

# Sustainability

# Report

**Highlights of the Company's performance**  
in 2023 towards the KODS.



# Summary

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Message from the  
**Chief Executive  
Officer**





In 2023, Klabin once again demonstrated the resilience and effectiveness of its integrated, diversified, and flexible business model. Faced with a complex macroeconomic landscape, marked by international conflicts and a downturn in pulp and containerboard prices, the Company sought greater efficiency and implemented several cost reduction initiatives. As a result, even in the face of challenges, the total cash cost per ton in 2023 remained at the same level as in 2022. Furthermore, the distribution of a total of BRL 1.4 billion in profits to shareholders over the last year, representing a dividend yield of 5.8%, reinforces Klabin's commitment to value generation.

To ensure the future supply of wood for the plants, with quality and safety, and with diligent capital allocation, a contract was signed with Arauco on December 20, 2023 for the purchase of companies holding a total area of 150,000 hectares, mainly in the state of Paraná. The deal encompasses 85,000 hectares of productive land and 31.5 million tons of standing timber, as well as forestry machinery and equipment. With the completion of this operation, which is subject to the verification of contractually agreed-upon conditions precedent, customary in transactions of this nature, the Company will have completed its land expansion in Paraná to supply the Puma II Project, thereby achieving its target of self-sufficiency in wood ahead of schedule. As a result, forest investments in the region will decrease. Looking ahead, reduced operating costs are expected for harvesting and transporting wood, as well as an overall improvement in total cash cost.

Discipline and agility were the guiding concepts for the Company's operations in 2023, allowing significant milestones to be achieved. One of them was the start-up of the paperboard machine PM28 in Ortigueira (PR), which marked the beginning of operations for the second phase of the Puma II Project, Klabin's largest investment in history. The new machine produces more resistant and higher quality paperboard, geared especially toward the food and beverage segments (long-life, beer, and industrialized product packaging) and products for the growing food service sector (cups and trays).

Fluff pulp deserves special mention, as its market showed remarkable resilience in 2023. The business showed solid performance during the period, reaching a record sales volume since the start of operations and maintaining prices at high levels, making a significant contribution to the Company's results.

The Packaging business also marked significant accomplishments. The new corrugator at the Horizonte Plant (CE) came online, with an additional production capacity of 80,000 tons of corrugated board per year. This strengthened the Company's position as the main supplier of corrugated board packaging in the North and Northeast regions of the country. The most modern industrial bag line in Latin America also came online at the Lages Plant (SC). Klabin's plants in Horizonte (CE), Goiana (PE), Betim (MG), and Lages (SC) also received new printers, improving the quality of the products delivered to customers. In Piracicaba (SP), the construction of the Figueira Project continues to progress as planned. The new factory, with a capacity to produce 240,000 tons of corrugated board per year, began operations in April 2024.

**In 2023, Klabin reinforced its commitment to sustainability. In the year it celebrated 25 years of FSC® certification, the Company published its Climate Transition Plan.**





The document outlines its current actions and targets for mitigating the impacts of climate change and adapting to them, inviting the value chain to do the same. The Plan also updates the Company's targets and makes them more ambitious: to reduce 42% of absolute greenhouse gas (GHG) emissions from scopes 1, 2, and 3 by 2030 based on 2022 levels, and to reduce absolute emissions from scopes 1, 2, and 3 by 90% by 2050. Both are awaiting approval by the Science Based Targets initiative (SBTi).

The work aimed at achieving Klabin's Sustainable Development Goals (KODS) continues to yield strong results. One of the highlights is the progress in the use of energy from renewable sources. The company has already exceeded the target, which was set for 2030, of having an energy matrix consisting of at least 92% renewable sources. In addition, through the acquisition of renewable energy certificates (IRECs), Klabin proves that all energy that the Company purchased in Brazil comes from renewable sources, anticipating another target set for 2030.

Another significant advancement occurred in expanding the percentage of industrial solid waste reuse and recycling. The intention is to eliminate the disposal of industrial solid waste in landfills by 2030. Currently, 99.3% of the Company's solid waste is recycled, reused, and/or co-processed. The great challenge is to find the appropriate destination to achieve 100% of the target.

All these efforts have gained recognition both domestically and abroad. For the 11th consecutive year, Klabin is part of the B3 Sustainability Index (ISE), and for the fourth year in a row, the global portfolio of the Dow Jones Sustainability Index (DJSI). The Company has also been on the CDP Triple A List for three years, being the only company in Latin America to achieve the maximum score in three of the evaluated indicators. In 2023, the Company was also recognized by CDP as a Supplier Engagement Leader, being among the best-rated companies on issues related to climate change, and was among the top 1% of suppliers rated on management and sustainability systems, winning the Platinum category by EcoVadis for the second year running.

In addition, the Company's long-standing commitment to sustainable development is reflected in public initiatives it subscribes to, such as the Brazil Network of the UN Global Compact, which it has been a part of since 2003, and the National Pact for the Eradication of Slave Labor, since 2013.

On the Research & Development front, the Company prioritized projects that meet customer demands and continued to look for new business opportunities based on by-products. Pine chemicals, which are obtained from pine trees, for example, have shown promise with regular sales. The expectation is that the exploration of new perspectives for these products, such as microfibrillated cellulose and lignin, will intensify in the coming years.

Given the challenging landscape of 2023, relying on the professionalism, dedication, and commitment of our employees were essential. Everyone has worked hard to create increasingly collaborative, efficient, and safe environments. More than ever, dialogue has been at the heart of relations. Important steps have been taken when it comes to diversity, such as the approval of the Diversity Aspiration by the Executive Board. The initiative is part of the strategy and governance review project that will guide Klabin's actions on this topic in the coming years.

Finally, Klabin would like to express its deep gratitude to its employees, board members, and all other partners for their partnership and support. In 2023, the foundation was laid for 2024, a year that also requires prudence and attention. The Company will continue to work to make its processes increasingly efficient, safe, sustainable, and innovative in order to meet the expectations of customers, investors, and employees, as well as communities. In 2024, the year when Klabin celebrates its 125th anniversary, its desire is to honor a century-old legacy by launching perspectives for future cycles.

**Cristiano Teixeira**

Klabin's CEO





# Report





## About this report

This report presents Klabin's performance in 2023, as well as the challenges faced during the period and its actions towards growth, aligned with the Klabin Sustainable Development Goals (KODS) agenda.

**From the homepage, it is possible to browse 25 outstanding initiatives in Klabin's environmental, social, and governance (ESG) aspects. The number alludes to the 25th edition of the Sustainability Report, released in this year of 2024, as the Company celebrates its 125 years of history.**

This document is structured based on the material topics, i.e. those most relevant to Klabin and its stakeholders, and the sustainability practices that make up the KODS. The presentation of management and the results obtained in the period is also referenced by the GRI Standards 2021, the United Nations Sustainable Development Goals (SDGs), and the Principles of the UN Global Compact.

Indicators linked to the management of these material topics are concentrated in the ESG Panel, which also contains data from the historical series and the Company's current position in relation to the targets set for the coming years.

The period covered by this report runs from January 1 to December 31, 2023, and is extended, whenever relevant, to the beginning of 2024.

In line with Klabin's naming conventions, the Puma Unit has been renamed the Ortigueira Unit since the beginning of 2024. In this report, since the base year is 2023, we have maintained the names Puma Unit, Puma Project I, and Puma Project II, appropriately used in each case.

Learn more about the material topics linked to financial indicators and frameworks:

[ESG PANEL →](#)



**Klabin**





## 125 years building the future

In 2024, Klabin celebrates 125 years of operation. Throughout more than a century of activities, the Company has been following the path of sustainable development. The quest for continuous growth is supported by recurring investments in technology, innovation, efficiency, and research, as well as actions focused on caring for people, the environment and combating climate change.

To that end, Klabin stands out for being a pioneer, for example, in mosaic forest management, which mixes conserved native forest and planted forest, contributing to the formation of ecological corridors, soil conservation and the preservation of springs.

Environmental preservation guides the work of the Company's industrial and forestry operations, which follow practices aimed at conserving biodiversity and natural resources in order to build renewable, recyclable, and biodegradable solutions.

**The main objective is to contribute to a sustainable economy and inspire sustainable choices by the end consumer, prioritizing value generation for investors, employees, business partners, and society as a whole.**

## Company profile

Klabin operates from end to end, that is, from the production of wood and pulp, through the manufacturing of paper, to its conversion into packaging. Its footprint spans all regions of Brazil with 23 industrial plants and extends to Argentina with a plant in Pilar. It is recognized worldwide for its commitment to sustainable development and strengthening the **circular economy**.

### Products



Wood



Hardwood pulp



Softwood pulp



Fluff pulp



Kraftliner paper



[Paperboard](#)



[Recycled paper](#)



[Corrugated board](#)



[Industrial bags](#)

## Operations



### FORESTRY BUSINESS

Klabin has 751,000 hectares of forests, with 374,000 hectares suitable for planting pine and eucalyptus, and 315,000 hectares of conserved native forest. The management practices for the entire forestry area, located in São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul, are certified by the FSC® – Forest Stewardship Council® (FSC - C007520, FSC - C022516 and C023492) and the Program for the Endorsement of Forest Certification (PEFC).

Of the total wood used to supply the plants in 2023, 51% came from own forests and 49% was purchased in accordance with the FSC® – Forest Stewardship Council® certification standards (FSC - C007520, FSC - C022516 and C023492). Of the total acquired, 31% was certified wood purchased from third parties and 18% was wood from controlled sources. The company also sells the wood it produces to the furniture and construction markets.



### PULP BUSINESS

Klabin is the only Brazilian company to produce and supply the market with three types of pulp – hardwood (from eucalyptus), softwood (extracted from pine), and fluff (specially produced from pine softwood, using 100% domestic raw materials) – in a single industrial unit, designed especially for this purpose.





### PAPER BUSINESS

The paper and board produced at Klabin's plants, with its own softwood and hardwood pulp, meet strict global quality and sustainability standards. To reinforce its commitment to delivering even higher-quality products to the market, Klabin started operating PM28, built to manufacture paperboard and kraftliner. With the start-up of the machine, added to the production of PM27, Klabin will increase its production capacity to 4.6 million tons of pulp and paper per year.



### PACKAGING BUSINESS

Among Brazil's leading packaging companies, Klabin stands out for its production of corrugated board boxes and industrial bags. In 2023, the Company completed the expansion of the Horizonte Unit (CE) and pushed forward on the Figueira Project. This corrugated board plant in Piracicaba (SP) have two corrugators, nine printers, and practices aimed at environmental improvement of its processes, such as the reuse of rainwater. On April 22, 2024, Klabin began operations at the Figueira Unit, which has an annual production capacity of 240 thousand tons.

## Recognition



### Fourth consecutive year in the Dow Jones Sustainability Index

Klabin has been present for four consecutive years in the Global portfolio and for three years in the Emerging Markets portfolio of the Dow Jones Sustainability Index.



### Three years on the CDP's Triple A List

Klabin is the only company in Latin America to achieve the maximum score in three of the evaluated indicators, joining the select group of ten companies that have accomplished this feat.

ISEB3

### More than a decade on B3's ISE

For the 11th year in a row, the Company secured a position in the portfolio of the Corporate Sustainability Index (ISE) of the Brazilian Stock Exchange (B3).



Sustainability Yearbook  
Member 2022  
S&P Global

### The Sustainability Yearbook

Klabin is in the top 5% of the world's best-rated companies in ESG practices according to S&P Global.

ecovadis

### Second year in the "Platinum" category – EcoVadis

For the second year running, Klabin is in the top 1% of suppliers highly rated in management and sustainability systems, having won the "Platinum" category award from EcoVadis.



### Transparency Trophy

For the eighth time, Klabin made the list of winners of the 27th edition of the ANEFAC Award – Transparency Trophy, promoted by the National Association of Executives, in the category "Companies with revenues above BRL 20 billion", in recognition of the clarity and assertiveness of its financial statements.

## Awards

### Eurosac Grand Prix Award 2023

The second generation of EcoLayer, a softwood kraft sack paper packaging, won the bronze award for innovation at the 2023 Grand Prix Award of the European Federation of Multiwall Paper Sack Manufacturers (Eurosac). Every year, the institution recognizes innovations in bags that add value to the industry through sustainable developments and special features.

### ABTCP Industry Highlights Award

The Company was one of the big winners in 2023, awarded in four categories: "Forest Development", "Packaging Paper Manufacturer", "Occupational Safety" and "Sustainability". The awards recognize outstanding manufacturers, suppliers and professionals in the pulp and paper sector.





### Amcham ECO Award

Klabin won the "Sustainability Practices" modality in the "Processes for Large Companies" category, with its Potassium Sulphate Plant case. At that time, the company was also recognized among the four companies that obtained the best score in the evaluation.

### Best in Agribusiness 2023

The Company took first place in the "Sustainability" category of the Best in Agribusiness Awards, organized by Globo Rural magazine in partnership with Serasa Experian. The publication evaluates companies by performance and management and lists the largest in more than 20 agribusiness segments.

### ABFLEXO Flexo Quality Award

Klabin stood on the podium in five categories of the awards with packaging for customers Nespresso, Sun Limes, Predileta, Sylvamo and Ovos Korin; as well as winning the "Top Five" award, given to the five companies that have won the most by the Brazilian Technical Association of Flexography and Digital Conversion, ABFLEXO.

### Sofidel Supplier Sustainability Award (3SAward) 2023

Klabin was awarded the highest score in the "Best Supplier – Pulp Producer" category at the 3SAward. The evaluation is conducted by Sofidel's supplier pre-qualification system based on the [Ten Principles of the United Nations Global Compact](#), which assesses the environmental, social, and economic issues as well as the sustainability performance of its suppliers.

### Fritz Muller Award

The Company is one of the winners of the Fritz Muller Award, in the "Conservation of Natural Resources and Wildlife" category, with the project CINAT – Nature Interpretation Center at the Serra da Farofa Complex RPPNE.

## Location



### Softwood, hardwood and fluff pulp

PR Ortigueira



### Packaging papers

SP Angatuba  
PR Monte Alegre  
Ortigueira  
SC Correia Pinto  
Otacílio Costa



### Recycled papers

PE Goiana  
SP Franco da Rocha  
Paulínia  
Piracicaba



### Corrugated board packaging

AM Manaus  
PE Goiana  
BA Feira de Santana  
MG Betim  
SP Jundiá  
Paulínia  
Piracicaba  
Suzano  
PR Rio Negro  
SC Itajaí  
RS São Leopoldo  
CE Horizonte  
GO Rio Verde



### Sack kraft packaging

PE Goiana  
SC Lages  
ARG Pilar



### Forestry area

Paraná  
Santa Catarina  
São Paulo

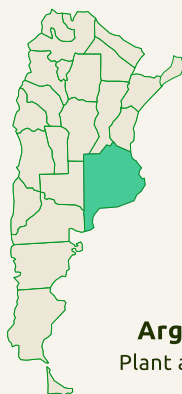


### Technology Center

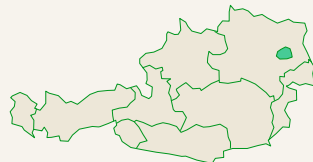
PR Klabin Technology Center  
SP Packaging Technology Center



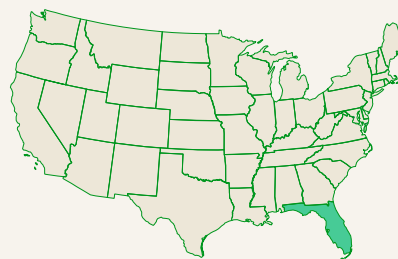
## Klabin around the world



**Argentina**  
Plant and office



**Austria**  
Office



**USA**  
Office

## Integration and efficiency of the forestry base

Forestry activities are the starting point for ensuring Klabin's competitiveness and growth paths. To leverage the highly integrated model between the Company's businesses, the Forestry Unit underwent restructuring and consolidated its long-term planning. Intensifying the connection with the industrial operations was among the main objectives. Detailed management work was also done to draw up action plans to improve operational efficiency in the field and when the wood arrived at the plants.



*Klabin's nursery in Paraná, with a eucalyptus forest in the background*

## Responsible forest management

In 2023, Maurem Kayna Lima Alves, Klabin's Sustainability Consultant, was elected to the Board of Directors of FSC International. She joined a select group of just 12 members to represent the Global South economic chamber's perspectives on responsible forest management. In the previous cycle, from 2020 to 2023, Ivone Namikawa, Klabin's Sustainability consultant, had already held the same position.





By making its professionals available to actively contribute to the management and direction of a global organization committed to responsible forest management, the Company solidifies its leading role as a benchmark Company in the forestry sector.

“By having a professional dedicated to participating in sustainability forums, Klabin stands out in the intensity and depth with which it contributes to debates that are relevant to the business and the planet, which ends up benefitting the forestry sector as a whole. The premise of the FSC Board's operation is guided by the interest in promoting inclusive discussions and ensuring that the forest management certification system remains consistent, as well as leveraging the dialogue environment with multiple stakeholders to help the sector continue evolving.”

Maurem Kayna  
Lima Alves  
SUSTAINABILITY CONSULTANT  
AT KLABIN

## 25 years of forestry certification

In 2023, Klabin also celebrated the 25th anniversary of achieving its first FSC® certification. The Company was the first in the pulp and paper sector in the Southern Hemisphere to obtain the social and environmental seal. The certification attests to the best forest management practices and is an indispensable commercial prerequisite in the paper and packaging segments.

## EUDR Regulation

To comply with the new anti-deforestation regulation adopted by the European Union, known as the **EU Deforestation-Free Regulation (EUDR)**, the Company is implementing a series of internal activities. An example was the reverse traceability prototype in Paraná and Santa Catarina, connecting a commercial route to the possible coordinates of the stands where the wood was harvested.

## Forestry Numbers

**751,000**

hectares of total area

**374,000**

hectares of productive areas\*

**42%**

conserved areas

**155**

trees planted per minute\*\*

\*The production areas are made up of areas planted with pine or eucalyptus forests and also those that are being harvested, transported, and planted.

\*\*The number considers Klabin's forests in São Paulo, Paraná, and Santa Catarina.

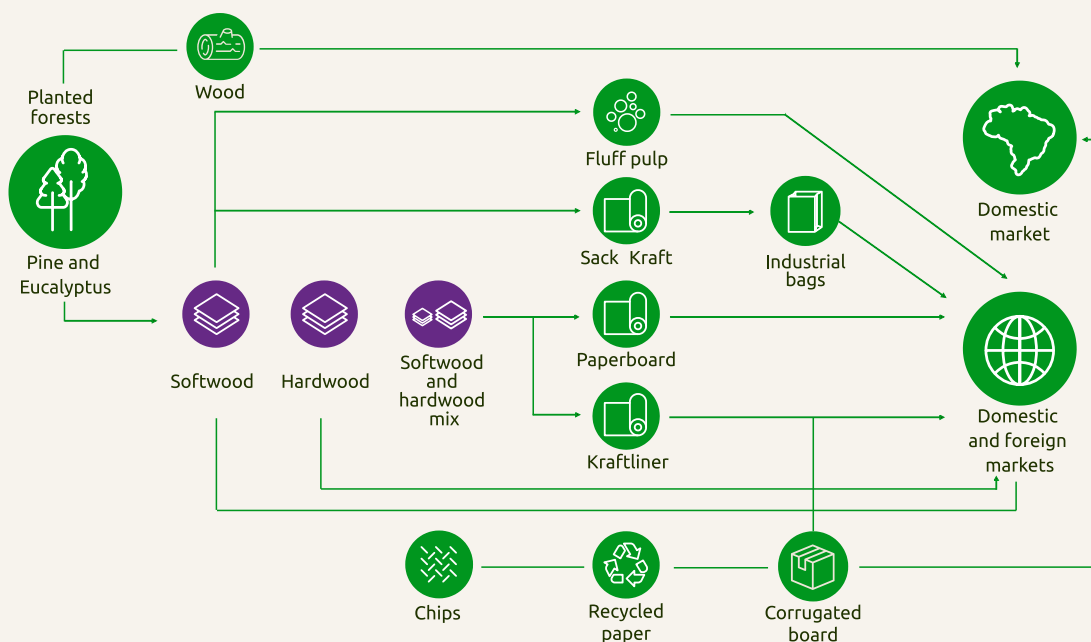
## Forest road maintenance services

The roads to be used in harvesting processes and for wood transport and replanting are prepared by Klabin. To that end, the Company mines some materials, such as gravel or rock, which are used for coating and maintenance of the roadbeds. This maintenance not only facilitates the transportation of inputs for the Company's operations but also benefits the local communities by making the structures safer.

In 2023, 961,700.43 m<sup>3</sup> of minerals were used for the maintenance, graveling, and regularization of 1,620.2 kilometers of roads used by Klabin's forest operations. The Company also donated 14,200 m<sup>3</sup> of gravel for municipalities to use on roads in the regions of the municipalities for which they are responsible. The source of the extraction operation is 48.1% owned and 51.9% from third parties.

## From forest to market

Klabin's products are primarily intended for industries in the processed, frozen, and fresh food segments, as well as health and personal hygiene, hygiene and cleaning, beverages, construction, and electronics. In addition to serving the Brazilian market, where it maintains leadership in these segments, the Company exports to more than 80 countries.



## Export destinations



## The consolidation of a cutting-edge logistics system

With the increased production volume of pulp and paper, provided by the Puma II Project, Klabin reinforced investments in improving the logistics for product distribution. In 2023, with the start-up of PM28, a complex logistics system was also consolidated.

### A year of learning

The Paranaguá Port Terminal (also known as PAR-01) celebrated its one-year anniversary in December 2023. Connected to the Ortigueira plant (PR) by rail, the terminal facilitates the unloading of cargo in Paranaguá (PR) with greater agility. Since its inauguration, PAR-01 has enabled various gains, including in sustainability. Here are the figures:

- 565,000 tons of shipped volume

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- The use of solar power has the potential to avoid the emission of approximately 11,500 kg of CO<sub>2</sub>eq

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- 97 professionals working directly at PAR-01

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- 30% women in the operation

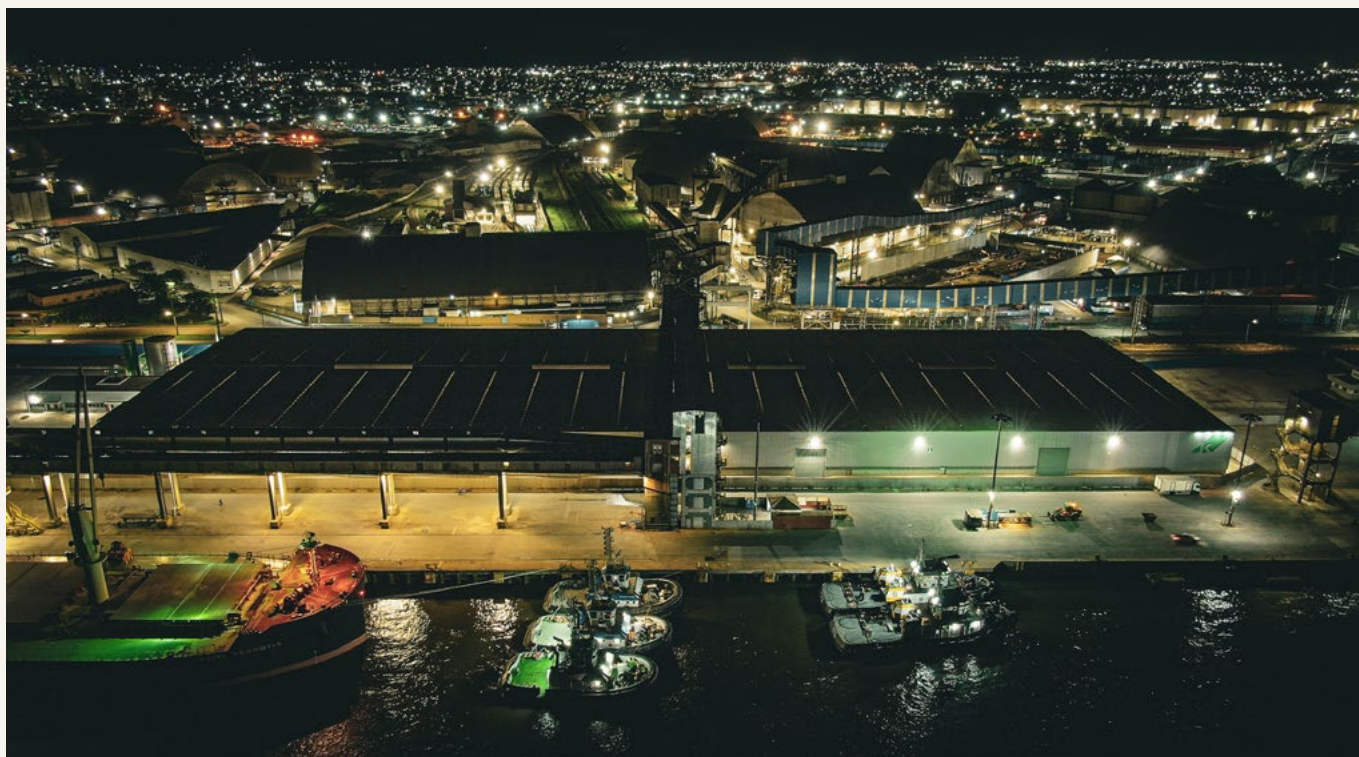
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With the terminal, the Company leveraged the export of pulp and paper from the plants in Paraná and reduced operating costs and greenhouse gas emissions generated by road transport.

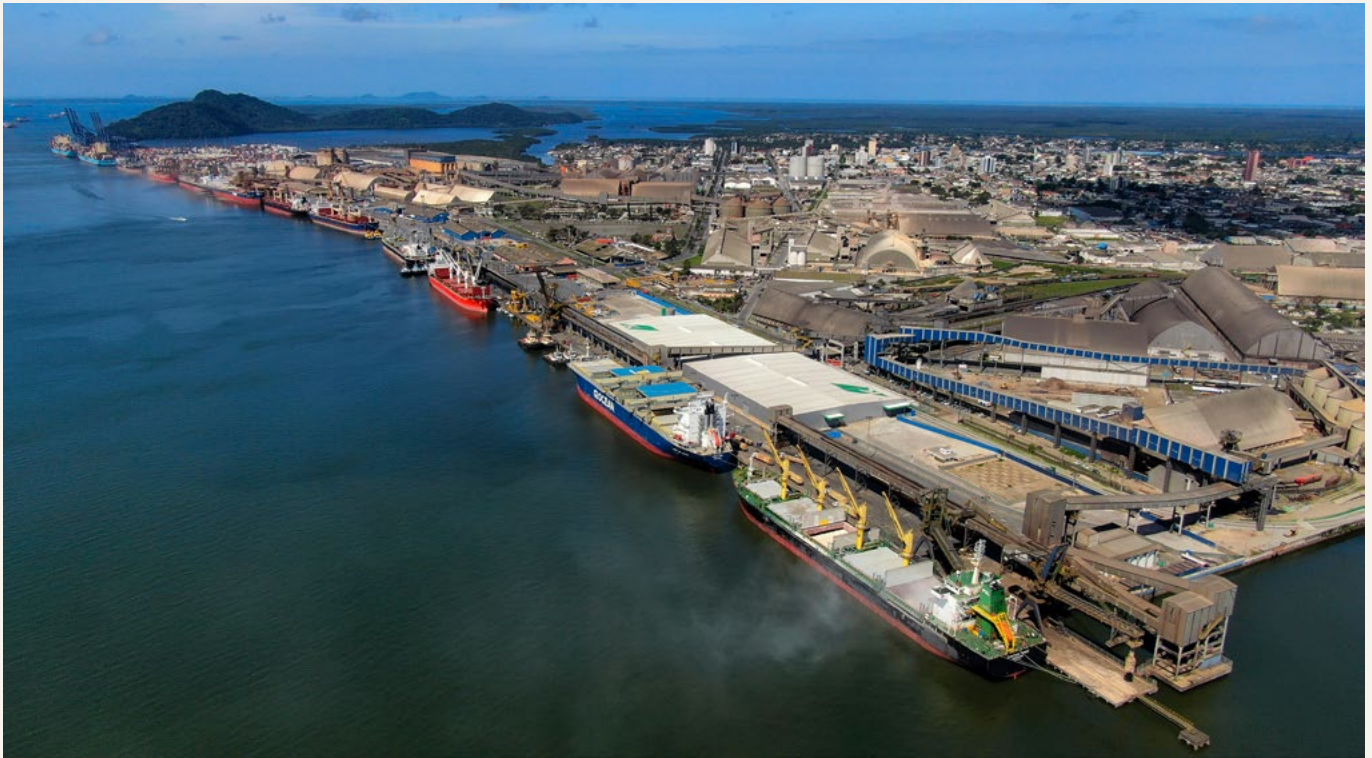




Klabin's Container Terminal (KBT), located next to the Puma Unit in Ortigueira (PR), centralizes the export volumes from the Puma and Monte Alegre plants, which are transported to the Port of Paranaguá.



Paranaguá Container Terminal (TCP), located in the Port of Paranaguá, managed by the company TCP.



Klabin's Port Terminal (PAR-01), located on the commercial pier of the Port of Paranaguá. It allows pulp and paper from the Puma and Monte Alegre plants to be unloaded within the Port of Paranaguá and for the shipment to be made by breakbulk (loose cargo).





**KODS**





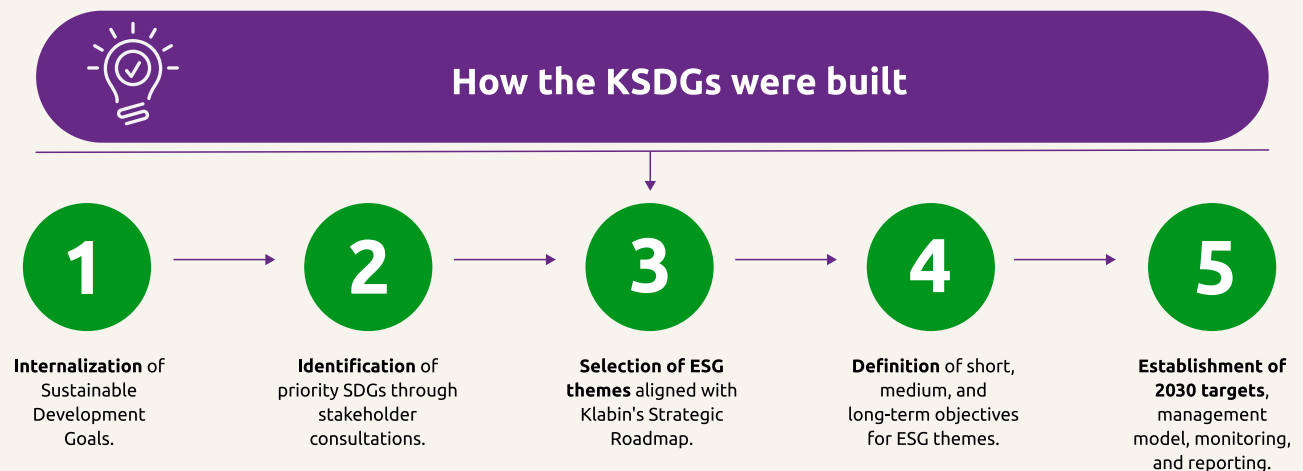
## Commitment to sustainable development

The Klabin 2030 Agenda, aligned with the United Nations Sustainable Development Goals, reflects fundamental aspects of the Company's operations and aspirations.

The Klabin Sustainable Development Goals, known as KODS, which comprise this agenda, are a set of short-term (2021), medium-term (2025), and long-term (2030) targets, established to address the sustainability priorities of the Company and stakeholders that impact and/or are impacted by its business.

## Materiality

Klabin's materiality process was conducted in 2019, with subsequent review and analysis of each identified requirement.












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FUTURESUSTAINABLE  
ECONOMYPROSPERITY FOR  
PEOPLER&D AND  
INNOVATIONESG  
HIGHLIGHTS

The adherence table of KODS with the global 2030 agenda, based on the monitored impact indicators, contains the specific indicators of the Klabin Agenda 2030 goals as well as other relevant and that underpin the management of each theme.

Relevant topics							
Wood availability				% of certified wood consumed		Responsible forest management (including expansion)	
Increased forest yield				% of production areas located in water-stressed areas		Forest productivity index (including expansion areas)	
Energy use					% of renewable sources in the energy matrix		% of certified energy consumed
Water use				% of specific water consumption reduction			
Waste management							% of industrial waste reuse
Climate change		Beneficiaries of the Klabin Caiubi Program		% of production areas located in water-stressed areas	% of renewable sources in the energy matrix		Decarbonization initiatives towards the net-zero 2050 goal
Production and logistics							
Forest certification	% of certified wood used			Percentage of certified wood used			
Ethical conduct and integrity				Environmental fines and sanctions			
Risk management	Resilience strategies linked to Occupational Health and Safety indicators		Strategies for Diversity within the scope of human rights	Resilience strategies for water scarcity risks	Resilience strategies for identified priority risks related to energy consumption	Due Diligence on Human Rights	Resilience strategies developed for decarbonization plan
Local development and impacts on communities		Percentage increase in the Basic Education Development Index (Semeando Educação)		Percentage of restored areas (Matas Legais and Matas Sociais Programs)		Percentage of community acceptance (social license)	
Supplier social and environmental performance	Percentage of critical suppliers assessed by the Supplier Socioenvironmental Management Program			Percentage of critical suppliers assessed by the Supplier Socioenvironmental Management Program	Percentage of critical suppliers assessed by the Supplier Socioenvironmental Management Program	Percentage of critical suppliers assessed by the Supplier Socioenvironmental Management Program	
Products and partnerships with the value chain and circularity				Percentage of water reuse		Number of circularity cases developed in partnership	Percentage of products with completed Life Cycle Analysis
Biodiversity		Number of nature conservation research studies encouraged		Resilience strategies for water scarcity risks		Percentage of wildlife roadkill hotspots with implemented actions	Resilience strategies developed for positive net impact plan
Human capital development		Average training hours				Return on Investment on Human Capital (ROIC)	
Management and engagement of professionals	Programs and benefits associated with employee well-being		Gender pay equity			Percentage of variable compensation linked to sustainability goals	



KLABIN

KODS

CORPORATE GOVERNANCE








RENEWABLE FUTURE

SUSTAINABLE ECONOMY








PROSPERITY FOR PEOPLE

R&D AND INNOVATION

ESG HIGHLIGHTS

Relevant topics							
<b>Klabin's culture</b>	Percentage of favorability in the Climate Survey		Percentage of favorability in the Climate Survey by gender		Succession planning		
<b>Diversity</b>			% of women in leadership positions		% of employees by gender, category, generation, race, and PwD (Person with Disabilities)		
<b>Occupational health and safety</b>	"Severity and frequency rate of accidents; Number of lives impacted; Occupational illness rate; Employee well-being programs and benefits"				Maturity level of units regarding the H&M methodology		
<b>Multiple uses of wood</b>					New businesses accessed through research lines		
<b>Innovation management</b>							
<b>Cybersecurity</b>			Percentage of direct and indirect employees included in the digital literacy program		Implementation of ISO 27001 standards		

Relevant topics							
<b>Wood availability</b>	% of certified wood consumed		"Standing timber (m <sup>3</sup> ) Harvested timber (m <sup>3</sup> )"	Resilience strategies for identified physical and transition risks	% of species dependent on high-quality forest environments		% of wood consumed from certified suppliers
<b>Increased forest yield</b>			Forest productivity index	Resilience strategies for identified physical and transition risks	% of species dependent on high-quality environmental forests		
<b>Energy use</b>			ISO 50001 certification in energy-relevant units	Resilience strategies for identified physical and transition risks			% of partners engaged in climate transition
<b>Water use</b>			% of production in water-stressed areas		% of properties with water and solid waste management	Number of partnerships focused on territorial water security	
<b>Waste management</b>	% increase in income for cooperatives participating in the Solid Waste Program		% of industrial waste sent to landfills	Circularity initiatives implemented			Number of partnerships developed with value chain members
<b>Climate change</b>			% reduction of greenhouse gas emissions (SBTi-aligned)	Resilience strategies for identified physical and transition risks	Resilience strategies for impacts identified by the Biodiversity Plan		Percentage of relevant partners adhering to the Klabin Transition Plan
<b>Production and logistics</b>			Integration of S&OP (Sales and Operations Planning) across all businesses				












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Relevant topics							
<b>Forest certification</b>			Percentage of certified wood used	Percentage of certified wood used	Percentage of identified threatened species		Percentage of certified suppliers
<b>Ethical conduct and integrity</b>		Cases involving the Code of Conduct	Environmental fines and sanctions	Environmental fines and sanctions	Environmental fines and sanctions	Implementation of the Integrity Program	
<b>Risk management</b>	Strategies for the protection and respect of human rights	Strategies for the protection and respect of human rights	Management of items identified by the Socio-environmental Aspects and Impacts Matrix	Resilience strategies for risks related to temperature increase and extreme events	Resilience strategies for impacts identified by the Biodiversity Plan	Due Diligence on Human Rights	
<b>Local development and impacts on communities</b>	Percentage increase in income for cooperatives participating in the Solid Waste Program	Percentage of municipalities with participatory management and public administration programs	Measures of Due Diligence on Human Rights	Volume of recycled waste (Solid Waste)	Percentage of restored areas (Matas Legais and Matas Sociais Programs)	Percentage of public policies created based on the regional Social Progress Index	Implementation of Stakeholder Engagement Procedure measures
<b>Supplier social and environmental performance</b>	Percentage of critical suppliers assessed by the Supplier Socioenvironmental Management Program		Percentage of critical suppliers assessed by the Supplier Socioenvironmental Management Program	Percentage of critical suppliers assessed by the Supplier Socioenvironmental Management Program	Percentage of critical suppliers assessed by the Supplier Socioenvironmental Management Program		Percentage of critical suppliers assessed by the Supplier Socioenvironmental Management Program
<b>Products and partnerships with the value chain and circularity</b>		Percentage of product and packaging recovery	Percentage of recycled fiber	Percentage of raw materials from renewable sources			
<b>Biodiversity</b>		Percentage of species dependent on high-quality forest environments	Trend behavior in the identification of threatened/vulnerable species (monitoring)	Resilience strategies focused on impacts identified by the Biodiversity Plan	Number of rewilding actions conducted		
<b>Human capital development</b>							
<b>Management and engagement of professionals</b>			Financial impact of skills development programs				
<b>Klabin's culture</b>	Percentage of favorability in the Climate Survey by generations		Percentage of favorability in the Climate Survey				
<b>Diversity</b>	% positive perception of respect and equality conditions						Fulfillment of external public commitments related to diversity
<b>Occupational health and safety</b>			Application of the Occupational Health and Safety Management System				
<b>Multiple uses of wood</b>				Renewable solutions developed with socio-environmental benefit			
<b>Innovation management</b>							Implementation of sustainable solutions aligned with business goals
<b>Cybersecurity</b>						Application and indicators related to the Cybersecurity Policy	



## Pillars of the Klabin 2030 Agenda encompass 23 material topics

PILAR	MATERIAL TOPICS
Building a renewable future	<ul style="list-style-type: none"> <li>- Wood availability</li> <li>- Increased forest productivity</li> <li>- Energy use</li> <li>- Water use</li> <li>- Waste management</li> <li>- Climate change</li> </ul>
Helping build a sustainable economy	<ul style="list-style-type: none"> <li>- Production and logistics</li> <li>- Forest certification</li> <li>- Ethical conduct and integrity</li> <li>- Risk management</li> <li>- Local development</li> <li>- Impact on communities</li> <li>- Supplier social and environmental performance</li> <li>- Products and partnerships with the value chain and circularity</li> <li>- Biodiversity</li> </ul>
Prosperity for people	<ul style="list-style-type: none"> <li>- Human capital development</li> <li>- Management and engagement of professionals</li> <li>- Klabin's culture</li> <li>- Diversity</li> <li>- Occupational health and safety</li> </ul>
Technology and innovation	<ul style="list-style-type: none"> <li>- Multiple uses of wood</li> <li>- Innovation management</li> <li>- Information security</li> </ul>

## Adherence to the European Union Taxonomy

In 2023, Klabin hired Sustainalytics Consulting to provide a Second Party Opinion based on the assessment of the Company's activities' adherence to the categories of the European Union (EU) Taxonomy, a detailed classification system defining sustainable economic activities established by EU Regulation 2020/852.



Biodiversity	<p>Conservation forestry, including restoration of habitats, ecosystems and species</p> <p><b>Alignment Level: Partially Aligned*</b></p>	<p>*After the resolution of the European Union Regulation for Deforestation-free Products (EUDR), criteria for full traceability are added to the monitoring and certification method for responsible forest management provided by FSC and PEFC., for which Klabin's compliance is 100%. However, they are still not fully compliant with the requirements of the European Taxonomy. Please access the <a href="#">link</a> to verify the scheduled activity for full compliance.</p>
Forest Certification	<p>Afforestation; Forest management</p> <p><b>Alignment Level: Partially Aligned*</b></p>	
Water Usage	<p>Construction, extension and operation of water collection, treatment and supply; Construction, extension and operation of wastewater collection and treatment.</p> <p><b>Alignment Level: Fully Aligned</b></p>	
Energy Usage	<p>Installation, maintenance and repair of energy efficiency equipment; Installation, maintenance and repair of renewable energy technologies; Installation and operation of electric heat pumps; 4.1 Electricity generation using solar photovoltaic technology; Electricity generation using concentrated solar power (CSP) technology; Electricity generation from wind power; Electricity generation from bioenergy; Transmission and distribution of electricity.</p> <p><b>Alignment Level: Fully Aligned</b></p>	
Climate Change	<p>Rail freight transportation; Road freight transportation services; Rail transportation infrastructure; Research, development, and innovation for direct air CO2 capture.</p> <p><b>Alignment Level: Fully Aligned</b></p>	

## Evolution of the Klabin 2030 Agenda

Advancements in reducing greenhouse gas emissions, increasing the percentage of renewable fuel in Klabin's energy matrix, increasing recycling and reuse of solid waste, reducing water consumption, increasing the number of critical suppliers covered by the Sustainable Supply Chain Management Program, inclusion of municipalities with participatory management, and more women in leadership roles are examples of the company's evolution towards achieving public targets that it committed to reaching by 2030 through the KODS.

The challenge is to maintain the performance of these and other indicators, considering the aspects involved in a growth trajectory like Klabin's. Also highly relevant is the management of indicators related to occupational health and safety, requiring dedicated and continuous effort for the constant improvement of these indices.

Klabin's performance regarding some of these targets can be seen here.



KLABIN

KODS

CORPORATE GOVERNANCE

RENEWABLE FUTURE

SUSTAINABLE ECONOMY

PROSPERITY FOR PEOPLE

R&D AND INNOVATION

ESG HIGHLIGHTS



**ENERGY USE**

Renewable sources accounting for 92% of the energy matrix

**92.3%**



**CLIMATE CHANGE**

To reduce scope 1 and 2 GHG emissions by 25% per ton of pulp, paperboard and packaging by 2025 and 49% by 2035, starting in base-year 2019

**22.7%**



**SOCIAL AND ENVIRONMENTAL PERFORMANCE OF SUPPLIERS**

100% of the units at the most advance management level of the Hearts and Minds methodology or equivalent

**83.1%**



**LOCAL DEVELOPMENT**

100% of the priority municipalities with incentivized participative management

**92%**



**DIVERSITY**

30% of women in leadership position

**25%**



**WASTE**

Zero destination of industrial waste to landfills

**99.3%**



**ENERGY USE**

100% of certified electricity purchased from renewable sources

**99.9%**



**WATER USE**

100% of proprietary forest harvesting operations with hydro-solidarity management

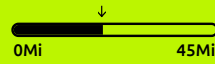
**97.3%**



**CLIMATE CHANGE**

To capture 45 million tons of tCO<sub>2</sub>e from the atmosphere

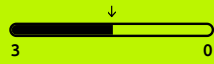
**19.9Mi**



**OCCUPATIONAL HEALTH AND SAFETY**

Employees with significant effects caused by occupational accidents considered very serious and permanent

**6**



To track other indicators, the Company's challenges, and how Klabin manages each topic, checkout the:

[ESG PANEL →](#)



**Governance**  
**corporate**





## Strategic planning

The strategic planning for 2023 was developed with extensive and effective participation from the Executive Board and the Board of Directors. In order for the final project to have a systemic perspective of the Company's context and perspectives, individual interviews were conducted with directors and board members, among other initiatives. This methodology strengthened management and allowed for the definition of guidelines aligned with Klabin's current situation and what is expected from the Company in the near future.

## Indexes and commitments

Klabin is a publicly traded company with shares listed on B3. Remaining in important national and global indices reinforces the commitment to best governance practices and management evolution.

### Abrasca Code

Since 2011, the Company has been following the Abrasca Code of Self-Regulation and Best Practices for Publicly Traded Companies. The document establishes principles, rules, and recommendations that contribute to improving corporate governance practices.

### Level 2 Governance at B3

Differentiated governance practices result in the Company being included in the list of Level 2 Corporate Governance companies on the Brazilian stock exchange.

## Synergy for good management

Although it has been a term frequently used in various contexts in recent years, corporate governance has long been treated with due relevance by Klabin, and it is a constant topic in interactions with investors, managers, and other stakeholders. In summary, corporate governance is the system composed of a set of rules that governs the relationships between employees, managers, and investors, aiming to provide an environment that allows them to fulfill their respective duties and pursue the Company's objectives with the due diligence that their positions require.

The General Shareholders' Meeting is the highest decision-making body of Klabin. The other governance bodies of the Company and their respective roles are detailed below.



#### BOARD OF DIRECTORS

Responsible for setting the business objectives of Klabin and its subsidiaries. Monitors and evaluates the Company's development and performance, elects and evaluates the members of the Statutory Executive Board, and defines their responsibilities, among other duties. The board members meet regularly every two months to evaluate the Company's results and to regularly discuss relevant and/or strategic topics, and extraordinarily whenever necessary.



#### ADVISORY COMMITTEES

Currently, the Company has three committees: the Audit and Related Parties Committee, the People and Culture Committee, and the Sustainability Committee. These are advisory bodies to the Board of Directors and have their duties and responsibilities defined in their respective bylaws, approved by the Board of Directors. The members of these committees are elected by the Board of Directors.



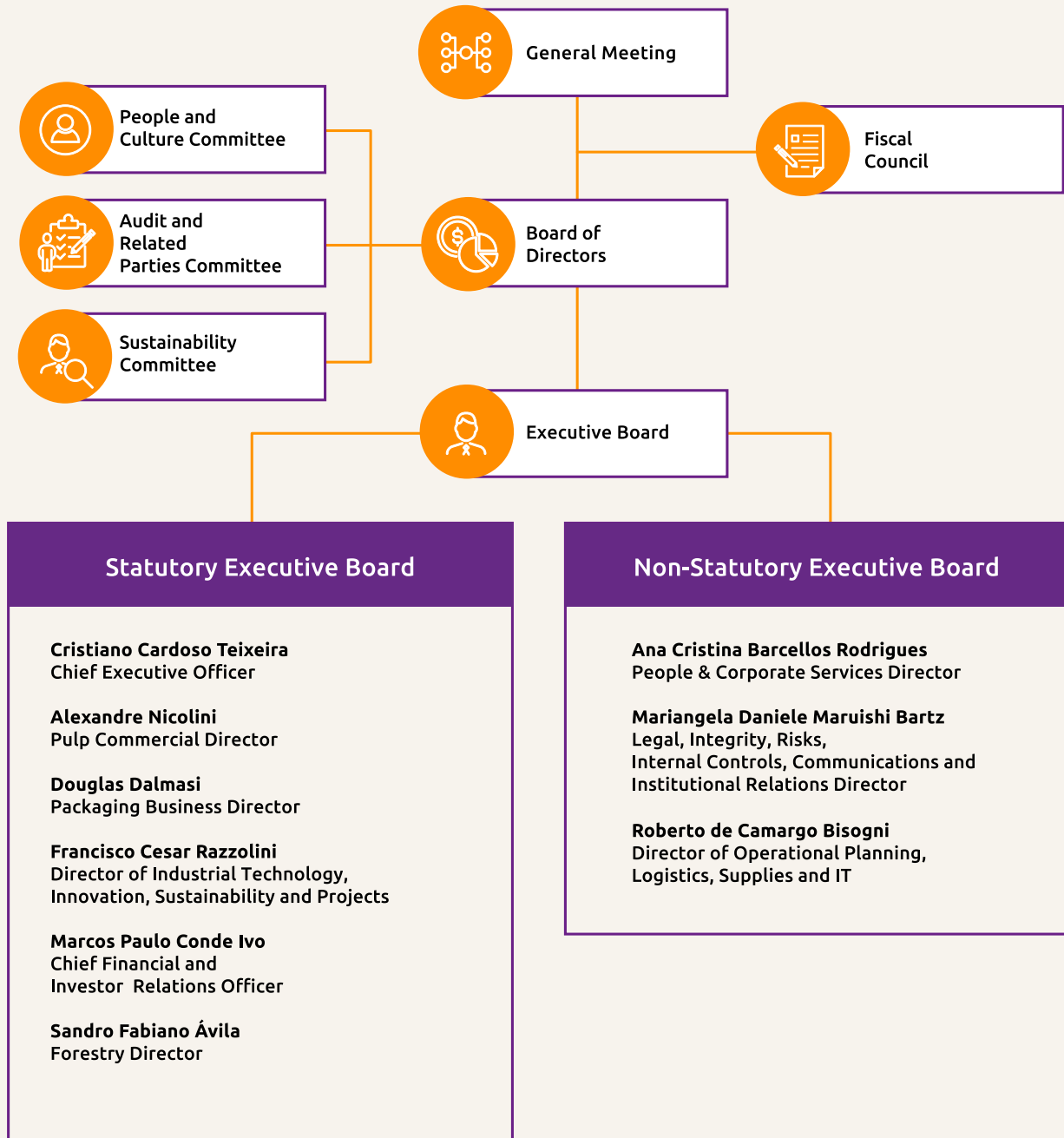
#### EXECUTIVE BOARD

The Statutory Board is composed of the Chief Executive Officer and five other Directors elected by the Board of Directors. Their duties are defined by law and the Company's bylaws. The Non-Statutory Executive Board is composed of three Directors who report to the Chief Executive Officer. Senior management also includes appointed Directors who are not part of the Executive Board, consisting of three Forestry Directors, two Financial Directors, one Project Director, one Paper Commercial Director, one Information Technology Director, and two Industrial Directors.



#### FISCAL COUNCIL

Reviews the financial statements, provides opinions on proposals from the management bodies to be submitted to the general meeting regarding certain matters, and supervises the actions of the administrators, ensuring compliance with their legal and statutory duties.



Access the resumes of Klabin's Board of Directors

**EXECUTIVE BOARD** →



## Composition of Boards and Committees



### **BOARD OF DIRECTORS – FULL MEMBERS 2024\***

Alberto Klabin, Amanda Klabin Tkacz, Amaury Guilherme Bier, Celso Lafer, Francisco Lafer Pati, Horacio Lafer Piva, Isabella Saboya de Albuquerque, Lilia Klabin Levine, Marcelo Mesquita de Siqueira Filho, Mauro Gentile Rodrigues da Cunha, Paulo Sergio Coutinho Galvão Filho, Roberto Diniz Junqueira Neto, Roberto Luiz Leme Klabin, Vera Lafer and Wolff Klabin



### **FISCAL COUNCIL – FULL MEMBERS IN 2024\***

Célio de Melo Almada Neto, Igor Lima, Pedro Guilherme Zan, Sergio Ladeira Furquim Werneck Filho e Tomas Junqueira de Camargo



### **ADVISORY COMMITTEES – FULL MEMBERS 2024**

#### **Audit and Related Parties Committee**

Amaury Guilherme Bier  
João Adamo Junior  
Luis Eduardo Pereira de Carvalho

#### **People and Culture Committee**

Amanda Klabin Tkacz  
Francisco Amaury Olsen  
Marcelo Bertini de Rezende Barbosa

#### **Sustainability Committee**

Maria Eugênia Lafer Galvão  
Pedro Oliva Marcilio de Sousa  
Roberto Luiz Leme Klabin

\*Management and members of the Fiscal Council, elected at the Extraordinary General Shareholders' Meeting, held on April 16, 2024.



## Resolutions of the Board of Directors

Among the highlighted decisions of the Board of Directors in 2023 are the following:

- Acquisition of companies operating forest assets, machinery, and equipment from Arauco in Paraná, Santa Catarina, and São Paulo, with an investment of USD 1.160 billion;
- Approval of a USD 595 million syndicated loan agreement. The funds will be used for the Company's ordinary business.

## Committees taking action

Throughout the year, the Advisory Committees worked to support the management of various topics:

### Comitês em ação

PEOPLE	NUMBER OF MEETINGS IN 2023	TOPICS ADDRESSED
Audit and Related Parties Committee	19	<ul style="list-style-type: none"> <li>• Hiring and dismissal of independent auditors</li> <li>• Quarterly Information</li> <li>• Internal Controls</li> <li>• Internal Audit</li> <li>• Compliance</li> <li>• Risk Policy</li> <li>• Related Parties Policy</li> <li>• Hedge Policy</li> <li>• ESG Risks</li> </ul>
People and Culture Committee	16	<ul style="list-style-type: none"> <li>• Talent Management Policies</li> <li>• Organizational Structure</li> <li>• Succession</li> <li>• Culture</li> <li>• Directors' Compensation</li> <li>• Variable Compensation Program</li> <li>• Directors' Compensation Survey</li> <li>• Monitoring Corporate Goals</li> </ul>
Sustainability Committee	9	<ul style="list-style-type: none"> <li>• Monitoring sustainability issues with an emphasis on environmental and social responsibility, such as social programs, circular economy, carbon credit projects, biodiversity, water stress areas.</li> <li>• Sustainability Indicators</li> <li>• Carbon reduction targets</li> <li>• Reports related to sustainability</li> <li>• Results of Corporate Social Responsibility evaluation in the Supply Chain</li> </ul>





## Accessible information for consultation

It is a priority for Klabin to disclose its information in a consistent and transparent manner. The Company's performance is presented through the disclosure of quarterly results and Financial Statements – according to the International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board (IASB) –, as well as the ESG Panel, created in 2021, and the Sustainability Report, published since 1999.

### Learn more



[Investor Relations Website](#)



[ESG Panel](#)

## Close relationship with investors

In the last five years, Klabin's individual shareholder base has grown significantly, reinforcing the Company's solid trajectory on the Brazilian stock exchange. This profile shift has been accompanied by efforts to make communication with this audience ever closer and more accessible.

An example of this is the Investor's Pocket Guide. The material presents the Company, its business model and products, explains the difference between Klabin's shares, how dividend distribution works, and highlights channels for communication with the shareholder. The simple and didactic language allows the investor to understand the Company's operating context.

The Shareholder's Manual, a publication that presents relevant information to the shareholder for the General Meeting, has also evolved. The material's accessible content and attractive design prepare the investor for decision-making.

Another initiative that brings individual investors closer to the Company's universe is the Klabin Blog. The page covers topics relevant to the Company, such as sustainability, business, e-commerce, technology, and innovation.

On the Investor Relations website, the public has access to the Company's key information, such as corporate structure, studies, codes, policies, financial and dividend reports, ratings and analyst coverage, in addition to its own content tailored to investors through Klabin Invest.

For Klabin, it is essential to continue engaging the individual shareholder and presenting the results and commitments that differentiate the Company in the market.



## Learn more



[Investor's Pocket Guide](#)



[Shareholder's Manual](#)



[Klabin Blog](#)



[Klabin Invest](#)

## Growing confidence

In mid-2023, Klabin reached the milestone of 500,000 individual investors on the Brazilian stock exchange. To celebrate this achievement, the Company launched the campaign "Klabin, 500,000 investors on B3. Result of good actions for the future" across its channels and social media platforms. The key messages of the campaign were crafted based on research conducted with shareholders, revealing the main factors that influenced investors to choose Klabin. These factors include forward-looking vision, transparent communication, tradition, and strong financial results. Throughout the second half of the year, Klabin continued to expand its investor base and ended 2023 with over 600,000 individual investors on B3.

Click [here](#) and watch the video that celebrates the milestone.



*The Industrial Complex of the Puma Unit in Ortigueira (PR)*

## Risks and internal controls

Managing risks is an ongoing task that must be embedded in the Company's day-to-day operations. The daily monitoring of events that may occur involves various areas and multidisciplinary groups. This process reinforces good practices and matures management as a whole.

Klabin encourages all employees, regardless of hierarchical levels, to act responsively and participatively in decision-making processes. This is even one of the KODS. With the support of the Risk Management Policy, Klabin seeks to align the Company's strategic objectives with a framework that is in line with the best market practices.

Risks are assessed by the Company according to their level of criticality, which is defined based on an analysis of possible impact and vulnerability. The levels are established according to standardized and internally validated criteria. The internal methodology classifies risks into five categories:



#### COMPLIANCE, REGULATORY AND LEGAL

Risks related to compliance with applicable laws and regulations



#### STRATEGIC

Risks that affect the strategic objectives and can be influenced by external factors, but also subject to internal factors



#### FINANCIAL

Risks that may impact the Company's cash flow, its financial statements, and access to capital



#### OPERATIONAL

Risks related to the Company's and its subsidiaries' infrastructure (processes, people and technology), which affect their operational efficiency and the effective and efficient use of their resources



#### SOCIAL AND ENVIRONMENTAL

Risks arising from acts or events that may result in negative effects on the environment and society, with impacts on native peoples and communities and protection of human health, cultural property, and biodiversity

The discussions on risks are subdivided into reducing, transferring and/or sharing, retaining, or accepting. The Risk Management Policy determines the roles of each of the different governance bodies, including the Board of Directors, the Audit and Related Parties Committee, the Executive Board, the Risk Committee, and the Risk and Business Continuity Department, in each of the business areas and their equivalents.

In order to ensure that the main risks inherent to the Company's activities are identified, assessed, treated, monitored, and communicated at both the strategic and operational levels, the following steps have been established:

## Risk management



### FIVE-STEP RISK MANAGEMENT

**Identification** - identifying risks and understanding their characteristics

**Classification** - determining the origin of events (external and internal)

**Evaluation** - assessing the criticality of risks, based on the respective potential degrees of impact and vulnerability

**Treatment** - deciding how to address each potential risk in order to structure action plans

**Monitoring** - a continuous process of analysis, regular follow-up and reporting of potential risks according to their criticality



### MONITORING GOVERNANCE

Monitoring and reviewing risks and action plans

Defining and monitoring key risk indicators (KRIs)



## Business continuity



### BUSINESS CONTINUITY PLAN (BCP)

Establishes procedures for the resumption of an organization's activities following a crisis that impacts and/or disrupts operations



### OPERATIONAL CONTINUITY GOVERNANCE

Establish procedures to develop processes for reviewing, updating and maintaining documents related to the Business Continuity Plan

## Risk management highlights in 2023

In 2023, several initiatives were developed to promote a risk assessment and prevention culture, among which the following stand out:

- Review of procedures for document formalization and storage;

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- Continued implementation of the Business Continuity Plan (BCP). Nine plants now have the instrument;

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- Execution of 11 production shutdown drills in manufacturing units already equipped with the BCP;

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- Completion of the implementation of IB Solutions, software that automates the process of enforcing action plans and allows management to quickly view the risks of each area;

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- Risk Management Training on the Klabin Business School (ENK) Portal, attended by over 350 employees;

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- Development and publication of the Business Continuity Plan (BCP) training on the ENK Portal, attended by more than 200 employees;

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- Continued dissemination of the risk prevention culture through internal communications to all Company employees.

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## Internal controls

Procedures, policies, approval authorities, evaluation and monitoring of audit reports, process mapping, and integrity assessments are some of the instruments used by Klabin for internal risk control.

In 2023, the Klabin Normative System CA Policy was approved by the Board of Directors. This document guides the creation, modification, and approval of new internal regulations within the Company and establishes criteria for their standardization. It establishes a hierarchy among internal regulations with the aim of systematizing and avoiding conflicts between norms, reinforcing the Company's governance process. The work began in 2021 with the compilation of all Klabin's internal regulations. After outlining a general overview of these internal regulations, conducting benchmarking, and identifying the appropriate structure for the Company's activities, considering the complexity of its businesses, the policy was submitted to the competent governance bodies. Based on an established schedule, all internal regulations of the Company will be reassessed and, where applicable, adjusted based on this new policy.

Other highlights of the year:

- Beginning of the implementation of an electronic system that stores normative documents and allows traceability of files. This system also establishes approval flows and allows previous versions to be consulted. Throughout 2024, all documents undergoing review will be incorporated into the system;
- Mapping of controls related to the issuance of financial statements. In 2023, 54 financial reports were issued, totaling 720 control processes;
- Completion of 100% of the effectiveness tests related to internal control processes;
- Implementation of monitoring of approvals settings and strategy and registration of approvers in the SAP System;
- Support for the Smart Project to ensure that controls and recommendations are implemented in the new system.

Learn more about the project in:

[INFORMATION TECHNOLOGY →](#)



## Strengthening of the Integrity Program

Klabin's Integrity Program continues to evolve through projects and instruments that seek to strengthen good practices and consolidate a culture of integrity. The aim is to engage employees and constantly advance the guidelines on the subject.

The evolution of the integrity culture is reflected in the Company's achievement of the maximum score in the Business Ethics category of the Dow Jones Sustainability Index. Klabin's commitment to the topic has led to a gradual improvement in its score over the years, positioning it as a benchmark in the market.

One of the pillars of the program is the training of internal staff. By 2023, the Company had achieved 70% employee adherence to the Code of Conduct Training, surpassing the 64.1% achieved by 2022. The Integrity area has been working together with the People and Management team to boost engagement.

Another highlight was the adherence of 91% of employees in the Commercial and Procurement areas to the Competition Training, a focus of the Company for audiences with greater interaction with the topic.

Since 2021, Klabin has been promoting campaigns to combat moral and sexual harassment in all its units. The initiative is implemented through workshops, training tracks, and supporting materials for management.

As a way to promote good practices related to ethical issues, in 2022, the Integrity department, in partnership with the Communications team, developed the "Integrity Game". This online game invited employees to solve puzzles based on their knowledge of ethical and integrity issues and the Code of Conduct. In 2023, the initiative won the 49th edition of the Brazilian Association for Business Communication (**Aberje**) Award, in the "Ethics, Integrity, and Compliance" category for the São Paulo regional office.



*Klabin employee in Paraná*



## Reporting channel

Since 2019, Klabin has had an exclusive channel for receiving and handling reports and suspicions of violations of the Code of Conduct, the Integrity and Ombudsman Channel, which is managed by a third-party independent company.

Reports can be made anonymously or identified and whistleblowers in good faith are protected from retaliation. Checks and investigations are carried out confidentially in partnership with the leadership and the People and Management and Internal Audit areas.

In 2023, the channel, which can be accessed by all of Klabin's stakeholders, experienced a 47% increase in the total volume of reports received compared to 2022. The percentage demonstrates the initiative's reach in the Company's operations.

### Integrity and Ombudsman Channel

Website: [canalintegridadeeouvidoria.com.br/klabin](https://canalintegridadeeouvidoria.com.br/klabin) (select the preferred language).

0800 718 7814 – Brazil.

0800 222 0545 – Argentina.

## Cybersecurity reinforcement

The democratization of technology usage within Klabin is important for business competitiveness. However, the entire process must be conducted in a secure manner as far as systems and information are concerned. To guide the Company in building a cybersecurity culture, Klabin has guidelines on posture, best practices, and necessary duties for preventing and mitigating cyber risks and attacks. The content is based on the ISO 27001 and IEC 62443 standards. Among the main actions on this front is the integration of cybersecurity into the manufacturing environment, with a focus on increasing the maturity of various processes.

Currently, Klabin is covered by cyber insurance, which, in addition to being an extra layer of protection, can be considered an external endorsement of the Company's cybersecurity processes.

### In-house training

One of the KODS targets is to include 100% of direct and indirect employees in the digital language by 2030. The path to achieving this goal involves a comprehensive plan that encompasses lectures, workshops, dissemination of security videos, and attack simulations. The process is cyclical, constant and can be updated as new risks are mapped.

All of Klabin's own professionals must complete a cybersecurity training track available on the ENK Portal. Third-party employees, on the other hand, are introduced to the subject through a video presented at the time of integration.

In 2023, Klabin made progress in the rates of adherence to cybersecurity training:



# 89%

of direct employees were trained

# 40%

of indirect employees were trained

Additionally, three basic courses have been created and made available on the ENK Portal to qualify Automation team members. From now on, training will be required for new professionals of this area.

## Advances in infrastructure

The start-up of the PM28 operation required efforts to prepare the industrial infrastructure and ensure equipment connectivity. To do so, it was necessary, for example, to double the bandwidth available in the offices.

Before the Covid-19 pandemic, Klabin had already begun an important movement of data migration to the cloud and continued the process over time. The initiative, which was fundamental to sustaining the Company during the remote working period, enabled advances in mobility and connectivity in various projects.

## Projects

In 2023, Klabin created important initiatives for improving processes related to Information Technology and continued existing ones:

### Smart Project

The initiative aims to review the Company's processes, with a focus on simplification and standardization in pursuit of operational efficiency, based on the SAP S/4HANA technological platform. The journey includes the transition to a more analytical approach, with a focus on market best practices and customization to achieve competitive advantages.

In the first half of 2023, opportunities for business and improvements that could support the project were identified. The team of experts is now focused on delivering the foundation that will support Klabin's growth over the next decade. Use of the new system is expected to begin in 2025.





### K2 Project

This initiative consists of implementing a recognized software solution in the corrugated board market, Kiwiplan. It helps to increase productivity, reduce waste, and improve on-time delivery to customers. Additionally, the system allows full-time tracking of orders and the review and standardization of processes in the packaging plants.

The software was implemented in late 2022 at the Piracicaba Plant (SP) and it was also used in Jundiá Industrial District (SP) and Betim (MG) in 2023. The results in all the plants are currently being evaluated. It is expected that the Figueira Project will also start operating with the implemented system.

### Focus Project

This initiative outsources IT commodity services such as Help Desk and support services. The hiring of a specialized Company brings more diversification in the modes of service and allows the IT team to focus on executing strategic services, such as efficiency and expansion projects. The outsourced team took over in December 2023.

The search for efficiency goes hand in hand with governance and ensuring the controls required by the nature of the Company. Therefore, every improvement implemented considers the cross-functionality of processes and the actual benefits of their adoption.



**Future  
renewable**



## Responsible performance

The commitment to sustainable development is present in all of Klabin's business fronts. Achieving and maintaining positions on global lists, such as the **Dow Jones Sustainability Index (DJSI)**, which the Company has been a part of for four consecutive years, and the **CDP**, with a Triple A rating for the third year in a row, helps to highlight these efforts towards the best environmental, social, and governance practices in its sector. It is also a challenge that drives Klabin to seek new opportunities to maintain its high performance in this context.

Aspects related to climate, water resource management in water-stressed regions, transition to a circular economy, and management of impacts on biodiversity are part of the Company's business strategy and are among the priority topics of the Klabin 2030 Agenda, gathered in the Klabin Sustainable Development Goals (KODS).



*Klabin Ecological Park, in Paraná: positive impacts on biodiversity are part of the business strategy.*

## Climate transition strategy

The Klabin 2030 Agenda prioritizes climate management among its key topics. In 2023, an important step in facing this issue was the launch of the company's Climate Transition Plan. The document, available on the **IR website**, the **ESG Dashboard** and the CVM website, consolidates information on Klabin's climate mitigation and adaptation goals and actions. It summarizes the management of the problem within the Company and its initiatives to achieve decarbonization goals, including the net-zero commitment and the submission of a new target to the Science Based Targets initiative (SBTi) for transitioning to the 1.5°C scenario, considering a reduction to the Company's absolute scope 1, 2 and 3 GHG emissions.

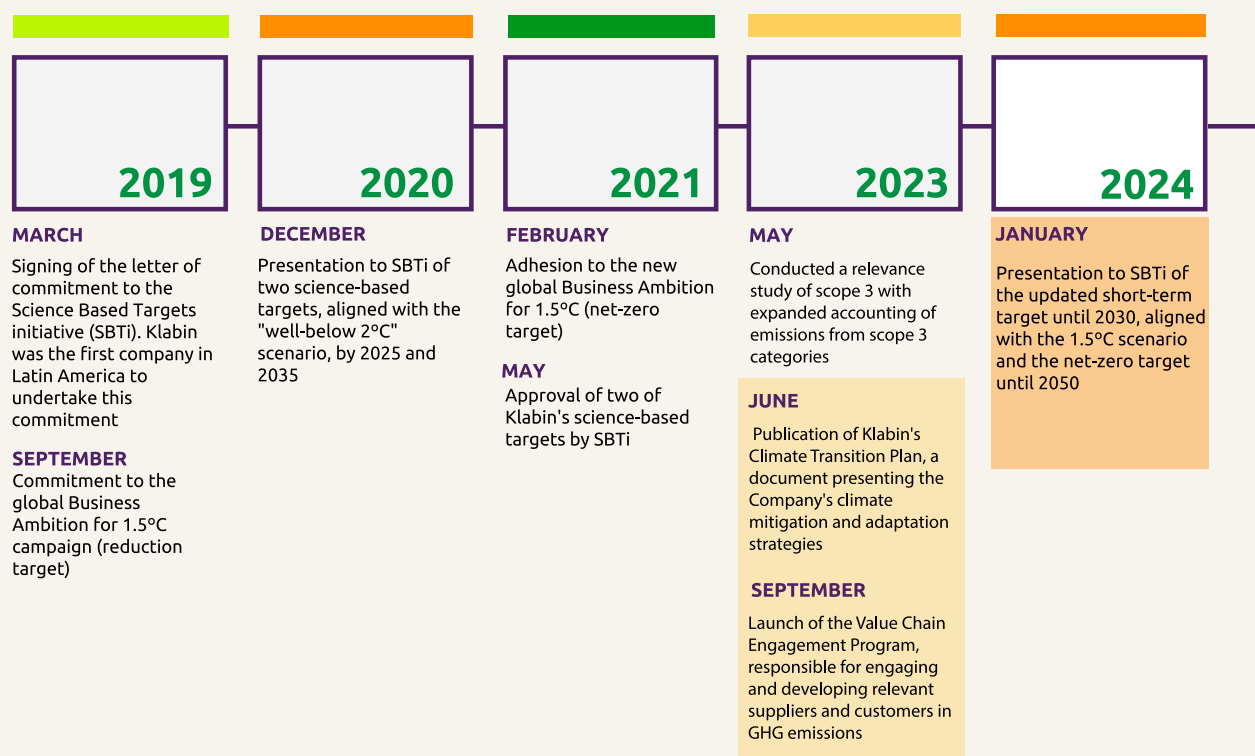
The document also meets a criterion of the CDP, a global information platform for investors: transparency and accessibility of the **Climate Transition Plan** to stakeholders.





Achieving corporate net-zero emission targets means reducing scope 1, 2, and 3 emissions to zero or to a residual level (a reduction of at least 90%), consistent with achieving global or sectoral net-zero emissions in eligible 1.5°C scenarios or sectoral pathways, and neutralizing any residual emissions by the net-zero target date and any greenhouse gas emissions released into the atmosphere thereafter.

## Historical commitment to the climate





## Climate Transition Plan at a Glance

### GOVERNANCE

The agenda of the Board of Directors includes climate change issues. ESG targets are linked to the variable compensation of executives.

### RISK MANAGEMENT AND OPPORTUNITIES

Scenario analysis identifies and assesses the impact of climate risks and opportunities on business performance.

### STRATEGIES FOR TRANSITIONAL AND PHYSICAL RISKS

Resilience and financial planning are Klabin's strategies to manage the transitional risks associated with regulatory change.

### METRICS AND TARGETS

Klabin's GHG inventories are verified annually by an independent third party. The update of the science-based targets takes into account the 1.5°C increase scenario and the inclusion of new scope 3 categories based on business relevance.

### DECARBONIZATION STRATEGY

Replacing fossil fuel consumption with renewable fuels in the Company's operations. Engaging suppliers and customers is part of Klabin's decarbonization strategy, which includes emissions from the entire value chain.

Learn more at:

[CLIMATE TRANSITION PLAN](#) →

## Public climate commitments

### TCFD

#### TCFD

Since 2020, the Company has been following the recommendations of the TCFD, disclosing current and potential risks arising from ongoing climate change, and also incorporating into its strategy and financial planning the business opportunities presented in this scenario.



#### SBTi

The initiative establishes methodologies to help companies design emission reduction targets based on climate science and sustainable economic development.



#### NetZero ImPact Movement

The result of a partnership between Klabin and the Brazil Network of the UN Global Compact. Its purpose is to invite companies to evaluate the adoption of science-based GHG reduction targets and encourage society to engage in the sustainability cause.





### Business Ambition for 1.5°C

UN campaign that gathers about 200 companies worldwide to limit the temperature increase on the planet to no more than 1,5°C until 2030. Klabin is among the initiative's 11 participants in Brazil.



### We Mean Business

Since 2021, Klabin has been part of the global coalition that brings together the business sector to control the effects of global warming. The initiative proposes the establishment of a low-carbon economy.

## Low carbon technologies

The adoption of **low-carbon technologies** is one of Klabin's action fronts for reducing greenhouse gas emissions. The Marginal Abatement Cost Curve (MACC) is an important tool used to identify, in a practical manner, the technological options under study, their costs, and potential greenhouse gas (GHG) emission mitigation.

An example of this type of technology is the **biomass** gasification plant installed at the Puma Unit in Ortigueira (PR), which resulted in approximately 56,000 tons of **CO<sub>2</sub>eq** avoided during operation in 2023. The technology enables the replacement of fossil fuel usage with syngas, a gas generated from wood biomass, increasing the share of renewable fuels in the Company's energy matrix.

Learn more at: [EMISSIONS MANAGEMENT](#) →

## Main challenges

- The new emissions reduction target submitted to the SBTi poses the challenge of reducing 42% of absolute emissions from scopes 1, 2, and 3 by 2030, with a base year of 2022.

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- The commitment to limit the Earth's temperature increase to 1.5°C, which Klabin has joined, is challenging, considering that there has already been a 1.1°C rise since the pre-industrial period. (Source: IPCC)

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- Klabin undertakes the commitment to revise its targets, which are quite challenging, whenever, considering its growth strategy, a project has the potential to significantly increase GHG emissions.

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- Engagement and development of relevant suppliers and clients in the Company's value chain emissions reduction plan.

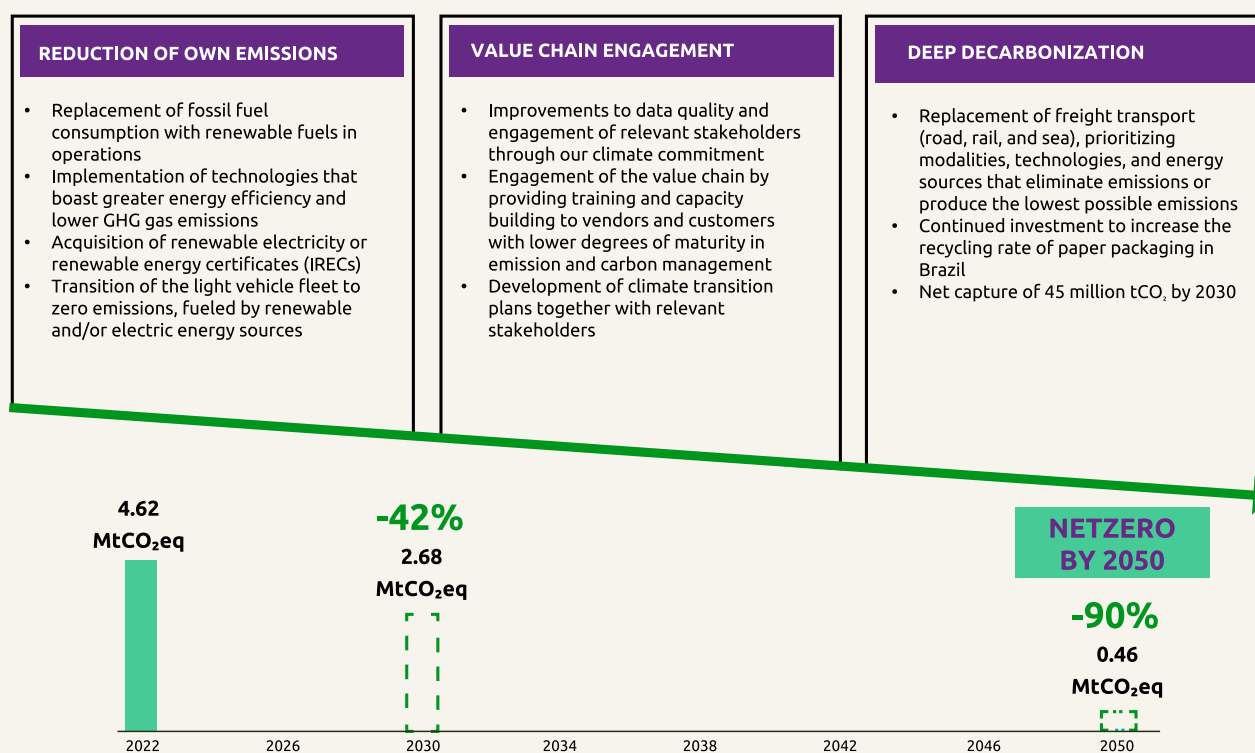
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## Decarbonization strategy

Klabin's emission reduction targets cover nine relevant scope 3 categories, which include the value chain. Thus, the Company's decarbonization strategy encompasses an engagement plan for stakeholders involved in this chain – relevant suppliers and customers. It comprises five stages, according to the maturity of each participant's carbon emissions management: prioritization, assessment, commitment, training, and monitoring.

### NetZero Journey



## Emissions inventory

Klabin's greenhouse gas emissions inventory is conducted in accordance with the specifications and methodology of the **Brazilian GHG Protocol Program**, including direct and indirect emissions from industrial and forestry operations, based on scopes 1, 2, and 3. In 2023, the Company completed mapping and calculating the GHG emissions of all the scope 3 categories relevant to its business.

As a result, it expanded its scope 3 emissions by adding the categories of purchased goods and services (category 1), fuel- and energy-related activities not included in scopes 1 and 2 (category 3), processing of sold products (category 10), and end-of-life treatment (category 12), increasing the reliability and transparency of the disclosed data. The work was also fundamental in submitting the updated target to the SBTi, within the NetZero journey, which implies reducing emissions by at least 90% by 2050.



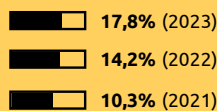
# 141.66kg CO<sub>2</sub>eq/t\*\*

Specific GHG emissions (scopes 1 and 2)



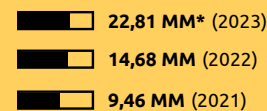
# 17,8%

Reduction of GHG emissions (scopes 1 and 2), considering 2019 as the base year



# 22.81MM tCO<sub>2</sub>

Net CO<sub>2</sub> capture



It is worth noting that for the calculation of net CO<sub>2</sub> capture, the calculation base of 2020 is used, the year in which the target was established. Therefore, scope 3 emissions only consider GHG emissions from categories 1, 3, 4, 5, 6, 7, and 9, without considering maritime emissions. The new scope 3 categories included in 2022 are not part of the net capture target until 2030.

## Management of atmospheric emissions

Klabin monitors all legal parameters for atmospheric emissions from stationary sources in its operations, such as nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), sulfur oxides (SO<sub>x</sub>), and volatile organic compounds (VOCs), among others. All production units have atmospheric emissions control equipment and systems, with the aim of reducing the impacts of their operations. In addition, monitoring systems (continuous or discontinuous) are implemented at emission sources in order to comply with all applicable environmental requirements.

The Company applies federal legal requirements to all emission sources, except for units where specific state legislation applies and/or emission limits established in environmental licenses.

## Life cycle analysis

Currently, 100% of Klabin's pulp and paper products undergo **Life Cycle Analyses** (LCAs), **carbon footprint**, and **water footprint analyses**. Progressively, the Company has been advancing in the development and updating of its studies, contributing to a more sustainable portfolio, including other products from packaging and recycling plants, fostering actions to mitigate environmental impacts, and encouraging customers and partners to take similar initiatives.

“Some customers have approached us to work together and evaluate how much our packaging has contributed to reducing the carbon footprint in their companies in recent years, which I consider a clear demonstration of value delivery.”

**Douglas Dalmasi**  
PACKAGING BUSINESS  
DIRECTOR



## Klabin's energy matrix

Klabin has been evolving towards an increasingly renewable energy matrix. In 2023, it reached 92.6% of fuels from renewable sources, surpassing the KODS target of 92%. The challenge until 2030 is to maintain the gains and continue reducing the use of fossil fuels. Factors that contributed to the indicator include a reduced consumption of non-renewable fuels, such as fuel oil (in the pulp and paper plants) and natural gas (in recycled paper operations).

Currently, Klabin is considering increasing the ambition of the target, even in the face of challenges related to the availability of viable technologies. Its priorities always consider its decarbonization planning and journey.

THE COMPLETION OF

# three

for the use of bio-oil in the lime kilns at the Monte Alegre Plant resulted in the approval of replacing heavy oil with this fuel in the equipment.

EMISSIONS OF APPROXIMATELY

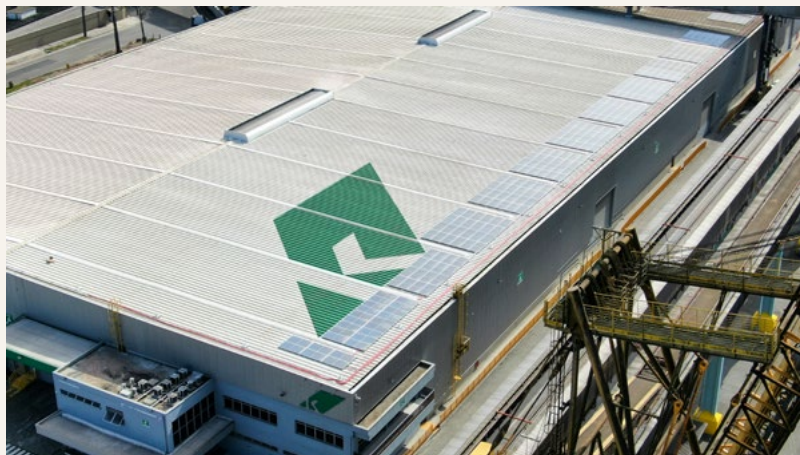
# 56,000

tons of CO<sub>2</sub>eq were avoided in 2023, with the full operation of the biomass gasification plant at the Puma Unit in Ortigueira.

THE ACHIEVEMENT OF

# 92.6%

renewable sources in the energy matrix indicates improvements to operational controls, reducing the demand for fossil fuel consumption in the Company.



### Solar power plant in Paranaguá

In 2023, Klabin inaugurated the first solar power operation built within a port terminal in Brazil. The project has the potential to generate around 270 MWh/year, with an estimated reduction of 11,500 kg of CO<sub>2</sub>eq emissions annually.

## Water security management

The hydrosolidarity forest management methodology focusing on territorial water security, pioneered by Klabin in the industry, aims to contribute to the protection of micro-watersheds and the water security of the communities surrounding the forestry units.



The strategy aims to achieve a balance between forest production and water production, considering the integration of different needs for the input, including neighboring communities and ecological processes.

This **water-secure management** begins in the forestry planning stage, which takes into account the micro-watersheds and neighbors' water catchment points. It has already been implemented in the Company's forest units in Paraná and Santa Catarina, and in 2023, Klabin mapped, delimited, and built the flow of watersheds in the units in the state of São Paulo, with the expectation of implementing the methodology in 2024.

## Water consumption

A 20% reduction in specific water consumption by 2030, based on the year 2018, is one of the KODS targets. Specific consumption is the result of subtracting the amount of effluent treated and returned to the source from the amount of water withdrawn from the source.

The implementation of initiatives to increase territorial water security in all locations where the Company operates is also one of the targets of the Klabin 2030 Agenda. An area is internally referred to as water-stressed when it reaches rates of more than 20% of the ratio between the total amount of water withdrawn annually and the annual renewable supply available. For this control, Klabin monitors its units using the WRI Aqueduct tool, which allows prioritizing actions needed to prevent impacts in more vulnerable territories.

To detect the risks related to water dependence and consumption in water-stressed areas, Klabin prepared a report on monitoring the flow of rivers and the volume of rainfall in the regions where the plants are located, aiming to anticipate possible water shortage scenarios and identify alternatives. This report is monitored by the Water Management Working Group which, in addition to supporting the strategic management of this resource, helps define the actions needed to minimize impacts in these regions and identify opportunities to reduce water use at the Company.

The results obtained during the year are generally directly affected by the start-up and commissioning process of the Company's new operations. By 2024, these operations should reach stability, after having achieved the projected capacity. The continuous monitoring of water consumption in Klabin's activities will be maintained to ensure the permanence of good results. The Company reinforces its commitment to achieving the target of reducing specific water consumption by at least 20% by 2030.





# 97.3%

of forest harvesting operations under water security management

# 29.8%

reduction in specific industrial water consumption

# 74%

of locations with initiatives to increase water security

## Effluent management

Before being returned to water bodies or directed to the municipal treatment system, 100% of Klabin's industrial process effluents are treated in Effluent Treatment Plants (ETPs) and monitored both internally, by the Company itself, and externally, by certified and accredited companies, with quality results verified by external audits.

The minimum effluent disposal standards are based on municipal, state, and federal legislation for each unit. The Company also benchmarks its indicators with those of the International Finance Corporation (IFC), which provides parameters for the global pulp and paper sector. In order to determine the maximum discharge limits for new relevant projects, Klabin conducts water dispersion and self-depuration studies of the water body to determine the limits that will not cause impacts on water quality and water availability in the regions where the plants are located.



98.7%

of the total water withdrawn in 2023 was used in pulp and paper production operations



The Puma Unit has the installed capacity to treat all its industrial effluents in the tertiary treatment plant, meeting the most stringent standards, such as those of the IFC

## Challenges

Water resource management is a constant challenge for forestry and industrial operations, especially in regions facing water stress. Klabin has been studying methodologies to quantify the positive impacts of water resource management on the preservation of native forests and water quality in micro-watersheds.

The Company continues to face the challenge of optimizing water use, considering the planned production increases with expansion in the coming years.

As with the management of aspects related to climate change, Klabin wants to promote the engagement of various stakeholders in this area. In 2023, the main theme of the Klabin Caiubi Program, focused on environmental education, was water security, reinforcing with municipal schools in the regions where it operates the importance of preserving water resources.

Learn more about the Klabin Caiubi Program at:

[SOCIAL INVESTMENT →](#)

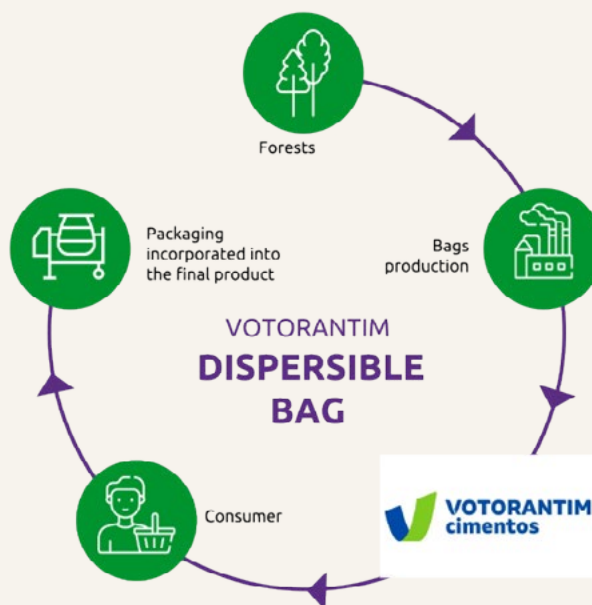
## Circularity and involvement of the value chain

With the target of eliminating the disposal of industrial waste in landfills by 2030, Klabin has been working to increase circularity in its processes. The adoption of smart natural resource consumption practices and the use of technology create value throughout the supply chain.

The Company's waste management is guided by internal guidelines and policies, as well as applicable federal, state, and municipal legislation, which is monitored and followed up by actions that demonstrate compliance with the rules.

The structuring of the circularity procedure stands out in 2023, aiding the Company in decision-making regarding circular economy projects that represent opportunities for the entire value chain. With this, Klabin is expanding its partnerships to include, in addition to customers, other stakeholder groups, such as suppliers, which is in line with the goal of conducting ten circular economy benchmarking cases in partnership with stakeholders by 2030. Three are currently underway.

**The Ecomix bag for cement and mortar, developed in partnership with Votorantim Cimentos.** The product is made up of 100% dispersible paper and is integrated into the concrete preparation process, consequently eliminating the generation of packaging waste. The Ecomix bag continues to expand in Klabin's portfolio, serving both domestic and foreign markets, in response to the demand for a low-carbon circular economy.



**The long-life packaging recycling process in partnership with Tetra Pak** aims to increase the installed capacity for recycling the product in Brazil. The recycled fiber, which is of high quality for the manufacture of packaging, is used in the production of Klabin's recycled paper, while the polyal (polyethylene and aluminum) supplies manufacturers of other products.



**Packaging recycling in partnership with M. Dias Branco**, a food industry player. The pre- and post-consumer chips generated in the customer's operation are collected and returned to the manufacturing process of new packaging by Klabin, and are later sold to both M. Dias Branco and other customers.





## Circular economy for Klabin

The procedure adopted by Klabin to recognize a circular economy project defines a series of circularity criteria and establishes four categories. The project must meet at least one of the criteria and be eligible for classification in one of the categories.



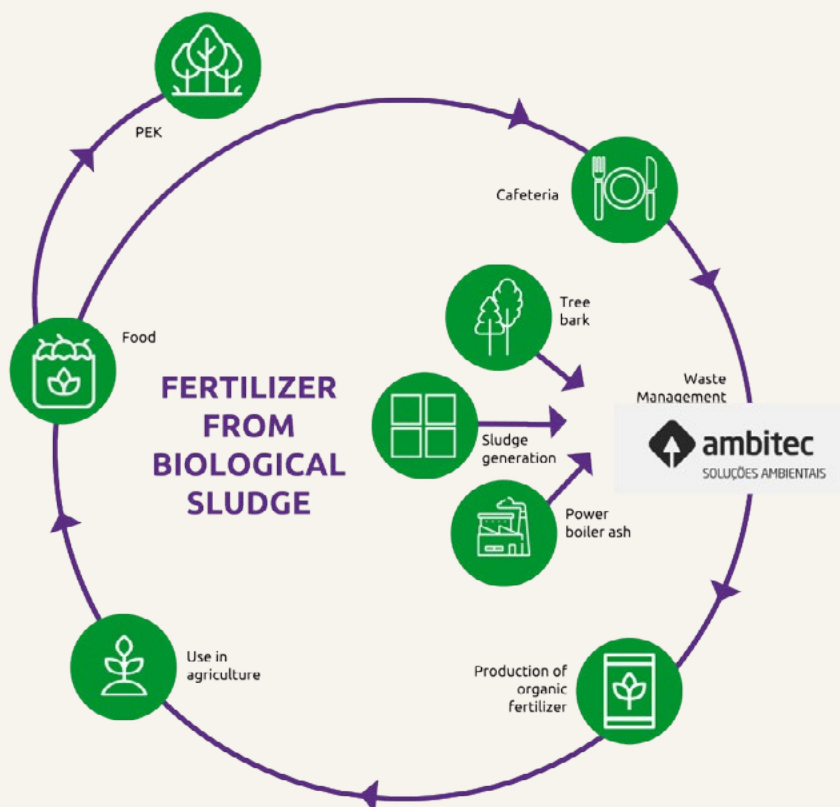
### CRITERIA

- Aims to eliminate the disposal of industrial waste in landfills
- Promotes materials and products made from by-products of Klabin's industrial operations
- Replaces materials of fossil origin in products and processes
- Supports the structuring of the recycling chain
- Promotes recycled, recyclable, and/or reusable materials
- Promotes innovation for developing products that enable and provide circularity
- Promotes the circular economy in the paper and pulp value chain or other chains



### CATEGORIES

- Circular industrial operations
- Innovation and circular products
- Circularity with customers
- Working with stakeholders



*Representation of a circular economy project included in the category "Circular Industrial Operations," where waste from Klabin's operations is processed and transformed into organic fertilizer.*

## Evolution in indicators

In 2023, Klabin raised the rate of solid waste reuse and recycling to 99.3%, driven by decreased production of recycled products and subsequent disposal of industrial waste in landfills, primarily from chip scrubbing and residual waste processes (business-related products). The Company has also implemented actions to increase the reuse/co-processing of solid industrial waste.

The Company remained 100% compliant with the Solid Waste Index across its industrial units in 2023. Particularly noteworthy were the Otacílio Costa (SC) and Monte Alegre (PR) plants, both achieving over 99.9% reuse/recycling of industrial waste by year-end. Another highlight was the results achieved at the Puma Unit, with 99.83% industrial waste recycling and reuse over the year. The result was once again driven by the performance of the Waste Processing Center at this unit, where waste from the Puma and Monte Alegre plants is reused.

Among the packaging segment units, the Industrial Bags plant in Lages (SC) stands out, which began to send its sludge waste for composting and Class I waste for co-processing, raising its recycling and reuse percentage to 86.37% in 2023. Since February 2023, the Rio Verde plant (GO), in turn, has been reusing, recycling, and/or co-processing 100% of the industrial solid waste generated in its operations.

Waste from the scrubbing of residual waste, generated in the chip recycling process, remains one of the main challenges, accounting for approximately 27% of the total amount of waste not reused/recycled in 2023.





KLABIN

KODS

CORPORATE  
GOVERNANCERENEWABLE  
FUTURESUSTAINABLE  
ECONOMYPROSPERITY FOR  
PEOPLER&D AND  
INNOVATIONESG  
HIGHLIGHTS

A 99.3% industrial waste reuse rate was achieved in 2023.



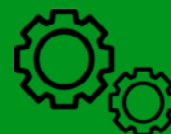
Specific Klabin research line seeks solutions to transform other waste into inputs.



The potassium sulfate plant at the Puma Unit generates high-value-added fertilizers.



Sludge drying plant, also at the Puma Unit, reduces transportation and waste handling costs.



Sulfuric acid production feeds Puma and Monte Alegre unit.



**Economy  
sustainable**



## Striving for efficiency in the face of the challenges in 2023

In 2023, a year of challenging market conditions, Klabin's focus was the search for efficiency. The Company implemented a number of cost-cutting initiatives and opted to conduct market stoppages, especially in the containerboard, virgin fiber and recycled fiber machines. As a result, it increased the conversion of paper into packaging, generating efficiency in the integration between its own operations, and reaffirmed the strength of its integrated, diversified, and flexible business model, which allows for quick restructuring in the face of adverse market conditions.

### SALES EXPENSES OF BRL

# 1.542

billion, equivalent to 8.6% of net revenue, a percentage lower than the 9.5% recorded in 2022

### ADMINISTRATIVE OVERHEAD OF BRL

# 1.001

billion, a total of 5% lower than that of 2022, reflecting cost-cutting initiatives and efficiency gains

### TOTAL UNIT CASH COST OF BRL

# 3,133

Klabin's new corrugated board box factory, the Figueira Project in Piracicaba (SP), came online in April 2024. With a total investment of BRL 1.57 billion, the unit has two corrugators and nine printers, as well as all infrastructure and support areas. It has an annual production capacity of 240,000 tons of corrugated board.

## Financial and operational results

- In 2023, dividends totaling BRL 1.4 billion were distributed, representing a dividend yield of 5.8%, demonstrating the ability to generate value for shareholders;

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- Adjusted EBITDA was BRL 6.259 billion in 2023, down 20% compared to 2022, excluding non-recurring effects;

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- The total unit cash cost, which includes the sale of all Company products and encompasses sales expenses, and administrative overhead and excludes non-recurring effects and scheduled shutdowns, was BRL 3,133 per ton in 2023, maintaining the same level as 2022. This result reflects Klabin's efforts to seek efficiencies throughout the year;

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- The total sales volume, excluding wood, amounted to 3.6 million tons in 2023, 5% lower than the volume in 2022;

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- Net indebtedness ended 2023 at BRL 20.2 billion and net leverage, measured by net debt over Adjusted EBITDA in USD, stood at 3.3x, within the parameters established by the Company's Financial Indebtedness Policy.

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## Business unit performance

BUSINESS UNIT	PERFORMANCE
Forestry	<p>The Company continues to increase its forest area, through active prospecting and partnerships with Timber Investment Management Organizations (TIMOs), funds specialized in the purchase, sale, and management of forest assets. In December 2023, Klabin announced the signing of a contract with Arauco, valued at USD 1.160 billion, for the acquisition of companies whose assets represent 150,000 hectares of total area. Of this total, 85,000 hectares are productive areas and 31.5 million tons of wood, as well as forest machinery and equipment.</p>
Pulp	<p>In the pulp segment, demand remained suppressed, especially in the first half of 2023, particularly in the printing, writing, and specialty segments. Klabin's pulp unit sold 1.546 million tons in 2023, a volume similar to the previous year.</p> <p>Klabin's position as the only Brazilian company to produce and market three types of pulp (hardwood, softwood, and fluff) translates into a diversified sales mix, coupled with geographic sales flexibility. This allowed the company to direct a larger volume to China, where demand remained stronger compared to other regions during the same period, enabling the maximization of revenue management and business margins. The solid performance of fluff pulp stands out, which achieved record sales volume since the beginning of operations, while maintaining prices at good levels.</p> <p>In 2023, the net revenue from pulp reached BRL 5.693 billion, a 19% downturn compared to 2022. The cash cost of pulp production was BRL 1,337 per ton in 2023, maintaining the same level as 2022, excluding the impacts of the maintenance shutdown conducted in 2Q23.</p>
Paper	<p>The new consumer habits observed since the beginning of the pandemic, coupled with the trend towards sustainable packaging consumption, continued to be the main drivers of demand for paperboard. At Klabin, the high exposure to essential product segments, especially food and beverages, contributed to greater stability of results in this market. In 2023, the volume of paperboard sales was 705,000 tons, 1% higher than in 2022. The sales revenue from paperboard was BRL 3.931 billion for the year, representing an 11% growth compared to 2022, due to price adjustments in recent quarters, which offset the appreciation of the Brazilian real against the US dollar on exported volume.</p> <p>The containerboard market was challenging throughout 2023. The entry of new capacities and high levels of buyer inventory translated into lower prices throughout the year. In this scenario, the Company maintained its strategy of increasing integration of kraftliner into its corrugated board plants and conducted production shutdowns to optimize results, based on demand, prices, and production costs. As a reflection of market conditions and the strategy adopted to address them, the sales volume of containerboard paper was 391,000 tons in 2023, 31% lower than that of 2022. The net revenue was BRL 1.477 billion, down 48% compared to the previous year.</p>



In 2023, Klabin's corrugated board shipping volume recorded a 1.4% reduction in tons and a 0.5% increase in square meters, mainly due to the lower grammage of Eukaliner® paper, which makes it possible to manufacture sturdier and lighter boxes. The net revenue increased by 2% compared to 2022, totaling BRL 5.079 billion, a result of price positioning throughout the year. The new corrugator at the Horizonte Plant in Ceará also came online in 2023, providing an additional production capacity of 80,000 tons per year. With this new investment, Klabin consolidates itself as the leading supplier of corrugated board packaging in the North and Northeast regions.

#### Packaging

With the primary objective of increasing flexibility and improving market responsiveness, especially in the miscellaneous segment (food, chemicals, seeds, fertilizers, etc.), which requires more technology, Klabin began operating a new bag line in the Lages Plant (SC) in 2023. This was in response to the growing demand for sustainable packaging, especially as a substitute for single-use plastics. This was a means of expanding markets to other segments, beyond the traditional construction sector, for which Klabin already supplies bags. The 1.4% contraction in the cement market in 2023 contributed to an 8% reduction in the volume of industrial bag sales compared to 2022. However, net revenue grew by 6%, reaching BRL 1.290 billion due to increased sales of higher value-added products and price positioning.

## Investments

Throughout 2023, Klabin invested BRL 4.307 billion in its operations and expansion projects. Of this amount, BRL 808 million was allocated to forestry, representing a 46% increase compared to 2022, due to a 52% increase in planted area in 2023, mainly in Paraná, for the Puma II Project. Investments in operational continuity totaled BRL 879 million, representing a 24% annual increase, especially explained by the expanded scope.

MILLIONS OF BRL	2023	2022
Forestry	808	555
Operational continuity	879	707
Purchase of standing timber/forest expansion	290	758
Special projects	785	593
New boiler at Monte Alegre	7	-
Puma II Project	1,539	3,204
<b>Total</b>	<b>4,307</b>	<b>5,817</b>

## New high-value-added products

During the second phase of the Puma II Project, Paper Machine 28 came online in June 2023. The new paperboard machine has a production capacity of 460,000 tons per year and the flexibility to produce White Top Liner and Kraftliner. PM28 enabled the launch of the Eukaliner® 8k White Coated paper, the first Brazilian Coated White Top Liner, which has provided customers in the corrugated and micro-corrugated packaging market with significant gains in both grammage reduction and print quality of the final product.

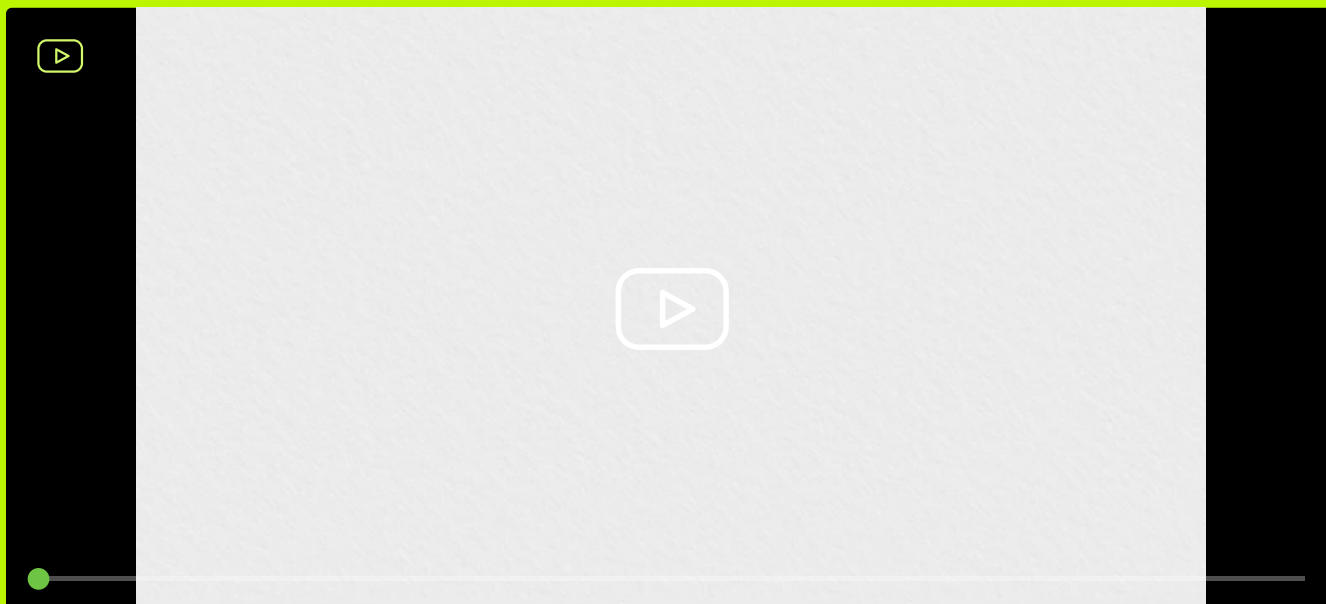




With advanced technology, the equipment was designed to produce paperboard with greater strength and quality, primarily targeting the food and beverage segments, such as long-life packaging and packaging for beer and processed foods (cereals, chocolate and pizza, among others), and for the growing food service sector (cups and trays). In the last quarter of 2024, with the launch of white paperboard, the PM28 product portfolio will bring more innovations, enabling supply to new market segments, including pharmaceutical and publishing, and the production of white products for the food service segment.

## The numbers behind the project

PM28, along with PM27, successfully marks the implementation of the Puma II Project, Klabin's largest investment in history, totaling BRL 12.9 billion.



## Increased production capacity

### HORIZONTE UNIT

The expansion project of the Horizonte Plant, located in the Metropolitan Region of Fortaleza (CE), afforded Klabin an additional production capacity of 80,000 tons per year with a new corrugator, which produces corrugated board sheets for packaging. The machine is a key component for the Company to meet the growing market demand in the Northeast.

### FIGUEIRA PROJECT

Klabin's new corrugated board box factory, the Figueira Project in Piracicaba (SP), came online in April of 2024. With a total investment of BRL 1.57 billion, the unit has two corrugators and nine printers, as well as all infrastructure and support areas. It has an annual production capacity of 240,000 tons of corrugated board.



## Forest growth

In the search for strategic alternatives to anticipate self-sufficiency, Klabin continues to expand its forest area to meet the growing demand for supply, especially with the start of operations of Paper Machine 28. The contract with Arauco to acquire companies holding assets representing 150,000 hectares of forest areas (85,000 of which are productive) – the Caetê Project – integrates into this strategy precisely.

With the completion of this operation, Klabin will bring the land expansion program for the Puma II Project to an end, reducing the average structural radius of Paraná and generating significant gains from operational synergies and lower estimated future investments.

The potential for growth in the forestry sector consists not only of acquisitions of new land and forests, but also in projects that enable the optimization of current assets. Here are some examples:

- mechanization of silviculture with excellence and precision;

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- development of pine and eucalyptus species resistant to different climates, focusing on genetic material and management models;

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- Research, Development, and Innovation projects to further elevate productivity indicators, already considered leaders in the industry;

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- projects throughout the entire operations and logistics system for process optimization;

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- advancements in planning to optimize plantations;

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- the ability to integrate interstate operations.

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## Debt management

Klabin ended 2023 with gross debt of BRL 30.908 billion, up BRL 3.367 billion compared to the end of 2022. This increase is mainly justified by disbursements of financing lines throughout the year, along with BID Invest, International Finance Corporation (IFC), and JICA\*, as well as the syndicated loan (completed with nine financial institutions) and Export Credit Note. These effects were partially offset by the early repayment of the 2024 Bond, the maturity of an Agribusiness Receivables Certificate (CRA) in the last quarter of the year, and the effect of the appreciation of the Brazilian real against the U.S. dollar on foreign currency loans.



Klabin has 38% of its gross debt in green financial instruments (Green Bonds, Sustainability-Linked Bonds, and IDB/IFC/JICA Loans).

Regarding the average debt maturity, the year 2023 ended with 94 months compared to 109 months in 2022. Klabin's average cost of foreign currency debt, the main source of credit for the Company, ended the period at 5.7% per year, up from 5.2% per year at the end of 2022.

With the first issuance of green bonds in 2017, Klabin began publishing its Green Bonds Report from 2018 to 2023, reinforcing its commitment to transparency in its investments. In March 2024, the Company included other financial instruments related to sustainability, such as Sustainability-Linked Bonds, Sustainability-Linked Loans, Revolving Credit Facility (RCF), and Receivables Anticipation, consolidating them into the Sustainable Finance Report. The document presents the investments made in 2023.

\*Green Bond Transparency Platform developed by the Inter-American Development Bank (IDB) that supports the harmonization and standardization of green bond reporting in Latin America and the Caribbean by providing references to disseminate best practices.

## Wood supply

Maintaining solid partnerships with rural producers constitutes important support in Klabin's expansion journey. Of the total wood used in 2023, 49% was acquired, following Forest Stewardship Council (FSC®) certification standards (FSC - C007520, FSC - C022516, and FSC-C023492), 31% was certified third-party wood, and 18% was wood from controlled origin.

Klabin's wood supply system includes partners from initiatives such as the Plante com a Klabin Program or independent producers, engaged in actions aimed at maintaining the qualification and origin of the wood, such as the Madeira Controlada Program, or incentive actions for compliance with forest certifications.

## Suppliers of products and services

As a value proposition for supplier management, Klabin seeks to maintain a solid and resilient value chain, based on best practices throughout the entire production life cycle. Effectively managing a complex supplier network, comprising a substantial financial scope, to meet the needs of the Company's 23 units, presents an ongoing challenge.



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Klabin is a signatory to the National Pact for the Eradication of Slave Labor, committing to cross-check supplier data listed in the "Slave Labor Blacklist" compiled by the Ministry of Labor and Employment with its own database, aiming to eliminate risks associated with labor practices and human rights.

In recent years, the Company has been working to increase the range of suppliers evaluated on ESG criteria (including Environment, Labor Practices and Human Rights, Ethics, and Sustainable Procurement) through EcoVadis, a platform that assesses suppliers' maturity in these requirements.

### ECOVADIS

An increase of 13% in the number of suppliers evaluated through was recorded in 2023.

### SUPPLY CHAIN

A total of 7,858 suppliers of products and services were part of Klabin's in 2023.

### CODE OF CONDUCT

The Supplier Code of Conduct was produced, which begins to be applied in 2024.

## Biodiversity Conservation Plan

As a forestry-based company, Klabin places significant emphasis on biodiversity conservation, guiding its operations towards sustainable development. Currently, the Company has 751,000 hectares of forests, of which 42% are preserved native areas dedicated to biodiversity conservation and maintenance.

In 2023, Klabin began drafting its Biodiversity Conservation Plan to ensure that the impacts of its activities on biodiversity are offset or surpassed by prevention and mitigation measures. The initiatives should be aimed at restoring affected areas, improving the quality of native vegetation, and compensating for residual impacts to prevent permanent losses.

In this way, the Company expects to increase the generation of net positive impact on biodiversity by 2050. The plan, currently under development, aims to adhere to the guidelines established at the United Nations Conference on Biodiversity (COP 15) in 2022. In 2024, the Company intends to align the plan with the recommendations of the Task Force on Nature-related Financial Disclosures (TNFD), based on the LEAP tool.



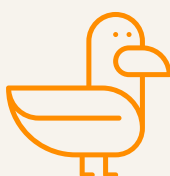
## Biodiversity monitoring

Through the Continuous Biodiversity Monitoring Program, Klabin verifies the impacts of managing its forests on the quantity, distribution, and behavior of fauna and adopts measures to prevent and mitigate damage to biodiversity, working towards its conservation.

The mosaic planting system, adopted by Klabin in a significant portion of its forest areas, helps protect nature and natural resources, contributes to improving the productive potential of its forests, and, through ecological corridors that allow the movement of hundreds of wildlife species, helps conserve biodiversity.

In addition to allowing the knowledge of the biological richness in the monitored areas, leading to new records, the monitoring contributes to the permanence and identification of threatened fauna and flora species in the Company's areas. As such, it is possible to recognize species over time and ensure the maintenance of High Conservation Value Areas (AAVCs).

## Monitoring in 2023



**941**  
fauna species  
identified

Out of this overall figure,  
**813**  
species have their  
conservation status  
recognized by the IUCN.

Among them,  
**29**  
species are  
classified as  
endangered.



**2,013**  
flora species  
identified

Out of this overall figure,  
**548**  
species have their  
conservation status  
recognized by the IUCN.

Among them,  
**41**  
species are  
classified as  
endangered.

Klabin has been monitoring biodiversity since 2019.





## Reintroduction of species and population reinforcement

Continuing the reintroduction efforts for black-fronted piping-guans (*Aburria jacutinga*) into the native forest, two monitoring campaigns were conducted in 2023 to assess the species' survival capacity, dispersion, and formation of reproductive pairs in the Klabin Ecological Park (PEK). Thirty individuals of the species were released in 2022. The piping guan was selected for its ability to help forest restoration, taking into account its home range, which can reach up to 1,000 hectares, and because it is a great seed disperser, feeding on at least 46 types of native fruit.

In 2023, the PEK also received five vinaceous-breasted amazon (*Amazona vinacea*) for population reinforcement. During this period, health examinations were conducted and pre-release training began. Two individuals were rejected, one for health reasons and the other for lack of behavioral aptitude. The other three are in the final stage of rehabilitation training and could still be released in the first half of 2024.



Klabin Ecological Park, in Paraná, has over 90% of its area covered by native forests

### Zero deforestation

One of Klabin's Biodiversity Conservation Plan programs includes the longstanding commitment to not convert native forests into productive areas aimed at increasing wood production for industrial purposes and raw materials for all businesses, as outlined in the FSC certification parameters and the [Company's Zero Deforestation Declaration](#). The publication of the European Union Deforestation-Free Regulation (EUDR) in 2023 presented new challenges to Klabin. The company made significant strides in enhancing internal processes to optimize the traceability of the origin of the wood used in its products destined for European countries.



## Natural Heritage Private Reserve (RPPN)

Protected forests are responsible for important **ecosystem services** such as climate regulation (carbon sequestration and storage), biodiversity preservation (species diversity, habitats, and ecological corridors), soil conservation, and water regulation (services in watersheds). Klabin has an Ecological Park in Paraná, spanning approximately 10,000 hectares, and two Private Natural Heritage Reserves (**RPPNs**) within its forest areas: the Monte Alegre RPPN, in Paraná, and the Serra da Farofa Complex RPPN, in Santa Catarina. In the latter, these are not certified services but verified positive impact statements for three Ecosystem Services: Biodiversity Conservation (ES1), Carbon Sequestration and Storage (ES2), and Watershed Services (ES3). Pending approval from environmental authorities, Klabin has a third area awaiting recognition as an RPPN, Samuel Klabin, located in the municipality of Imbaú, Paraná.



**9,000 hectares of Klabin's  
two Private Natural  
Heritage Reserves (RPPNs).**

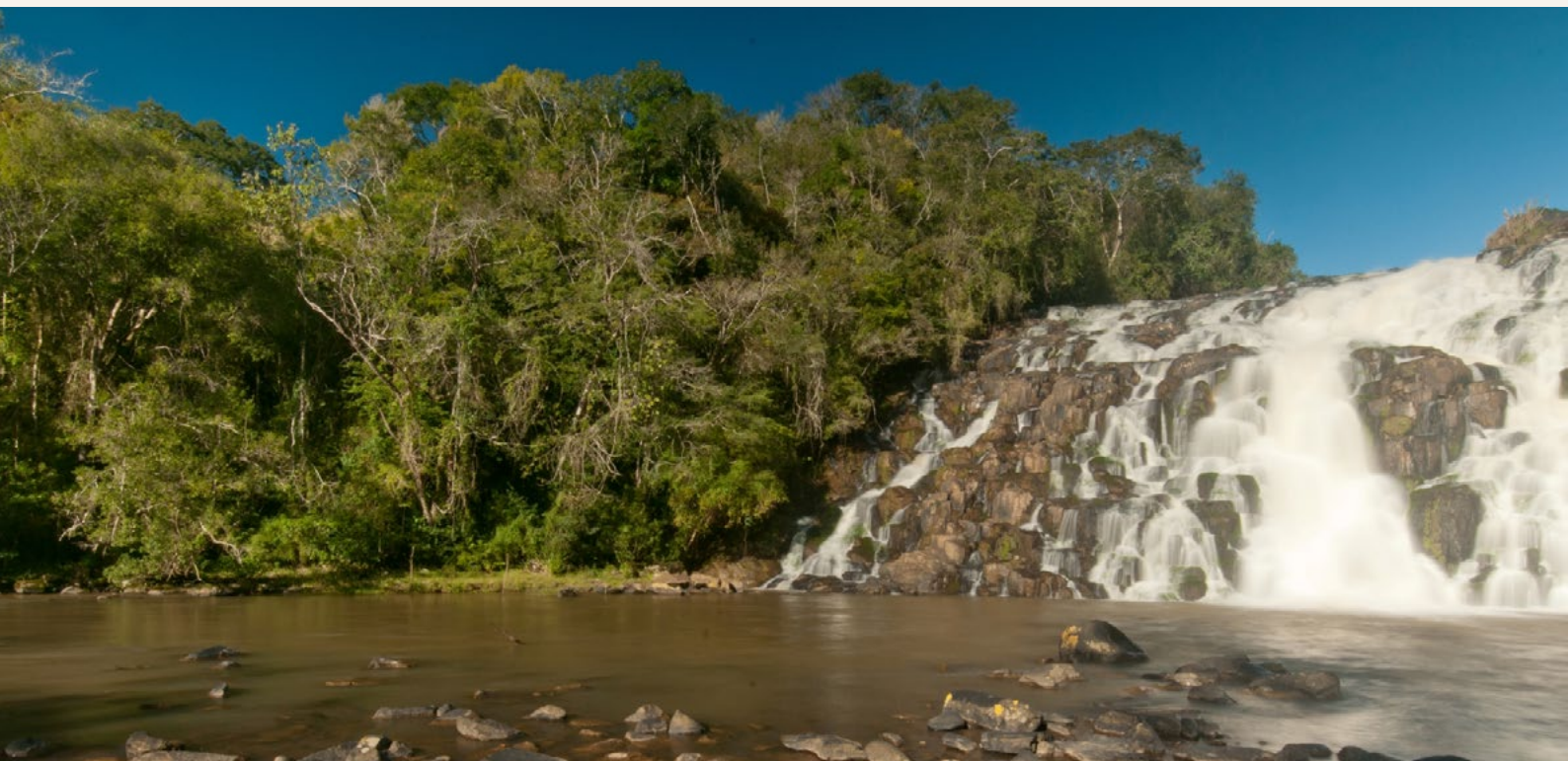
correspond to

**12,6 thousand soccer fields**



The Serra da Farofa Complex RPPN spans nearly 5,000 hectares and houses the source of the Canoas River, which forms the largest watershed in the area and supplies several municipalities in the Lages region (SC). The conservation and preservation efforts undertaken by the Company have led to the identification of 570 species of flora and approximately 360 species of animals, including some endangered, such as the red-spectacled parrot, southern tamandua, ocelot, and the cougar.



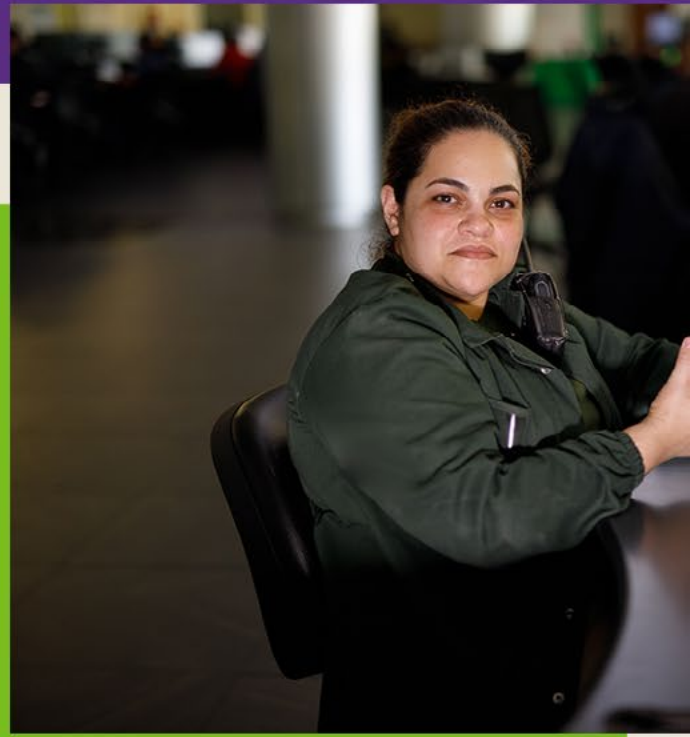


The Monte Alegre RPPN is located at Fazenda Monte Alegre in Telêmaco Borba (PR). Spanning approximately 4,000 hectares, the region hosts conservation initiatives aimed at maintaining ecological corridors and housing the Mixed Ombrophilous Forest, which boasts 171 species of flora, including seven endangered species.



The Klabin Ecological Park (PEK) has an area of almost 10 thousand hectares, of which 91.6% is occupied by forests natives. There, projects are developed to maintain and rehabilitate wild animals and preserve species, including 13 threatened with extinction at the state level. In 2023, PEK resumed the guided environmental visit program, after being closed to the public for renovations and improving the quality of animal care and fauna preservation. The visit schedule has also been restructured and is open to groups interested in having an experience there.





**Prosperity**

**to the**

**people**



## Commitment to local development

In the communities where it operates, Klabin maintains an economic, social, and environmental agenda, with guidelines and goals to minimize any impacts associated with its operations. Additionally, projects and initiatives focusing on local development, citizenship, environmental education, and culture constitute the Company's social and environmental investment platform.

### Community acceptance survey

The actions that contribute to achieving Klabin's Sustainable Development Goals (KODS) are reflected in the results of the annual Community Acceptance Survey, as well as in the progress of the Company's social programs.

For two consecutive years, Klabin has exceeded the target indicator of 80% in the survey, achieving 81.4% acceptance in the communities where it operates in 2023. The indicator reflects the average results of operations in Paraná (12 municipalities), Santa Catarina (9 municipalities), the region of Angatuba in the interior of São Paulo (5 municipalities), Rio Negro (PR), Paranaguá (PR), and Goiana (PE).

The survey indicator corresponds to the average of eight dimensions: perception of impacts, economic development, environmental preservation, job creation, commitment, image, social stimulation, and business promotion.

Despite the reduction in acceptance in some locations, the indices remain good and, overall, above the KODS target of 80%.

Plant	2022	2023	Δ% 2023-2022
Paraná	84.5%	81.3%	-3.2%
Santa Catarina	85.3%	82.9%	-2.4%
Angatuba	83.2%	76.7%	-6.5%
Goiana	80.8%	80.2%	-0.6%
Rio Negro	79.5%	82.2%	+2.7%
Paraguaná	77.9%	84.5%	+6.6%
<b>Total Klabin</b>	<b>83.6%</b>	<b>81.4%</b>	<b>-2.2%</b>





## Impact management and engagement

Klabin works to prevent or reduce the negative impacts of its forestry and industrial operations, such as dust, unsafe driver behavior, poor road conditions, odors, and factory noise, among others.

One of the main issues raised by communities is the dust generated by truck traffic in municipalities with forestry operations. The impact is monitored through the dust complaint index per kilometer driven in communities (total complaints received divided by the total kilometers driven in the communities during the year). Even with the progress of the results, the Company is challenged by the growth of its operations, which also expands the number of municipalities and communities impacted by its operation.

Six examples of mitigation measures:

- road wetting;

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- soil coating with successive applications of aggregate and bituminous binder;

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- preliminary analysis for optimizing transportation routes with community bypass;

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- spot asphaltting;

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- installation of individual sprinklers in isolated properties.

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### Dust complaint index

In 2023, there were 135 complaints about dust recorded from 34 communities neighboring the wood transport routes in 21 municipalities where Klabin had forestry operations, in Paraná and São Paulo. The number of complaints was higher in December, a month marked by an intense drought period in the regions with ongoing forestry operations. Although the indicator changed from 0.9 complaints/km on dirt roads to 1.0 complaints/km from 2022 to 2023, considering all the mitigating actions applied to control this impact since 2017, there has already been an 85% reduction in this type of complaint in the communities where the company operates.

Throughout the year, there was an average movement of 696 trucks over an average transport distance of 157 km. With the start of operations, the movement increased to 720 trucks over an average transport distance of 164 km.



Year	Municipalities	Communities	Km in communities	Dust complaint (yearly total)	Target result (complaint/km traveled)
2016	14	50	-	-	-
2017	17	60	61.14	-	-
2018	16	61	103.4	257	4.2
2019	32	83	116.5	202	2.0
2020	31	132	118.3	202	1.7
2021	39	169	120	156	1.3
2022	55	238	134	117	0.9
2023	58	128	134	135	1

## Klabin Social Demands

The Klabin Social Demands System (KDS) underwent improvements and was expanded in 2023 to include the Company's operations in Piracicaba (SP), São Leopoldo (RS), and Horizonte (CE). The system, through which all employees can register stakeholder demands, whether received through official communication channels like "Fale com a Klabin" or in the field, follows internal guidelines for handling and an evaluation process for the submissions, with deadlines varying according to the severity of each of them.

## Social risk management

In 2023, Klabin advanced actions resulting from the human rights due diligence analysis conducted in 2021, by developing the Social and Environmental Impact Matrix for forest areas in Paraná and Santa Catarina, as well as the Social Matrix in the Puma and Monte Alegre units, both located in Paraná.

A procedure was also implemented to assist non-owner workers and families residing in areas affected by the Company's forest expansion.



The Operational Procedure and the Livelihoods Recovery Plan are innovative practices in the sector.



The Procedure in Paraná served 65 families affected by physical and/or economic displacement.

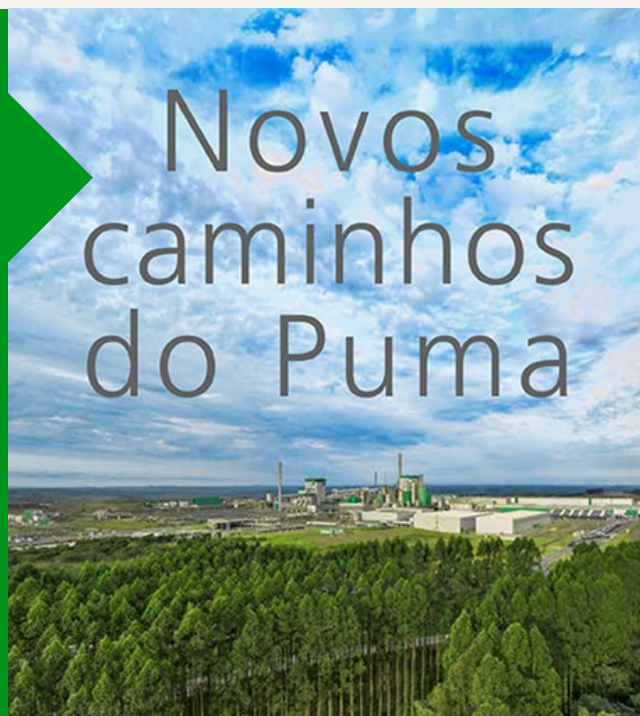


The families received financial compensation and were invited to participate in the Matas Sociais program.



*The podcast "Caminhos do Puma" and the book "Novo Caminhos do Puma," released in 2023, tell the story of the Puma II Project, presenting the context, studies, engineering, innovation, and environmental and social sustainability of the venture.*

# Novos caminhos do Puma



**Click here:**

[Caminhos do Puma Podcast](#)

[Novos Caminhos do Puma Book](#)

## Support for communities affected by floods in Rio Grande do Sul

In May 2024, Klabin took decisive action to aid the communities seriously impacted by the floods in Rio Grande do Sul. A total of BRL 1 million in financial resources was allocated to support institutions and funds aiding the affected population, alongside donations exceeding BRL 800,000 worth of essential supplies. The Company also donated paper bags and corrugated board boxes to accommodate donations to be sent to the region, as well as corrugated board sheets for use in shelters and accommodations. Moreover, the company covered the costs of 50 hours of equipment usage to assist in road-clearing efforts. Employees at the São Leopoldo Unit were offered a dedicated program providing psychological and financial assistance during this challenging time.

## Traditional communities

Klabin identifies the presence of traditional communities (quilombolas, indigenous, and faxinalense communities) located within a 10 km radius of forest management areas and establishes measures to ensure the protection of their rights. This process is based on the principles of Free, Prior, and Informed Consent (FPIC), which ensures transparency in the relationship with communities and respect for their decisions, and the Company's refusal to operate in prospective areas that are adjacent to communities or that impact their ways of life.



The consistency of information and detailed knowledge about the presence of traditional peoples in the territory enable establishing proximity and qualified, sensitive dialogue with the communities, facilitating their more effective inclusion in the activities developed by the Company.

Every two years, the forest base is reassessed concerning mapping, and if necessary, new communities are included within the delimited mapping area.

#### AUDITS

Reports undergo frequent audits by certification bodies and financing banks for expansion projects.

#### MAPPING

In 2023, 94 new traditional communities were identified: 27 quilombolas, 8 indigenous and 59 faxinalenses (wood gatherers). Of these, 53 communities have completed the characterization process.

## Indigenous Environmental Basic Plan in Ortigueira

Developed as a requirement of the environmental license for the operations of the Puma Unit, the Indigenous Environmental Basic Plan (PBAI) includes initiatives with the Kaingang indigenous communities in the Queimadas and Tibagy-Mococa Indigenous Lands in Ortigueira, Paraná. Among the highlighted actions are the Audiovisual Training programs, Kaingang Ecological Corridors, and scholarships as part of the Kaingang Education and Culture Revitalization Program.

In 2023, the latter had 20 scholarship recipients with ongoing courses and three graduates. During the period, alignments and meetings were also held with the monitors chosen to participate in the programs, as well as workshops on agroforestry, ecological corridors, anthropic monitoring, physical environment monitoring, audiovisual training, and handicrafts.

## Private social investment platform

Klabin implements and supports programs aligned with its social investment platform, focusing on local development, citizenship, environmental education, and culture. The initiatives aim to generate positive socio-environmental impact and enhance the economy of priority communities.



All programs supported through the social investment platform can be found at:

[COMMUNITY AND SOCIETY →](#)

## Support for Public Administration

With the aim of promoting participatory public management, Klabin promotes the Public Management Support Program in 14 priority municipalities. They are offered training and consulting services to improve their planning and enhance the allocation of public resources, such as those derived from taxes paid by the Company, for example.

The 14 municipalities where the initiative has already been implemented are as follows: Telêmaco Borba, Ortigueira, Imbaú, Sapopema, Tibagi, Reserva, Curiúva, Rio Negro, Ventania (in Paraná), Otacílio Costa, Correia Pinto, Lages (in Santa Catarina), in addition to Angatuba (in São Paulo) and Goiana (in Pernambuco).

In 2023, each of these municipalities had their Multi-Year Plan monitored by public management with the support of specialized consulting services offered by Klabin, in addition to evaluating the effectiveness of action implementation.

The program is based on social progress indicators described below.



### Social Progress Index

The Território 2030 website, which provides indicators comprising the Social Progress Index (SPI) for the Campos Gerais territories in Paraná, such as Telêmaco Borba (photo), and those of Planalto Serrano in Santa Catarina, regions where Klabin operates, has been updated with data up to 2022. There are 56 indicators distributed across three dimensions – Basic Human Needs, Foundations of Wellbeing, and Opportunities –, that evaluate 12 municipalities in Paraná and 15 in Santa Catarina. In 2024, a new update will be made, registering the information from 2023 and including the SPI of Goiana (PE). Based on the SPI, it is possible to configure a better territorial organization and the planned allocation of resources in the short, medium, and long term, always aligned with the Sustainable Development Goals (SDGs).





Learn more at: [TERRITÓRIO 2030 →](#)

## Local Development Forums

In the Local Development Forums, meetings were held in the six municipalities that adopted the initiative in partnership with Klabin, including Angatuba (SP) and Goiana (PE). In 2023, a particular contribution was the discussion on budgetary revenues of the two municipalities. The over 30 participants in the two forums learned to access and interpret budgetary databases and, through discussions, understood how they can propose suggestions and alternatives to the local government.

## Matas Sociais Program evaluation survey

The Matas Sociais – Planejando Propriedades Sustentáveis Program conducted its first evaluation survey with rural producers benefiting from the family farming initiative developed by Klabin since 2015, in partnership with the Association for the Preservation of Environment and Life (Apremavi) and Sebrae.

Implemented in 11 municipalities in Paraná and five in Santa Catarina, Matas Sociais assists small and medium-sized rural producers in various stages of production, from compliance with environmental legislation to support for food marketing, including training activities, property diversification, and encouragement of association and cooperation.

**850**

rural properties have been served since the program's inception eight years ago, with the donation of more than 377,000 native seedlings.

**92.9%**

of the respondents gave positive ratings to the program.

**310**

rural producers participated in the survey conducted in 2023.

**86.3%**

of farmers recognize the environmental benefits of the program.

**57.3%**

of rural producers reported an increase in income after partnering with the program.

**46%**

of producers expanded the commercialization of the food they produce.

**57.9%**

reduced the use of pesticides.

**66.9%**

increased food production.

**70%**

of the respondents perceive health improvement as one of the benefits of agroecological or organic production.



“ I have been receiving assistance on my farm and have noticed an improvement in the property as a whole. All the guidance put into practice adds value to our inputs and helps us reach new levels. ”

**Ilario Cizanska,**  
A PRODUCER ASSISTED BY  
MATAS SOCIAIS AND  
SECRETARY OF COOPERCANDI  
– COOPERATIVE OF CÂNDIDO  
DE ABREU (PR)

## Klabin Semeando Educação

Since its inception in 2017, the Klabin Semeando Educação program has benefited 146 schools and positively impacted over 1,200 teaching professionals. The initiative focuses on the continuous training of elementary school teachers in Portuguese language and mathematics. Additionally, it supports the strengthening of school management, benefiting the municipal public school system. Its main objective is to improve school performance in official assessment indicators, including the Basic Education Development Index (Ideb). The Klabin Semeando Educação program is implemented in 20 municipalities where Klabin operates in Paraná, Santa Catarina, São Paulo, and Pernambuco.

Six cities have already registered advances in Ideb scoring: Imbaú, Sapopema and Ortigueira (in Paraná), Correia Pinto and Lages (in Santa Catarina) and Goiana (in Pernambuco).

### Training in 2023

LOCATION	SCHOOLS	TEACHERS AND MANAGERS
Goiana	20	191
São Paulo	22	257
Santa Catarina	48	197
Paraná	163	1,015
<b>Total</b>	<b>253</b>	<b>1,660</b>

## State Forestry and Agricultural Professional Education Center of Ortigueira

The State Forestry and Agricultural Professional Education Center of Ortigueira graduated 101 professionals from the technical courses in Forest Machinery Operations, Heavy Machinery Maintenance, and Agribusiness in 2023. The institution, a pioneering project of Klabin in partnership with the State Government of Paraná and the municipality of Ortigueira, is the only technical school for forestry machinery mechanics and operations in Latin America.

Since its inauguration in 2020, intending to become a benchmark in the training of forestry operators and mechanics, the school has already graduated 250 students in the technical courses of Forest Machinery Operations and Heavy Machinery Maintenance. In total, 56% of the graduates were hired, 48% by Klabin itself. Of the 61 students who graduated from the Agribusiness course, most of whom were under 18 years old, 20 were hired as apprentices by a company supplying Klabin. The hiring of recent graduates reinforces the commitment to education and job opportunities in the regions where the Company operates.



## Digital Education Project

Conducted by FazGame in partnership with Klabin and the Municipal Department of Education of Imbaú (PR), the Digital Education project is a pilot initiative that began in 2024. The initiative aims to use the FazGame platform for creating narrative games to reduce Portuguese language learning gaps among 3rd, 4th, and 5th-grade students at the João Rodrigues dos Santos Municipal School.

Designed for elementary school students, FazGame is a platform that promotes digital literacy and learning of reading and writing through the creation of narrative games supported by Artificial Intelligence for writing analysis.

The project consists of three stages: conducting the FazGame training for the school's teachers, using the platform by the teachers with monitoring, support, and mentoring from the FazGame team, and evaluating the results. The idea is to replicate this to the other municipal public schools in Imbaú and municipal education departments supported by Klabin.

## Klabin Caiubi pelo Clima Program

The Klabin Caiubi pelo Clima program aims to train educators from the state education network on topics related to environmental conservation. Teachers and school administrators receive guidance on greenhouse gas (GHG) emissions and climate change, as well as learn how to address the topic with students and record the GHG emissions from their respective schools.

In 2023, 160 students and educators from schools in the Paraná municipalities of Telêmaco Borba and Imbaú participated in actions from the program, which included visits to identify and evaluate sources of greenhouse gas emissions, as well as training and completion of the schools' GHG inventories for 2022.

## Solid Waste Program

The Solid Waste Program focuses on selective waste collection with social inclusion of recycling cooperatives and community engagement to encourage proper disposal and environmentally sound waste management. It is conducted in partnership with the Intermunicipal Consortium Caminhos do Tibagi in seven municipalities of Paraná (Imbaú, Ortigueira, Reserva, Rio Branco do Ivaí, Telêmaco Borba, Tibagi, and Sapopema), with the support of Ambipar Environment, which provides specialized consultancy in structuring cooperatives and in fostering partnerships among these groups, the government, and society.

Among the main actions developed in 2023 were the donation of laptops, tablets, and printers to assist cooperatives in accounting activities, reporting, and control. Three scales for weighing the collected waste were also donated to the cooperatives in Telêmaco Borba, Rio Branco do Ivaí, and Imbaú, providing more agility to the process and better control over the commercialization of waste by the institutions.

In Rio Branco do Ivaí, a new warehouse, which was built by the municipality with support from the consultancy, features a productive design tailored to the cooperative's reality and the pursuit of improved production flow. The municipality of Ortigueira is receiving support in the restructuring of a new warehouse to host the municipality's cooperative.



Telêmaco Borba recorded the delivery of reusable bags for storing recyclable materials discarded by residents throughout the municipality. The same path is being followed in Rio Branco do Ivaí, which will start the Action Plan for the implementation of selective waste collection in 2024, while operations at the cooperative begin.

Since it was remodeled in 2021, the program has already contributed to an increase of approximately 84% in the income of recycling agents. In 2023, the cooperatives in Telêmaco Borba started processing glass, a material that was not previously commercialized in the region. The RECICLATB cooperative has been transformed into a Social Franchise.

MORE THAN

**3,180**

tons of waste were recovered in recycling institutions in 2023.

THE NUMBER IS

**13%**

higher than recorded in 2022.

IN ADDITION,

**1,783**

people were involved in environmental education actions.

**3,180 tons of recovered waste**



correspond to

**155 standard cargo containers**

## Bacia Escola Program

In partnership with the Municipal Department of Education of Jaguariaíva, in Paraná, the Bacia Escola program progressed in 2023, with 500 students participating in environmental awareness activities focused on elementary education and academic research in forest hydrology in the Três Bocas River, which supplies part of the municipality's population and is the headquarters of the program.

## Encouragement for sports

The track and field team of Campo Teófila Nassar Jangada State School, in the district of José Lacerda, municipality of Reserva (PR), achieved its best result in history by winning 123 medals in the School Games throughout 2023. The athletes are part of the Superação project, sponsored by Klabin for two years, focusing on the training and social inclusion of children and young people from the region. In 2021, when the project was not yet sponsored, the athletes won 60 medals.





“ It's not just about the increase in the number of medals won. We're celebrating the broadened horizons for the young people in the region, who are quite literally discovering new horizons — many traveling throughout the state, and some throughout Brazil, through sports. ”

**Mauro Santos,**  
TRACK AND FIELD COACH FOR  
THE SUPERAÇÃO PROJECT



With a belief in sports as a tool for social transformation, Klabin has been supporting the Telêmaco Borba Artistic Gymnastics Training Center for over ten years, whose activities already include the participation of over 130 children. Of these, 120 are part of the school with social outreach, while 10 receive training focused on competitions at the state and national levels. In 2023, the Paraná Artistic Gymnastics Cup concluded the competitive calendar of the Paraná Gymnastics Federation, and the athletes from Telêmaco Borba stood out with the achievement of 19 medals and a trophy.



The MuDança Project, developed at the Casa da Criança e Adolescente Padre Livio Donati in Ortigueira, also receives support from Klabin. In 2023, its students participated in the Final of the 2023 Paraná Dance Show, held in Curitiba. A total of 80 children are served by the project.





KLABIN

KODS

CORPORATE  
GOVERNANCERENEWABLE  
FUTURESUSTAINABLE  
ECONOMYPROSPERITY FOR  
PEOPLER&D AND  
INNOVATIONESG  
HIGHLIGHTS

The Telêmaco Borba Sports Association, with the ADTB Para Todos project, promotes sports as a tool for inclusion and social transformation. Children and teenagers aged six to 18 can practice indoor soccer. Currently, the project serves about 180 people.



Focused on awakening creativity and emotional skills through musicalization and providing cultural knowledge to the community, Encantos do Imbaú is a project aimed at children and the elderly in underprivileged communities of the municipality. Throughout the classes, the project benefits the development of cognitive capacity and psychological maturity, in addition to promoting the social inclusion of students through music. In total, 80 children and 70 elderly people are part of the initiative.



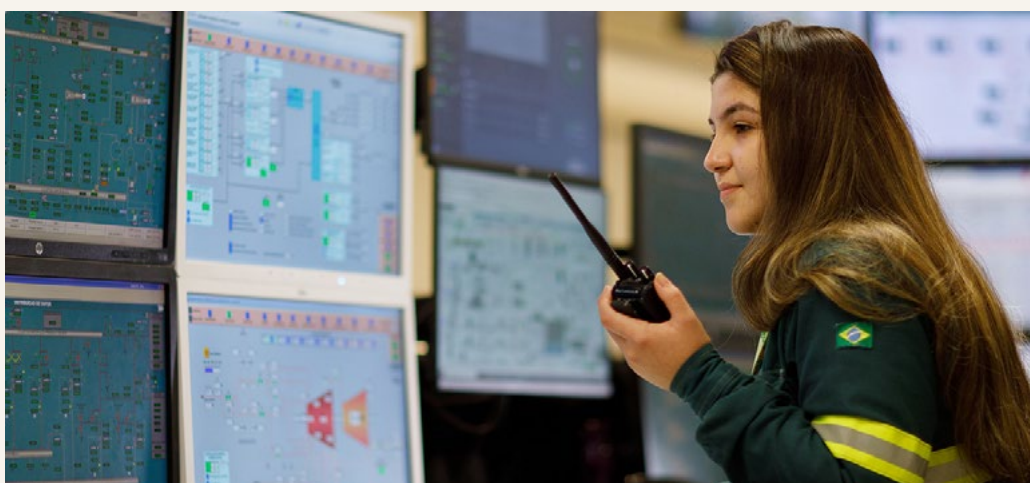
“ *The Encantos do Imbaú Project means everything to us. Music transforms lives. Sometimes, a child arrives excited and interacts with other children. Affection transforms, and the emotional bond they create is very important.* ”

**Soeli Almeida,**  
COORDINATOR OF THE  
COEXISTENCE SERVICE IN  
IMBAÚ

## Organizational culture

The Pulse survey (refers to a "pulse check", i.e. a quick diagnosis), conducted in 2023 with over 6,000 employees, indicated that "good conversations" and "collaboration" were the culture drivers with the most significant evolution in the internal audience's perception compared to the previous year's survey, followed by the pursuit of increased diversity.

With engagement and cultural evolution as primary challenges, the key aspects to be addressed in 2024 at Klabin are efficiency and safety.



*Klabin employee in Paraná*

## Klabin's employees

At the end of 2023, Klabin's workforce was made up of 17,525 professionals. The 5% reduction compared to the year 2022 was mainly due to the necessary adjustments for reducing fixed costs.

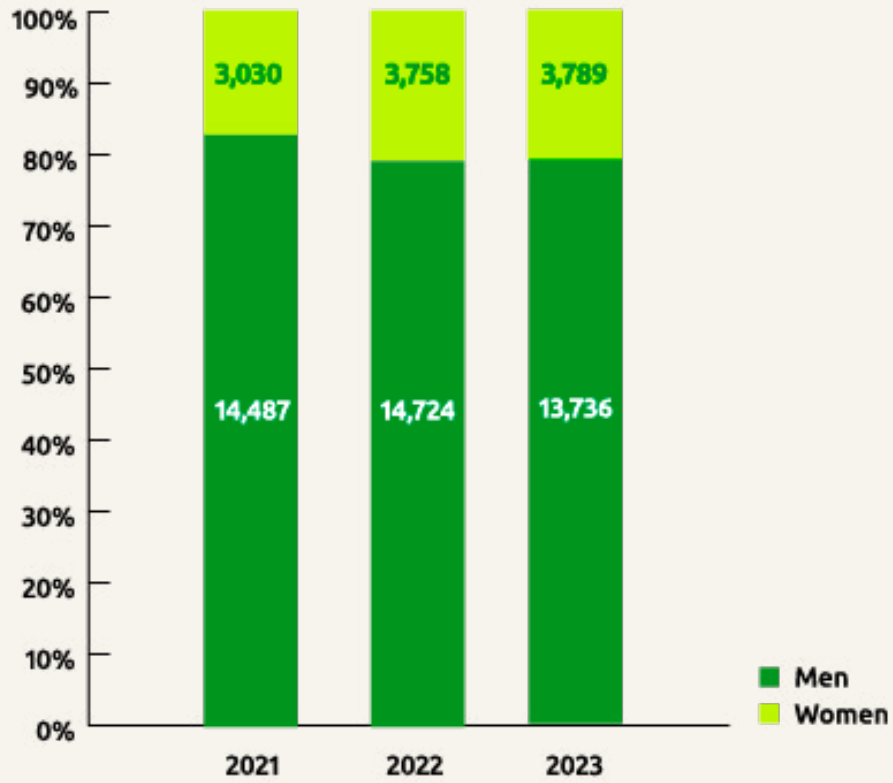
Klabin has been steadily increasing the representation of women in its workforce since 2019, when 15% of the total were female professionals. In 2023, women came to represent 21,62% of the total workforce. The percentage of black people (39.93% in 2023) has also been increasing in recent years, reflecting awareness-raising actions at all levels and operational units. The index of people with disabilities in the workforce recorded a slight increase during the period: from 2.82% in 2022 to 2.98% in 2023.



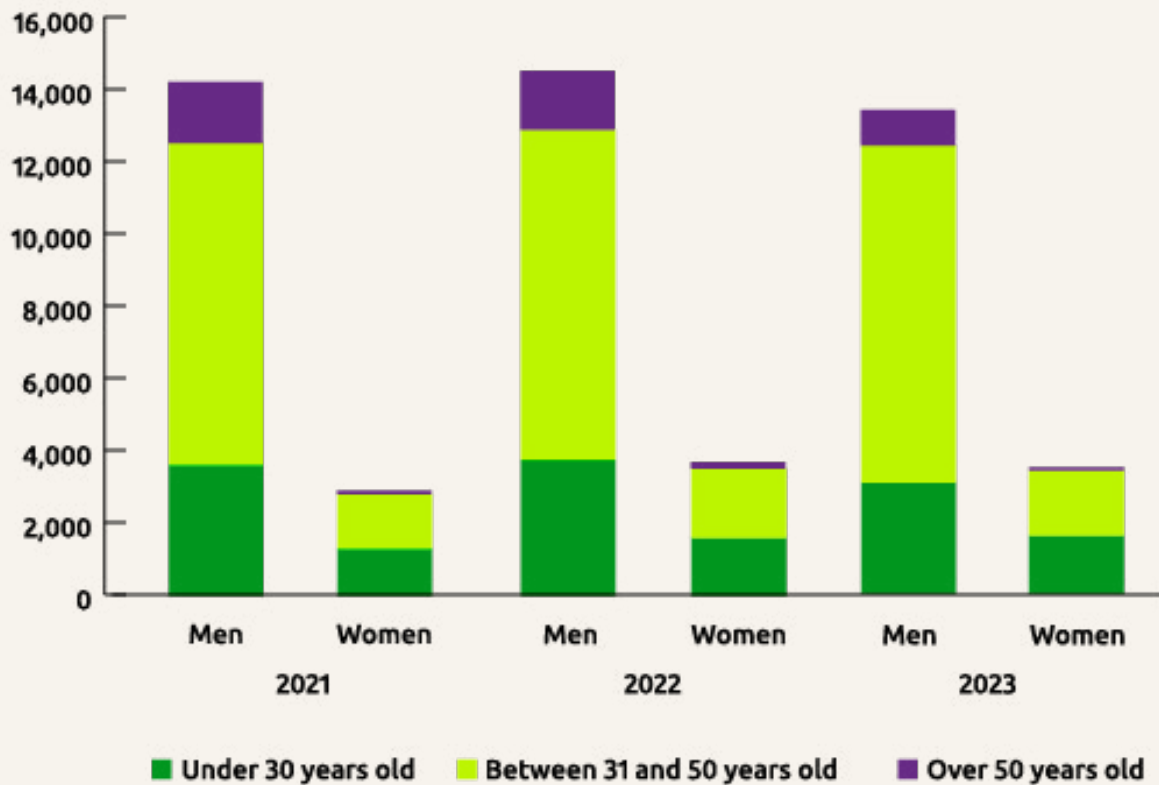


## Employee profile in 2023

### Employees by gender



### Employees by age group





## Turnover

Turnover rates are important indicators for evaluating organizational climate and attracting diverse and qualified employees, which can guide Klabin's recruitment and retention practices. In 2023, the accumulated turnover rate, which considers both voluntary and involuntary turnover, stood at 19,81%. In 2022, this rate was 19.56%, and in 2021, it was 17.81%.

## Diversity at Klabin

Inclusion and the creation of welcoming environments for individuals from marginalized groups (women, LGBTI+, people with disabilities, black people, and multigenerational individuals) are as important as hiring them. Therefore, in 2023, diversity management focused on intentionality, with an emphasis on training leaders to continue this journey.

The Company included specific Diversity modules in the leadership development programs, training nearly 500 professionals. As an organization associated with the Movement of Companies for Racial Equity (Mover), the Forum of Companies and LGBTI+ Rights, and the Women's Forestry Network (for gender equity), Klabin has also contributed to advancing these issues by sharing diversity strategies with other companies and supporting inclusion and awareness actions.

Two of the main indicators related to the topic showed improvement in 2023: women in leadership (from 23.4% in 2022 to 25%) and black employees in the workforce (from 35.4% in 2022 to 39.9%). According to the latest IBGE census, black individuals represent 56.1% of the Brazilian population.

## Employees by race and ethnicity\*

Race	% of the workforce	% of management positions
Black people*	39.93%	18.32%
White people	55.80%	77.94%
Yellow people	0.97%	2.99%
Indigenous people	0.29%	0%
Undeclared race	3.01%	0.75%

\* Klabin considers the definition of black race as the sum of black and mixed-race people, according to the IBGE methodology. Management positions are organized into the levels of Director, Manager, and Coordinator. Ethnic-racial information is obtained through self-declaration by the employee.



## More than 3,300

people participated in diversity training and meaningful conversations throughout Klabin.

## 477

employees were awarded English scholarships from Mover, specifically aimed at black employees.

## Over 60

training sessions and conversations were conducted, including exclusive moments for leadership.

## Over 180

internal and external publications were made to raise awareness about the topic and disseminate the actions.

## Diversity governance

The Diversity and Employability Promotion Policy outlines the Company's commitment to offering equal opportunities for all in an inclusive work environment. The topic is also recurrent on the executive management agenda. In 2023, Klabin promoted the revision of its diversity governance strategy, having developed, based on the diagnosis made by an external institution and a comparative analysis of the market, a maturity matrix on the subject, where it is positioned between the second and third level, on a scale of four levels. In 2024, the new diversity governance structure comes into effect, which will guide the Company's actions on the subject in the coming years.

## Strengthening human capital

Klabin has proven to be a breeding ground for nurturing talented professionals. With an eye on trends indicating higher professional turnover compared to the past, the Company has been working to maintain well-defined and properly documented processes to ensure knowledge management and a comprehensive understanding of the various businesses where it operates.

Mapping critical positions and technical training are essential for the sustainability of the business at Klabin. Structured processes in these areas are integrated into the performance cycle within the Company, which has intensified succession-related initiatives in recent years.

Currently, 73% of Klabin's directors reached their positions through internal promotions. This rate is 61% for management positions.

## Klabin Business School

The Klabin Business School (ENK Portal) is an important tool for the continuous training of professionals, prioritizing the individual development needs of the employees. The environment brings together material produced by experts, executives, and world-renowned institutions, provided through an integrated learning methodology that offers access to learning tracks tailored to different functional groups.





## Highlights of the ENK Portal in 2023

MORE THAN

# 200

new courses were made available in the Klabin Business School.

MORE THAN

# 13,000

employees accessed the platform.

MORE THAN

# 11,000

employees were trained in a safety track developed during the period.

DEVELOPMENT OF

# 368

young apprentices, in a specific track designed for this audience.



English and Spanish courses were expanded to meet the demands of the Company's offices in Argentina, Austria, and the USA.



The Analytics Track was revised, making it more adherent to Klabin's strategy

## Klabin Center for Professional Development

In April 2024, Klabin took significant strides in professional training in Paraná with the inauguration of the Klabin Center for Professional Development in Telémaco Borba. This facility features specialized training rooms for electrical maintenance, mechanics, automation, and instrumentation, classrooms for theoretical lessons, and a computer room. It also boasts an auditorium for lectures and on-site training sessions.

This initiative reflects Klabin's commitment to enhancing the skills of future employees and promoting the development of its existing workforce. As part of Klabin's broader learning ecosystem, which includes the Klabin Business School (ENK), the new training center will also provide opportunities for community members, supporting the training of apprentices and trainees who may eventually work at one of the region's three units.

## Leadership development

With the launch of the "Virando a Chave" program, new leaders gained the opportunity to deepen their knowledge about Klabin – its drivers, long-term strategy, and organizational culture –, always considering the challenges in team management.

## LTI for All

The LTI for All program, where employees have the right to acquire Klabin units as part of their variable compensation, had a 24% participation rate in 2023, exceeding the 20% target. The program is an effective way to engage employees and create a long-term bond with the Company, reinforcing a sense of belonging and ownership.

## Health promotion

Through the Viver Bem program, Klabin encourages comprehensive and preventive care for employees and their families. They receive support to improve their lifestyle, promote health and well-being, and ensure a better quality of life in the workplace, contributing to a culture of care and to a safer and more sustainable future.

The program's actions are based on four pillars: physical health, mental and emotional health, financial health, and social health.



*Klabin employees in Suzano (SP) reinforce the message of the Life Protection Policy*

## Parental leave

Klabin offers parental leave to all employees, without discrimination based on gender, sexual orientation, or any other type, which also applies to adoption cases. There are 20 days of paternity leave and 180 days of maternity leave. The Company participates in the Empresa Cidadã Program, a federal government initiative.

In 2023, 805 employees benefited from the program. The retention rates, which indicate the length of time employees remain with the Company after returning to work, were 74% and 88% for men and women, respectively. These indicators are important references for people management at Klabin.



## Workplace safety

In a challenging year, especially considering its 2030 Agenda goal of zero lives impacted among employees and contractors, Klabin reinforced initiatives focused on the evolution of risk management and safety culture.

The work developed during the period aimed at strengthening the Occupational Health and Safety Management System (OH&S), in alignment with the international standard ISO 45001, through continuous improvement of procedures, systems, tools, and training.

The dissemination of the Life Protection Policy, launched in 2022, has been an important driver in the pursuit of maturity in the safety culture within the Company. The document presents non-negotiable values and the expected performance of everyone in safety, providing support for safe decision-making.



The Life Protection Policy provides guidance in three areas: attitude towards life, unsafe conduct, and recognition.



Between June 2022 and December 2023, 203 forums were held at Klabin on life attitudes, along with over 600 risk management improvement actions.

## Indicators

Managing safety indicators takes into account the relationship between accident rates and the company's capacity to manage risks in its daily routine. In 2023, Klabin sadly recorded six lives changed, including four fatalities.

In this scenario, several initiatives were reinforced within the Company:

- Methodology for assessing risks and opportunities regarding the segregation of "people versus mobile equipment";

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- Process safety: sequence of actions for prevention, mitigation, response, and restoration of unintentional release of energy related to processes;

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- Continuation of the project aimed at improving the energy isolation procedure, to reinforce the culture and discipline of operation in this type of activity.

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Other indicators show that continuous reinforcements in managing safety-related risks have been yielding good results. The overall frequency rate, which considers accidents with and without time off, stood at 2.92 in 2023, the best rate in the Company over the last five years.

With a focus on preventive indicators, all Klabin operations continued and constantly reinforced critical risk management through all our management tools, such as procedures, safety reports, and safety report audits, known as RACs. The Company conducts audits of the RACs in all operations, and starting in 2024, there will also be verification in the pulp, packaging, paper, and forestry operations.



## featured initiatives

- Implementation of the Road Safety area in the Forestry Unit, which provides further depth in managing data from onboard technology and a culture of traffic safety;

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- Beginning of the development track for the Safety team, covering technical and behavioral aspects through training and workshops;

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- Provision of theoretical and practical Safe Driving training;

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- Standardization of a single safety recognition program for the entire Company, aligned with the Life Protection Policy, with implementation scheduled for 2024

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- Consolidation of the structuring of scope meetings, forums where incidents are evaluated and plans for safety improvements for the units are discussed;

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- Continued analyses to identify any vulnerabilities;

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- Standardization of the Emergency Response System, in order to ensure tracking, availability, effectiveness, and agility in Emergency Management.

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**P&D**

**innovation**





## R&D+I support for the businesses

The performance of Klabin's Research, Development, and Innovation front is directly connected to its growth strategy and with a sustainable outlook. In 2023, the focus on R&D+I was related to short- and medium-term projects, greater support for businesses, and better utilization of natural resources.

Projects prioritized during this period were focused on promoting the circular economy, developing solutions to support the reduced use of fossil-origin items, ensuring the quality of wood, and primarily achieving operational efficiency gains.

### Technology Center (CTK)

In its six years of operation, the Klabin Technology Center (CTK) in Telêmaco Borba (PR) has been transforming the dynamic between industrial and forestry areas, providing the Company with a solid structure to replicate processes, simulate manufacturing, and accelerate product development.

### Forest Development

Work focused on adapting forests to potential extreme weather events and increasing productivity.

### Industrial Development

Operations focused on the incremental enhancement of Klabin's portfolio products and process refinement.

### Packaging Technology Center (CTE)

The Packaging Technology Center, located at the Jundiá Tijuco Preto Unit (SP), aims to strengthen our bonds with customers and the market by understanding their needs and challenges. In one year of operation, completed in October 2023, over 60 customers were served, and more than 80 events with business partners led to dozens of projects and prototypes.



## Quality and forest productivity

The eucalyptus clones, developed by the R&D department, are among the main drivers for increasing forest productivity. In 2023, the area recommended six new eucalyptus clones for planting, three of which were destined for Paraná and the other three for Santa Catarina. In addition to being more productive in volume, all of them showed superior wood quality compared to those previously planted.

Regarding the pine genus, nine families of superior growth were recommended to integrate the Company's vegetative propagation program. This pine production technique, called vegetative propagation, became part of the operational routine at Klabin's nursery in 2023, allowing pine productivity to be enhanced by propagating/replicating only the best individuals (the most productive ones). In 2023, a process for developing new suppliers to work with vegetative propagation was also implemented, thereby enabling an increase in the utilization of superior seedlings in the annual pine planting program.

The experimental network was expanded in 2023, incorporating over 500 new genetic materials of pine and more than 750 eucalyptus clones, which now supply the genetic improvement programs, delivering superior clones for the commercial plantings planned in the coming years.

In the strategic wood quality program, over 80 new genetic materials were evaluated, which will be used for the current and future pine and eucalyptus forest base in the states of Paraná, Santa Catarina, and São Paulo.

The acquisition of Arauco's forest assets was preceded by a thorough evaluation of the productive suitability of the areas, which assisted in all preliminary analyses. The Company's genetic improvement projects will be incorporated into Klabin's forest research base.

### FORECAST

In total, 66 weather stations cover the forest base in the three states and assist Klabin's forest planning. Of that total, 29 were installed in 2023.

### MONITORING

The monitoring network of the hydrological cycle in the forests was expanded with the acquisition of sensors that provide more precise information for analysis.

### GOVERNANCE

The Forestry R&D Subcommittee promotes forums with operational directorates that aim to encourage improvements in silviculture efficiency and forest productivity.

### BIOMASS

Studies were expanded with a focus on calculating carbon capture and storage in Klabin's forests, both in the aboveground and belowground parts.



## From development to application

Klabin's Industrial Research work has been focused on increasingly sustainable applications for products, such as renewable and biodegradable barriers to meet the demands of conscious consumption. In 2023, the department strengthened its efforts in these applications and expanded integration with the Forestry Research department, focusing on operational efficiency and better use of natural resources.

In this regard, 2023 saw advancements in tests for the use of **bio-oil** – an alternative to fossil fuel – in the lime kilns at the Monte Alegre Unit. There were three industrial-scale tests, achieving 100% substitution of the fuel oil required for the equipment's operation.



Project with Tetra Pak to find renewable source alternatives for adhesives and aluminum substitution



Partnership with Caldic, a chemical distributor, for the use of lignin in the production of antioxidants for rubber, replacing fossil-based components



Identification of opportunities for using lignin in Klabin's internal processes, confirmed through industrial tests at packaging units

## Participation in events

Klabin's participation in renowned national and international events in 2023 reinforces its relevance in stimulating the creation of new technologies in its operating segment. During the 55th International Congress on Pulp and Paper of the Brazilian Pulp and Paper Technical Association (ABTCP), for instance, one of the most important technical events in the sector in Brazil, Klabin's organic antiviral technology packaging was one of the highlights.



*The employee Vicky Thumaz, during a presentation at the 55th ABTCP Congress*

## Partners in Brazil and abroad

Investing in R&D+I for the development of new products and partnerships with other organizations is a target that is included in the Klabin 2030 Agenda. In 2023, BRL 35.6 million were invested in industrial research, development, and innovation, and BRL 24.3 million in the forest R&D+I front. The organizations Klabin partnered with in 2023 are listed below:



- Associação Brasileira Técnica de Celulose e Papel (ABTCP)  

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- Comitê de Produtores – Tappi Nano  

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- Embrapa Florestas  

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- Escola Superior de Agricultura Luiz de Queiroz (Esalq)  

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- Melodea  

---
- Pine Chemicals Association International  

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- Research Institutes of Sweden (RISE)  

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- Serviço Nacional de Aprendizagem Industrial (Senai)  

---
- Unicamp  

---
- Universidade de Karlstad (Suécia)  

---
- Universidade Católica de Leuven (Bélgica)  

---
- Universidade de Toronto  

---
- Universidade do Estado da Carolina do Norte  

---
- Universidade do Estado de Santa Catarina  

---
- Universidade Estadual de Ponta Grossa  

---
- Universidade Federal de Lavras  

---
- Universidade Federal de Uberlândia  

---
- Universidade Federal de Viçosa  

---
- Universidade Federal do Espírito Santo  

---
- Universidade Federal do Paraná  

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- Universidade Federal do Rio de Janeiro  

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- VTT Technical Research Centre of Finland  

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## Innovation and operational excellence

Considered the bridge between the current organization and the one that will deliver Klabin's vision and future strategy, innovation is supported by the pillars of People & Sustainability, Operational Excellence, and New Solutions. Seeking to broaden the procedural vision and focus on productivity throughout the Company, innovation initiatives in 2023 were directed towards operational excellence.

One of the highlights was the consolidation and equalization work of the Klabin Superar projects – a set of methodologies that support units in the pursuit of operational excellence – to ensure that the parameters and tools are standardized within all units of the Company. A seal created to recognize adherence to established certification processes in the market rewards and shares best practices.

## Partnerships

As part of the innovation strategy, Klabin aims to access a global network of contacts, promote the combination of projects and opportunities available in the market through innovation programs and incentivized projects, and share knowledge. In this way, value is generated for both the Company and society.

Currently, the Company participates in two research calls. One of them, developed in collaboration with other partners, focuses on circularity and is part of the Centers of Science for Development (CCD), funded by the São Paulo Research Foundation (Fapesp). Another funded project is the Iasmin Project, which, also in partnership with other companies and universities, aims to structure a center of excellence in Artificial Intelligence.





**Highlights**

**ASG**





## Klabin in numbers

OPERATING

# 23

plants in Brazil and one in Argentina

MORE THAN

# 17,000

employees.

CAPACIDADE ANUAL DE PRODUÇÃO DE

# 3M

tons of annual paper production capacity, with the start-up of PM28, in 2023.

# 1,6 M

tons of market pulp production capacity per year.

# 751,000

hectars of total area, 42% of which are preserved native forest.

# 941

species of fauna and 2,013 species of flora were identified.

# 92,6%

renewable energy in the fuel energy matrix.

# 72%

of the total electricity consumed is self-generated by the Company.

- **BRL 1.4 billion** in distributed earnings, a dividend yield of 5.8%, demonstrating the ability to generate value for shareholders.

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- **A 5% reduction in** general and administrative overhead compared to 2022, reflecting cost-cutting initiatives and efficiency gains.

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- **BRL 3,133** total unit cash per ton, the same level as in 2022, reflecting Klabin's efforts to seek efficiency throughout the year.

---



In 2023, the second phase of the Puma II Project began in Ortigueira (PR), with the start-up of the paperboard machine PM28, which, along with PM27, marks the successful implementation of the Puma II Project, Klabin's largest investment in history.

#### DOW JONES

4th year in a row in the Global portfolio and for the 3rd year in the Emerging Markets portfolio of the Dow Jones Sustainability Index.

#### TRIPLE A LIST

The only company in Latin America to achieve the maximum score in three of the evaluated indicators by CDP: Climate Change, Water and Forests.

#### ISE B3

For the 11th year in a row, the Company secured a position in the portfolio of the Corporate Sustainability Index (ISE) of the Brazilian Stock Exchange (B3).

#### TOP 5%

Included in the top 5% of the world's best-rated companies in ESG practices according to S&P Global.

#### TRANSPARENCY TROPHY

For the eighth time, Klabin made the list of winners of the 27th edition of the ANEFAC Award – Transparency Trophy, promoted by the National Association of Executives, in the category of Companies with revenues above BRL 20 billion.

## Climate Change and Emissions Management

With the launch of the **Climate Transition Plan** in 2023, Klabin makes public its climate mitigation and adaptation strategy. The document summarizes the Company's management of the topic and its initiatives to achieve decarbonization goals. Learn about the Plan [here](#).

One of the action fronts is the use of low-carbon technologies, such as the biomass gasification plant installed at the Puma Unit in Ortigueira (PR). The technology, which enables the replacement of fossil consumption usage with syngas (gas generated from wood biomass), resulted in approximately **56,000 tons of CO<sub>2</sub>eq avoided** during operation in 2023.

In 2023, Klabin completed the mapping and calculation of GHG emissions from all relevant scope 3 categories for its business.



The work was fundamental in submitting a new target to the SBTi, within the NetZero journey, which implies reducing at least 90% emissions from scopes 1, 2, and 3 by 2050.

The Company also submitted an update to the short-term target, aiming for a % 42% of absolute emissions from scopes 1, 2, and 3 by 2030, with a base year of 2022.

## Water use

The forest management methodology focusing on territorial water security, pioneered by Klabin in the industry, aims to contribute to the protection of micro-watersheds and the water security of the communities surrounding the forestry units.

With water resource management being a constant challenge for forestry and industrial operations, especially in regions facing water stress, Klabin has been studying methodologies to quantify the positive impacts of water resource management on the preservation of native forests and water quality in micro-watersheds.

# 97.3%

of forest harvesting operations under water security management.

# 74%

of locations with initiatives to increase water security.

## Waste management

With the goal of eliminating the disposal of industrial waste in landfills by 2030, Klabin has been working to enhance circularity in its processes, based on smart consumption of natural resources and the use of technology, aiming to create value for the entire production chain.

In 2023, Klabin structured a circularity procedure, aiding decision-making regarding circular economy projects that represent opportunities for both the Company and the entire value chain.

A

# 99.3%

industrial waste reuse rate was achieved in 2023.

SPECIFIC KLABIN

# research line

seeks solutions to transform other waste into inputs.



## Biodiversity

- In 2023, Klabin began drafting its Biodiversity Conservation Plan to ensure that the impacts of its activities on biodiversity are offset or surpassed by prevention and mitigation measures.

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- The initiatives should be aimed at restoring affected areas, improving the quality of native vegetation, and compensating for residual impacts to prevent permanent losses.

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- In this way, the Company expects to increase the generation of net positive impact on biodiversity by 2050.

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## Commitment to local development

For the second consecutive year, Klabin exceeded the target indicator of the survey (80%), reaching 81.4% acceptance in the communities where it operates. The indicator encompasses the average results of operations in Paraná, Santa Catarina, Angatuba (SP), Rio Negro (PR), Paranaguá (PR), and Goiana (PE).

The Matas Sociais – Planejando Propriedades Sustentáveis Program conducted its first evaluation survey with rural producers benefiting from the family farming initiative developed by Klabin since 2015, in partnership with the Association for the Preservation of Environment and Life (Apremavi) and Sebrae.

### 850 RURAL PROPERTIES

have been served since the program's inception eight years ago, with the donation of more than 377,000 native seedlings.

### 92.9%

of the respondents gave positive ratings to the program.

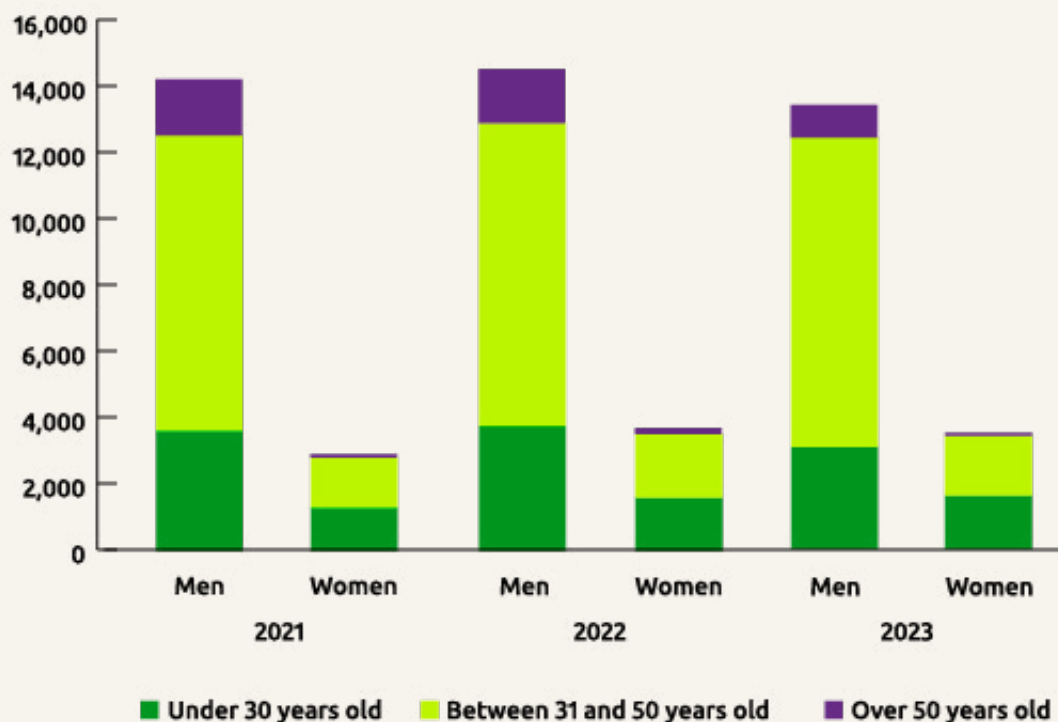
## People management

Two of the main indicators related to the topic showed improvement in 2023: 25% of women in leadership compared to 23.4% in 2022, and 39.9% of black individuals in the workforce; in 2022, it was 35.4%. According to the latest IBGE census, black individuals represent 56.1% of the Brazilian population.





## Employees by age group



The Klabin Business School (ENK Portal) is an important tool for the continuous training of professionals, prioritizing the individual development needs of the employees.

MORE THAN

**13,000**

employees accessed the Klabin Business School in 2023.

MORE THAN

**200**

new courses were made available in the platform.

## Governance

The strategic planning for 2023 was developed with extensive and effective participation from the Executive Board and the Board of Directors. In order for the final project to have a systemic perspective of the Company's context and needs, individual interviews were conducted with directors and board members, among other initiatives. This methodology strengthened management and allowed for the definition of guidelines aligned with Klabin's current situation and what is expected from the Company in the near future.

Klabin's Integrity Program continues to evolve through projects and instruments that seek to strengthen good practices and consolidate a culture of integrity. The aim is to engage employees and constantly evolve the guidelines on the subject.

The evolution of the integrity culture is reflected in the Company's achievement of the maximum score in the Business Ethics category of the Dow Jones Sustainability Index. Klabin's commitment to the topic has led to a gradual improvement in its score over the years, positioning it as a benchmark in the market.



# Glossary



**Biomass:** all organic matter of plant or animal origin used for the purpose of producing energy

**Bio-oil:** a black liquid obtained through the pyrolysis process, in which biomass is subjected to high temperatures in an isolated environment with little or no oxygen. It is mainly used as a fuel for heating and the generation of electrical energy

**Brazilian Association of Business Communication (Aberje):** the main national reference center in the production and dissemination of knowledge and business communication practices

**Brazilian GHG Protocol Program:** program created in 2008, responsible for adapting the GHG Protocol method to the Brazilian context and for developing calculation tools for greenhouse gas emission estimates

**Carbon Footprint:** a measure that calculates the equivalent carbon emissions in the atmosphere by a person, activity, event, company, organization, or government

**CDP:** international non-profit organization that analyzes and recognizes the efforts of companies worldwide to manage the environmental impacts of their activities

**Circular economy:** an economy that, with the goal of reducing waste, keeps materials and products in circulation for as long as possible, either by using recyclable, recycled, compostable, and/or biodegradable materials, or by improving product design, as well as processes and business models

**CO<sub>2</sub>eq:** carbon dioxide equivalent is the unit for converting all greenhouse gases (GHGs) in terms equivalent to the amount of as if they were CO<sub>2</sub>, considering their planet-warming potential. The result of multiplying the tons of GHG emissions by their global warming potential

**Dow Jones Index Score:** classification obtained by companies participating in the Dow Jones Sustainability Index (DJSI) selection, which answer to an extensive questionnaire (specific to each sector). The questions, based on predetermined criteria, have different weights, resulting in an overall company score that determines its inclusion in the index

**Dow Jones Sustainability Index (DJSI):** a global indicator of financial performance, launched in 1999 as the first indicator of the financial performance of leading companies in sustainability at a global level

**European Union Deforestation-Free Regulation (EUDR):** regulation that prohibits the import and trade within the European bloc of products derived from certain commodities—cattle, soy, palm oil, coffee, cocoa, timber, and rubber—that originate from areas deforested after December 31, 2020

**EU Taxonomy:** a system that classifies sustainable economic activities, established by EU Regulation 2020/852.

**GHG:** greenhouse gases; gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), used in aerosols and refrigerators, carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>), that absorb part of the sun's rays and redistribute them in the form of radiation in the atmosphere, heating the planet in a phenomenon called the greenhouse effect

**IFC/IPCC:** Intergovernmental Panel on Climate Change; created by the United Nations Environment Program (UN Environment) and the World Meteorological Organization (WMO), that aims to provide policy makers with regular scientific assessments of climate change, its implications and possible future risks, as well as propose adaptation of damage mitigation policies



**International Accounting Standards Board (IASB):** the international non-profit organization that publishes and updates the International Financial Reporting Standards – IFRS

**International Financial Reporting Standards (IRFS):** accounting standards issued by the IFRS Foundation and the International Accounting Standards Board

**Life Cycle Assessment:** a technique developed to assess the environmental impact of products, which consists analyzing the environmental effects associated with productive activities throughout the entire life cycle of the product

**Low-carbon technologies:** processes, equipment, systems, and resources that aim to reduce the emission of greenhouse gases, such as carbon dioxide (CO<sub>2</sub>)

**Material topic:** According to the GRI definition, materiality is the set of topics that “reflect significant economic, environmental, and social impacts of the organization, or substantially influence the assessment and decisions of stakeholders.”

**MOVER (Racial Equity Movement):** movement formed by 47 Brazilian companies that intend to work on the structures that perpetuate inequality in the country, breaking patterns and providing equally possible achievements for all

**RPPN:** acronym for Natural Heritage Private Reserve; a category of private domain conservation unit (UC) that, without affecting the ownership of the property, helps protect biodiversity in Brazilian biomes, contributing to the expansion of protected areas in the country

**Sexual harassment:** a single act or repeated action in which a person, who may be a woman or a man, is embarrassed, by a hierarchical superior or by another person who has some type of ascendancy inherent to the exercise of the position, with the intention of obtaining sexual advantage or favor

**Tag along:** a mechanism for protecting minority shareholders, which guarantees them the right to leave a company if the company's control is acquired by an investor that was not previously part of the Company

**TNFD (Task Force on Nature-related Financial Disclosures):** a global initiative that provides recommendations and guidance for financial organizations and businesses to understand and disclose the impact of their activities on nature

**UN's Global Compact:** initiative promoted by the United Nations (UN) to engage companies and organizations in the adoption of ten universal principles in the fields of Human Rights, Labor, Environment and Anticorruption Practices, to develop actions aimed at addressing society's challenges

**Unit:** also known as a Stock Certificate, is a package of shares traded on the stock exchange, composed of one common share and four preferred shares

**Water Footprint:** an indicator that measures and analyzes the volume of freshwater used throughout the entire production chain of a consumer good or service

**Water-Secure Management:** a set of practices that enable the proper guidance of land use and other natural resources with the aim of producing environmental goods and services without affecting the soil and water





Klabin

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