14001 (Environmental Management), it also conducts periodic internal and external audits**



# Digital transformation

Digital transformation continues to be a strategic priority for the company. It drives innovation, operational efficiency, safety and competitiveness in the market and in daily operations. Over the course of 2023, Ibema made progress on several key fronts, including continuous improvement projects and automation of tools, achieving important results and strengthening the business. As a result, the company managed to optimize workflows and increase operational efficiency, resulting in gains in productivity and the quality of services provided.

Ibema has digitized various processes, including the reception process at the guardhouse courtyard, vehicle checklist, control of requests for materials and supplies,

orders for raw materials, inventory management, vehicle dispatch, as well as unloading and loading windows.

Progress has been made on the Data & Analytics front by structuring and making strategic indicators and analytical reports available to the company. These insights have been fundamental to improving operations, identifying opportunities and making assertive decisions, thus strengthening Ibema's competitive position.

The main IT risks monitored by the company today refer to: cyber-attacks and ransomware, data leaks, system unavailability, outsourcing of IT services, access management and emerging technologies. All risks are mapped

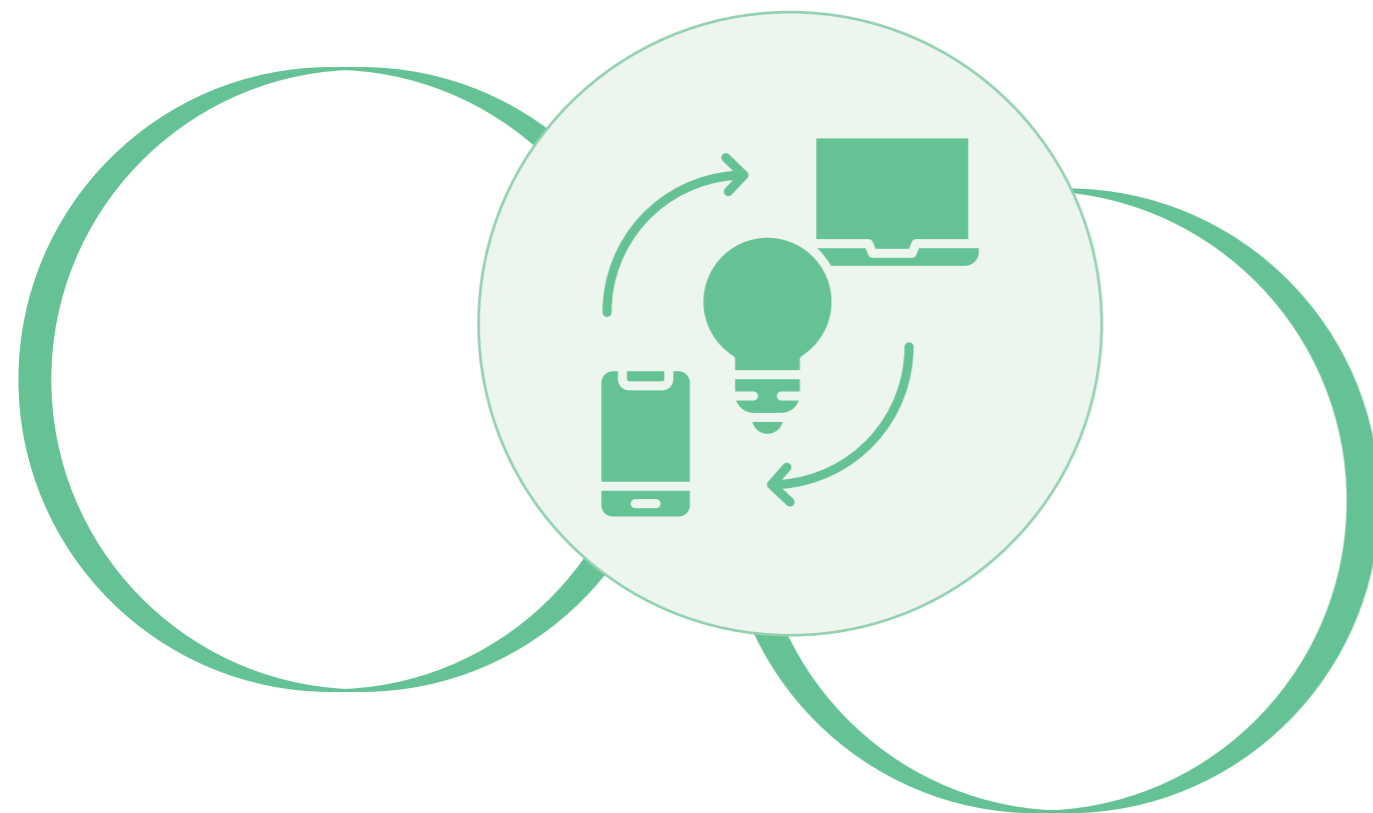
and analyzed using the Enterprise Risk Management (ERM) methodology, which is summarized in four main stages: risk identification, risk assessment, risk response, and monitoring and control. The issue of cybersecurity is a critical component. Invasion tests and employee awareness campaigns are part of the routine of gradually increasing maturity in this area. In addition, incident prevention and response procedures are improved year on year.

At the end of 2023, the company launched its Open Innovation Program—Embalabs Ibema—to the market, in partnership with PUC/PR – Hotmilk. The aim of the program is to shorten the path to solving challenges in the areas of Customer Experience, Supply 4.0, ESG and Operational Efficiency. This initiative will continue in 2024, with 84 startups already enrolled in the program, representing potential solvers of challenges on these fronts. The main pillars of the first stage of training held in 2023 were: Develop innovative ideas, Innovation Structure and Digital Transformation, and Leadership and Innovation Management.

As part of the journey to deepen the digital transformation, a strategic partnership has been established with Gartner Inc, a renowned consultancy specializing in business and technology. This partnership allows access to expert insights, best practices and precise guidance, in order to prioritize and accelerate the digital initiatives that will really boost Ibema's success and that of its customers.

As it moves forward on its digital transformation journey, it reaffirms its commitment to excellence and the creation of value for all its stakeholders, towards a more digital and sustainable future.

**In line with its strategic directions, Ibema aims to map, prioritize and implement opportunities for improvement and digitalization in its corporate processes**



# Infrastructure



## Turvo

	2023	2022	2021
Total Area	592,900 m <sup>2</sup>	592,900 m <sup>2</sup>	592,900 m <sup>2</sup>
Manufacturing area	29,856 m <sup>2</sup>	29,856 m <sup>2</sup>	29,856 m <sup>2</sup>
Current production capacity	105,000 t/year	105,000 t/year	100,000 t/year
Employees and third-party workers	411 employees 51 third parties	453 employees 54 third parties	490 employees 35 third parties



## Araucária

	2023	2022	2021
Total Area	25,500 m <sup>2</sup>	25,500 m <sup>2</sup>	25,500 m <sup>2</sup>
Manufacturing area	12,000 m <sup>2</sup>	12,000 m <sup>2</sup>	12,000 m <sup>2</sup>
Current production capacity	7,000 t/year	7,000 t/year	7,000 t/year
Employees and third-party workers	21 employees 15 third parties	35 employees 12 third parties	36 employees 10 third parties



## Embu das Artes

	2023	2022	2021
Total Area	61,550 m <sup>2</sup>	61,550 m <sup>2</sup>	61,550 m <sup>2</sup>
Manufacturing area	20,000 m <sup>2</sup>	20,000 m <sup>2</sup>	20,000 m <sup>2</sup>
Current production capacity	52,000 t/year	52,000 t/year	50,000 t/year
Employees and third-party workers	180 employees 100 third parties	189 employees 137 third parties	180 employees 107 third parties

Ibema's main infrastructure projects are listed below

GRI 203-1



### Strategic Progress in Fiber Verticalization

In 2023, Ibema intensified the economic feasibility studies and engineering aspects of the project for a new bleached chemi-thermomechanical pulp (BCTMP) mill in Turvo. The detailed analysis conducted by Ibema, in collaboration with Suzano and specialized consultants, permitted the evaluation of the nuances of the plant project, ranging from the technical demands of the operation to the commercial aspects and future market projections. Ibema believes that this strategy will facilitate the integration of its operations and the optimization of its value chain. This commitment is evidence of the company's ongoing quest for innovation and sustainable growth.



### Increasing Warehouse Capacity

With similar goals of efficiency, cost reduction and safety, Ibema implemented several changes in its warehouse. The changes included reallocating materials based on the frequency of movement, segregating items by quality, grouping by product type, improving identification, defining pre-picking areas and verticalizing the space. These management measures have resulted in a significant increase in the warehouse's capacity, as well as greater safety and agility when sorting loads.



### Displacement Redistribution

Ibema has also reorganized the storage of raw materials in its inventories, positioning high-turnover items closer to where they are consumed. This strategy has resulted in greater efficiency in sorting time and in feeding the plant, as well as a reduction in LPG consumption, which contributes to lower CO<sub>2</sub> emissions and a lower environmental impact.



### New extruder in Embu

Progress in the verticalization of processes reinforces Ibema's leadership position in products for specific segments, such is the case with the installation of a new extruder to meet the demands of the foodservice market. A number of infrastructure adjustments will be necessary for this installation, but the benefits will include an increase in monthly capacity from 1,000 tons to 1,700 tons, greater quality control in the extruded products, avoidance of external conversion costs as well as logistical costs for sending and returning to converters, and application of the Ibema standard to the materials sold.



### Equivalent Self-Generation

Through a partnership signed in 2023, Ibema began the process of self-generating wind energy, a clean and sustainable source. The operation, scheduled to begin in 2024, aims to capture economic benefits for the company's results, as well as contributing to its sustainable development and allowing access to energy certificates (I-REC). Located in the town of *Curral Novo do Piauí*, in the state of Piauí, the wind farm is expected to produce an average of 8 MWh, which represents 60% of the company's current total consumption.



### Forklift exchange

For reasons of efficiency, cost savings and safety Ibema has completely replaced its old forklift fleet.



### Web Vision Paper Sytem

Investment of approximately BRL 2 million in monitoring defects in the paper machine, with the aim of reducing losses due to surface defects on the sheet.



### Revitalization of the factory in Turvo

The building was refurbished and communal areas built for employees with the aim of improving the working environment, creating comfortable and functional spaces for employees' rest breaks and maintaining the plant's infrastructure.



### Investment in infrastructure around the unit

Approximately BRL 1 million was invested in infrastructure around the unit in Turvo, where Ibema's Vila Residencial (Residential Community) is located. The area where the Vila Residencial is located was privately owned and has been in the process of being donated to the municipality in recent years. As a result, some services are not offered by the public authorities or are offered only partially. In this regard, Ibema has an annual budget that is part of a five-year strategic plan to revitalize the Vila (2022-2026) and support local development.

The investments made by Ibema aim to improve the quality of life of the surrounding community and make the region more attractive, with a positive impact not only on the employees who live in the houses provided by the company, but also on the residents in general. The main investments were in mowing, gardening, property security, septic tank cleaning, renovation/maintenance of houses, maintenance of the square and improvement of the electricity network.





# Economic and Financial Management

### GRI 3-3, 201-1

Ibema's economic performance is crucial to its financial sustainability, allowing the company to invest in innovation, technologies and expansion of operations. Economic success directly impacts Ibema's ability to operate sustainably, generate value for its stakeholders and contribute to socio-economic development in the regions where it operates.

The company is actively involved in identifying the impacts of its activities, helping to assess real, potential, positive and negative impacts in the short, medium and long term, supporting the strategic vision of generating value, promoting transparency in communication with stakeholders and following a path of sustainable management.

As far as market risks are concerned, Ibema continuously monitors factors such as the entry of imported products, the volatility of raw material prices, variations in packaging demand, environmental and sustainability regulations, the reduction of single-use products, currency fluctuations and economic instability, and marketing and distribution strategies.

Ibema's internal policies establish clear guidelines for employee conduct, promoting consistency, legality and compliance with laws and regulations. These policies reinforce transparency and accountability, strengthening stakeholder trust and cultivating an ethical and healthy organizational culture.

During 2023, Ibema intensified the monitoring of potential impacts on cash flow. Financial statements were reviewed and CAPEX strategies and production curves adjusted to

maintain financial balance. Assessments and decisions are regularly discussed in specific committees and reported at different levels of the company, including the Board of Directors.

In 2023, analyses were also conducted focusing on critical markets, such as Argentina, given their commercial importance and impact on Ibema's results, especially during periods of political transition in the country. These efforts demonstrate Ibema's commitment to proactively adapting to economic and market challenges in order to sustain its growth and leadership in the sector.

### Financial performance

Ibema reported net revenue of BRL 920.3 million in 2023, down 6.4% on the previous year. Sales volume in 2023 was 11% lower than in 2022, significantly impacted by the loss of balance between global supply and demand for paperboard, mainly influenced by the increase in installed capacity in the Asian market. The cost of products in 2023 was BRL 638.9 million, showing a reduction of 4.1% compared to 2022. As a result, the company's Gross Profit was BRL 281.4 million, representing a reduction of 11.1% compared to 2022.

Administrative and commercial expenses totaled BRL 131.6 million, an increase of 8.7% compared to 2022. Adjusted EBITDA was BRL 178.6 million, compared to BRL 214.7 million in 2022. The company ended 2023 with a net debt of BRL 32.1 million and BRL 69.3 million in free cash flow, impacted by the distribution of dividends of R\$89.8 million during the year and investments in the forestry area of R\$65 million. The company had a leverage ratio of 0.18, compared to a leverage ratio of 0.56 in 2022.

### EBITDA Composition (in thousands of BRL)

	2021	2022	2023
Net Revenue	763,812	982,730	920,276
Net Profit	88,228	65,042	103,399
(+/-) Financial result, net	(2,171)	914	3,380
(+) Depreciation and amortization	15,711	15,890	19,468
(+) Income Tax and Social Contribution	43,016	23,404	56,501
EBITDA	144,784	105,250	182,748
(-) PIS and COFINS credits (net of expenses)	-	-	-
(+) Donation of the 138 Kv transmission line	-	46,539	-
(-) Tax contingencies	-	62,888	(4,153)
ADJUSTED EBITDA	144,784	214,677	178,595
% of net revenue	19.00%	21.84%	19.41%

**Note 1** – Information taken from Ibema's 2023 Financial Statements, audited by PWC on March 1, 2024.

**Note 2** – In the previous report, the amounts were given in millions of BRL, but the correct presentation is in thousands of BRL, as adjusted above.

### Current Liquidity

Current liquidity (Current Assets / Current Liabilities) decreased/increased from 1.12 in 2022 to 1.25 in 2023.

### Statement of added value for 2023 (in millions of BRL) – GRI 201-1

<b>REVENUES</b>	<b>1,147.00</b>
<b>Sales of goods, products and services</b>	<b>1,141.04</b>
Provision for doubtful accounts - Reversal/Constitution	0.73
Non-operational	5.14
<b>INPUTS ACQUIRED FROM THIRD PARTIES (includes ICMS and IPI)</b>	<b>625.08</b>
Raw materials consumed	482.10
Cost of goods and services sold	0
Materials, energy, third-party services and others	143.00
Loss/recovery of assets	0
<b>GROSS VALUE ADDED</b>	<b>521.83</b>
<b>RETENTIONS</b>	<b>19.47</b>
Depreciation, amortization and exhaustion	19.47
<b>NET ADDED VALUE PRODUCED BY THE ORGANIZATION</b>	<b>502.36</b>
<b>VALUE ADDED RECEIVED IN TRANSFER</b>	<b>14.06</b>
Equity income	0
Financial income	14.06
<b>TOTAL ADDED VALUE TO BE DISTRIBUTED</b>	<b>516.42</b>
<b>DISTRIBUTION OF ADDED VALUE</b>	<b>520.20</b>
Personnel and charges	49.33
Taxes, fees and contributions	250.79
Interest and rent	26.72
Interest on equity and dividends	89.75
Retained earnings / loss for the year	103.40
Investments in the community	0.20
<b>Accumulated economic value (economic value generated minus economic value distributed)</b>	<b>(14.06)</b>



 **ibema**

# Customer and Portfolio Management

# Portfolio

Ibema is recognized as the third largest paperboard manufacturer in Brazil. Not only does it produce packaging, but it also packages well-being, experiences and stories. Its packaging passes from hand to hand every day, carrying the desires of thousands of people, packaging everything from everyday simplicities to extraordinary moments, always with the utmost care to guarantee the protection of the contents. This care reflects the way the company relates, based on tact and empathy.

Present in the Americas, Africa, Europe and Asia, Ibema operates with an annual production capacity of 157,000 tons and employs approximately 900 direct and indirect employees. The company has two plants, located in Embu das Artes (SP) and Turvo (PR), and adopts different strategies at each location. While Embu das Artes is dedicated to recycling, transforming waste and paper scraps into new products, Turvo focuses on producing paperboard from virgin fiber sourced from planted forests. Ibema also manages a distribution center in Araucária (PR), and has administrative offices in Curitiba (PR) and Buenos Aires, Argentina.

The Embu das Artes plant, located in the metropolitan region of São Paulo, is described as a “forest of paper scraps” and is a vital center for promoting the circular economy. The company’s strategy of continuously investing in the circular economy demonstrates its commitment to leading the way in the production of post-consumer materials in Brazil.

Ibema’s portfolio currently includes 12 products: Supera, Supera White, Supera W Print, Impona, Impona White, Naturale, Ritagli White 35, Ritagli Cream 35, Royal Blister, Royal Coppa Coating, Royal Coppa SC and Refibra. These products serve a wide range of market segments, including cosmetics, pharmaceuticals, direct food contact, household hygiene, couplings, personal hygiene, bags, pre-packaged foods, premium packaging, cupstock, blisters, fast-food delivery, frozen foods, trays and cigarette packaging, demonstrating its reach and adaptability to various packaging needs.

**By accelerating the process of strategic innovation of products and services, Ibema seeks to differentiate itself and stand out in the market**



## Naturale, GC1 Supera White and GC2 Supera

Cartons with the best stiffness indexes per grammage. This means that less weight of paper is required to produce a package, with the same performance on the printing and packaging lines, but with a lower grammage. This can save between 5% and 35% depending on the paperboard being compared. What’s more, Naturale uses fewer chemicals in its composition (70% less) than other Brazilian-made paperboards. It is a board with a sustainable footprint, produced with virgin fibers, but with a significant reduction in chemicals to meet sustainability needs and targets. Adding sustainability and performance to a board that has the face of nature!

## Ibema Ritagli and Refibra

Ritagli is a product that promotes the circular economy and truly legitimizes the recycling process. It transforms used packaging into new packaging—upcycling. This paperboard

contains 55% recycled fibers, 35% of which come from post-consumption, and is in line with the guidelines of the National Solid Waste Policy (PNRS - *Política Nacional de Resíduos Sólidos*). This is paperboard with all the characteristics of a GC1 (Triplex) and GC2 (Duplex), but with recycled fibers incorporated into the recipe. In other words, paperboard with optimum printability and performance, but that adds a sustainable footprint to packaging. Ritagli is a product that responds to environmental objectives, the ESG objectives of the consumer goods industry and the desires of conscious consumers.

Complementing the range of boards that use recycled fibers in their composition, Refibra can contain up to 70% recycled content. It has good performance in graphic processes and a wide range of weights, allowing it to serve various segments looking for cost-effectiveness.

# Customer management

Ibema's direct customers are mainly printers, who buy the raw materials supplied by the company to produce packaging. The indirect customers—the end-users—include consumer goods industries and emerging companies, such as delivery service startups and fintechs. Although Ibema does not supply these indirect customers directly, the company establishes a specification and development relationship with these partners. The aim of this joint effort is to understand the expectations and commitments of these customers, and to develop technologies and solutions tailored to their needs.

Ibema is observing a growing demand for packaging from renewable sources, a trend that is likely to intensify in the coming years. This has been the spark for the company to invest in the circular economy as a strategy to engage its entire value chain, cultivating a diversified and close relationship with its various customers. This approach not only responds to market demands, but also reinforces the company's commitment to sustainable and innovative practices in the packaging sector. Ibema held several events on sustainability and the circular economy for its customers in 2023 to demonstrate this relationship:



**Ibema invests in the circular economy not only in response to market demands, but also reinforcing its commitment to sustainable and innovative practices in the packaging sector**

## Argentina Event

Argentina is more than just a neighboring market for Ibema, it is an extension of its home, with ties stretching back more than 30 years. In July 2023, the company celebrated this long-lasting relationship in Buenos Aires, where it opened its first international office. The meeting was a tribute to their shared history and a bridge to a promising future. Ibema used the opportunity to reflect on its achievements, celebrate its current success and plan a path of continued growth.

The meeting was enhanced by the presence of Paulo Hartung, president of Ibá – Brazilian Tree Industry Association (*Indústria Brasileira de Árvores*), who emphasized the need for a strategic vision for sustainable progress. Rodolfo Santangelo, president of Macroview S.A., was also present and offered his perspective on market trends and emerging opportunities for the sector in this new scenario.





## Brazil Event

### Ibema Conecta: A showcase of success and collaboration

In October 2023, Ibema organized the second edition of Ibema Conecta, an event aimed at strengthening relationships with customers, suppliers and partners. This event brought together three important guests: Fernando M. Gonçalves, Superintendent of Macroeconomic Research at *Banco Itaú*; David Schurmann, filmmaker and CEO of *Voz dos Oceanos*, who was invited to give a talk on the fight against microplastics, which is now a problem that has Ibema's attention and support; and Thiago Duenha, Sustainability Specialist at

Arcos Dorados Brasil, who represented Ibema's partnership with McDonalds on a circular economy project.

Ibema Conecta served as a stage to celebrate the company's achievements and present its vision for the future. The event provided Ibema with an opportunity to:

- **Analyze the international paperboard scenario:** Global paperboard production reached a significant figure of

54 million tons, an indicator of the sector's growth and the demand for sustainable solutions.

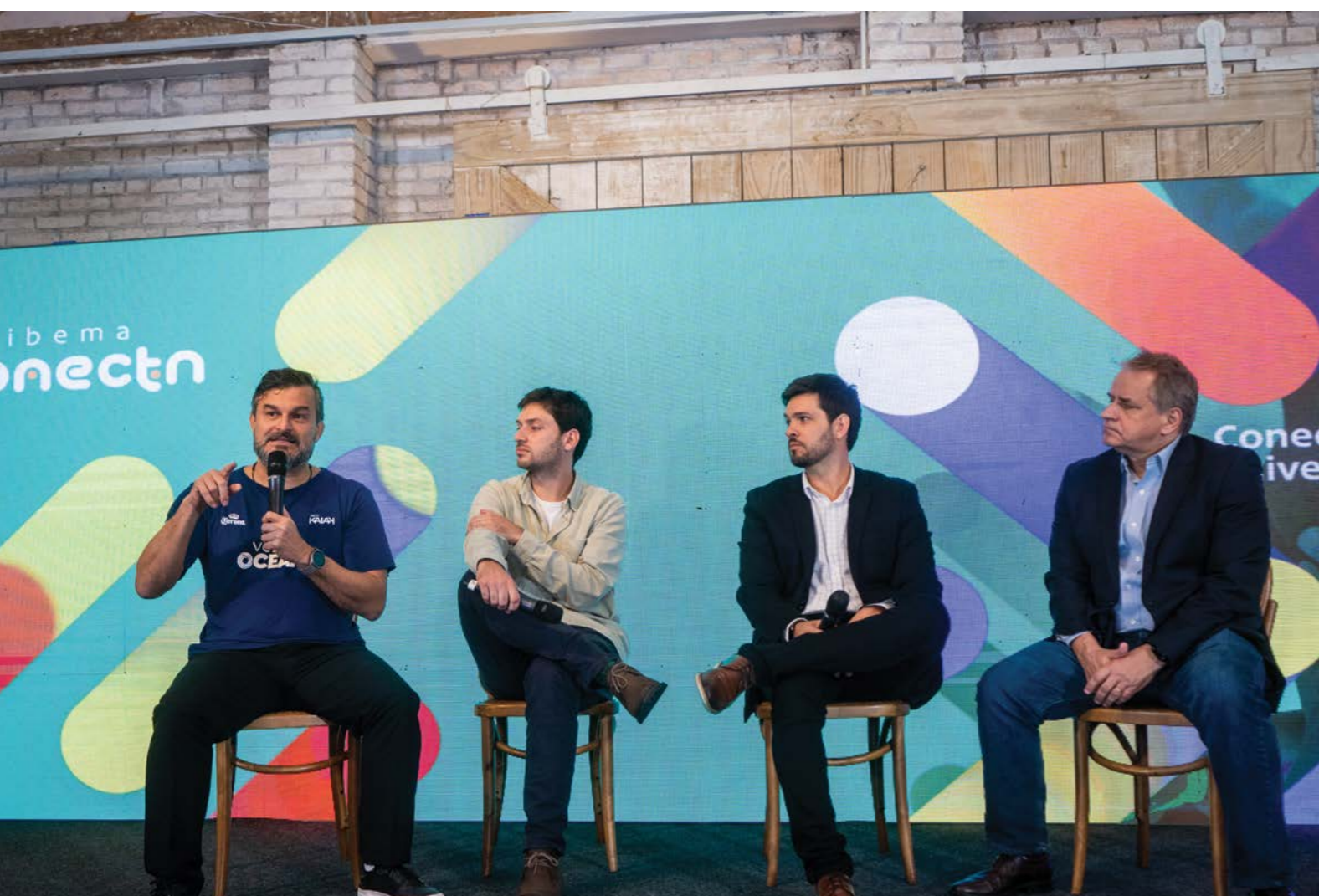
- **Demonstrate initiatives with positive impacts:** Ibema presented various actions promoted by its brand, both independently and in collaboration with other companies that share the same vision. These initiatives range from the use of recycled materials to the promotion of conscious consumption practices.
- **Reinforce its commitment to sustainability:** Ibema reiterated its commitment to innovation, technological progress and the adoption of renewable energies. This recognizes the importance of its actions in building a more sustainable future for generations to come.

### Ibema Embala

In 2022, the Ibema Embala ("Ibema Packages") program was created and implemented in pilot format. The relationship program was then officially launched to the market in January 2023. This project is an initiative to strengthen relations with customers, with the aim of developing new markets and packaging with more sustainable solutions and establishing long-standing partnerships. The program included the definition of metrics and indicators, with customers then categorized according to the results achieved and rewarded according to the regulations in force.

The program ran throughout 2023, during which time several customers redeemed a variety of rewards that were used as incentives by their sales teams. The program will be reviewed for 2024 to see how to offer an even better experience for customers. The improvements

Ibema recognizes the importance of customer satisfaction and continually seeks to incorporate this concern and care into its strategy in all stages of the company's processes and in all areas



implemented will make it even more attractive, simplified and in synergy with current market demands. This should provide an ever-increasing variety of possibilities, while always seeking to strengthen ties with customers and improve the shopping experience.

### Fortnightly clipping

With innovation and sustainability trends in mind, Ibema curated a monthly newsletter for Ibema customers, highlighting significant developments in the packaging sector. This newsletter reports on advances in paperboard packaging and strategies to mitigate plastic pollution. It also highlights initiatives that promote a reduction in the use

of single-use packaging, as well as recycling practices and circular economy principles.

The purpose of this clipping is to provide insights that can foster innovation in products and processes and keep customers informed about current trends and challenges in the paperboard market. **By sharing relevant knowledge, Ibema inspires actions that contribute to a more sustainable future.**

### NPS results

In 2023, a quantitative Customer Satisfaction survey was carried out, which included the evaluation of Ibema's Net

Promoter Score (NPS). The aim was to measure the level of satisfaction with processes, products and interface zones. A highlight was the recognition of Ibema's product portfolio, technical support and actions related to sustainability and ESG, with an emphasis on the 'Circular Economy, Recycling and Reverse Logistics' topic. This result underscores the customers' perception of Ibema as a benchmark-setter for practices that directly influence their purchasing decisions. It also highlighted the fact that the company is in line with global trends in sustainability and circularity, as well as setting a benchmark in the market where it operates. Certain parameters and areas deserve a special mention, including "speed of reply," "ease of access," Customer Portal, and the Logistics and Customer Service areas, all of which were evaluated positively compared to 2022.

On the other hand, the overall consolidated results were lower than the previous year, with a satisfaction level of 76% in 2023 and 78% in 2022 and NPS of 34 in 2023 and 42 in 2022. These results were directly affected by the challenging market scenario caused by the increased supply of paper on the international market. The main points for improvement identified were indicators relating to "prices" and "negotiation flexibility".

An internal workshop was held with Ibema's leadership as a standard for action in order to generate immediate improvement plans, as well as a second phase of research using a qualitative methodology. This will be conducted in 2024, with the aim of obtaining further details of the points for improvement so that more robust action plans can be generated based on factual information.





# Social Management



# People

GRI 2-7, 2-8, 2-30

Ibema believes that investing in people on a day-to-day basis is the secret to success, which is why it offers a range of benefits and training for its employees. The company ended 2023 with a workforce of 898, including 722 employees and 176 non-employee workers (133 third parties, 09 temporary workers, 10 trainees, 22 apprentices and 02 legal entities).

People management is conducted by the Human Resources department.

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

	Own employees	Third-party employees (permanent contract)	Third-party employees (temporary contracts)	Total (own and third parties)
	558	121	08	766
	164	46	01	228
	722*	167	09	898

\* 99% of employees are covered by collective bargaining agreements. The 02 employees in Argentina are not covered by collective bargaining agreements because they are not bound by Brazilian law, and the 05 directors are covered by statutory contracts.

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

	Headquarters (Curitiba/PR)	Turvo /PR Plant	Araucária/PR Distribution Center	Embu das Artes/ SP Plant	Argentina Office
Own employees	108	411	21	180	2
Third-party employees (permanent contract)	10	43	15	99	0
Third-party employees (temporary contracts)	0	8	0	1	0

**Note 1** – All Ibema’s own employees work full time.

**Note 2** – Only the 22 apprentices and 10 trainees work part-time.

**Note 3** – Own employees include the 05 Directors, who are not counted among the employees with a permanent contract since they hold statutory positions.

# Equal opportunities, diversity and inclusion

GRI 3-3, 405-1, 405-2, 406-1

Ibema recognizes the importance of this issue and sees the company as a mirror of society. This is reflected in a diverse and plural environment that guarantees an inclusive and respectful environment and equal opportunities for everyone.

Plurality of ideals is essential for the smooth running of any business and can have an impact on increased creativity and innovation, better organizational performance, greater employee engagement, community representation and an improved company reputation.

Ibema has sought to move forward in this regard, building a pathway connected to the organization’s culture and strategic objectives. Leadership training is crucial to the understanding of the value of diversity in the company and the creation and management of diverse teams.



Ibema does not yet have a Diversity policy. However, the application of its first Diversity Census, which was carried out with the support of an external company to guarantee the confidentiality and anonymity of the participants, resulted in a detailed analysis of the information on Ibema’s demographics and its current state of maturity in Diversity, Equity and Inclusion (DE&I).

Based on the data a leadership development plan could then be drawn up. This included training related to the topic to ensure literacy on the subject as well as the launch of the first DE&I Guide as a primer to support the construction of a respectful environment. The first affinity group for women, **We Care**, was also created. The aim of the group is to build a support network for the company’s

women and address important issues related to well-being, health and career, to encourage the development of our female employees. For the year 2024 Ibema is looking to make progress in defining its DE&I stakeholders, forming a Diversity Committee to act in a structured way on all issues and make the environment increasingly plural, providing a culture where everyone feels valued, heard and empowered.

**Ibema seeks to create a positive work environment where employees feel engaged and motivated, promoting a winning culture**

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

	Board of Directors	Management	Coordination	Experts	Leaders	Professionals	Operational	Technicians
<b>Employees by gender</b>								
	80%	69%	74%	77%	92%	46%	85%	85%
	20%	31%	26%	23%	8%	54%	15%	15%
<b>Employees by age group</b>								
Under 30 years	0%	0%	3%	12%	19%	26%	37%	25%
30-50 years old	60%	94%	81%	77%	62%	67%	55%	71%
Over 50 years old	40%	6%	16%	12%	19%	7%	8%	5%

**Note** – Ibema has a joint board of directors made up of the groups that represent it. However, the members are not Ibema employees. The board is made up of four members, all men.

## Ratio of basic salary and remuneration of women to men by employee category – GRI 405-2

Functional category	Ratio of basic salary of women to men	Ratio of remuneration of women to men
Board of Directors	0.87	0.76
Management	0.9	0.85
Coordination	1.06	0.99
Experts	1.12	1.06
Leaders	0.69	0.58
Professionals	0.87	0.72
Operational	0.74	0.64
Technicians	0.8	0.76

Note 1 – The ratio is calculated by dividing the basic salary and remuneration of women by the basic salary and remuneration of men.

Note 2 – The information refers to own employees at all units, except for the two employees at the Argentina office, since they do not belong to the same job and salary policies as in Brazil. Apprentices, trainees and the CEO are also not included, as they are classified as “non-employees.” Because the CEO occupies a single position his average pay may be higher, making the comparison unfair. The data reported is from the average for 2023 for remuneration and from the month of December for benefits.

Note 3 – There has been a redefinition of the functional categories reported in 2022 (“Administrative” and “Production”) into new categories (“Experts”, “Leaders”, “Professionals”, “Operational” and “Technicians”). This change aims to clarify the gender pay gap, considering the different pay ranges within each job category.

# Training and education

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

In 2023, Ibema made significant progress with its Leadership Academy, a program aimed at developing the behavioral and technical skills of its leaders. Under the theme “Cohesive Teams,” the first training cycle covered operational leaders, supervisors, experts, managers and, finally, the board of directors.

Alongside mandatory safety training the company conducted monthly training sessions focused on raising awareness of the safety culture, reinforcing its commitment to the goal of zero accidents. Mandatory training is essential for complying with health and safety regulations (NRs) and ensuring a safe working environment for all employees, including accident prevention and risk identification programs.

In addition, Ibema implemented the **Escola do Papel** (“School of Paper”), offering industry-specific technical training to train specialized teams for pulp and paper manufacturing and maintenance. The technical training courses are mainly aimed at the operational public and include Film Extrusion and Troubleshooting, Industrial Automation, Cutting and Creasing, Rewinding Process and Vibration Analysis.

The **Pulp and Paper Management Preparation Program** (PPGCP - *Programa de Preparação de Gestores*




*em Celulose e Papel*), carried out in partnership with the Brazilian Pulp and Paper Technical Association (ABTCP - *Associação Brasileira Técnica de Celulose e Papel*), focuses on the development of professionals who have recently graduated in Chemical or Production Engineering, facilitating their entry into the job market. Participants are trained by professionals from leading companies in the sector on topics such as people management, sustainability, and pulp and paper, as well as going on technical visits and taking part in coaching and mentoring sessions.

To evaluate the effectiveness of training, Ibema uses a methodology that analyzes the evidence of improvements resulting from the application of the knowledge and skills developed through training. This assessment is conducted by managers and monitored by the Human and Organizational Development area. When effectiveness is not satisfactory an action plan is drawn up and monitored to ensure that the training objectives are met.

The records that accompany the training sessions are:

- Effectiveness assessment
- Request for Training, Courses and Events
- Attendance and participation list
- Evaluation of training reaction

### Average hours of training by gender – GRI 404-1

Gender	Number of own employees	Hours of training offered	Average hours of training
	558	18,857	33.79
	164	4,127	25.16
	722	22,984	31.83

### Skills management and continuous learning – GRI 404-2, 404-3

When it comes to promoting continuous learning among its employees, Ibema offers a wide range of training courses on topics that are crucial to the proper performance of each role. The company conducts induction activities for new employees and offers subsidy policies for technical courses, undergraduate and postgraduate degrees. Ibema also trains its leadership in desirable knowledge and attributes, aligning the continuous development of employees with the organizational values and culture, and connecting this development to the company's strategy.

Ibema reaffirms its commitment to the education and development of its employees through its Education and Development Incentive Program. The program includes the offer of scholarships ranging from technical and vocational courses to MBAs, postgraduate courses, master's degrees and language courses. Another significant pro-

gram is Education for Young People and Adults, conducted in partnership with SENAI, which enables employees to complete basic education and access other training programs offered by the company.




For employees in career transition or retiring Ibema has prepared a booklet with important tips for professional relocation, covering financial organization, updating of CVs and social networks, expanding networking outreach, registering on digital platforms, and developing new skills. Ibema's Outplacement Plan aims to help employees on their journey, as well as providing emotional health sessions, financial guidance and tips on career management.

At Ibema, all employees have the opportunity to receive formal feedback from managers through Crescer, the company's Performance Evaluation Program. This involves the

filling in of appraisal forms, registration in the feedback system, participation in Performance Forums and the drawing up of Individual Development Plans (IDPs). This program assesses the essential competencies for the business, which are based on the company's Culture and Purpose drivers and results pillars. The assessment is conducted every six months for all employees.

Ibema's People & Culture department monitors all the results of the appraisals and supervises the preparation and execution of the IDPs, guiding employees in their development actions throughout the year. In addition to evaluating performance, Ibema also examines the potential of high-performing employees in the performance cycle and those in leadership positions. This contributes to personal development processes, career acceleration, as well as talent recognition and retention initiatives.

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

Gender	No. of own employees who received an analysis	No. of own employees	% by gender
	522	558	94%
	158	164	96%
	680	722	94%

Functional Category	No. of own employees who received an analysis	No. of own employees	% by functional category
Board of Directors	3	5	60%
Management	15	16	94%
Coordination	29	31	94%
Experts	23	26	88%
Leaders	23	26	88%
Professionals	120	123	97%
Operational	359	385	93%
Technicians	108	110	98%
<b>Total</b>	<b>680</b>	<b>722</b>	<b>94%</b>

# Employee well-being, health and safety

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

Ibema recognizes that managing the well-being, health and safety of employees is of great importance, not only to comply with legal and ethical obligations, but also to guarantee the company's social, operational and financial sustainability. Potential negative impacts of not doing so vary according to the working conditions, safety practices and health measures adopted, but could include occupational injuries, work-related illnesses, excessive stress and exhaustion, accidents at work, inadequate ergonomic conditions and psychosocial risks.

Improvements in health and safety conditions in the workplace result in cleaner, more organized, safer, and more pleasant working environments, increase employees' personal satisfaction and ensure they return home in good health at the end of the day. Ibema seeks to offer such safe and healthy working environments, and welcomes open and frank communication so that everyone can express their opinions. Good working environments help maintain mental health and increase productivity and quality of work, resulting in a low rate of absenteeism and greater employee engagement.

Ibema communicates regularly about well-being, health and safety, provides tips on these topics and holds monthly awareness-raising meetings. The Daily Safety Dialogue (DSD) program addresses customized topics for the plants on a daily basis to make everyone aware of the importance of health and safety at work. In 2023, the organization implemented an alcohol and drug policy, conducting awareness and prevention campaigns, as well as breathalyzer tests at the entrance.

The effectiveness of the measures adopted is tracked by monitoring absenteeism rates, which have fallen with the

adoption of wellbeing, health and safety programs. Ibema also uses research mechanisms such as Great Place To Work (GPTW), which include employee assessments of issues related to Occupational Health and Safety (OHS), as well as how employees evaluate and understand the management system.

The senior management and the People & Culture department underwent a health and safety integration process to align them with the company's goals and objectives for employee well-being, health and safety. The acceptance of these responsibilities by stakeholders has given the safety team the confidence and freedom to implement actions aimed at creating a strong and robust safety culture.

Although Ibema does not have ISO 45001 certification the organization does have an Occupational Health and Safety (OHS) management system in place. This is based on legal requirements such as the regulatory standards, which establish the need for a Risk Management Program (PGR) and Occupational Health Medical Control Program (PCMSO). The system was implemented following the guidelines of the ISO system, with actions controlled and validated by specific systems.

All of the company's own employees and third-party workers are covered by the OHS management system and are responsible for immediately reporting any accidents or incidents that occur at work to management. All operational and administrative activities follow the guidelines of the relevant regulatory standards, guaranteeing a safe and healthy working environment. The company also has Specialized Services in Safety and Occupational Medicine (SESMT) in place at its operational units, an active Internal Accident Prevention Committee (CIPA) with



elected and appointed members (which meets monthly according to the planned schedule) and a volunteer first response team. It also provides free personal protective equipment (PPE), as well as training on how to use, clean and replace it.

## Identification and assessment of risks and hazards

Ibema conducts a detailed analysis of its occupational hazards and risks using Job Safety Analysis (JSA) risk matrices. This approach facilitates qualitative and quantitative identification of hazards and risks, control measures and actions in the event of emergencies. This risk assess-

ment also determines the hierarchy of control measures and the types of PPE required. The company uses a safety labeling system to identify and record unsafe conditions, as well as an app for recording unsafe behavior.

Ibema follows 11 basic OHS principles, with emphasis on the concept that all accidents are preventable. All of the company's own employees and fixed-term contractors are encouraged to exercise their right to refusal, as set out in the Consolidation of Labor Laws (CLT) and widely promoted by the organization during OHS integration and safety training.

The company has a platform for recording, investigating, and analyzing incidents, near misses and accidents. Once a "GID" (Management of Incidents and Deviations) event has been recorded, the person in charge of the sector, together with the SESMT team, must investigate and analyze the occurrence to identify its root causes, before adopting control measures to prevent it from happening again.

In addition, Ibema has an Occupational Hazard and Risk Survey program. This program helps to identify hazards and risks that can cause serious accidents, allowing financial resources to be directed towards eliminating or minimizing these risks.

### Occupational Health Services

Ibema provides an occupational health clinic at its plants, staffed by occupational physicians and nurses who coordinate the PCMSO according to the occupational risks identified in each plant's Risk Management Program. The medical team is responsible for managing all medical examinations, including admission examinations, periodic examinations, change of job examinations, return to work examinations and dismissal examinations. Test results that show alterations are promptly analyzed by the

occupational physician, who calls in the safety technician to assess possible deviations in the activities of the employee being examined.

The medical department also organizes seasonal health and medical campaigns alongside the SIPAT (Internal Week for the Prevention of Accidents at Work), e.g. Yellow September, Pink October, Blue November, vaccination campaigns, campaigns on STDs and smoking, and vision quality campaigns with the manufacture of safety glasses with varifocal lenses. All the plants are equipped with ambulances for external assistance and trained emergency responders to help victims of accidents or sudden illnesses. The company has also hired a consultancy specializing in ergonomic analyses of working conditions to analyze various areas of the industrial sites.

The non-operational units receive occupational medicine services from SESI (Social Service for Industry), which provides occupational doctors and other health professionals and offers complete technical support to guarantee the health of employees.

Ibema is ISO 9001, ISO 14001 and FSC® (C004702) certified. These standards provide a risk prevention and mit-

igation method for employees and operations, as well as establishing standards to ensure that suppliers and partners provide the necessary care and attention to workers' health and safety. In addition to these certifications, the company has a system for evaluating suppliers through registration and control systems. The products produced and marketed undergo rigorous quality verification and certification processes and do not pose any risks to the health and safety of customers and end consumers.

### Occupational health and safety training

Ibema recognizes that training is fundamental to successfully meeting health and safety demands, which is why it has an area dedicated exclusively to coordinating all mandatory, technical, and behavioral training.

In addition to the mandatory training provided for in the regulatory standards, the company also conducts technical and behavioral training. Subjects include:

- **Safety integration** – for new employees and safety reintegration every two years
- **Radiological Protection (CNEN)**
- **OHS Guidelines** – these consist of new safety rules for processes the company considers critical and for which non-compliance could result in serious or fatal accidents. All employees are trained in this program and learn about the new rules.

- **Lockout & Tagout (LOTO)** – involves blocking dangerous energy sources. All maintenance and operations staff are trained to intervene with machines and equipment only when they are fully de-energized, switched off, locked out, tested and signaled.

### Work-related injuries

The accidents that occurred at the Turvo plant (with relatively minor consequences) were caused by failures to control hazardous energy sources. These hazards were identified through the Preliminary Risk Analysis (APR) and also as a result of the investigation and analysis of the incidents. The two more severe accidents that occurred at Embu were caused by hands being placed on moving equipment. The other accidents resulted from a lack of awareness and risk analysis when carrying out simple, routine tasks or non-routine activities. Measures taken include implementation of the LOTO program, and further training is planned to ensure that blocking dangerous energy sources becomes a cultural practice at the company. Health and safety retraining was also conducted with all permanent employees and third parties, assessments were conducted using andragogy techniques, and an Alcohol and Drugs Policy was created.

In 2023 there were no fatalities resulting from a work-related illness or cases of occupational diseases.

### Work-related injuries – GRI 403-9

	Number	Rate	No. of hours worked
Employees 2023	6	5.10	1,178,154
Employees 2022	2	1.68	1,192,213
Employees 2021	7	6.00	1,167,193
Third parties 2023	4	9.30	437,357
Third parties 2022	-	-	325,520
Third parties 2021	3	9.88	303,505

Note 1 – Data refers to the Turvo and Embu das Artes plants. The injuries recorded, with relatively minor consequences, were caused by failures to control dangerous energy sources and a lack of risk perception and analysis when performing simple, routine tasks and non-routine activities. The only 02 injuries with more severe consequences resulted from hands being placed on moving mobile equipment. None of the injuries recorded resulted in fatalities.

Note 2 – The rates were calculated using the formula "total recordable work-related injuries/total hours worked (1,000,000)".





# Suppliers

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

Ibema's main suppliers are located predominantly in the Southeast and South regions of Brazil, especially in the states of São Paulo and Paraná where its main manufacturing plants are located. These suppliers mainly operate in the pulp, wood, chemicals, and paper scraps industries, supplying essential materials for paperboard manufacturing. The company also has important partners who supply indirect materials and services.

In the context of purchases and contracts, 63% of the budget is allocated to local suppliers, defined as those located in the states of Paraná or São Paulo. Although there is no formal policy for local contracting proximity to the plants is a preferential factor in negotiations.

Ibema continued to monitor its suppliers ESG practices by consulting their publicly-available documents and using these to generate scores that reflect their commitment to ESG. This provided a detailed overview of the sustainability performance of the supply chain, enabled the company to track the ongoing development of the ESG practices of its existing suppliers and facilitated the process of approving new business partners, contributing to a positive impact on the sustainability of operations and on society. In 2023 the company considered contracting 359 new suppliers, 51 of which were selected based on social and environmental criteria, representing a total of 14.20%.

This percentage is lower than the previous year due to the fact that most of the new suppliers contracted belong to secondary categories. According to internal policy these categories do not require continuous monitoring of social and environmental information.

Note that for the critical categories—including raw materials, packaging, paper cutting and extrusion services, transportation and materials services, and environmental and safety services—the platform for continuous monitoring of social and environmental practices is rigorously applied. This approach ensures that critical suppliers are aligned with sustainability and social responsibility standards.

Despite the reduction in the overall percentage essential operations continue to be monitored and managed according to the highest standards of quality and social and environmental responsibility.

Supplier performance is assessed annually through the ERP, which includes monitoring performance and implementing improvements together with suppliers. In this way, Ibema guarantees a sustainable and responsible supply chain, in line with its corporate values and social and environmental commitments.

**Ibema monitors its suppliers ESG practices, by consulting their publicly-available documents to generate scores that reflect an ESG commitment**

# Community

GRI 413-1, 413-2

One of Ibema's values is "we do it with care," and it shows great concern for any possible negative impacts on the surrounding communities. As such, it maintains its commitment to strengthening society through social engagement, encouraging education and professional qualification, and promoting the sustainable development of the community.

By 2024, the company aims to offer learning opportunities to 100% of employees with incomplete primary and secondary education and plans to implement the Ibema Education Program to guarantee quality education for 3,000 students and teachers in Turvo by 2030. These actions are managed by Ibema's Social Responsibility department, in collaboration with regional institutions.

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

- Increased risk of accidents to people and animals due to the flow of buses and trucks
- Negative effects on the quality of the road network
- Inconvenience caused by dust
- Disruption of the local communities' way of life

## Corporate projects and incentives

Ibema has an annual calendar of actions in the areas of education, health, and citizenship in the communities. In Turvo, for example, there is a Community Center and also a community leader who involves the population in all actions. In 2023, all the incentive programs had a direct social impact on the community.

Below is a list of the main projects carried out to strengthen ties with the communities around the plants:



### Education Incentive Program

Includes Youth and Adult Education, carried out in partnership with SESI. Aims to enable employees and members of the community to complete Elementary School II and High School.

In addition, the program offers professional qualification courses in collaboration with SENAI. In 2023, a total of 412 students completed the program, including employees and members of the community.



### Careers Fair and Visits

Presentation of information about universities and technical institutions for students from the municipal and state schools and talks on careers. There was also a guided tour of the plant for

around 300 students to demonstrate the papermaking process.



### Papel Amigo (Friendly Paper) Program

Paperboard that would have been considered waste is transformed into cardstock for use in schools. A total of 17 public schools in Paraná benefited from the program, with 7,300 sheets of cardstock donated in 2023.



### Warm Clothing Campaign

Donated clothing is collected and sent to vulnerable communities in the regions of Turvo/PR and Embu das Artes/SP (with the support of CRAS and CREAS). Approximately 4,000 items were collected at all units and 200 unmarked uniforms were donated.



### Natal sem Fome (Christmas without Hunger) Campaign

Raises funds to buy food and send it to indigenous communities in the Turvo/PR region and to socially vulnerable communities in Embu das Artes/SP through the municipality's Food Bank. Cards to deliver toys to the indigenous villages of Turvo and also to Casa do Tiaminho in Embu das Artes (partnership via CRAS and CREAS) were also adopted. BRL 7,985.00 was raised through a solidarity fundraising campaign with the support of employees, customers, and suppliers for 567 families and more than 300 toys were delivered.



### Dia D Cidadania (Citizenship D-Day)

Development of citizenship actions in the Turvo community in partnership with the Faxinal da Boa Vista Basic Health Unit, CRAS, UCP University and Sebrae. Included offering a range of services such as issuing documents, entrepreneurship talks, fun activities for children, oral health awareness campaigns and health care.



### Festival Cultural

Holding of cultural performances in order to implement, expand and strengthen cultural activities in the community, promote local traditions, integration, and socialization and encourage the interest of children, teenagers and young people in art and culture. There were three days of shows, musical performances, and storytelling for an audience of 1,233 people.



### IbemArte

This is a support program for artisans in the Turvo community, with the aim of making handicrafts from waste materials from paper manufacturing. The project offers the artisans professional training and provides raw materials and training in business management (pricing of items, sales concepts, and work safety). In all, more than thirty-five artisans have been trained since 2014.



### Hospital Bom Pastor

Every month Ibema contributes BRL 2,500 to the hospital in Turvo to guarantee the maintenance of three beds for the community.



### Tax Incentive Law

Supports a number of institutions. The Angelina Caron Hospital is supported through the *Melhor Cuidado aos Idosos* (Better Care for the Elderly) project, which focuses on excellence in care and quality of life for the elderly. Casa do Tiaminho is an educational space for children and teenagers, where they can develop their potential through cultural, sporting and citizenship activities and educational support. The *Ginasta Fantástica* (Fantastic Gymnast) Project provides sports education for children and teenagers to develop high performance in gymnastics, serving more than 250 students who participated in twenty-eight championships and received 10 titles. Projects to Encourage Culture, Sport and Leisure provides classes in Jiu-Jitsu, rhythmic gymnastics, and musicality.



**Environmental  
Management**

# Circular economy

The following is a list of Ibema's main circular economy projects and initiatives:

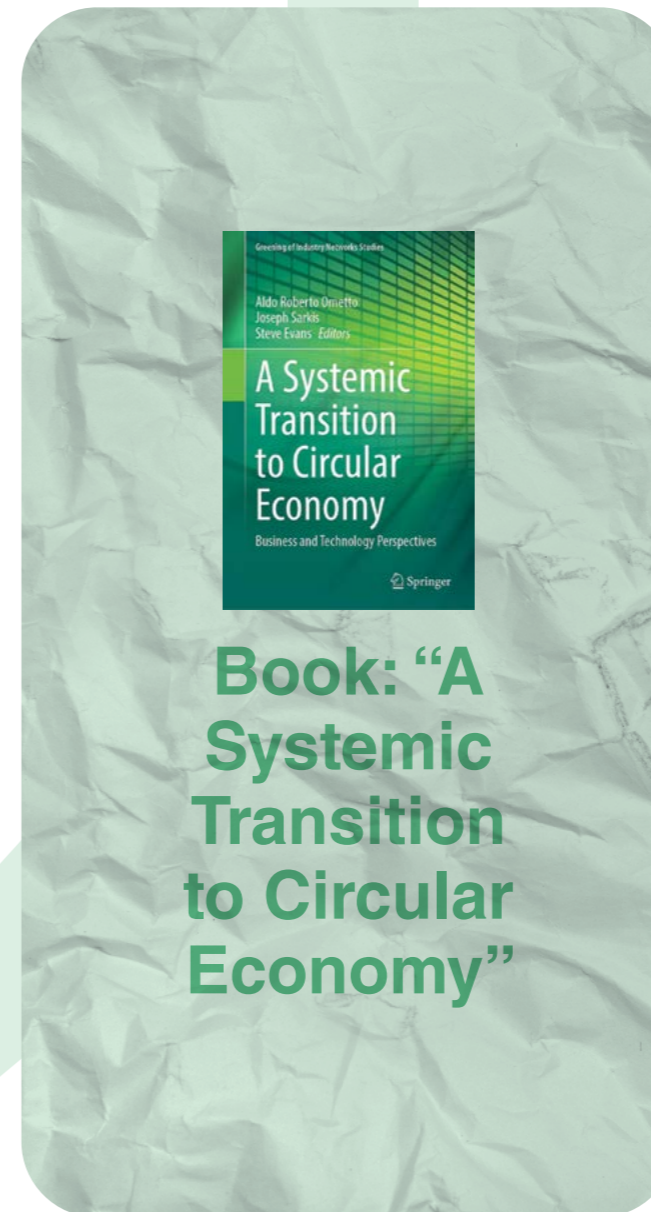
## Route to Maturity in the Circular Economy

The Route to Maturity in the Circular Economy is an initiative led by the National Confederation of Industry (CNI), based on research by the Circular Economy Research Center at the University of São Paulo (USP), and developed with the support of the Upcycle consultancy. This project is aimed at Brazilian industry and includes a self-diagnosis tool based on circular economy practices. The project aims to allow industrial companies of different sizes and from different industries to self-assess, use international best practices as a reference, and provide a personalized report with recommendations for practices based on the companies' level of maturity in the circular economy. In addition, the project seeks to support the definition of strategies and the construction of action plans for the implementation of these practices.

The results given by the tool include the percentage of implementation of the practices presented and the percentage of compliance with the score established by the tool. The assessment is divided into four main modules:

- 1. Strategic Management** – Evaluates organizational practices that promote the circular economy, covering strategy, culture, and stakeholders.
- 2. Planning of Solutions** – Analyzes whether the product and service development process is aligned with circular economy concepts, subdivided into research, development and innovation, value proposition and solution design.
- 3. Resource Management** – Examines the use of the company's financial, material and energy resources, ensuring availability for the organization and its chain, as well as for the environment, subdivided into costs, investments and sources of income and materials and energy.
- 4. Production and Delivery of Solutions** – Focuses on the operational process for the production and delivery of solutions, including specific circular economy activities, with a focus on operational processes and products and services.

In 2019, Ibema was one of the companies selected to take part in the tool's initial pilot scheme, with the aim of collecting feedback and assessing its applicability in the industry. Ibema was chosen for this initial phase due to its involvement in circular economy projects. The results obtained were significant and Ibema's experience with the topic of circular economy was shared at the launch event on 20 July 2023, organized by CNI. This launch not only highlighted Ibema's successes but also served to promote the tool at various industry events, fostering interest in and adoption of circular economy practices throughout the industrial sector.



## Book: “A Systemic Transition to Circular Economy”

The book “A Systemic Transition to Circular Economy” by Aldo Roberto Ometto, José Sarkis and Steve Evans, presents systemic and valuable solutions for the transition of business and technology to the circular economy. Adopting a transdisciplinary approach, it presents multiple systemic perspectives that facilitate the implementation of circular economy practices.

The book project was developed based on two fundamental visions of the circular economy. The first adopts a systemic perspective, emphasizing the connections between the forestry and industrial aspects and integrating the various actors involved both inside and outside the organization. The second vision focuses on the generation of value that the circular economy can bring to business.

The main pillars of the book are therefore the systems perspective and value creation, and it explores how the transition to the circular economy can be achieved within these visions, especially in the context of business and technology. The circular economy is presented not just as a closed cycle of materials, but as a source of added value, which can also be achieved through strategies that do not rely exclusively on the delivery of physical goods.

The second part of the book presents case studies that illustrate this vision. Ibema is highlighted as a notable example, as it considers both technical and biological cycles. The company adopts a regenerative systems approach, demonstrating the interrelationship between biological and technical systems, and showing that these cycles are intrinsically connected. The products that take this dynamic into account are: Ibema Royal Coppa paperboard, produced from cultivated forests that provide a source of cellulose fibers of renewable origin and capture carbon from the atmosphere, and Ibema Ritagli, a paperboard with 50% recycled fibers, 35% being post-consumer.

The book originated from a coalition of researchers, innovators, and scientists from around the world focused on innovation for sustainability. The book thus takes a global perspective and positions Ibema as a world reference case in the context of the circular economy.

## Estação Preço de Fábrica Project with O Boticário and Green Mining

Launched in 2022, the *Estação Preço de Fábrica* (meaning Factory Price Recycling Point) Project is an Ibema initiative in partnership with the Boticário Group and the waste logistics company Green Mining. Located at the Embu das Artes plant, the project operates through a container where the community can deposit recyclable materials such as glass, cardboard and paper. This project not only facilitates the collection of recyclables, but also promotes environmental awareness and education about recycling, encouraging people to separate their waste properly.

An important feature of this project is the payment for the waste collected, which is based on the weight of the materials. Participants are paid via PIX (instant bank payments) or food cards, with the possibility of withdrawing amounts over BRL 10 directly through the app and transferring the funds to a personal bank account. This strategy not only fosters the circular economy but also generates direct income for the individuals involved.

Managed by Green Mining in collaboration with Ibema and the Boticário Group, the project also aims to significantly reduce the volume of materials sent to landfills,

reinforcing Ibema's commitment to sustainability and environmental responsibility. With an investment of BRL 200,000 by 2023, an additional 850 tons of waste collected and 731 families impacted, Ibema continues to strengthen its position as a leader in circular economy and waste management practices.

## Ciclo Bom (Good Cycle)

In just five months, the *Ciclo Bom* project has promoted reverse logistics in 11 McDonald's restaurants, resulting in the recovery of more than 108,000 cups. There are plans to expand the project to include more of the chain's restaurants, thus broadening its impact.

## Catalog Project

Ibema receives used catalogs from Boticário, which are recycled and transformed into post-consumer paper scraps. These scraps are used in the production of products such as Ritagli, which is used by Boticário itself, a great example of closing the reverse logistics cycle.

## Voa Project

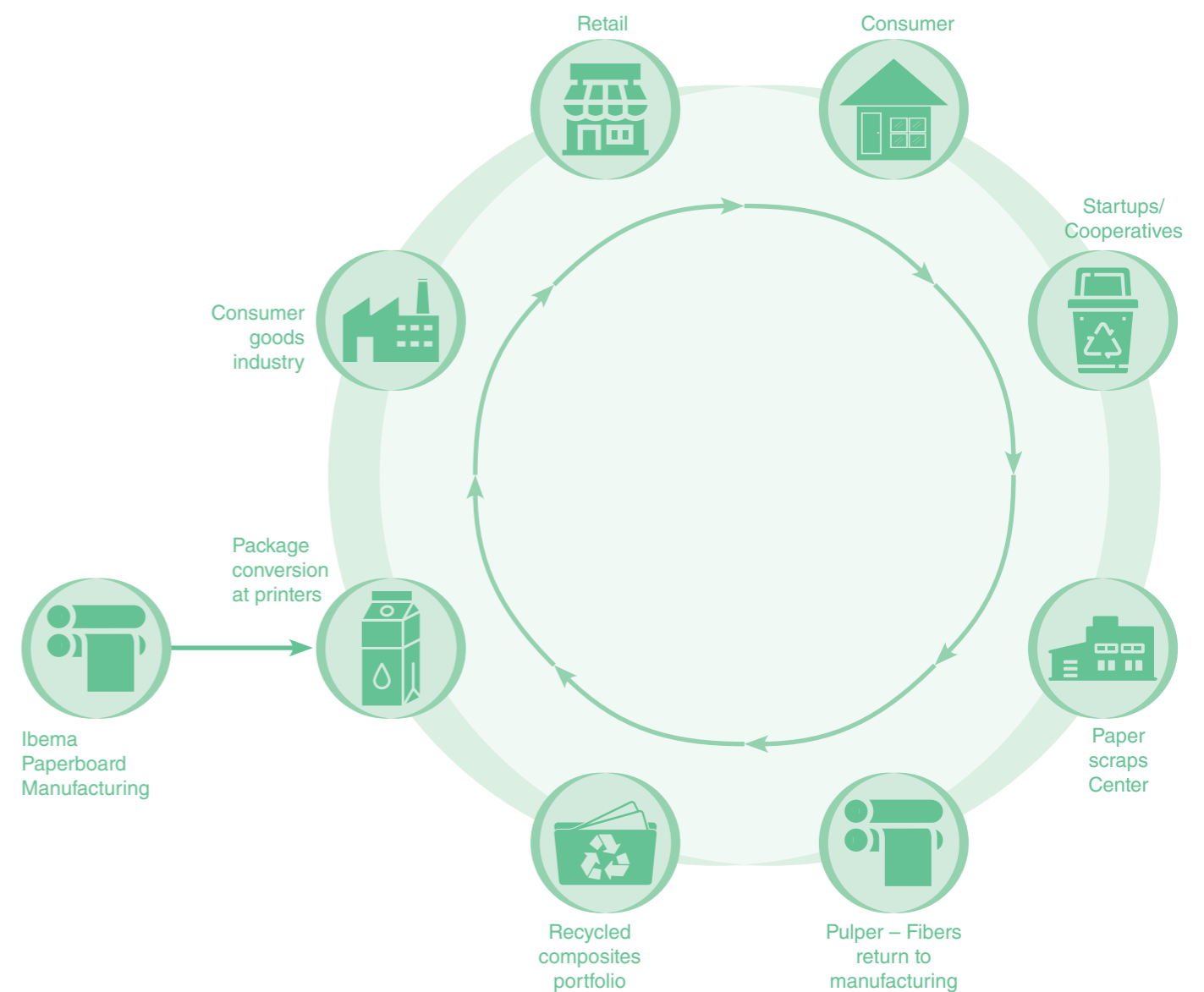
The VOA Project was created to optimize the results of the Embu das Artes plant, with an emphasis on versatility,

opportunity and adaptability. In 2023, Ibema adjusted the project's trajectory, reformulating the strategic portfolio pillar to focus on marketing products that support the Circular Economy strategy, e.g. Ritagli. A Circular Economy Committee, led by the marketing area, was established to ensure the governance of circular economy initiatives and alignment with the strategic portfolio.

## Reverse Logistics for Polymer Packaging

In collaboration with Activas, Ibema conducted three polyethylene bag collection campaigns in 2023, totaling 814 kg. After collection the bags are sent to Boomera, where they are ground and reused in the production process, exemplifying another case of reverse logistics in the company.

## Ibema's circularity process:



# Materials

GRI 301-1, 301-2, SASB RR-PP-000.C, SASB RT-CP-410a.1

In 2023, the use of recycled inputs at the Embu das Artes plant corresponded to 22.08% of total inputs consumed by the plant. At the Turvo plant, the figure was 10.54%. In all, the company used 25,072,729 kg of its own and third-party paper scraps.

- Paper scraps, both from own processes and external sources, are raw materials derived from recycled materials and consumption accounted for 30%
- Starch, own and external paper scraps, cellulose, glue, binders, own pulp and third-party pulp are raw materials consumed from renewable sources and consumption was 82.5%.
- Our own and external paper scraps are raw materials derived from both recycled materials and renewable sources and consumption was 30%.

The paper scraps used in Ibema's production are classified as pre-consumer paper scraps (leftover materials

from the printers' processes and that have not been sent to the end consumer) and post-consumer paper scraps (materials resulting from consumer use and discarded into the recycling market, acquired by Ibema for use in the internal process).

Paper scraps are purchased according to the product sales schedule, which is discussed at Sales and Operations Planning (S&OP) meetings. The Production Planning and Control (PPC) team estimates the demand for paper scraps. The material is received by the logistics area for checking and then sent to production. The Supplies department develops suppliers in accordance with the approval procedure. The Environment department, in turn, is responsible for asking suppliers to issue the Waste Transportation Manifest so that Ibema can then issue the Waste Disposal Certificate, since the paper scraps are classified as waste, the suppliers as waste generators and the companies that receive them as final recipients.

## Materials used – GRI 301-1

Material	2023	2022	2021	Renewable or non-renewable	External or internal supplier
Cellulose	54,923,386	59,023,973	57,191,654	Renewable	External
Own pulp	15,060,197	19,666,767	17,278,066	Renewable	Internal
Pulp supplied by third parties	44,609,945	47,691,921	44,304,401	Renewable	External
Own paper scraps	20,346,177	18,324,396	16,713,825	Renewable	Internal
Paper scraps supplied by third parties	4,726,552	8,466,408	9,671,770	Renewable	External
Industrial gas	7,339,029	9,190,626	8,378,995	Non-renewable	External
Chemical products	30,835,255	30,557,215	30,032,417	Non-renewable	External
Renewable chemicals	7,065,867	8,581,409	9,599,900	Renewable	External

**Note 1** – Units of measurement: gas in m<sup>3</sup> and other items in kg.

**Note 2** – The 2021 and 2022 figures for chemicals (renewable and non-renewable) have been adjusted due to a correction in the classification.

# Waste

GRI 306-1, 306-2, 306-3, 306-4, 306-5, SASB RT-CP-150a.1

Ibema's two industrial plants have not disposed of any waste in sanitary or industrial landfills since April 2021, achieving the goal of becoming Landfill Negative and aiming for more environmentally appropriate and sustainable disposal. In 2023, Ibema achieved Zero Waste

certification (for both plants), ratifying its commitment to minimizing the environmental impact of its activities, reducing waste generation and promoting appropriate disposal, and reinforcing its commitment to environmental responsibility and sustainability in its operations.

**In 2023, Ibema achieved Zero Waste certification, ratifying its commitment to minimizing the environmental impact of its activities, reducing waste generation and promoting appropriate disposal.**



In line with the guidelines of the National Solid Waste Policy (PNRS - *Política Nacional de Resíduos Sólidos*), the company classifies its waste in accordance with ABNT NBR 10.004/2004 and meets all the requirements of the environmental agencies for correct disposal. Ibema also has an Integrated Quality and Environment Policy, in compliance with the requirements of NBR ISO 14.001/2015, and has an environmental management system certified by an external body.

Ibema has a specialized environmental team to deal with the waste generated at its plants and contracts with experienced waste management companies. Through a Lean Manufacturing program called the Ibema Sei (Ibema Excellence System) Program the company puts into practice the important Environment Pillar, which has environmental indicators and targets linked to waste management. Training sessions on waste management are held regularly with employees and third parties, highlighting the importance of this issue in the production chain.

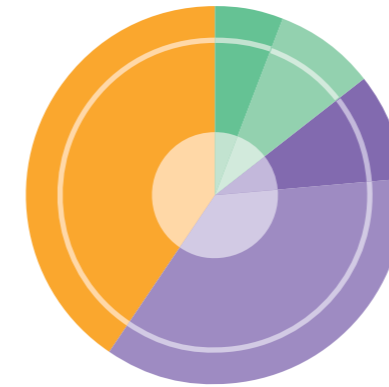
The generation of hazardous waste directly related to the production process is extremely low, both in Embu and Turvo. In Embu, any hazardous waste is mainly generated from equipment maintenance, while non-hazardous waste comes from papermaking, as well as the cafeteria, toilets and office areas. Of the total 5,079.13 tons generated, only 238.38 tons correspond to hazardous waste. In Turvo, the majority of the waste generated is recycled or reused in the production process itself. The unit seeks to maximize the reuse of all waste that can be incorporated, and of the total of 7,965.11 tons generated only 704.51 tons correspond to hazardous waste.

The waste target was set for 2023 based on expected production; however, the volume produced was lower than expected, directly impacting on the waste indicators and targets in Embu. In Turvo, a waste generation target of 47.0 kg/t produced was set, but the result was 43.90 kg/t produced.

Currently, the company has avoided 13,026.47 tons of waste.

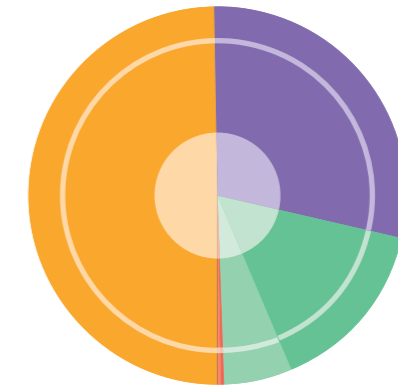
### Disposal of waste generated

#### Turvo



- 6.09% – reverse logistics
- 8.53% – co-processing
- 9.11% – composting
- 35.99% – reused in the process
- 40.28% – recycling



#### Embu



- 0.0004% – incineration
- 0.3% – biological treatment
- 0.4% – construction waste landfill<sup>1</sup>
- 5.9% – co-processing
- 15.0% – reverse logistics
- 29.0% – composting
- 49.5% – recycling

### Waste Generated – GRI-306-3



#### Turvo

Waste composition	Waste description	Total weight (in t)
 Hazardous Waste (Class I)	Chemicals containers, ash, contaminated solids, lubricating oil, maintenance cloths, PCB oil	704.51
 Non-hazardous waste (Class II)	Reverse logistics pallets and disposal pallets, pulper waste, WWTP fiber, WWTP sludge, rubble, boiler ash, wire, metal, paper, plastic, tubing, wood bark in general, organic waste, mechanical pulp fiber waste, pine bark sweepings	7,260.60
<b>Total</b>		<b>7,965.11</b>

<sup>1</sup>, Due to the refurbishment required to replace the asbestos tiles on the company's old building in Embu das Artes, Ibema is replacing these tiles entirely with zinc tiles. After hiring an external consultancy, the company disposed of the old tiles in a landfill appropriate for civil construction waste, in accordance with CONAMA RESOLUTION No. 348 of August 16, 2004. This disposal has no impact on Ibema's Zero Waste certification.








## Embu das Artes

Waste composition	Waste description	Total weight (in t)
 Hazardous Waste (Class I)	Batteries, bulbs, contaminated waste, outpatient waste, chemical IBCs, electronic waste, wires and cables, lubricating oil, vegetable oil, grease and asbestos tiles	238.38
 Non-hazardous waste (Class II)	PEB plastic, pallets, sludge, rubble, metal, wood, pulper waste, plastics, leftover ingestion, polyethylene sludge, scrap, trimmings and tubes.	4,840.75
<b>Total</b>		<b>5,079.13</b>

### Waste diverted from disposal - by type of recovery and classification – GRI-306-4

In Embu, 92.45% of the total 238.38 tons of hazardous waste generated was recycled and in Turvo 17.34% of the total 704.51 tons of hazardous waste generated was recycled.

Hazardous waste	At Ibema	Outside Ibema	Total weight (in t)
 Preparation for reuse	0	116.15	116.15
 Recycling and reverse logistics	0	173.75	173.75
 Blending and co-processing	0	635.22	635.22
<b>Total</b>	<b>0</b>	<b>925.12</b>	<b>925.12</b>

Non-hazardous waste	At Ibema	Outside Ibema	Total weight (in t)
 Preparation for reuse	2,866.71	6,716.88	9,583.59
 Recycling and reverse logistics	0	2,517.76	2,517.76
<b>Total</b>	<b>2,866.71</b>	<b>9,234.64</b>	<b>12,101.35</b>

### Waste for disposal – GRI-306-5

Due to the ban on the extraction, industrialization, marketing and distribution of asbestos in the country, determined by the Supreme Court on 23/02/2023, the asbestos tiles at the Embu plant were replaced with fiber tiles. The asbestos tiles removed (totaling 17.75 tons) have been specifically sent to Construction Waste Landfill.

Outpatient waste is sent for incineration without energy recovery, with a total of 0.02 tons. At the Turvo plant the company does not send any waste to landfill, maintaining a zero landfill policy.

# Water and wastewater management

GRI 3-3, 303-1, 303-2, 303-3, 303-4, 303-5, SASB RR-PP-140a.1, SASB RT-CP-140a.1

Paper production involves significant water consumption during different stages of the production process. Therefore, efficient water management is crucial for minimizing environmental impacts, reducing consumption and cutting costs. Effective water and wastewater management is fundamental for Ibema and ensures operational efficiency, regulatory compliance, environmental sustainability and social responsibility.

The company is ISO 14000 certified, which guarantees the implementation of appropriate systems for environmental issues. The effectiveness of these measures is verified by monthly qualitative analyses conducted by a contracted laboratory.

Ibema's Environmental Management System enables the organization to achieve the determined level of environmental performance and promote continuous improvement. This is basically done by planning its activities, which involves the minimization and/or elimination of impacts on the environment through preventive actions or mitigating measures.

At the Embu plant the water used in the production process is taken directly from the Embu-Mirim stream tributary and treated at the company's Water Treatment Plant to comply with standards for industrial use. After use the water is discharged as effluent from processes and sent for treatment at the Industrial Effluent Plant. It is then returned to the SABESP utility's collection network in compliance with the standards of current legislation and with better quality than when extracted from the river. Connecting the effluent to the SABESP utility's system reduces the risk of an environmental impact. The requirements for effluent disposal are set out in the company's Operating License, issued by CETESB. In Turvo, water is extracted directly from the Marrecas River and treated at the com-

**Effective water management is fundamental for Ibema, ensuring operational efficiency, regulatory compliance, environmental sustainability and social responsibility**





pany's Water Treatment Plant to comply with industrial use standards. After use it is returned to the same river, with the plant operating under environmental specifications and standards to ensure that effluent discharge meets legal standards and does not cause significant impacts. The effluent treatment process uses aerated lagoons and a polishing stage, in accordance with the requirements established in the Operating License issued by the IAT and the effluent discharge permit. Ibema follows the recommendations of CEMA resolutions 70/2009 and CEMA 81/2010, as well as CONAMA resolution 430/2011, with regular monitoring of results to ensure compliance with environmental standards.

No effluent is discharged directly into the water body and under no circumstances is wastewater discharged by the company without proper treatment.

Interactions with water and effluent disposal are rigorously monitored through periodic analyses to ensure that both the water and the treated effluents comply with current legislation. Water and effluent quality is monitored on a monthly basis to ensure the required standards are maintained. The plants are committed to reducing water consumption and making maximum use of it in the production process, with targets and environmental performance indicators established and constantly monitored to promote sustainable management of water resources.

### Forest Management

When it comes to water management in forestry, Ibema conducts a detailed study to calculate the amount of water

consumed by the plantation throughout the trees' growth cycle. This analysis covers the water needed for leaf transpiration, root growth and soil evaporation.

The vast majority of Ibema's forests are eucalyptus plantations, which are able to absorb more water during the rainy season and reduce transpiration during the dry season, with some species even losing their leaves at the end of this period. The roots are no more than 2.5 m deep, so they do not reach the water table and remove a similar quantity of water from the soil to that consumed by trees in native forests.

In addition, eucalyptus makes very efficient use of the water it absorbs, which can be clearly seen when comparing its productivity to that of other agricultural crops using the same volume of water. Every liter of water consumed by a eucalyptus forest produces 2.9 grams of wood, with the same volume producing only 1.8 grams of sugar, 0.9 grams of wheat and 0.5 grams of beans.

Under appropriate forest management, Ibema's eucalyptus plantations remove nutrients from the soil and return them as organic matter in the form of leaf litter. This restores the fertility of the land, which allows it to absorb

### Water consumption:

Goal	Realized	Goal
Turvo	11.50 m <sup>3</sup> /t produced	11.94 m <sup>3</sup> /t produced X
Embu das Artes	4.00 m <sup>3</sup> /t produced	4.32 m <sup>3</sup> /t produced X

**Note** – This small increase in both plants is associated with the various machine stoppages that were necessary during the year to adjust stocks.

### Effluent generation:

Goal	Realized	Goal achievement
Turvo <sup>1</sup>	10.70 m <sup>3</sup> /t produced	11.21 m <sup>3</sup> /t produced X
Embu das Artes <sup>2</sup>	3.50 m <sup>3</sup> /t produced	3.42 m <sup>3</sup> /t produced ✓

**Note 1** – Due to the increase in water consumption and the greater number of machine setups, the effluent generation target could not be met.


**Note 2** – The effluent generation target was achieved despite higher than expected water consumption due to the closed water system.



more water and contribute to the water table, as well as preventing soil erosion, reducing leaching, capturing carbon from the atmosphere and connecting forests for the transit of local fauna.


It should also be noted that most of the areas acquired by Ibema were previously used as pasture land for cattle rearing. Acquisition of these areas and their subsequent reforestation with eucalyptus trees will play a fundamental role in restoring the soil and the surrounding environment.

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

	2023	2022	2021
 Surface water	1,411.16	1,444.41	1,538.66
Groundwater	19.48	21.43	31.12
Third-party water	10.7	1.97	4.34
<b>Total</b>	<b>1,441.34</b>	<b>1,467.81</b>	<b>1,574.12</b>

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

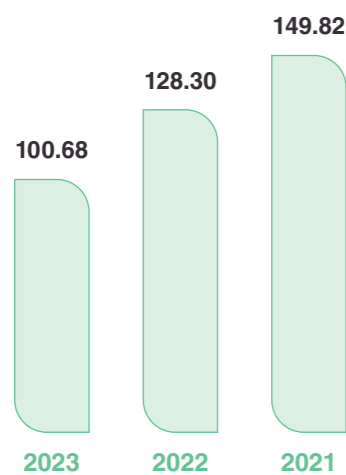
**Water discharge - by destination (in megaliters)<sup>1</sup> – GRI-303-4**

	2023	2022	2021
 Surface water	1,340.66	1,337.54	1,244.08
Third-party water	-	-	180.22
<b>Total</b>	<b>1,340.66</b>	<b>1,337.54</b>	<b>1,424.30</b>

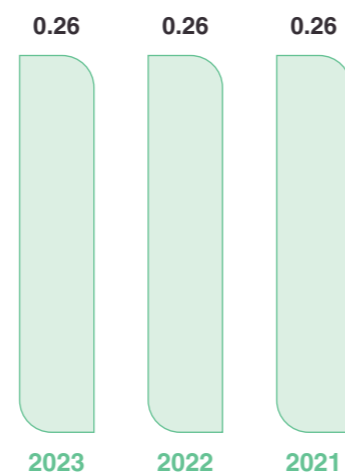
1. All effluent discharged by Ibema is considered fresh water, i.e. it has total dissolved solids less than or equal to one thousand mg/L. The effluents discharged by Ibema do not contain any substances of concern.

**Water consumption (in megaliters)<sup>1</sup> – GRI-303-5**

**Total water consumption of all areas (water withdrawal minus discharge)**



**Water storage (in megaliters)<sup>1</sup>**



1. Water storage at Ibema takes place only in passage between collection and delivery to the plant.

# Microplastics

It is estimated that millions of tons of plastic enter the oceans every year, mainly from land-based sources. A large part of this volume comes from the improper disposal and management of plastic waste, including packaging (especially so-called “single-use plastics”). In the oceans, the actions of sunlight, wind and sea currents gradually break this waste down into microplastics.

Plastic pollution and microplastics pose a serious threat to marine and human life, affecting the entire marine ecosystem, from shallow waters to the deepest parts of the ocean. Microplastics accumulate in the food chain, reaching humans through ingestion. Although the scientific community is still delving deeper into the issue there is already evidence that correlates the presence of microplastics in the human body with immunological and reproductive diseases.

To tackle this problem at its root it is crucial to raise awareness of the dangers and push for a reduction in the use of plastics, especially single-use plastics such as plastic bags, disposable cups and straws. In many parts of the world legislation is being implemented to ban or minimize the use of these items and promote more sustainable alternatives, alongside raising awareness about the environmental impacts of plastic.

Plastic pollution and the formation of microplastics represent an unprecedented global environmental crisis requiring immediate and coordinated action. Reducing plastic production, improving waste management, promoting recycling and making progress towards the Global Plastics Treaty are essential steps to mitigate this problem. In addition, alternative materials to plastic from renewable sources—such as paperboard—biodegrade much more quickly than plastic waste and have a much higher recyclability rate. It is essential to make conscious choices in the face of such an urgent problem.

**Ibema is committed to raising awareness of the risks to human and marine health posed by plastic pollution in the oceans**

# Energy

GRI 302-1, 302-2, 302-3, 302-4, 302-5, SASB RR-PP-000.B, SASB RT-CP-000.A, SASB RR-PP-130a.1, SASB RT-CP-130a.1

Electricity consumption records from both plants come from the utility companies' standard electricity meter readings.

The consumption indicators for electricity, natural gas and biomass (woodchip) are monitored daily and reported both at production meetings and at the monthly board meetings as part of the Ibema SEI Program. These indicators are calculated from the ratio of consumption to production volume in tons. Consumption of other fuels is recorded by the areas using them.

The total energy consumption of the Turvo and Embu das Artes plants represented 1,033,577.97 GJ in 2023, the Araucária distribution center consumed 1,892.23 GJ and the Curitiba office, 103.50 GJ.

The Embu unit plans to install a biomass boiler in 2025, which is expected to reduce energy consumption. In 2022, Ibema reaffirmed its commitment to sustainable practices when it began planning for a transition from natural gas to vegetable biomass boilers. This will reduce greenhouse gas emissions and bring it in line with environmental targets. Preparation for this transition included studies to reduce costs, improve construction time and improve logistics.

Risks related to atmospheric emissions, regulatory risks and biomass supply are carefully managed. Emissions from biomass boilers are monitored by supervisory bodies that demand strict limits. From a regulatory point of view there is currently no legislation affecting the use of biomass. In terms of supply, the stockpiling capacity of suppliers is a crucial consideration to ensure continuous supply even in adverse conditions.

The energy strategies at both units are developed with the aim of continuously improving energy efficiency and minimizing environmental impacts, in line with regulatory requirements and stakeholder expectations.

The Embu plant saw a 12.72% reduction in electricity consumption compared to 2022. In Turvo, there was also a reduction in consumption of 5.77% compared to 2022.








Goal	Realized	Goal achievement
TURVO	0.515 MWh/t produced	0.507 MWh/t produced ✓
EMBU <sup>1</sup>	0.536 MWh/t produced	0.577 MWh/t produced X



**Note 1** – The failure to reach the target is linked to the reduction in production from one year to the next, even though less energy was consumed, the specific value increases when less is produced.

## Energy consumption within the organization – GRI 302-1




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

	2023	2022	2021
 Petrol	315.1	432.44	383.65
 Diesel	3,890.23	3,752.86	4,051.53
 Fuel Oil	0.94	412.35	371.28
 Natural Gas	247,270.67	332,427.00	318,956.61
 Liquefied Petroleum Gas	41,365.53	47,414.87	45,718.89
<b>Total</b>	<b>292,842.47</b>	<b>384,439.28</b>	<b>369,481.96</b>

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

	2023	2022	2021
 Ethanol	9.72	35.78	20.09
 Biomass	450,366.66	517,865.41	501,038.15
<b>Total</b>	<b>450,376.38</b>	<b>517,901.19</b>	<b>501,058.24</b>

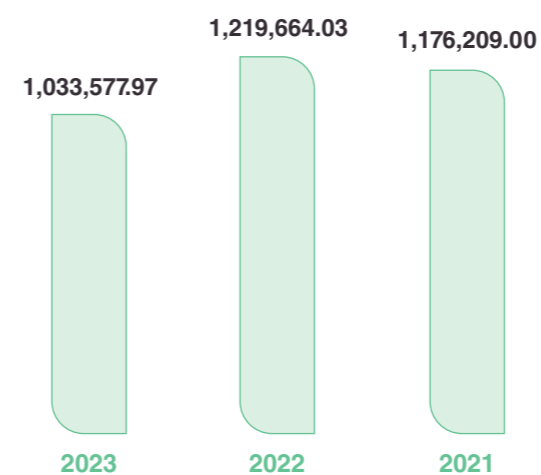
## Total energy consumption (in GJ)

	2023	2022	2021
 Electricity consumption	290,359.12	317,323.56	305,668.80
 Refrigeration consumption <sup>1</sup>	-	-	-
 Steam consumption <sup>1</sup>	-	-	-
<b>Total</b>	<b>290,359.12</b>	<b>317,323.56</b>	<b>305,668.80</b>

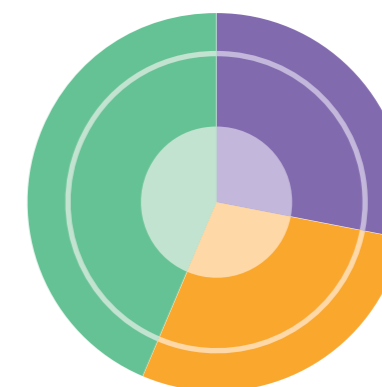
**Note 1** – Ibema's self-generated energy sources are refrigeration and steam. It was necessary to reformulate the information on self-generated energy so as not to double-count it. Energy consumption is now counted only once under fuel consumption, as the steam generated from burning non-renewable (natural gas) and renewable (biomass) fuels is consumed in the production process as a form of energy.

**Note 2** – Fuel and electricity consumption data has been converted into energy consumption using the factors presented by the National Energy Balance for 2022.

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



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



**28.10** – Percentage of electricity from the grid  
**28.33** – Percentage of energy supplied by biomass  
**43.57** – Percentage of non-renewable energy

1. Total energy consumption refers to the sum total of renewable and non-renewable fuels and electricity consumed.

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

Energy intensity <sup>1</sup>	Embu	Turvo
Total energy consumption (GJ)	347,786.45	685,791.55
Gross production volume (t)	47,570.00	106,673.00
Energy intensity (GJ/t)	7.31	6.43

1. Ibema does not monitor energy consumption outside the organization.

# Climate change

GRI 201-2, 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7, SASB RR-PP-110a.1, SASB RT-CP-110a.1, 7, SASB RR-PP-120a.1, SASB RT-CP-120a.1

In 2023, Ibema began a climate change awareness program with a level-setting workshop conducted by a specialized consultancy for the board of directors. This workshop covered topics such as the low-carbon economy, the fundamentals of climate change, its impacts, carbon markets and important regulatory frameworks. The positive reception reflects the urgency and significance of the topic, which can significantly impact the company and its business. This initiative has increased the leadership's awareness of the risks and impacts of climate change and prepares them for future regulations.

Ibema's climate risk management focuses on the physical risks that can affect the industry's value chain, e.g. floods, extreme weather conditions, natural resource crises and environmental accidents, which are constantly monitored.

These risks are monitored on an ongoing basis, with monthly reports to the Board of Directors. Each year the risks identified are prioritized and submitted for investment approval by the Corporate Risk Committee. The company has already implemented measures such as adopting renewable energies and measures to reduce emissions and water consumption. An investment timeline is in place for the main projects (reducing CO<sub>2</sub> emissions and reducing water consumption) for the 2024-2030 period.

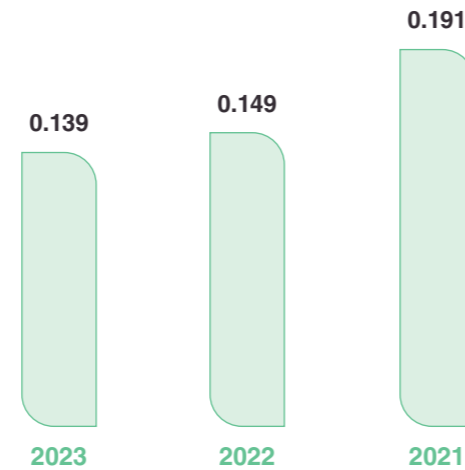
Ibema's Corporate Risk map is built based on the perceptions and information of the business areas, managers and contextual analysis, with annual reviews and constant

vigilance for possible new risks. The company is particularly attentive to regulatory risks, especially those involving pricing and carbon taxation of industrial emissions.

Finally, managing the effects of climate change is a priority in Ibema's Strategic Plan, which foresees the importance of this challenge for the sustainability and longevity of the business.

## Emissions intensity – GRI 305-4

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



**Note** – the gases included in the calculations are the same as those used to define scope 1 and scope 2 emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and HFCs).

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

	2023	2022	2021	2022 x 2023 (%)
Scope 1	18,397	21,647	20,860	-15.01%
Scope 2	3,076	3,783	10,927	-18.68%

### Notes:

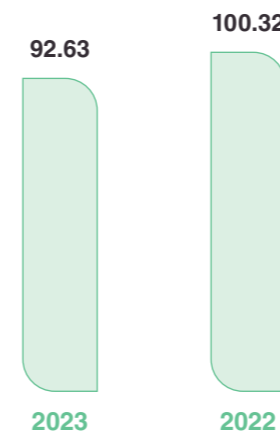
- Scope 1 includes CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and HFCs. Emissions from PFCs, SF6 and NF3 are zero according to the Greenhouse Gas Inventory. No emissions of these gases were identified in operations.
- Scope 2 considers CO<sub>2</sub> emissions.
- The approach chosen for the calculation was operational control and the base year is 2023.
- The only sources of emission factors and global warming potential (GWP) used were those from the GHG Protocol.
- Ibema's biogenic emissions are from scope 1 and total **45,071.796** tCO<sub>2</sub>e in 2023, **46,907.297** tCO<sub>2</sub>e in 2022 and **54,785.194** tCO<sub>2</sub>e in 2021.
- The inventory process is carried out by the Environment and Sustainability departments with the support of an external consultancy.
- The reduction in scope 2 emissions in 2023 is due to the reduction in the Emission Factor of energy purchased from the National Interconnected System.
- Ibema's GHG inventory for 2023 does not yet cover Scope 3.
- The 2022 scope 1 emissions figure was corrected after external validation. This validation was finalized after the publication of Ibema's report.

## Reduction of GHG emissions – GRI 305-5

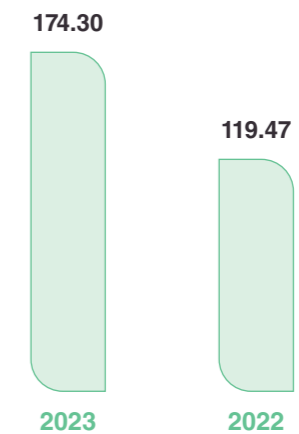
Ibema's emission reductions in Scope 1, more specifically in relation to stationary emissions, are related to two main reasons that are not considered as initiatives. The first is due to the fact that Ibema had to shut down its machines frequently in 2023, which consequently reduced natural gas consumption due to the suspension of the Embu das Artes boilers. The second reason is linked to adjustments and calibrations in the burners of the natural gas boilers. In May 2023, an inspection was carried out to improve the tubes in the largest boiler in Embu das Artes, with subsequent improvements made to the other boilers.

## NOx, SOx and other significant atmospheric emissions

NOx (t/year)



Particulate Material (t/year)



**Note 1** – The methodologies used in the calculation follow the standards of the Brazilian Association of Technical Standards (ABNT) and CETESB. The emission sources are boilers powered by natural gas and/or biomass (woodchip). Measurements are conducted by a contracted company, over predetermined periods, to assess the boilers' emission sources.

**Note 2** – No other significant atmospheric emissions were identified.

# Biodiversity

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

Ibema currently owns areas both in and adjacent to protected areas. The Embu das Artes plant is located in an urban area. The total area within the protected regions covers 24.21 Km<sup>2</sup> and is designated as a permeable area around the plant. For the purposes of the Metropolitan Springs Protection Legislation no other form of use and/or subdivision of the area is permitted in this permeable area in order to protect vegetation close to the Permanent Preservation Area (PPA) around the Embu-Mirim stream, a tributary of the Embu River.

Ibema manages a larger tract of land in the vicinity of protected areas, which contains several operations. In Embu das Artes a 20.00 km<sup>2</sup> plot of land is dedicated to parking and reception, while another 34.16 km<sup>2</sup> houses manufacturing activities and administrative areas. A further 4.48 km<sup>2</sup> is occupied by a warehouse for storing finished products. At the Turvo plant, located in the interior of Paraná State, Ibema manages an area 592 Km<sup>2</sup>, which is dedicated to administrative areas and the production process. Turvo also has environmental preservation areas totaling 7.63 hectares, located near the Marrecas River, as well as an extensive area around the building facilities where it prioritizes the preservation of existing vegetation in order to preserve biodiversity.

Ibema has an environmental department exclusively focused on monitoring environmental issues, reinforcing its commitment to preserving and respecting the environment. Before any intervention that could have an environmental impact, the company seeks advice from the competent environmental bodies - municipal, state or federal - to ensure appropriate and responsible guidance.

It also has an Environmental Management System that complies with the ISO 14.001:2015 standard, and this system is subject to periodic audits to verify ongoing adherence to the established standards.

In addition, the company strictly follows the conditions stipulated in its Environmental Operating License, granted by CETESB in São Paulo and by the IAT in Paraná, ensuring that its operations are in line with environmental regulations and commitments.

No impacts on biodiversity as a result of Ibema's activities, products and/or services were identified in the areas where it operates in 2023.

# Forest management

GRI 304-2, SASB RR-FM-000.A, SASB RR-FM-160a.1, SASB RR-PP-430a.1, SASB RT-CP-430a.1

Forest certification is central to Ibema's operations. All fibers used are certified by FSC® and/or by the Controlled Wood Standard, meeting strict sustainability and legality criteria. The company has held the FSC® seal since 2009, which validates the responsibility and compliance of its forest management.

Ibema conducts regular audits, both internal and external, to guarantee ongoing compliance and ensure that its practices remain in line with certification standards and the company's sustainability commitments. Ibema's wood procurement policy ensures that all suppliers are aligned with these standards, promoting sustainability throughout the supply chain.

In addition, the company manages a total area of 1,215.37 hectares of forests, which includes both newly-planted areas and established forests. The forest management practices applied in all of Ibema's areas follow the 5 fundamental principles governed by Standard NBR 14789:

- **Principle 1** – Compliance with legislation;
- **Principle 2** – Rational use of forest resources in the short, medium and long term, in pursuit of sustainability;
- **Principle 3** – Care for biological diversity;
- **Principle 4** – Respect for water, soil and air;
- **Principle 5** – Environmental, economic and social development of the regions in which forestry activity takes place.

The effect of these actions is reflected in the significant impacts (direct and indirect) on biodiversity resulting from

the organization's activities, products and services. Fauna Monitoring projects have been implemented in the forest areas, using camera traps to assess the biological diversity of wild animals, which is essential for the conservation of local biodiversity. This is complemented by Ecosystem Restoration projects through the implementation of ecological restoration programs in degraded preservation areas.

It is also worth mentioning that Forest Fire Management is also implemented in the forested areas. This includes Fire Prevention and Firefighting Plans, which include team training and the creation of physical barriers (firebreaks). These actions contribute to fire prevention, one of the effects of which is the protection of local biodiversity.

As such, the forest management conducted in Ibema's forests includes a wide range of practices that meet the requirements demanded by the certifications, with the aim of certifying all of the managed areas with the FSC® seal in the near future.

In 2023, the total of amount raw materials purchased that were processed to be sold as a finished product (including recycled raw materials, virgin raw materials and goods consumed directly in the production process) was 136,157.82 tons, referring to logs, mechanical pulp, cellulose and paper scraps. Consumption of wood fiber-based raw materials, such as pine and eucalyptus logs, pulp, third-party pulp and third-party paper scraps totaled 141,254.47 tons.





# About the Report

# General Information

GRI 2-3

In this, Ibema's fourth Sustainability Report, prepared in accordance with the GRI Standards, the company discusses its performance for the period from January 1st to December 31st, 2023. The report also presents Sustainability Accounting Standards Board (SASB) indicators.

Ibema is committed to publishing its Sustainability Report annually.



The previous edition was published on 07/05/2023 and can be consulted via the link – [https://www.ibema.com.br/webroot/files/reports/gri\\_2022\\_en.pdf](https://www.ibema.com.br/webroot/files/reports/gri_2022_en.pdf)

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# Engagement with stakeholders

GRI 2-29

Ibema maintains a close relationship with its stakeholders, developing strategic partnerships that enable it to anticipate risks and analyze the specific needs of each group involved. This process makes it possible to integrate this information with the company's internal demands, strengthening reciprocity and trust, which are fundamental elements for business continuity. Constant communication and targeted actions are features of the company's engagement with all stakeholders.

Over the course of the year Ibema conducted important work mapping interests and identifying material issues

based on the central concerns of its stakeholders. This in-depth study was crucial for preparing the 2023 Sustainability Report, but also for refining the company's ESG management practices.

The mapping of interests serves as a vital thermometer, guiding Ibema in drawing up action plans to address, prevent or mitigate concerns identified by stakeholders, thus reinforcing the company's commitment to responsible and sustainable management.



## Employees



**Approach to engagement** – Internal communication (e-mail, bulletin boards and others); Coffee with the President; Communication campaigns; Social networks; Institutional website; Newsletter; Climate surveys; Ombudsman and Ethics channel.

**Concerns raised in 2023** – Water and wastewater management; Solid waste; Training and education; Employee well-being, health and safety; Equal opportunities, diversity and inclusion; Corporate governance; Compliance, ethical conduct and integrity; Economic performance.

## Community surrounding the plants



**Approach to engagement** – Dialogue and action through the community center; Face-to-face visits; Local media (radio).

**Concerns raised in 2023** – Solid waste; Recycling and circular economy; Equal opportunities, diversity and inclusion; Economic performance.

## Suppliers



**Approach to engagement** – Monitoring the main suppliers in the supply chain; Negotiation meetings (virtual and face-to-face).

**Concerns raised in 2023** – Water and wastewater management; Recycling and the circular economy; Employee well-being, health and safety; Equal opportunities, diversity and inclusion; Corporate governance; Compliance, ethical conduct and integrity; Economic performance.

### Financial Institutions



**Approach to engagement** – Sending of financial reports annually or on demand; Roadshow of strategic projects and other topics.

**Concerns raised in 2023** – Water and wastewater management; Employee well-being, health and safety; Equal opportunities, diversity and inclusion; Corporate governance; Compliance, ethical conduct and integrity; Economic performance.

### Sales Representatives



**Approach to engagement** – Virtual and face-to-face meetings.

**Concerns raised in 2023** – Water and wastewater management; Solid waste; Training and education; Employee well-being, health and safety; Equal opportunities, diversity and inclusion; Compliance, ethical conduct, and integrity.

### Customers and End-Users



**Approach to engagement** – Biannual surveys using the NPS (Net Promoter Score) methodology; Customer Portal; Virtual and face-to-face meetings; Social networks; E-mail marketing; Partnership actions for the market; Closer ties with End-Users through internal areas such as Research & Development, Procurement and Sustainability.

**Concerns raised in 2023** – Water and wastewater management; Recycling and the circular economy; Employee well-being, health, and safety; Equal opportunities, diversity and inclusion; Compliance, ethical conduct and integrity; Economic performance.

### Senior Management



**Approach to engagement** – Monthly meetings of the Board of Directors and periodic meetings of the Strategic Committee, the latter of which meets on average every two months; Weekly management meetings.

# Definition of Materiality

GRI 3-1, 3-2

In this cycle, Ibema analyzed and identified the impacts, considering internal and external references, as well as the expectations of the company's main stakeholders. The effects—both positive and negative, current, and potential—related to financially relevant issues for people, the environment, the economy and governance were assessed. The preparation of the GRI and the confirmation of the material topics were conducted by the ESG pillar, with the approval of Ibema's board of directors.

The CEO, appointed by the Board of Directors, is responsible for validating and authorizing the publication of the GRI report. All information and indicators relevant to the business are communicated to the Board according to the corporate agenda.

Ibema followed the Global Reporting Initiative (GRI) Standards guidelines to conduct an in-depth new materiality process in preparation for the 2023 Sustainability Report. The GRI methodology offers tools for mapping, identifying, and evaluating the main topics and their respective indicators that are most relevant to the organization and its stakeholders.

Through an online system the company invited strategic stakeholders to answer a pre-defined questionnaire, formulated based on the guidelines of the GRI Standards and relevant topics for the paper sector. The questions were defined to cover three main themes: Environmental Performance, Social Performance and Economic Performance and Product Management, and were broken down into seven different subjects, which were numbered in order of importance.

In order to build this engagement, the stakeholders were divided into six groups: sales representatives; the community surrounding the plants; financial institutions; suppliers; customers and end-users; and employees. In addition to these stakeholders, Ibema's opinion, represented by

senior management, was also included in the definition of material topics.

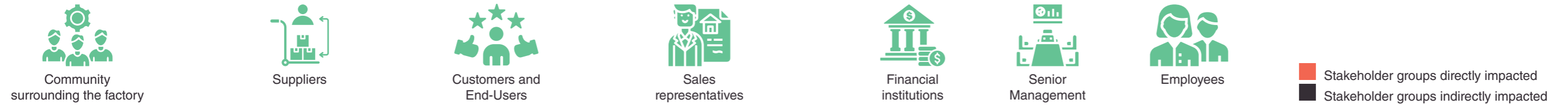
The survey revealed that five topics are considered most relevant to stakeholders and to Ibema. After the identification process was completed the material topics were analyzed and validated by the company's top management. Ibema went on to approve the material topics identified by the survey and included another material topic, Recycling and Circular Economy, due to its importance for the company, reflecting Ibema's current moment and its strategic vision.

Reflecting the changes in the priorities and strategies of the company and its stakeholders, the material topics excluded include Reputation, Solid Waste, Training and Education, and Industrial Management. On the other hand, the topics that entered as the main focus for 2023 were Employee Well-being, Health, and Safety; Equal Opportunities, Diversity and Inclusion; and Economic Performance. In addition, there were topics that only saw a change in their nomenclature, such as "Effluents" being renamed "Water and Wastewater Management" and "Risk Management" being updated to "Compliance, Ethical Conduct and Integrity".

Each material topic was correlated with Ibema's commitments and the United Nations' Sustainable Development Goals (SDGs). The materiality process also defined the strategic stakeholder groups (internal and external) linked to the topics that are directly and indirectly impacted by the company's actions. The six material topics that make up the matrix are the result of a process of context analysis, impact mapping, prioritization and validation of the topics that represent the company's greatest concerns in the economy, the environment, and social issues, including human rights. The definition of Ibema's opinion was essential, represented by senior management, with the participation of 93 people in the engagement.

## Material topic

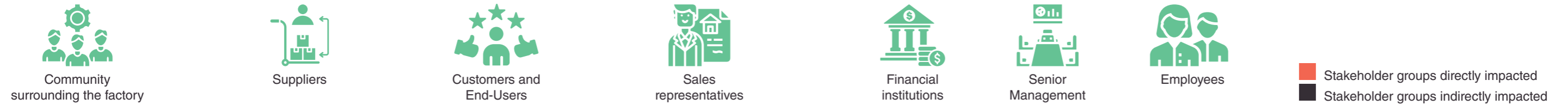
### Legend



Material topic	Why is the subject material?	INSIDE LIMITS (internal public impacted by the topic)	OUTSIDE LIMITS (external public impacted by the topic)	Alignment with Ibema's Commitments	SDGs
<p>Compliance, Ethical Conduct and Integrity</p>	<p>Ethical business practices contribute to building relationships of trust with stakeholders. Adherence to ethical principles and integrity is a fundamental part of Ibema's corporate social responsibility, thus ensuring the sustainable success of its operations.</p>			<ul style="list-style-type: none"> <li>• Being Landfill Negative.</li> <li>• Boosting education.</li> <li>• Ensuring a diverse, equal and inclusive working environment.</li> <li>• Reducing the impact of climate change.</li> <li>• Sustainably managing water in our industrial processes.</li> </ul>	
<p>Employee well-being, health and safety</p>	<p>Ensuring the health and safety of employees is essential to prevent accidents and injuries in the workplace. Promoting the well-being, health and safety of employees is fundamental for Ibema, not only to comply with legal and ethical obligations, but also to guarantee the company's social, operational and financial sustainability.</p>			<ul style="list-style-type: none"> <li>• Boosting education.</li> <li>• Ensuring a diverse, equal and inclusive working environment.</li> </ul>	
<p>Water and wastewater management</p>	<p>Paper production is a process that consumes large quantities of water. Water is used at various stages of the production process. Efficient water management is crucial to minimizing environmental impacts, consumption and reducing costs. Therefore, for Ibema, effective water and wastewater management is key to ensuring operational efficiency, regulatory compliance, environmental sustainability and social responsibility.</p>			<ul style="list-style-type: none"> <li>• Reducing the impact of climate change.</li> <li>• Sustainably managing water in our industrial processes.</li> </ul>	
<p>Recycling and the circular economy</p>	<p>The Circular Economy has been a major theme in companies' sustainability commitments, as consumers are becoming increasingly aware and are looking for greener packaging alternatives. In addition, new regulations aim to reduce the volume of waste going to landfills or dumps, thus forcing consumer companies (our indirect customers) to seek recycling solutions or sustainable destinations for their materials, therefore a topic of great importance for Ibema.</p>			<ul style="list-style-type: none"> <li>• Reduce impacts on climate change.</li> <li>• Being Landfill Negative.</li> <li>• Education and training.</li> </ul>	

## Material topic

### Legend



Material topic	Why is the subject material?	INSIDE LIMITS (internal public impacted by the topic)	OUTSIDE LIMITS (external public impacted by the topic)	Alignment with Ibema's Commitments	SDGs
<p>Economic performance</p>	<p>Economic performance is fundamental to guaranteeing a company's financial sustainability. A solid economic performance enables investment in innovation, technology and expansion of operations. Economic performance is essential for Ibema, as it directly impacts its ability to operate sustainably, generate value for its stakeholders and contribute to the socio-economic development of the regions where it operates.</p>			<ul style="list-style-type: none"> <li>• Boosting education.</li> <li>• Being Landfill Negative.</li> <li>• Ensuring a diverse, equal and inclusive working environment.</li> <li>• Sustainably manage water in our industrial processes.</li> <li>• Reduce our impact on climate change.</li> </ul>	
<p>Equal opportunities, diversity and inclusion</p>	<p>Diverse and inclusive work environments tend to be more innovative and creative. Diversity of perspectives and experiences can lead to more effective and original solutions. As part of its corporate social responsibility, Ibema tends to promote a fairer and more equal working environment. Therefore, a commitment to equal opportunities, diversity and inclusion is crucial to promoting innovation, attracting and retaining talent and ensuring the long-term sustainability of the business.</p>			<ul style="list-style-type: none"> <li>• Boosting education.</li> <li>• Ensuring a diverse, equal and inclusive working environment.</li> </ul>	

## Other indicators

In addition to the GRI indicators associated with the material topics, Ibema will report on indicators related to topics considered relevant internally. These are:

Topics	Disclosures
GRI 302: ENERGY	302-1, 302-2, 302-3, 302-4, 302-5
GRI 305: EMISSIONS 2016	305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7
GRI 404: TRAINING AND EDUCATION	404-1, 404-2, 414-3



**Commitments**

## Reducing water consumption



### Commitment

Sustainably manage water in our industrial processes.

### Our target or actions in progress

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

### Our progress:

- Reduction of more than 9% in specific water consumption at the Turvo plant in 2023, compared to 2021.

- Due to this downward year-on-year trend, we are now evaluating alternatives in our process that will consolidate the reduction in water consumption. The decision was made to await the deployment of these new solutions before investing in a new filtration system.

### What we'll be doing in 2024

We are assessing the best investment for the water system. A working group will study the entire industrial water system to draw up the necessary changes to be made in the short, medium and long term.

## Reducing climate change impacts in areas where Ibema operates



### Commitment

Reduce climate change impacts in areas where Ibema operates

### Our target or actions in progress

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

### Our progress

In 2023 we had emissions of 21,474 tCO<sub>2</sub>e (18,398 tCO<sub>2</sub>e referring to scope 1 and 3,076 tCO<sub>2</sub>e from scope 2), which compared to 2022 means a 15% reduction. This result stems from specific interventions in processes and constant monitoring of the main emission risk factors. We also signed an Equivalent Self-Generation agreement, which began in January 2024 and will be able to supply around 80% of Ibema's energy demand.

During 2023 we conducted a third-party verification of our greenhouse gas inventory. This is an important step for Ibema, as it guarantees that all sources of emissions have been mapped and that our results are in line with the Brazilian GHG Protocol Program.

### What we'll be doing in 2024

Due to the recurring floods at our Embu das Artes plant, where a biomass boiler is to be installed (representing a major step towards our decarbonization plan), we will be conducting a project during 2024 to guarantee the integrity of the new equipment and its operation. As a result, the timeline for the boiler project that was scheduled for 2024 will have to be altered.

## Landfill Negative



### Commitment

Being Landfill Negative ensures that none of the waste generated by Ibema is sent to landfill, as well as contributing to the correct disposal of solid packaging waste in the market.

### Our target or actions in progress

Recycle 20,000 tons of waste that would otherwise go to landfill (post-consumer waste) by 2025.

### Our progress

New partnerships were developed with suppliers of post-consumer paper scraps (such as cooperatives and structuring projects) to strengthen the supply chain. We strengthened and developed new partnerships with Brand Owners and reverse logistics startups to operationalize the upcycling of materials (collection, recycling and transformation into new packaging). The *Estação Preço de Fábrica* project continued to grow after its implementation in 2022; it has so far captured more than 544 tons of waste for correct recycling, as well as generating income for families in the surrounding area. In addition, we continue to give strategic direction to our portfolio with products that

use recycled raw materials, such as Ritagli, which is now made up of 55% paper scraps. We also created the Circular Economy Committee with all the areas involved to strengthen our management and governance of the issue.

### What we'll be doing in 2024

The issue has become ever more significant for the company, becoming one of its key strategic directions. We face the challenge of growing the Ritagli White and Ritagli Cream lines again, as well as developing new products in our portfolio that are geared towards the circularity strategy. We will continue to develop new suppliers of post-consumer paper scraps. We are developing new partnerships with brand owners, and we are also expanding some existing projects, including the project in which we collect used cups from fast food chains to be recycled into the composition of our cards. The *Estação Preço de Fábrica* project is becoming more and more representative, giving us the prospect of an increase in the amount of paper scrap collected.

## Diversity, Equity and Inclusion



### Commitment

Ensure a diverse, equal and inclusive working environment.

### Our goal or actions in progress

Increase the number of women by 30% by 2030, including in leadership positions.

### Our progress

Ibema is committed to diversity, equity and inclusion (DE&I) as a fundamental part of its organizational culture. Understanding and valuing individual differences is essential to creating an environment where everyone feels welcomed, respected and able to contribute fully.

We ended the year with 23% women in the company and we delved into the results of our first DE&I Census. This is an important initiative for us to better understand the internal context and develop an effective work plan. The results of this census have allowed us to identify areas of opportunity and develop a strategy to promote diversity and inclusion.

One of the crucial steps was to train the company's leadership. In September 2023 a comprehensive training course was held for leaders, focusing on DE&I literacy. This training aimed to sensitize managers to the importance of diversity and provide tools to promote an inclusive environment.

In addition, Ibema launched the first edition of the DE&I Guide, sharing practices, guidelines and resources with the entire organization. This guide serves

as a reference for all employees, reinforcing the company's commitment to building a more welcoming and better environment in which to work.

Building indicators and metrics to monitor the evolution of diversity-related data was an important step taken in 2023. From this information we can assess our progress and identify opportunities for improvement in the development of our DE&I strategy to achieve plurality.

### What we'll be doing in 2024:

The journey towards diversity and inclusion is ongoing, which is why in 2024 we aim to:

- 1. Leadership training** – Continue to invest in leadership training, which is essential. As well as raising our leaders' awareness of DE&I issues we will address topics such as inclusive leadership, pay equity and management of diverse teams.
- 2. Women's Affinity Group** – Strengthen the women's affinity group to improve the experience of women at Ibema. This includes actions for health, inclusion, work-life balance and professional development, with mentoring for women.
- 3. New Affinity Groups** – Support the creation of other affinity groups to promote engagement and belonging. Groups considered include those related to LGBTQIA+, people with disabilities, generational diversity, and other themes relevant to Ibema.
- 4. DE&I policy** – Draw up a Diversity, Equity, and Inclusion policy in line with the company's strategy and as one of the pillars of the organizational culture.

## Boosting education



### Commitment

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

### Our target or actions in progress

Promote learning opportunities for 100% of Ibema employees who have not completed primary and secondary education by 2024.

Implement the Ibema Education Program, ensuring quality education for 3,000 students and teachers in Turvo by 2030.

### Our progress

In 2023 we maintained the *Indústria Parceira da Educação* (Industry Partners in Education) Program, ending the year with 115 active enrolments, 92 of whom were non-employees from the surrounding community, 9 were employees, and 14 were non-employees from the local indigenous community. There were no graduates from the program in 2023.

The partnership with the Faxinal da Boa Vista State College, through the *Aluno Nota 10* (Grade A Student) project, was also maintained. 03 students secured their place in Ibema's Apprentice Program, to begin in 2024, due to their good academic performance.

In addition to incentivizing basic education we also strengthened our partnership with Sistema S and, through Sesi, Senai and Senar, brought free Professional Qualification courses to the Faxinal da Boa Vista community. In all, there were 297 completed Administrative Assistant, Warehouse Clerk, Accounting Assistant, HR Assistant and Digital Inclusion Trail

courses. (The number 297 corresponds to courses completed and not individuals, as some people completed more than one course).

In addition, we held a Careers Fair at Faxinal da Boa Vista and Professores Edvaldo e Maria Janete state schools, with university stands and lectures.

Through the Tax Incentive Law (Rouanet Law) and local partnerships, we brought the community of Faxinal da Boa Vista a Cultural Festival with three days of shows, musical performances, and storytelling, with classes exclusively for the local schools.

### What we'll be doing in 2024:

In 2024 we plan to maintain, consolidate, and expand the existing programs: *Indústria Parceira da Educação* (Industry Partners in Education), Professional Qualification and *Aluno Nota 10* (Grade A Student), with particular emphasis on actions to encourage people in the community, especially employees, to complete their basic education. To this end, we're going to hold events every 3 months with Senai at the Turvo unit to talk to those employees who haven't completed their studies and aren't yet part of the program. The aim will be to provide information and understand possible difficulties or resistance so that we can support them.

With regard to the second target—to implement an Education Program that impacts 3,000 students and education professionals by 2030—this year we will begin diagnostic work with the surrounding educational institutions, as a way of understanding the demand and then designing a proposal to implement a program.



**GRI Content  
Summary**



GRI Standards	Disclosure	Observations	Page	Omission
<b>GENERAL STANDARD CONTENT</b>				
<b>THE ORGANIZATION AND ITS REPORTING PRACTICES</b>				
GRI 2-1	Organizational details		14	
GRI 2-2	Entities included in the organization's sustainability report	IBEMA COMPANHIA BRASILEIRA DE PAPEL has no entities included in its financial statements. It is a privately held company and is not made up of multiple entities.		
GRI 2-3	Reporting period, frequency and contact point			
GRI 2-4	Restatements of information	Restatements were included due to the need to correct quantitative information from previous periods for indicators GRI 305-1, GRI 301-1 and GRI 302-1 and qualitative information from previous periods for indicators GRI 405-1, 405-2, 404-1 and 404-3. The correct information and justifications can be found in the respective indicators.	72. 74. 75. 90. 103 and 105	
GRI 2-5	External assurance	There was no external verification of this report.		
<b>ACTIVITIES AND WORKERS</b>				
GRI 2-6	Activities, value chain and other business relationships		16 and 17	
GRI 2-7	Employees		70	
GRI 2-8	Workers who are not employees		70	
<b>GOVERNANCE</b>				
GRI 2-9	Governance structure and composition		28 a 31	
GRI 2-10	Nomination and selection of the highest governance body		28 a 31	
GRI 2-11	Chair of the highest governance body	The chairman of the board is not an Ibema executive.	28 a 31	
GRI 2-12	Role of the highest governance body in overseeing the management of impacts		32	
GRI 2-13	Delegation of responsibility for managing impacts		32	
GRI 2-14	Role of the highest governance body in sustainability reporting		32	
GRI 2-15	Conflicts of interest		39	
GRI 2-16	Communication of critical concerns		34	
GRI 2-17	Collective knowledge of the highest governance body		32	
GRI 2-18	Evaluation of the performance of the highest governance body		32	
GRI 2-19	Remuneration policies		34	
GRI 2-20	Process to determine remuneration		34	
GRI 2-21	Annual total compensation ratio	The ratio between the annual total remuneration of Ibema's highest paid individual and the average annual total remuneration of all employees was 10.51 in 2023. Meanwhile, the ratio between the percentage increase in the remuneration of the highest paid individual and the average percentage increase in the total remuneration of all Ibema employees was 1% in 2023. The increase in the total average annual remuneration of all employees was 16.94%, while the annual remuneration of the highest paid professional increased by 16.8%, resulting in a ratio of 0.99%. This ratio does not include directors, as they hold statutory positions.		

GRI 2: GENERAL DISCLOSURES 2021

GRI Standards	Disclosure	Observations	Page	Omission
<b>STRATEGY, POLICIES AND PRACTICES</b>				
GRI 2: GENERAL DISCLOSURES 2021	GRI 2-22	Statement on sustainable development strategy	4. 35	
	GRI 2-23	Policy commitments	26	
	GRI 2-24	Embedding policy commitments	26	
	GRI 2-25	Processes to remediate negative impacts	36. 37 and 38	
	GRI 2-26	Mechanisms for seeking advice and raising concerns	36. 37 and 38	
	GRI 2-27	Compliance with laws and regulations	39	
	GRI 2-28	Membership associations	35	
	<b>STAKEHOLDER ENGAGEMENT</b>			
	GRI 2-29	Abordagem para o envolvimento das partes interessadas	112 a 114	
	GRI 2-30	Acordos coletivos	72	
GRI 3: FORMS OF MANAGEMENT 2021	GRI 3-1	Process to determine material topics	115 a 119	
	GRI 3-2	List of material topics	115 a 119	
<b>MATERIAL TOPICS</b>				
<b>WATER AND WASTEWATER MANAGEMENT</b>				
GRI 3: FORMS OF MANAGEMENT 2021	GRI 3-3	Management of material topics	95 a 98	
GRI 303: Water and Effluents 2018	GRI 303-1	Interactions with water as a shared resource	95	
	GRI 303-2	Management of water discharge-related impacts	95	
	GRI 303-3	Water withdrawal	98	
	GRI 303-4	Water discharge	98	
	GRI 303-5	Water consumption	98	
<b>EMPLOYEE WELL-BEING, HEALTH, AND SAFETY</b>				
GRI 3: FORMS OF MANAGEMENT 2021	GRI 3-3	Management of material topics	76 a 79	
GRI 403: Occupational Health and Safety 2018	GRI 403-1	Occupational health and safety management system	76	
	GRI 403-2	Hazard identification, risk assessment, and incident investigation	76	
	GRI 403-3	Occupational health services	76	
	GRI 403-4	Worker participation, consultation and communication on occupational health and safety	76	
	GRI 403-5	Worker training on occupational health and safety	76	
	GRI 403-6	Promotion of worker health	76	
	GRI 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	76	
	GRI 403-8	Workers covered by an occupational health and safety management system	76	
	GRI 403-9	Work-related injuries	79	
	GRI 403-10	Work-related ill health	79	

GRI Standards	Disclosure	Observations	Page	Omission
<b>EQUAL OPPORTUNITIES, DIVERSITY, AND INCLUSION</b>				
GRI 3: FORMS OF MANAGEMENT 2021	GRI 3-3	Management of material topics	71 and 72	
GRI 405: Diversity and Equal Opportunities 2016	GRI 405-1	Diversity of governance bodies and employees	71 and 72	
	GRI 405-2	Ratio of basic salary and remuneration	71 and 72	
GRI 406: Non-discrimination 2016	GRI 406-1	Incidents of discrimination and corrective actions taken		No cases of discrimination were reported in the company in 2023. All complaints received through the Ethics Channel are dealt with and investigated by the Ethics Committee, which manages them and returns the protocols to the complainants.
<b>COMPLIANCE, ETHICAL CONDUCT, AND INTEGRITY</b>				
GRI 3: FORMS OF MANAGEMENT 2021	GRI 3-3	Management of material topics	36 a 41	
	GRI 205-1	Operations assessed for risks related to corruption	36 a 41	
GRI 205: Anti-Corruption 2016	GRI 205-2	Communication and training about anti-corruption policies and procedures	36 a 41	
	GRI 205-3	Confirmed cases of corruption and actions taken		In 2023 no cases of corruption were reported/confirmed at Ibema.
GRI 308: Environmental Assessment of Suppliers 2016	GRI 308-1	New suppliers that were screened using environmental criteria	80	
	GRI 308-2	Negative environmental impacts in the supply chain and actions taken	80	
GRI 408: Child Labor 2016	GRI 408-1	Operations and suppliers at significant risk for incidents of child labor	80	
GRI 409: Forced or Compulsory Labor 2016	GRI 409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	80	
GRI 414: Supplier Social Assessment 2016	GRI 414-1	New suppliers that were screened using social criteria	80	
Supplier Social Assessment 2016	GRI 414-2	Negative social impacts in the supply chain and actions taken	80	
<b>ECONOMIC PERFORMANCE</b>				
GRI 3: FORMS OF MANAGEMENT 2021	GRI 3-3	Management of material topics	56 and 57	
GRI 201: Economic Performance 2016	GRI 201-1	Direct economic value generated and distributed	57	
	GRI 201-2	Financial implications and other risks and opportunities due to climate change	104	
GRI 203: Indirect Economic Impacts 2016	GRI 203-2	Significant indirect economic impacts	22	
	GRI 203-1	Infrastructure investments and services supported	51 a 53	
GRI 204: Procurement Practices 2016	GRI 204-1	Proportion of spending on local suppliers	80	

GRI Standards	Disclosure	Observations	Page	Omission	
<b>RECYCLING AND CIRCULAR ECONOMY</b>					
GRI 3: FORMS OF MANAGEMENT 2021	GRI 3-3	Management of material topics	22, 23		
GRI 301: Materials 2016	GRI 301-1	Materials used by weight or volume	90		
	GRI 301-2	Recycled input materials used	90		
GRI 304: Biodiversity 2016	GRI 304-1	Operational sites owned, leased, managed in, or adjacent to, environmental protection areas and areas of high biodiversity value outside protected areas	106		
	GRI 304-2	Significant impacts of activities, products, and services on biodiversity	106 and 107		
	GRI 304-3	Habitats protected or restored	106		
GRI 306: Waste 2020	GRI 306-1	Waste generation and significant waste-related impacts	91 a 94		
	GRI 306-2	Management of significant waste-related impacts	91 a 94		
	GRI 306-3	Waste generated	93		
	GRI 306-4	Waste diverted from disposal	94		
	GRI 306-5	Waste directed to disposal	94		
GRI 413: Local Communities 2016	GRI 413-1	Operations with local community engagement, impact assessments and development programs	81, 82 and 83		
	GRI 413-2	Operations with significant actual and potential negative impacts on local communities	81, 82 and 83		
<b>EXTRA INDICATORS</b>					
GRI 305: EMISSIONS 2016	GRI 305-1	Direct (Scope 1) GHG emissions	104 and 105		
	GRI 305-2	Indirect (Scope 2) GHG emissions	104 and 105		
	GRI 305-3	Other indirect (Scope 3) GHG emissions	104 and 105		
	GRI 305-4	GHG emissions intensity	104		
	GRI 305-5	Reduction of GHG emissions	Ibema implemented one of its projects in 2023 with a focus on reducing scope 2 emissions ( <a href="#">for more information, see page 52 - Equivalent Self-Generation</a> ). Other projects are in the final study phase for 2024.	52 and 105	
	GRI 305-6	Emissions of ozone-depleting substances (ODS)	The Montreal Protocol does not apply to Ibema's activities.		
GRI 302: Energy 2016	GRI 305-7	NOx, SOx and other significant air emissions	104 and 105		
	GRI 302-1	Energy consumption within the organization	102		
	GRI 302-2	Energy consumption outside of the organization	Ibema does not monitor energy consumption outside of the organization. Ibema plans to start collecting Scope 3 data for the GHG Inventory, which interfaces with this topic.		
	GRI 302-3	Energy intensity	103		
	GRI 302-4	Reduction of energy consumption	100 and 101		
GRI 404: Training and Education 2016	GRI 302-5	Reductions in energy requirements of products and services	100 and 101		
	GRI 404-1	Average hours of training per year per employee	74		
	GRI 404-2	Programs for upgrading employee skills and transition assistance programs	74		
	GRI 404-3	Percentage of employees receiving regular performance and career development reviews	74		



# **SASB Content Summary**

## Disclosure topics and accounting metrics

Theme	Accounting metrics	Category	Code	Page	Observation
Greenhouse gas emissions	Gross global Scope 1 emissions	Quantitative	RR-PP-110a,1	104 e 105	
	Gross global Scope 1 emissions, percentage covered by emission limitation regulations	Quantitative	RT-CP-110a,1		Ibema currently has no programs or regulations limiting emissions. This topic is in the study phase.
Air quality	Atmospheric emissions of the following pollutants: (1) NOx (excluding N2O), (2) SO2, (3) volatile organic compounds (VOCs), (4) particulate matter (PM) and (5) hazardous air pollutants (HAPs)	Quantitative	RR-PP-120a,1	104	
	Direct atmospheric emissions of the following pollutants: (1) NOx (excluding N2O), (2) SO2, (3) volatile organic compounds (VOCs), (4) particulate matter (PM)	Quantitative	RT-CP-120a,1	104	
Energy Management	(1) Total energy consumed, (2) percentage of grid electricity, (3) percentage of biomass, (4) percentage of other renewable energies and (5) total self-generated energy.	Quantitative	RR-PP-130a,1	103	
	(1) Total energy consumed, (2) percentage of electricity from the grid, (3) percentage renewable, (4) total self-generated energy	Quantitative	RT-CP-130a,1	103	
Water Management	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with high or extremely high baseline water stress	Quantitative	RR-PP-140a,1	95	
	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with high or extremely high basal water stress	Quantitative	RT-CP-140a,1	95	
Waste Management	Amount of hazardous waste generated, percentage recycled	Quantitative	RT-CP-150a,1	91	
Ecosystem Services and Impacts	Area of forest land certified according to a third-party forest management standard, percentage certified for each standard	Quantitative	RR-FM-160a,1	107	
Product Life Cycle Management	Percentage of raw materials from: (1) recycled content, (2) renewable resources and (3) renewable and recycled content	Quantitative	RT-CP-410a,1	90	
Supply Chain Management	The entity must disclose the percentage of total wood fiber-based materials that come from certified forest areas.	Quantitative	RR-PP-430a,1	107	
	Total wood fiber purchased and the percentage of wood fiber from certified sources.	Quantitative	RT-CP-430a,1	107	



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