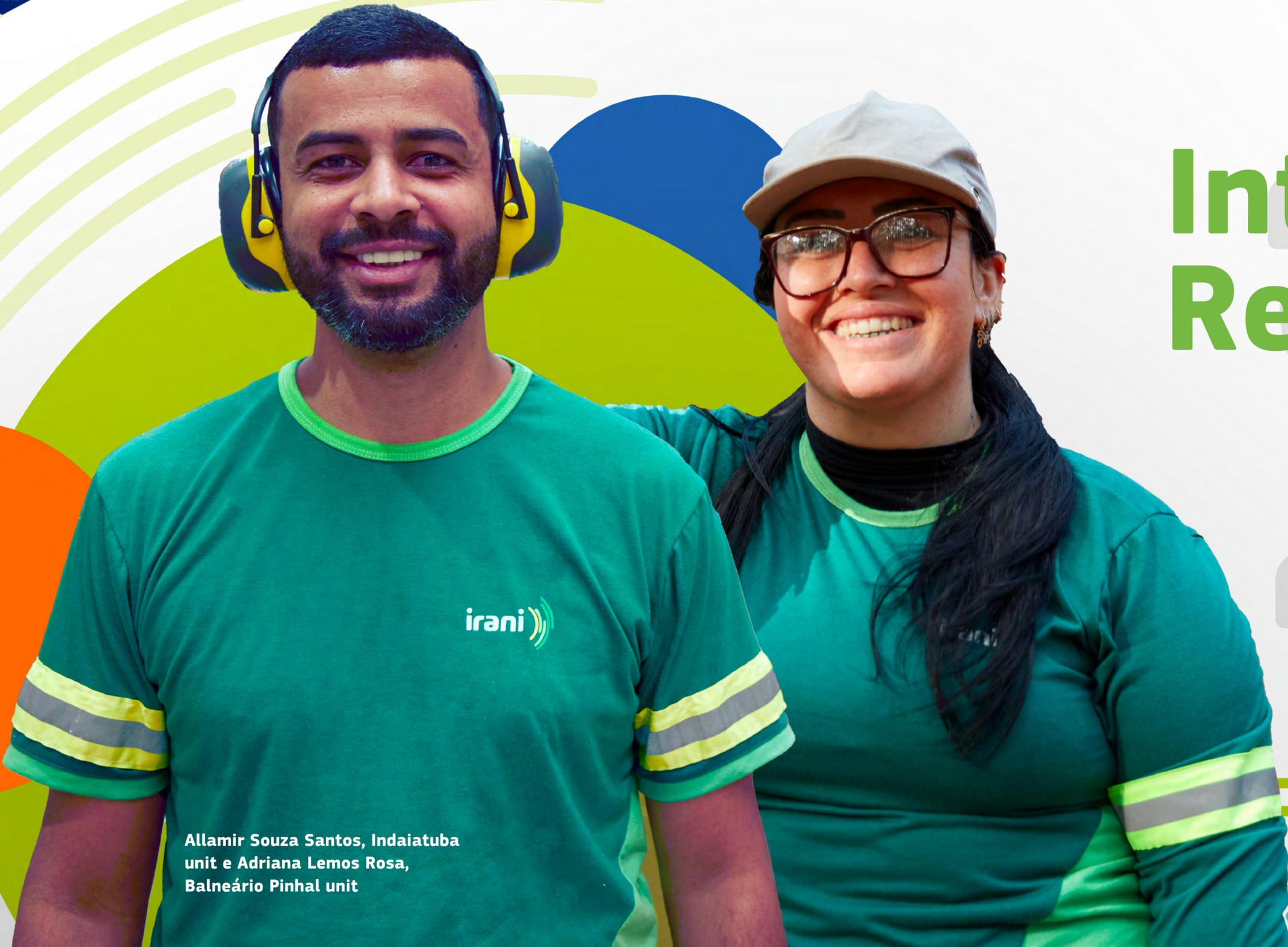




MELHORES EM
GESTÃO
reconhecida - ciclo 2022
prata



Allamir Souza Santos, Indaiatuba unit e Adriana Lemos Rosa, Balneário Pinhal unit

2022 Integrated Report (ESG)

Contents

Acácia Barbosa,
Campina
da Alegria unit

Message from the CEO



Sérgio Luiz Cotrim Ribas
CEO

Message from the CEO

__GRI (102-14)

For more than eight decades, we have been sowing relationships to reap prosperity and improve the lives of people and the planet, always guided by our mission to package everyday items with quality and care.

Irani's entire team is convinced that our company's mission extends far beyond the production of goods. As one of the most important industrial companies in Brazil's sustainable paper and corrugated packaging segment, we are committed to making a positive impact on the environment and the communities surrounding our facilities. Every day, we make every effort to improve management practices incrementally and add value to the various stakeholders with whom we maintain relationships.

As a result of this positioning, Irani was added to two significant B3 (Brazilian Stock Exchange) portfolios in 2022. It made its debut in the Dividend Index (IDIV), which exhibits the typical performance of asset prices and is notable for providing investors with compensation in the form of dividends and interest on shareholders' equity. Additionally, it was included in the B3 ISE portfolio (Corporate Sustainability Index). Being recognized by being included in this index, which aims to help investors make decisions, shows that we are dedicated to sustainable development and business transparency.

Environmental issues are at the forefront of our activities. We produce entirely recyclable products using renewable resources, and we were the second business in our sector to issue carbon credits in accordance with the Kyoto Protocol. To put it another way, we are able to sell these “credits” because we no longer emit large amounts of greenhouse gases into the atmosphere. We were also the first business in Brazil to be certified for a greenhouse gas emissions inventory under NBR 14.064-1:2006.

This dedication is deeply ingrained in the company’s manufacturing process; at the moment, paper scrap recycling accounts for 72% of our paper production, which supports the circular economy. Our support of societal projects like the Trash Biennial, which exhibits works of art made from trash as well as artistic interventions, workshops, lectures, and panel discussions that add to the conversation about environmental preservation, also serves as evidence.

Likewise, our commitment to ESG policies is present in the innovative businesses we implement. We are also deeply concerned with people’s well-being and development. Currently, all cities where we have operations have programs to support local communities. By 2022, we plan to invest R\$ 910,000 in projects with private social resources and donations in the communities near our units. Additionally, we allocated more than R\$ 3.2 million through incentive laws to municipal projects and funds.

The encouragement of volunteer work is another area we focus on. In the previous year, over a thousand hours were committed

to this purpose, supporting 29 corporate volunteer programs carried out by nearly 500 employees. All of this is made possible by facilitating workshops, renovating public places, organizing blood drives, and engaging the community in solidarity activities.

Attention to human capital

When it comes to investing in our employees’ professional growth and training, we spare no expense. In 2022, we encouraged professional self-development so that our staff members could take charge of their own careers. For example, we held the 2nd Self-Development Day to further engage teams that had received training throughout the year.

Every day, we respect and welcome each person and value the power of differences. Regardless of gender, age, ethnicity, religion, nationality, marital status, sexual orientation, or any type of disability, Gera Diversidade projects promote diversity and equal opportunities for everyone. We have come a long way in terms of gender issues. By 2022, we will have increased the ESG indicators for gender equality by 7%, with 22% of women in the workforce and 19% in leadership roles. We also created an LGBTI+ Talent Bank and reentered the Fórum Empresas e Direitos LGBTI+. These actions had a direct effect on our workplace and gave us beneficial chances for shared learning.

The inclusion of ESG goals into executive bonuses was a significant additional step. Furthermore, we continued to make progress

toward our 2021–2030 cycle goals, which include zero lost-time occupational accidents; 40% of women in the workforce and 50% of women in leadership positions; 100% renewable energy use by 2025; and 0% non-hazardous waste dumped in landfills.

Expressive numbers

The financial performance of the organization was directly affected by the engagement and wellness initiatives at work. Irani reported a record-setting net income of R\$ 378 million in 2022, an increase of 32.6% over the previous year. In addition, its net income of R\$ 1,686.66 billion was 5% higher than in 2021. Moreover, the company's adjusted EBITDA, which rose by 8.9% to R\$ 537.99 million, was the highest ever recorded. It is also important to note that the company's ROIC (return on invested capital) for the entire year was 23%.

The results did not come by chance: we set 106 productivity records across all areas in 2022. Furthermore, our Net Promoter Score (NPS) of 82, which places us in the Zone of Excellence, reinforced our belief that we are on the right track.

At the ESG + Investor Day 2022 in Indaiatuba, we presented our ESG aims and initiatives focused on innovation and value creation to investors and financial experts (SP). They were guided around the packaging plant and could observe the manufacturing process firsthand.

Iran maintained its investment strategy in industrial process modernization and automation in 2022. A total of R\$ 524.8 million was invested during this period in reforestation, maintenance and improvements to physical structures, software, machinery, and equipment. The Gaia Platform, our aggressive expansion strategy aimed at increasing the company's competitiveness, production capacity, and energy self-sufficiency, received R\$ 402.9 million of this sum.

The Gaia Platform is guided by a strong commitment to sustainable development in its three spheres: economic, social, and environmental. In 2022, we highlighted the conclusion of Gaia III, focused on the paper plant in Vargem Bonita (SC). This will enable us to boost the production of paper bags for physical and online retail, as well as kraft bags for delivery and takeout. (GS1)

We believe that innovation and sustainability go hand in hand. We ranked 17 topics for the development of RD&I projects in 2022, including 50 innovation initiatives. Currently, 22 of these projects are in the development phase, 12 are in the research phase, 10 are in the ideation phase, and 6 are in the implementation phase.

Among them is our collaboration with Nanox Tecnologia, which enabled the introduction in Brazil of the first paper packaging with antimicrobial technology, a solution that deactivates viruses, bacteria, and fungi. To promote the market for sustainable and niche packaging, we expanded our antimicrobial paper line partnerships with Mobri and Xalingo in 2022. This allows for greater health and safety for children's toys and packaging.

Parallel to this, Irani Venture (Irani's corporate venture capital entity) is constantly looking to support creative firms with strong growth potential. To this purpose, it made its initial investment of R\$ 1.5 million in Trashin, a firm that offers high-impact environmental solutions for garbage disposal issues.

Recognition

A source of pride for the company, I'd also like to mention the awards we won this year. The Pulp and Paper Best of ESG 2022 from Exame magazine is one of them. This recognition encourages us to continue advancing global development while doubling down on social and environmental responsibility practices.

In 2022, the Great Place to Work organization ranked our company among the top 20 best places to work in Brazil's industries. We were also recognized as one of the best employers in Santa Catarina and Rio Grande do Sul in the category for large businesses. During the course of the year, we participated for the first time in the GPTW 50+ survey, which comprises workers over the age of 50.

This acknowledgement is consistent with the findings of the 2022 GPTW Climate Survey, in which 79% of employees and leaders participated and received an average score of 86% across five dimensions: credibility, respect, pride, camaraderie, and impartiality.

For the first time, we were a finalist for the National Innovation Award (PNI), ranking third in the Innovative Projects: Innovation in Sustainability category. In addition, we received the TOP 3 Pulp and Paper prize in the TOP Open Corps 2021 competition (revealed in 2022) for being innovators in open innovation with Brazilian entrepreneurs.

For its part, the National Quality Foundation presented us with the Best in Management® Award for the first time ever (FNQ). This award recognizes managerial techniques, results and organization involvement. In addition, we were given the Transparency Trophy for being one of the top ten firms in Brazil with the most transparent financial statements in 2022 in the category of Net Revenue less than R\$5 billion.

Finally, Irani was named the Best Company of the Year in the Paper and Pulp category of Exame magazine's Melhores e Maiores (The Best and Biggest) award, which is one of the nation's most traditional and prestigious economic and business recognitions.

Such distinctions result from the efforts and commitment of all Irani's employees. They indicate that the defined strategy is yielding results. We will continue working with renewed vigor and resolve because we are on the right track in our pursuit of excellence.

Have a good read!

Sérgio Luiz Cotrim Ribas, president and CEO

Our Business Model



Elizandra da Silva,
Balneário Pinhal
unit

Irani

(102-1)

At every stage of production, from the raw materials to the finished product, Irani creates 100% recyclable products using renewable natural resources. The environment and the surrounding communities benefit as a result.

(102-2) In the paper for packaging and corrugated cardboard packaging sectors, we are one of the top Brazilian industries. We produce packaging paper, corrugated cardboard sheets and boxes, resins from pine, rosin, and turpentine, as well as self-generated energy from our own forests.

Beyond simply creating products, our company works hard to build prosperous relationships.

We have embraced and packaged life for more than eight decades, shipping goods that improve people's daily lives. We are always propelled by the belief that by working together, we can shape the future. We intend to keep organizing, forming, and enhancing life in the upcoming years. of the planet, of the people.



Antonio Filho,
Indaiatuba
unit

Business profile

(102-2 and 102-3) The business of Irani Papel e Embalagem S.A. comprises three distinct segments that operate independently, yet harmoniously and in an integrated manner. We strive to optimize the utilization of Pinus plantations through their multiple purposes, paper recycling and verticalization of business.



Sustainable Packaging Segment:

Manufactures light and heavy corrugated cardboard boxes and sheets, with two industrial units: Packaging SC Campina da Alegria and Packaging SP Indaiatuba.



Sustainable Packaging Paper Segment:

Produces low and high weight Kraft paper and recycled paper for the domestic and foreign markets, with most of it being transferred for conversion in the Sustainable Packaging Segment units. It has a unit equipped with four paper machines, located in Vargem Bonita - SC (Campina da Alegria SC Paper), and a plant with a paper machine in Santa Luzia - MG (Santa Luzia MG Paper).



RS Forestry and Sustainable Resins Segment:

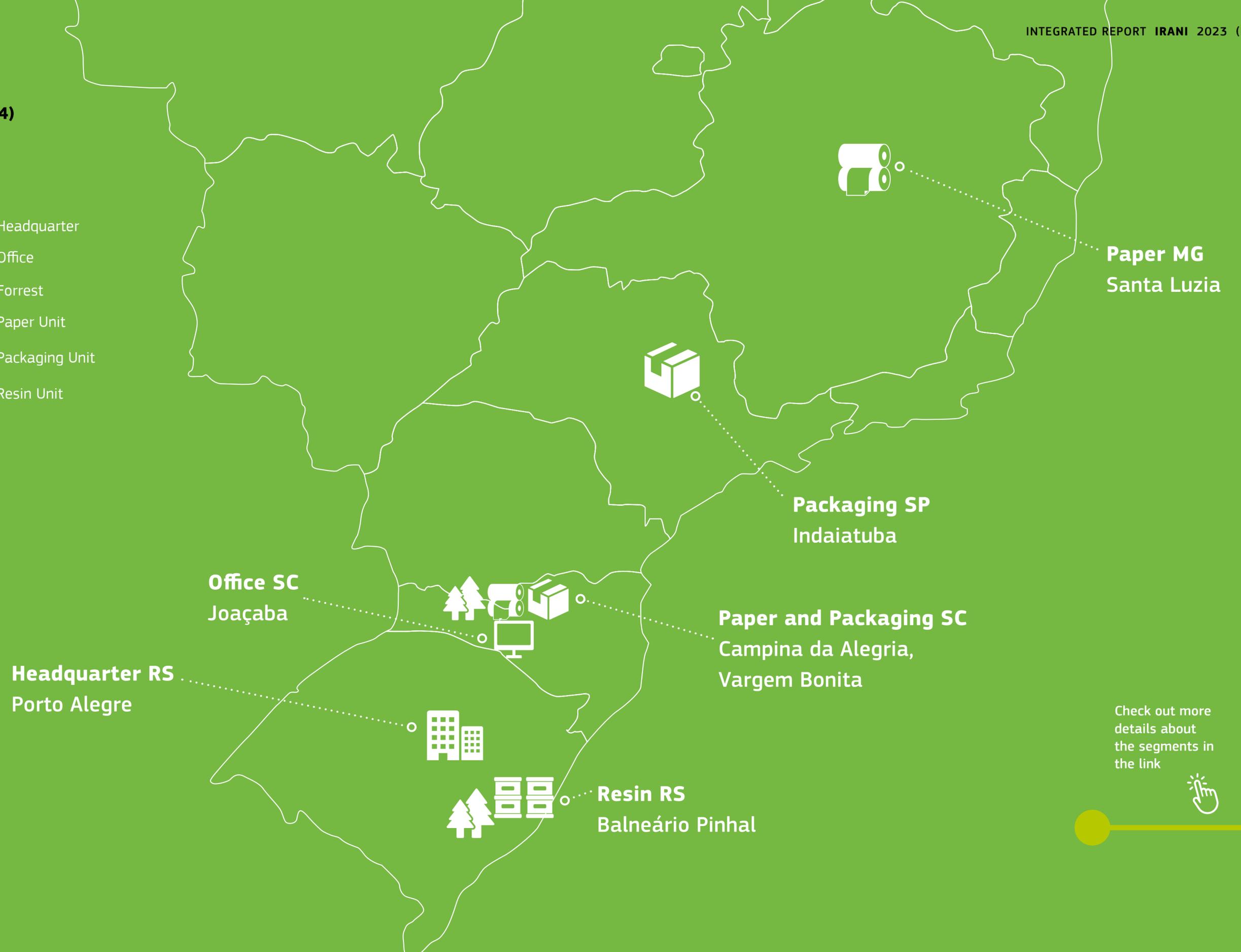
Sells wood, rosin, and turpentine. The products are manufactured from forest assets both owned by the company and purchased from third parties. The business unit called Resin RS Balneário Pinhal, with an industrial plant in Balneário Pinhal, in Rio Grande do Sul, uses natural resin from the Pinus forest to produce rosin and turpentine. Destined mainly for the overseas market, the substances are used in the manufacturing of varnishes, paints, soaps, glues, and adhesives, among other items.



Bruno Ferreira,
Indaiatuba unit

(102-4)

-  Headquarter
-  Office
-  Forrest
-  Paper Unit
-  Packaging Unit
-  Resin Unit



Check out more details about the segments in the link



Subsidiaries (102-45)

Furthermore, Irani Papel e Embalagem S.A. has the following wholly-owned subsidiaries:



- **Habitasul Florestal S.A.:** with a land base of 5.900 hectares, of which 3.900 are planted with Pinus in Rio Grande do Sul, it supplies resin to the Resins unit of Irani Papel e Embalagem S.A. and wood to customers in the region.

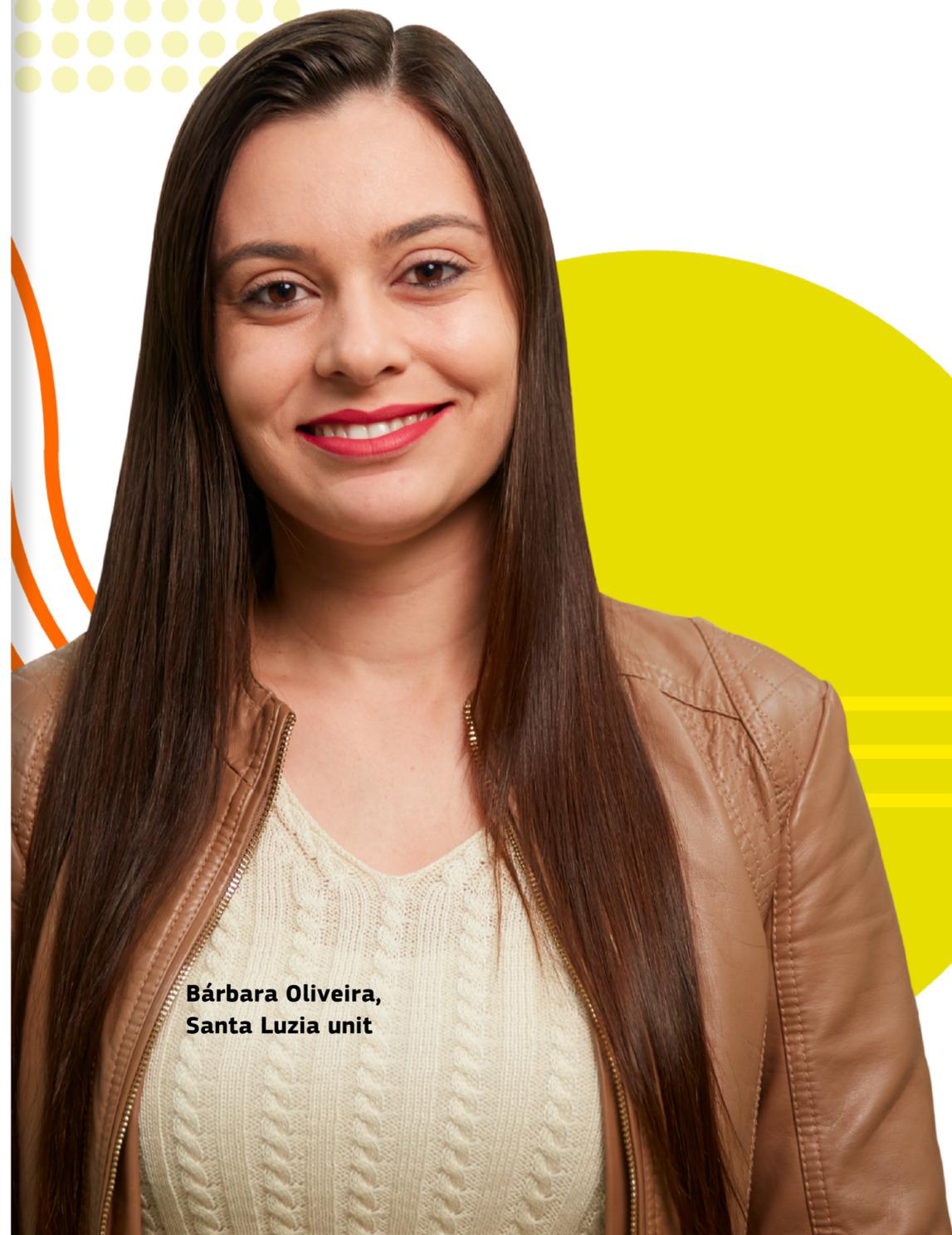
- **HGE – Geração de Energia Sustentável S.A.:** non-operational

- **Iraflor Comércio de Madeiras Ltda.:** is responsible for the administration and sales of wood and forests to the parent company Irani Papel e Embalagem S.A. and to the market.

- **Irani Soluções para E-commerce:** performs sales through digital platforms of 100% recyclable and biodegradable packaging, produced with recycled raw material.



- **Irani Ventures Ltda.:** Corporate Venture Capital (CVC) vehicle for prospecting, selection, investments and acceleration of startups that present high growth potential and act in synergy with our business model.



Bárbara Oliveira,
Santa Luzia unit

1



Pinus seeds cultivated in SC in own nursery



Production of paper from virgin fiber



Sale to regional sawmill and laminators market (surplus wood)

2



Paper recycled from paper scrap collected in cities



Recycled paper, with exclusive dedicated unit in Minas Gerais, for sale



Sale of wood to regional furnituremakers market

3



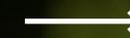
Planted pinus forests in RS



Extraction of gum – Resin and resination



Sale of wood to regional furnituremakers market



1st in resin market to certify forest management and the chain of custody by FSC® (FSC® C009947/FSC® C116791) and 1st producer of gum rosin and turpentine in Brazil

Our Strategic Intention

(102-16, 102-26) In 2021, Irani revised its Strategic Intent based on the guidelines of the Strategic Plan prepared for the 2021-2030 cycle, with the approval of the Executive Board and the Board of Directors. In the review process, the following purpose was added to the Strategic Intent of the Company:

Transform people's lives through sustainable attitudes and solutions

This is the purpose that inspires and drives us every day as we work to build the company we envision for 2030.



Mission

Build valuable relationships to generate prosperity.



Vision

Be the best and most admired company in the businesses in which it operates.

Values



Life, first of all

We respect all the lives that make up our ecosystem. We seek balance and security in everything we do.



Sustainability

With proper governance, we balance environmental, economic and social responsibilities.



Protagonism

We make it happen. We have courage and we believe in autonomy and empowerment.



Diversity and Inclusion

We respect and welcome each individual. We value the power of differences.



Cordiality

We treat people with cordiality and respect, which are essential for building valuable relationships.



Integrity

We understand integrity and ethics as the foundation of everything we do.



Focus of the client

We understand the challenges of our clients and work together with agility and excellence for the sake of prosperity.

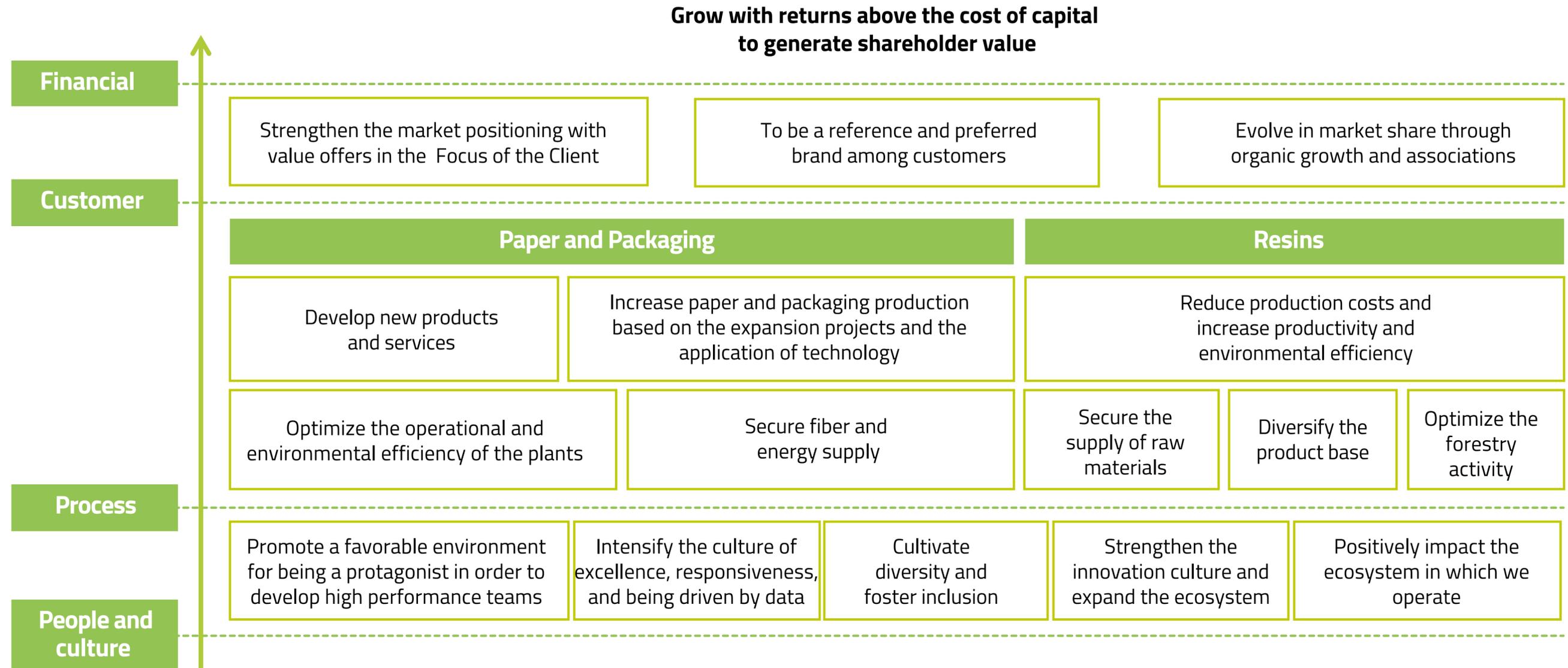


Innovation

We value the new. We understand that resilience, agility and permission to make mistakes are essential for creating new solutions.

We use the Balanced Scorecard (BSC) methodology to prepare our Strategic Map, aligning the strategic objectives according to four perspectives: Financial; Customers; Processes; People and Culture.

Strategic map



(102-15) Based on the Strategic Map, we listed the main challenges and uncertainties for the 2021-2030 cycle in each of the outlooks, as shown below.

Financial Perspective

- Reduce the cost of debt (Kd) via new issues;
- Maintain the leverage/rating/debt term/cash balance in line with the Financial Management Policy during the execution of the Gaia Platform;
- Equalize debt and equity;
- Guarantee the availability of resources for future growth;
- Maintain the return on invested capital above the average cost of capital;
- Maximize market value and shareholder return.

Customer Perspective

- Develop new services/products that genuinely add value to the customer relationship;
- Monitor the risk of impact on customer operations due to new waves of infection by Covid-19 or other viruses;
- Expand products that are able to replace less sustainable raw materials (such as plastic), capturing this increased demand.

Processes Perspective | Sustainable Resins

- Reduce costs and unproductive times related to equipment obsolescence and outdated industrial technology;
- Develop a loyal chain of suppliers and support the formalization of the supply chain players;
- Expand the intelligence about the rosin and turpentine market and make more assertive price and demand forecasts;
- Increase the production flow options through several ports and logistic modalities.

Processes Perspective | Paper for Sustainable Packaging

- Complete the Gaia Platform's monetization and expansion projects within the stipulated deadlines and budgets;
- Avoid dependence on only one machine for the production of low basis weight papers;
- Monitor the entry of better quality recycled and white papers in the low grammage segment, implying increased market competition;
- Monitor the migration of players from the printing and writing market to the paper for packaging market, which may lead to an increase in supply in the market.

Processes - Perspective | Sustainable Packaging

- Sell the additional volume generated by Gaia II to the SC Packaging unit without reducing the profitability of the business;
- Maintain profitability amidst a challenging macroeconomic scenario for the coming years;
- Increase market consolidation, generating increased competitiveness;
- Monitor investments to expand the capacity of competitors, increasing the supply of products in the market.

People and Culture Perspective

- Compete for talent with companies that are less hierarchical, more innovative, competitive, and faster in their people management practices;
- Train women to assume roles similar to those of men in the operation and leadership of teams since, as an organization with an industry profile, the workforce is predominantly male;
- Consolidate the culture of innovation and expand the implementation of new ideas due to the need to raise the level of conceptual and strategic understanding about innovation. Furthermore, measure the results through the implementation of internal ideas;
- Increase investments in RD&I among the areas, since an innovation investment budget has not been determined by the company;
- Expand the performance with innovative ecosystems, exploring connections and investments through Corporate Venture Capital in disruptive innovations to strengthen the open innovation strategy.

Irani's strategic objectives are broken down into annual targets, with the possibility of extension until the end of each Strategic Planning cycle. For the period ending in 2022, we achieved the following results:

		Result 2022	Capital Impacted													
Financial	Grow with returns above the cost of capital to generate shareholder value	83% of the target met	  													
Customer	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid #ccc; padding: 5px; width: 30%;">Strengthen the market positioning with value offers in the Focus of the Client</div> <div style="border: 1px solid #ccc; padding: 5px; width: 30%;">To be a reference and preferred brand among customers</div> <div style="border: 1px solid #ccc; padding: 5px; width: 30%;">Evolve in market share through organic growth and associations</div> </div>	60% of the targets met	   													
Process	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">Paper and Packaging</th> <th style="width: 50%; text-align: center;">Resins</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Develop new products and services</td> <td rowspan="2" style="padding: 5px; vertical-align: top;">Reduce production costs and increase productivity and environmental efficiency</td> </tr> <tr> <td style="padding: 5px;">Increase paper and packaging production based on the expansion projects and the application of technology</td> </tr> <tr> <td style="padding: 5px;">Optimize the operational and environmental efficiency of the plants</td> <td style="padding: 5px;">Secure fiber and energy supply</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">Secure the supply of raw materials</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">Diversify the product base</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">Optimize the forestry activity</td> </tr> </tbody> </table>	Paper and Packaging	Resins	Develop new products and services	Reduce production costs and increase productivity and environmental efficiency	Increase paper and packaging production based on the expansion projects and the application of technology	Optimize the operational and environmental efficiency of the plants	Secure fiber and energy supply		Secure the supply of raw materials		Diversify the product base		Optimize the forestry activity	50% of the targets met	    
Paper and Packaging	Resins															
Develop new products and services	Reduce production costs and increase productivity and environmental efficiency															
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Optimize the operational and environmental efficiency of the plants	Secure fiber and energy supply															
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	Diversify the product base															
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People and culture	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="padding: 5px;">Promote a favorable environment for being a protagonist in order to develop high performance teams</td> <td style="padding: 5px;">Intensify the culture of excellence, responsiveness, and being driven by data</td> <td style="padding: 5px;">Cultivate diversity and foster inclusion</td> <td style="padding: 5px;">Strengthen the innovation culture and expand the ecosystem</td> <td style="padding: 5px;">Positively impact the ecosystem in which we operate</td> </tr> </tbody> </table>	Promote a favorable environment for being a protagonist in order to develop high performance teams	Intensify the culture of excellence, responsiveness, and being driven by data	Cultivate diversity and foster inclusion	Strengthen the innovation culture and expand the ecosystem	Positively impact the ecosystem in which we operate	67% of the targets met	    								
Promote a favorable environment for being a protagonist in order to develop high performance teams	Intensify the culture of excellence, responsiveness, and being driven by data	Cultivate diversity and foster inclusion	Strengthen the innovation culture and expand the ecosystem	Positively impact the ecosystem in which we operate												

We end the Strategy by showing the Irani we want to be in 2030



Growing with through a differentiated generation of value for shareholders



Optimized capital structure



Self-sufficient in renewable energy generation



Among the best companies to work for in Brazil



Market benchmark company



Innovative, diversified and inclusive

This Integrated Report shows the topics that are important to stakeholders and that guide our strategies for sustainability. Our Governance structure supports the establishment of management practices aligned with the organization’s strategic planning and, when translated into actions, generates values over time. Thus, the themes are aligned with our Strategic Plan, which contributes to the achievement of our mission to “Build valuable relationships to generate prosperity,” essentially for a greater purpose: “Transform people’s lives through sustainable attitudes and solutions.”

We present a breakdown of management practices into a series of steps. Specifically:

- **Being part of the B3’s Novo Mercado**, which led to an improvement in the Company’s governance and generated even more reliability for investors;
- **Focus of the Client Program**, to promote prosperity and innovation for our clients;
- **Climate survey**, to upgrade people management and generate personal and professional development for employees;
- **Social and environmental projects in the communities around our units**, promoting sustainable development and obtaining recognition through awards given by governments and society;
- **Development of the Irani Suppliers and Urban Forest programs**, for the development of partnerships with suppliers and the generation of value in the production chain;
- **Programa Irani Labs e Irani Ventures** para aceleração de Startups e fortalecimento de um ecossistema inovador.

We added **R\$ 1,166 million** to Society, to wit:

R\$ 353 million

distributed in the form of taxes and municipal, state and federal contributions;

R\$ 298 million

reinvested into our businesses

R\$ 234 million

million to employees, distributed in the form of remuneration, benefits and incentives;

R\$ 188 million

to other parties, distributed among service providers and other sectors.

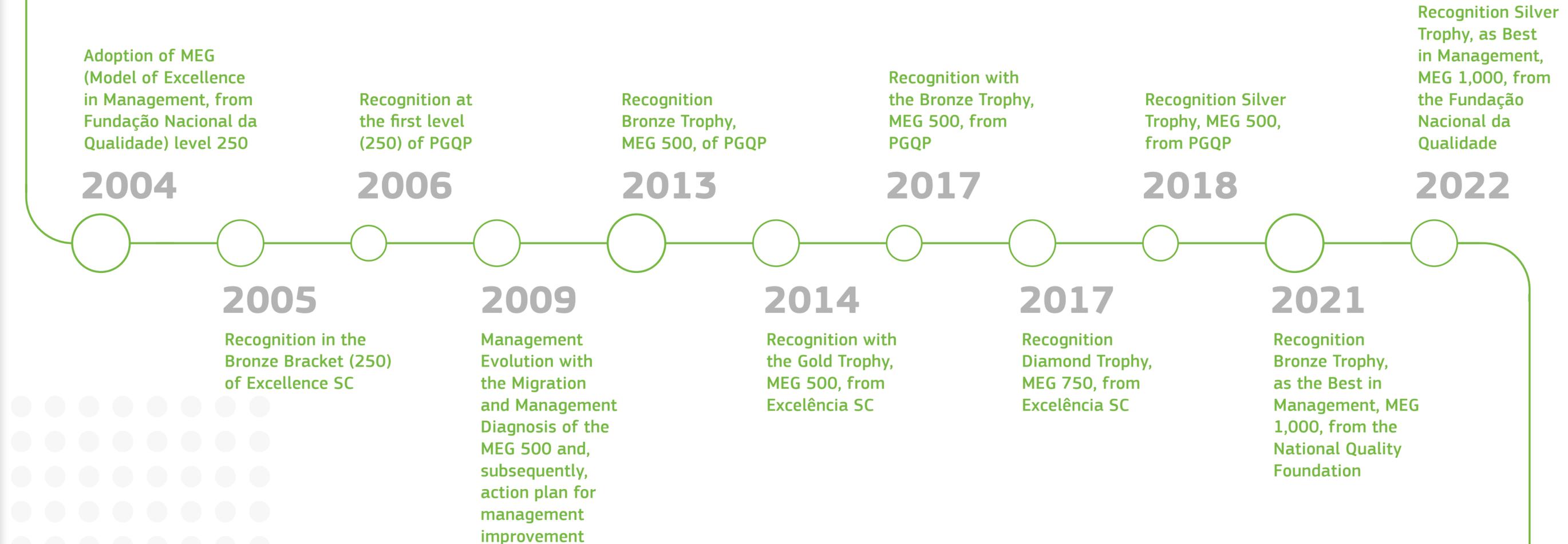
R\$ 93 million

million to shareholders, distributed as dividends or interest on shareholders' equity (IoE);

Pursuit of excellence in management

The pursuit of excellence has always been the driving force behind Irani's activities. Highlighting our milestones in history, we are proud to have implemented quality and environmental certifications.

Learn more about other initiatives that have been adopted over time, as well as awards and recognition achieved by the Company:



Main results of 2022 of the capitals

Social and Relationship

- We are the only company in the packaging segment to integrate the IGPTWB3 portfolio;
- We are part of the B3 Dividend Index (IDIV B3), a select group of stocks with outstanding shareholder remuneration;
- For the first time we are part of the B3's Corporate Sustainability Index (ISE B3), which comprises the best evaluated companies in terms of governance and sustainability practices;
- For the second consecutive time, we won the Transparency Trophy of the ANEFAC Award, being among the ten companies with the most transparent financial statements in the country in 2022, in the Net Revenue category below R\$ 5 billion;
- We improved Governance by integrating the ESG topic into the Strategy Committee;
- We registered and handled 89 submissions about the Code of Ethics, of which 61 related to behavior and the work environment, 20 related to business integrity, 5 inquiries and 3 related to misuse and/or misappropriation of assets;
- We updated and validated, with the risk managers, 451 internal controls, of which 266 were corporate and 185 operational;

- More than 500,000 invested in Diversity and Inclusion projects and actions;
- We included ESG commitments in Executives' Bonuses;
- We held our second Irani Investor Day and included the ESG agenda. The event became ESG+Investor Day 2022;
- 82 NPS General Index in the Customer Satisfaction Survey, with 55% of the customers giving the maximum score;
- R\$ 3.2 million directed to municipal funds and projects in our surroundings making use of Tax Incentive Laws;
- R\$ 910,000 invested in social projects and institutional donations;
- More than 500 volunteers dedicated their time to 29 actions in the communities in the vicinity of our operations;
- 88 of NPS General Index in the surrounding communities in SC and RS;
- We are signatories of the Global and Business Pact for Integrity and Against Corruption, committed to ethics and human rights;
- More than R\$ 312 million in purchases from lo-cal suppliers, representing more than 18% of the company's purchases;
- We received the Best and Biggest in the Pulp and Paper category and the Best of ESG 2022 awards from Exame magazine.

Financial

- R\$ 1,686,666 thousand in Net Operating Revenue, 5% higher than in 2021;
- R\$ 537,988 thousand of adjusted EBITDA, 8.9% higher in relation to 2021;
- R\$ 378,210 thousand of Net Income, 32.6% higher in relation to 2021;
- 1.38x Adjusted Net Debt/EBITDA;
- 23% ROIC (Return on Invested Capital);
- Buyback Program: the Company repurchased 1,487,700 shares, which represents a total of 15.13% of the executed program.

Human

We reached 86% employee satisfaction through the GPTW Survey, making us the 8th best company to work for in RS, the 5th best large company in SC and we are among the 20 best industrial companies to work for in Brazil;

More than 67% of vacancies filled by internal recruitment;

92% employee satisfaction with the Integration process;

We created Gera Acessibilidade, an architectural-based review project to improve the company's workplace environments and make the spaces more accessible to everyone;

We held the first Women's Mentoring Program, designed to bolster self-confidence and expand awareness, leveraging possibilities for women's performance, careers and personal and professional development;

We launched the "Eu valorizo a Diversidade" (I value Diversity) project, a program to indicate minority groups in the Company and "+Delas na Operação," (More Women in Operations) which aims to provide opportunities for the professionalization of women in the industrial area, fostering gender equality;

300+ hours in the 1st cycle of the Growing Together Mentorship initiative, involving 22 mentors and 34 mentees;

More than 500,000 invested in Diversity and Inclusion projects and actions; R\$ 44,814,000 invested in employee benefits;

More than 37 hours of training per employee;

R\$ 1,597,000 invested in training and development;

R\$ 311,000 in educational subsidies;

51% of the indicators in the Supera Resultado Program were exceeded and 18% of the targets were met;

We are signatories of the Companies and LGBTI+ Rights Forum promoting efforts so that the 10 Commitments of Irani with the LGBTI+ Rights become a reality, providing benefits to society;

We launched the LGBTQIA+ talent bank that has already received more than 120 resúmes;

We launched the mental health program through the Psicologia Viva (Living Psychology) platform, with more than 650 consultations;

17.8% increase in the accident severity rate;

27.8% reduction in the accident with lost time frequency rate;

Zero lives changed due to serious and/or permanent injuries.

More than 750 hours of training in Regulatory Norms;

Investments of R\$ 2.9 million in improvements in Health and Safety.

Manufacturing

220 hours of Lean Development Track training, graduating 159 Yellow Belt and 73 Green Belt employees;

106 productivity records;

Maintenance of 33,899.48 hectares of land, of which 82.4% is in Santa Catarina and 17.6% in Rio Grande do Sul;

100% of business certified ISO 9001, ISO 14064 and FSC® (FSC® C009947/FSC® C020437/FSC® C116791);

100% of the Packaging Business certified in ISO 14001;

293,556 tons of paper produced, a reduction of 1.2% compared to 2021, with 57% of this volume transferred to the packaging business;

124,880 tons of paper sold, a reduction of 0.9% compared to 2021;

159,840 tons of packaging sold, an increase of 1.5% compared to 2021;

Use of 186 tons of gum-resin as raw material, 22.96%, of which 22.96% from own resin;

R\$ 524.8 million directed to reforestation, maintenance and improvements of physical structures, software, machinery and equipment, of which R\$ 402.9 million was for the Gaia Platform;

51.97% of energy self-generation;

63.82% of renewable energy consumption.

Intellectual

50 projects and innovation initiatives in the 4 Technology Platforms, of which 22 are in the development stage, 12 in the research stage, 6 in implementation and 10 in the ideation stage;

Partnership with Mobri and Xalingo to expand the promotion of the sustainable packaging market;

Irani Labs, our open innovation program, conducted 7 proofs of concept (PoC) in the following themes: Customer Experience, Packaging Design, Industry 4.0 and New Materials and Barriers;

100% NPS General Index, Satisfaction Survey with Startups;

We made our first investment from our Corporate Venture Capital Vehicle (CVC) in Trashin, a company focused on 360° waste management and reverse logistics;

We organized the second Demoday of Irani Ventures with startups selected by the accelerator and manager of the vehicle, Grow+, with the participation of 132 ventures, of which 8 were finalists and 6 were selected;

252 ideas registered in the Ideas Program, 66 of which were implemented;

111 ideas recognized with financial support, totaling R\$ 15,000 and with an operational/potential result of R\$ 692,000;

More than R\$ 2,858 thousand in net tax benefit expected with 37 projects eligible for the Lei do Bem (Law of Good);

We entered the Ranking TOP Open Corps 2021 as leaders in open innovation with startups in Brazil. We were awarded TOP 3 Pulp and Paper;

We were finalists in the National Innovation Award (PNI) for the first time, occupying the 3rd position in the "Innovation in Sustainability" category;

We were among the 150 most innovative companies in the country, according to the 8th edition of the Valor Innovation Brazil Award;

We are one of the 25 most innovative companies in the South of the country, according to the Ranking Champions of Innovation;

We have robotized more than 700 hours, reaching an accumulated mark of more than 1,300 robotized hours per month distributed in more than 35 robotized processes;

We created our Center of Excellence (CoE) for Hyperautomation;

We digitalized, through DPA - Digital Process Automation, 13 more processes that brought traceability, standardization and agility to the business processes;

We created our Data Science and Analytics area;

We created the Information Security area.

Natural

More than R\$ 321 million invested in environmental management initiatives, improvements, and processes;

More than 2,450 hours dedicated to environmental education, benefiting more than 4,000 people;

42% of the territory set aside for nature conservation;

Reduction of 2.9% in the specific use of raw water;

1.3% reduction in the generation of raw effluent;

98% of raw materials from renewable sources;

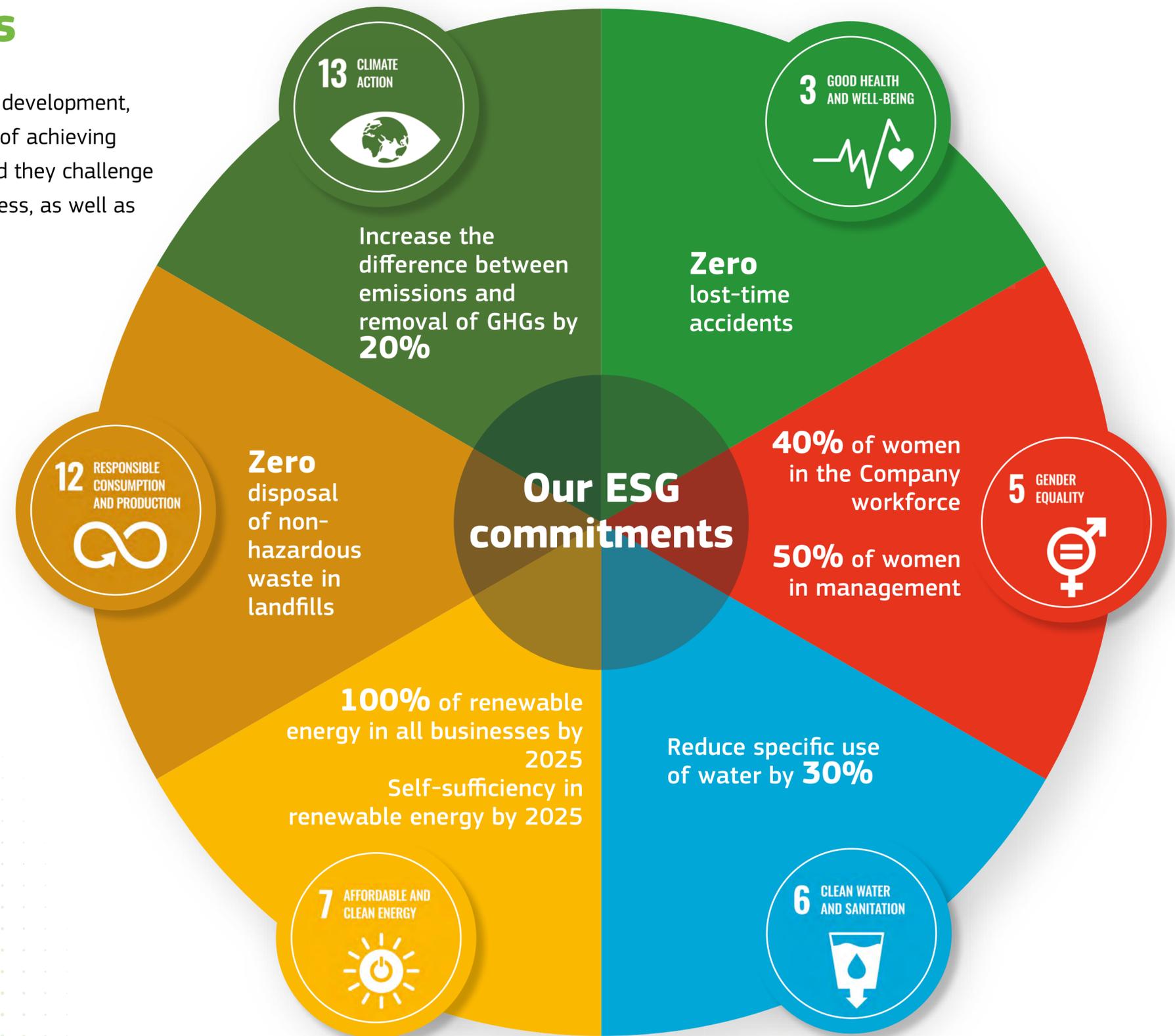
Reduction of 27.8% of non-hazardous waste sent to landfill;

42,226 CERs generated by the project between 2020-2021 and we renewed the credit period for another seven years of the CDM project Effluent Treatment Station at the UN;

The company is a signatory of the Sustainable Development Goals of SC and RS.

Our ESG commitments

Aligned with the UN's global agenda for sustainable development, we have six ESG commitments with the perspective of achieving them by 2030. They are included in our strategy, and they challenge our teams to seek innovative solutions for the business, as well as the optimization of operational processes.



Monitoring the performance of ESG Commitments

SDG	Target	2021	2022	2030	Performance in 2022	What will we do by 2030?
	Zero occupational accidents with lost time	38	25	0	<ul style="list-style-type: none"> Educational campaigns in partnership with CIPA; Observation and Prevention Program; We organized more than 2600 training courses; Adequacy of NRs 10, 12, 20, and 35; Establishment of the Risk Management Program (PGR); Implantation of the Hazardous Electrical Energy block; Renewal of the Ergonomics Committees; Launching of the Mental Health Program; 	<ul style="list-style-type: none"> Modernize the physical structures in the units; Adequacy of NRs 10, 11, 12, 13, 17, 20, 26, 32, 33 and 35; Expand the level of awareness with structured health and safety programs for accident prevention;
	40% of women in the work-force	17%	22%	40%	<ul style="list-style-type: none"> In 2022 we had 54% of women selected for the final stages of the hiring process, which is an important indicator of the impact on the recruitment of more women; We carried out a pilot initiative at the Indaiatuba unit, the + Delas na Operação program, which aims to provide opportunities for the professionalization of women in the industrial area, promoting gender equality. In 2022, the Leadership Development Program held training on the topic of diversity in order to prepare our team of leaders. Totalling more than 360 hours of development with the participation of 132 leaders; Our employees have access to five structuring programs, one of which is Generate Diversity, whose activities promote respect for diversity and equal opportunities regardless of gender, age, ethnicity, religion, nationality, marital status, sexual orientation, and any type of disability and are aligned with our core values so that we become more diverse and inclusive. 	<ul style="list-style-type: none"> Maintain at least 50% of women in the final stages of the selection processes; Seek support tools in selection processes to reduce biases when choosing professionals; Application of the “+ Delas na Operação” program in all units of the company;
	50% women in leadership positions	17%	19%	50%	<ul style="list-style-type: none"> In 2022, we kicked off the first Female Mentoring Program with the participation of 20 women, designed to boost self-confidence and leverage possibilities for women’s performance, career and personal and professional development. This group disseminated the program to 80 more people reflecting on the journey of equity and respect. 	<ul style="list-style-type: none"> Maintain at least 50% of women in the final stages of the selection processes; Structure an exclusive Trainee Project for women; Seek support tools in selection processes to reduce biases when choosing professionals. All positions vacated by women must be filled predominantly by women. Ensure that women are assigned to 50% of succession positions; Make it a priority to fill all new leadership position openings and/or replacements with women;

SDG	Target	2021	2022	2030	Performance in 2022	What will we do by 2030?
	Reduce 30% of water use per ton produced, compared to 2020	10,97 m ³ /ton	10,65 m ³ /ton	8,3 m ³ /ton	<ul style="list-style-type: none"> Improvement in the process aimed at reducing water consumption, such as: reuse of water, closing drains, changing tank limits, improvements in use logics, enhancement of machinery efficiencies; 	<ul style="list-style-type: none"> Water reuse projects and circuit closures.
	Become selfsufficient in renewable energy generation*	51%	52%	100%*	<ul style="list-style-type: none"> Increased hydroelectric power generation due to the large volume of rainfall and, consequently, reduction in the purchase of conventional energy. 	<ul style="list-style-type: none"> Recovery Boiler with power generator (GAIA I); Repowering of the CGHs (GAIA IV and V); Biomass boiler with power generator at Paper MG; Buy energy from incentivized sources; Study renewable energy production alternatives.
	Consume 100% Renewable Energy*	64%	67%	100%*		
	Zero disposal of non-hazardous waste in landfill	24.185 ton	17.445 ton.	0 Ton	<ul style="list-style-type: none"> Disposal of waste from paper machine for coprocessing and ETE sludge for composting (Paper MG). 	<ul style="list-style-type: none"> Sending the waste braided strip for recycling (SC Paper); Discontinuity in the operation of the Broby furnaces, eliminating generation of brick waste (SC Paper); Composting sludge ETE (SP Packaging); Recycling civil construction waste (MG Paper) and plastic bags (Resins); Burning in a boiler, disposal to third parties of plastic from shavings (SC Paper); Optimization of segregation and collection of lower generation waste (all units).
	Increase by 20% the positive balance between emissions and removals of Greenhouse Gases (GGE)	41.596 ton CO ₂ eq	4.904 ton CO ₂ eq	49.915 ton CO ₂ eq	<ul style="list-style-type: none"> Compensation of scope 2 (Energy) emissions from the Indaiatuba packaging unit through the acquisition of renewable energy certificates (I-RECs); Ending of planting partnerships impacting on a smaller forest base and consequently on less GHG removal. 	<ul style="list-style-type: none"> Increased energy efficiency of industrial plants; Reduction of non-hazardous waste to landfill; Increased carbon reservoir through a study on Carbon in the soil of our forest base (Native and planted); Increase in forest base.

*Target for 2025.

Our capitals

For us, creating value and achieving sustainable outcomes are essential. We strive to satisfy shareholders while honoring the requirements and expectations of customers, employees, suppliers, governments, the local community and society as a whole. To accomplish this objective, we have cultivated a variety of capitals:



Carlos Vasconcelos,
Balneário Pinhal
unit



Social and Relationship

Reflect our governance practices, which translate into a transparent, ethical and honest way of relating with all of our stakeholders.



Intellectual

It is Irani's brand reputation and image, based on the Valid Companies concept and Focus of the Client, generating value through the ability to develop innovative products and services.



Financial

Refers to our economic-financial management practices.



Manufacturing

These are our physical and biological structures, distributed in four Brazilian states. They are dedicated to delivering quality products manufactured with the rational use of natural resources.



Human

Is composed of our employees and their skills, enhanced by structuring programs for hiring, integration, training, development, motivation, care and recognition of people.



Natural

How we care for renewable and non-renewable environmental resources, principally water, air, land, forests and biodiversity. It is based on the best socio-environmental practices and has the proper certifications for each activity.



Amanda Fortunato,
Santa Luzia unit



Social and Relationship Capital





GRI 103-1, 103-2, 103-3, 102-18, 102-19, 102-20, 102-21, 102-22, 102-23, 102-24, 102-25, 102-26, 102-27, 102-28, 102-29, 102-30, 102-31, 102-32, 102-33, 102-34, 102-35, 102-37, 102-38, 102-39
ISE

Governance

Our governance structure is guided by transparency, socio-environmental responsibility, ethics, courage, cordiality, innovation and a pioneering spirit. We are driven by the search for the best relationship practices with our shareholders and other stakeholders.

RANI B3 LISTED NM

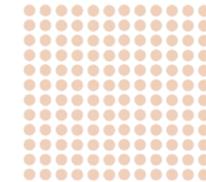
B3 INDEXES IN WHICH THE COMPANY IS INCLUDED

- IGC B3** Differentiated Corporate Governance Stock Index Governance Stock Index
- IGC-NM B3** Corporate Governance Index - Novo Mercado
- ITAG B3** Differentiated Tag Along Stock Index
- IBRA B3** BM&FBOVESPA Broad Brazil Index
- IMAT B3** Basic Materials Index BM&FBOVESPA
- SMLL B3** Small Cap Index
- IGCT B3** Corporate Governance Trade Index
- IGPTWB3** Great Place to Work Index
- IAGRO-FFS B3** B3 Agribusiness Index
- ISE B3** B3 Sustainable Company Index
- IDIV B3** B3 Dividend Index

Company Structure

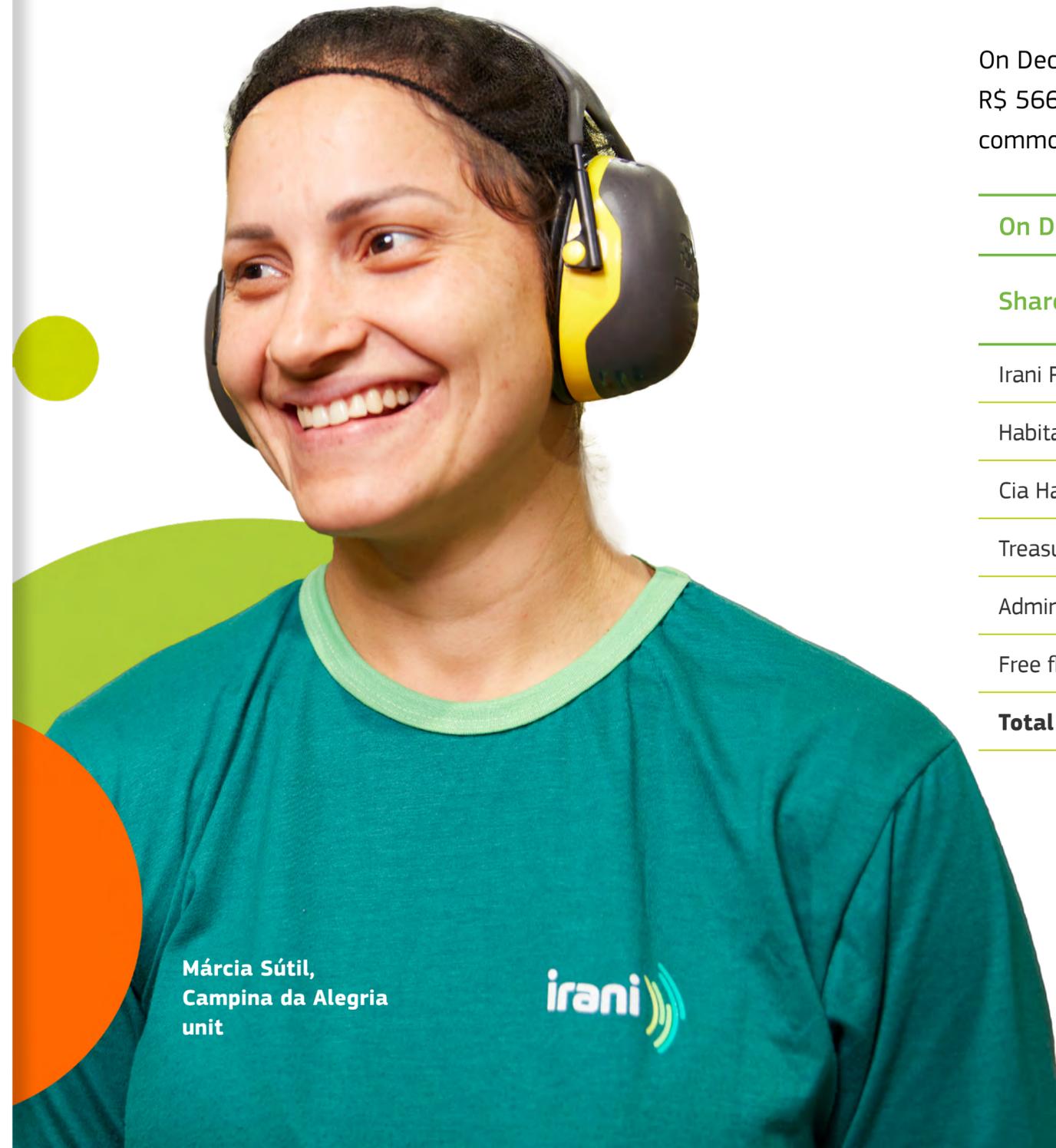
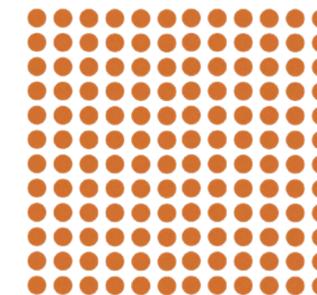
(102-18)

On December 31, 2022, our capital stock was R\$ 566,894,847.81, divided into 246,359,319 shares, 100% common (ON: R\$ 8.05 each).



On December 31, 2022

Shareholders	Common shares	%	Total shares	%
Irani Participações S.A.	98,723,887	38.46%	98,723,887	38,46%
Habitasul Des. Imobiliários S.A.	26,852,260	10.46%	26,852,260	10,46%
Cia Habitasul de Participações	21,077,100	8.21%	21,077,100	8,21%
Treasury shares	5,166,116	2.01%	5,166,116	2,01%
Administrative shares	1,677,507	0.65%	1,677,507	0,65%
Free float	103,223,365	40.21%	103,223,365	40,21%
Total shares	246,359,319	100%	246,359,319	100%



Márcia Sútil,
Campina da Alegria
unit

irani

Governance Structure

(102-18.a and 102-18.b)



Cleber Martins,
Indaiatuba unit



Segment

The company joined the Novo Mercado in 2020. It has been listed on the B3, formerly Bovespa, since 1977.



Tag along

(102-25) 100% common shares.



Dividend distribution

(102-25) Quarterly, 25% of the adjusted net income, in accordance with the Dividend and Interest on Equity Policy. It will distribute additional dividends, based on the annual Financial Statements, in the amount of 50% of the annual net profit, calculated in accordance with articles 22 to 29 of the By-laws, discounting the Dividends and/or Interest on Equity already distributed, provided that, at the end of the year, the Net Debt/EBITDA operating leverage ratio is equal to or less than 2.5 times.



Board of Directors

(102-22 e 102-24) Composed of five members elected at the General Shareholders Meeting, with a unified two-year mandate. Reelection is allowed, and independent members represent 40%, with representation from the shareholders (controlling block). They exercise a non-executive function.



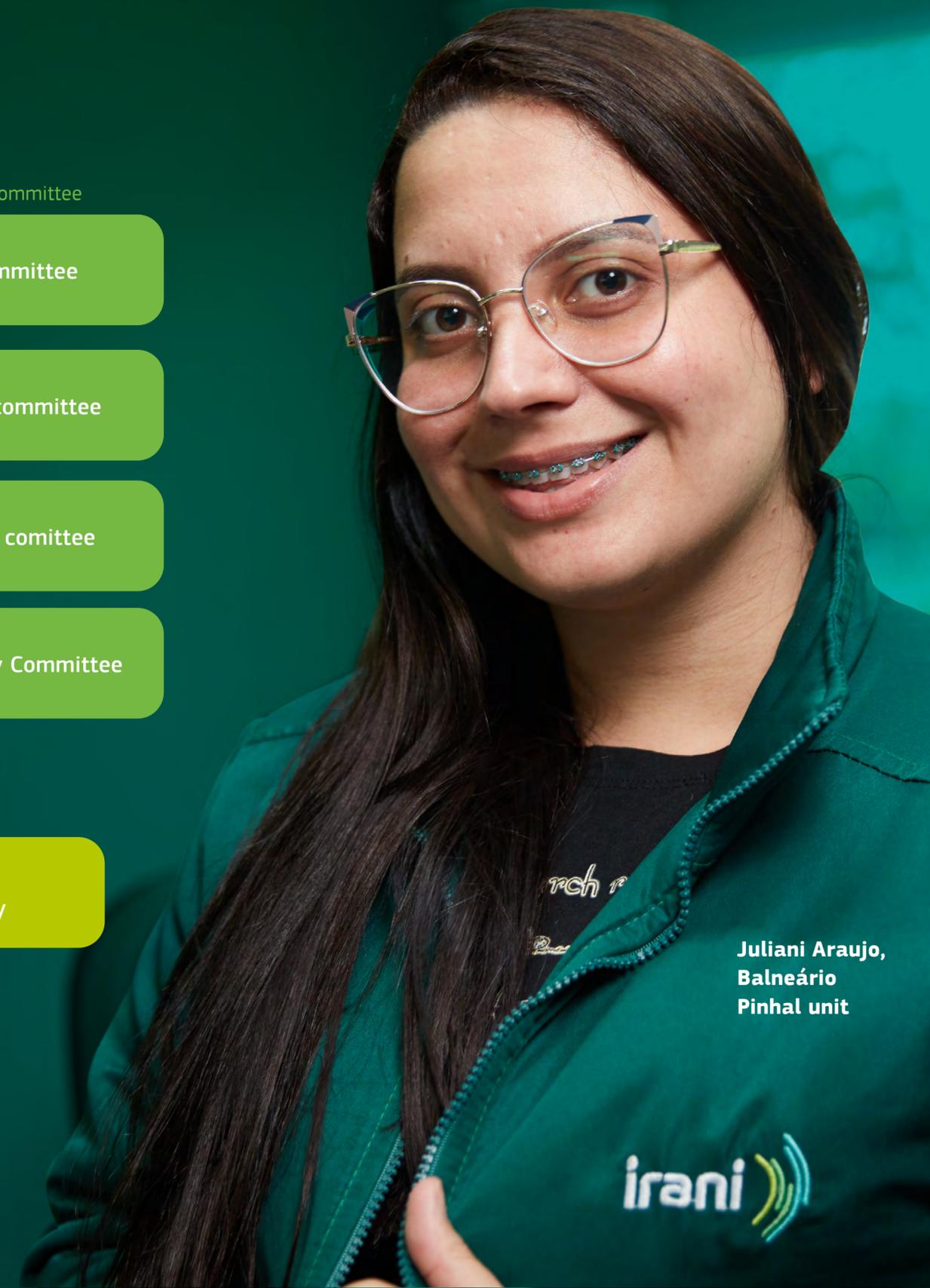
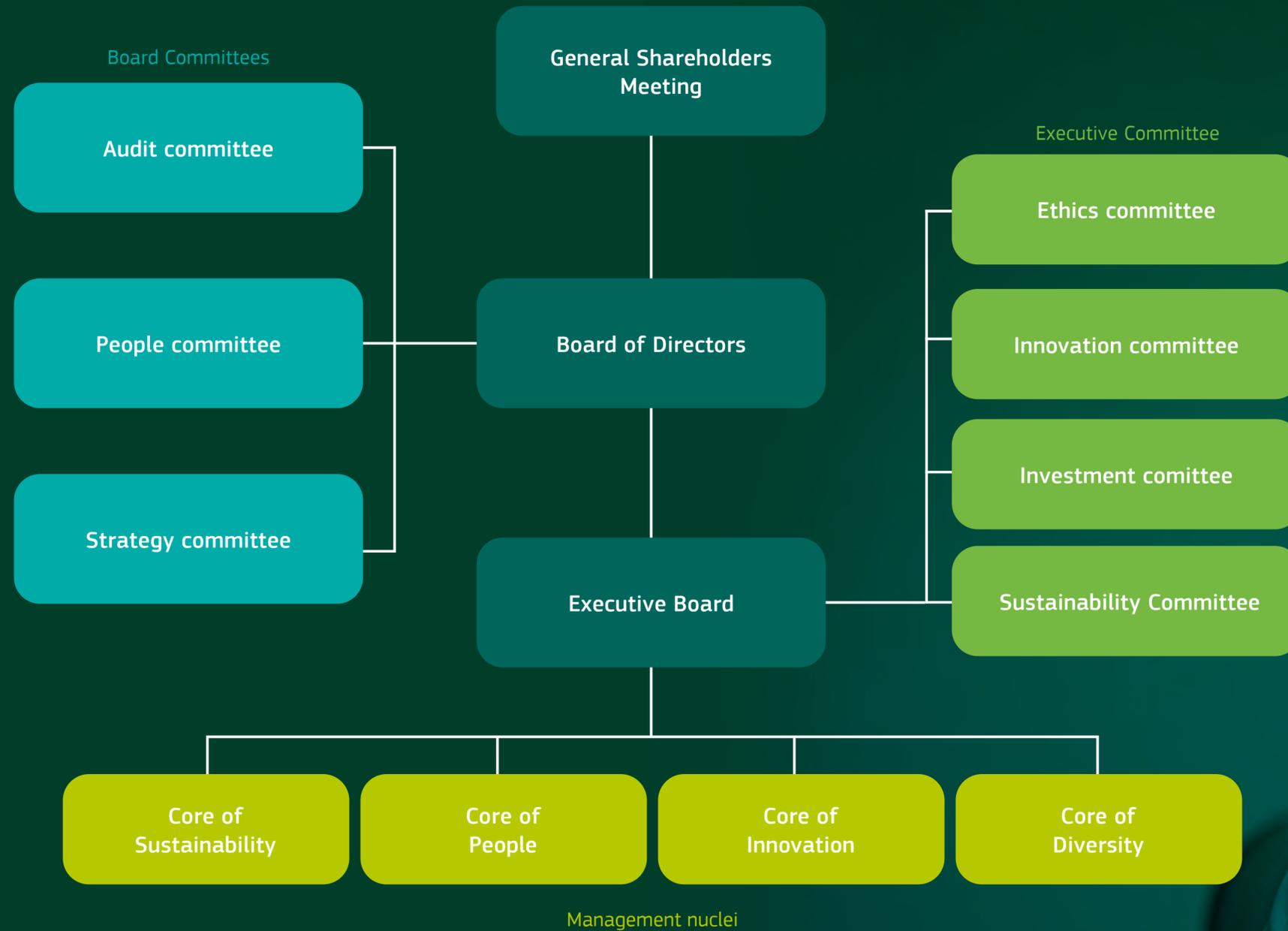
Executive Board

(102-23) Five people make up the Executive Board, who are chosen by the Board of Directors. There is no accumulation of positions of the CEO and the Chairman of the Board. Each serves a unified two-year term.



Annual calendar of events

Annual disclosure, since 2011.



(102-18, 102-19, 102-20,
102-22, 102-29, 102-30, 102-31)

General Shareholders' Meeting

In accordance with the Bylaws and the Corporations Law, it is held through general or special meeting calls at Irani's headquarters in Porto Alegre (RS), with the following responsibilities

- **Deliberative function:** Approves management's accounts and resolves on the election of board members and the determination of results and dividends.
- **General:** Examines, discusses and votes on the financial statements, the allocation of net income from the previous year, the distribution of dividends and the election of members of the Board of Directors. It takes place in the first four months of each year.
- **Special:** Held whenever necessary to deliberate on relevant topics, respecting the Company's Bylaws.

Board of Directors

Discusses strategic topics such as corporate policies, market relations, investments and risks inherent to the business on a monthly basis. It is responsible for the periodical evaluation of management's actions, which is recognized and widely disclosed in the quarterly and annual financial statements. Its attributions are laid out in Article 12 of the Bylaws, such as: deliberative function, election of the Executive Board, supervision of the Executive Board's management, allocation of the Executive Board's compensation and calling of general meetings.

Executive Board

Provides guidelines and validates the company's strategic intent, aligning economic and socio-environmental policies and goals, among other aspects. With the support of the teams, it implements decisions arising from projects, makes budget reviews, evaluates the prioritization of needs and the implementation of control and organizational modifications. Always respecting the attributions set forth in article 14 of the Bylaws: executive function, representation of the Company to the market and stakeholders, and responsibility for the financial statements.

Audit Committee (non-statutory):

Non-statutory advisory body linked to the Board of Directors. It reports directly to the Board of Directors through its coordinator at least quarterly. Among its attributions are: overseeing the quality and integrity of the financial reports and the process of preparing financial statements; monitoring the quality and integrity of the information (as well as the measurements disclosed); and evaluating the Company's monitoring of the laws, rules and regulations applicable to it and the involvement of the Board of Directors.
Composition: Members of the Independent Audit Committee and Board of Directors.

Personnel Committee (non-statutory)

Non-statutory body linked to the Board of Directors, which reports directly to it through its coordinator, at least quarterly. It is responsible for advising on decision-making regarding good compensation policies, personnel management and the development of the skills of our employees and members of senior management.
Composition: 3 members

Strategy and ESG Committee (non-statutory)

Advisory body linked to the Board of Directors, reporting to it quarterly through its coordinator on an ordinary basis and extraordinarily – when necessary, convoked by the coordinator, through the secretary.

Among its attributes are the following:

- **As a Strategy Committee:** to stimulate strategic thinking within the Board of Directors, to advise the BoD on the process of defining strategic guidelines and to accompany strategic projects, supporting management in their execution and reporting relevant facts to the BoD.
- **As an ESG Committee:** to review the ESG policy and strategy and recommend to the Board of Directors its approval – observing the best market practices and applicable laws and regulations. In addition, it must monitor the ESG strategy and policy, including projects, proposals, initiatives, internal processes and organizational structures, as well as the Company's social, environmental and governance commitments and indicators. It is also responsible for reporting to the Board of Directors, the Audit Committee or the Compliance area any situations with potential risk to image, reputation and/or assets related to ESG issues.

Composition: 3 members

Ethics Committee (linked to the Executive Board)

It meets regularly every two months, and extraordinarily at any time, and has a deliberative function. Among its attributions are: to ensure compliance with the Company's Code of Ethics and Values, identify situations contrary to the provisions of the Code of Ethical Conduct, and promote the Company's values
 Makeup: Composed of 6 members – 5 permanent and 1 rotating. Permanent for the CEO; Director of People, Strategy and Management; People Development Department; Legal and Compliance Department; and the Internal Audit. The rotating chair is intended for the director of the area whose topic is under discussion. At the discretion of the Ethics Committee Coordinator and/or the Chief Executive Officer, other individuals may be asked to contribute to the discussion and decision-making.

Innovation Committee (linked to the Executive Board)

Our employees have access to five structuring programs, one of which is Generate Diversity, whose activities promote respect for diversity and equal opportunities regardless of gender, age, ethnicity, religion, nationality, marital status, sexual orientation, and any type of disability and are aligned with our core values so that we become more diverse and inclusive.
 •It meets every six months in its role as a driver of results and our innovation strategy. Makeup: Executive Board, business managers, and teams involved in the planning of RD&I projects.

Investment Committee (linked to the Executive Board)

Its primary responsibilities include: approval and oversight of the project portfolio; evaluation and authorization of investments; project risk management; and evaluation of their execution, ensuring the proper use of human and financial resources. It meets once per month.
 Makeup: Executive Board, managers of strategic projects, supplies, finance, planning and administration.

Sustainability Committee

Linked to the Executive Board, it aims to ensure the integration of strategy with ESG practices, in addition to approving and monitoring the management of risks related to this topic. It validates Policies, programs, materiality, Integrated Reporting, initiatives and projects, and monitors ESG indicators and commitments.
 Makeup: 5 executive officers, sustainability area and invitees.

(102-18, 102-19, 102-20, 102-22, 102-29, 102-30, 102-31)

Management nuclei

In 2022, we established Management Core Groups in order to foster an environment that is proactive, innovative and autonomous. The idea is that employees can create, propose and participate in the solutions to Irani's strategic challenges, breaking down silos and reducing the impact of traditional hierarchies, aiming at:

- **Promote thematic transversality**
- **Develop participative management**
- **Develop and enable the participation of employees at all hierarchical levels**
- **Facilitate strategic prioritization**
- **Encourage team proactivism**
- **Balance the demands between leadership levels and functional teams**

The core group, which can mobilize about 30 people, is primarily made up of staff members without leadership responsibilities and leaders up to the position of coordinator, and it reports to the Executive Board. Each nucleus has a leader, a secretary, a technical representative, and members. Working groups can be formed to support initiatives, strategies, procedures, and actions. Meetings with the Executive Board took place every two months in 2022.

The core groups are organized around strategic topics and targeted for the achievement of these objectives:



PEOPLE

Promote an environment favorable to a protagonist posture in order to develop high performance teams



SUSTAINABILITY

Cultivate and promote sustainability in all business units.



DIVERSITY

Cultivate diversity and promote inclusion.



INNOVATION

Strengthen the culture of innovation and expand the ecosystem.

Composition of the Board of Directors



PÉRICLES PEREIRA DRUCK
Chairman



EURITO DE FREITAS DRUCK
Vice chairman



PAULO SÉRGIO VIANA MALLMANN
Member



PAULO ISERHARD
Independent Member



ROBERTO FALDINI
Independent Member

Composition of the Executive Board



SÉRGIO LUIZ COTRIM RIBAS
CEO



ODIVAN CARLOS CARGIN
Administration, Finance
and IR Officer



FABIANO ALVES DE OLIVEIRA
Personnel, Strategy and
Management Officer



LINDOMAR LIMA DE SOUZA
Packaging Business Officer



HENRIQUE ZUGMAN
Paper and Forestry
Business Officer

(102-13, 102-21a, 102-27)

The members of the Board of Directors, Executive Board, and Committees continuously broaden their knowledge of economics and socio-environmental issues in accordance with their areas of expertise by taking part in public events, professional associations and representative bodies.

(102-35, 102-36)

Compensation of the Board of Directors and the Board of Executive Officers

Each component of compensation has a short-term and long-term function. By establishing rules to be followed regarding the compensation of the members of the Board of Directors and the Executive Board, we aim to bring the interests of the managers and the shareholders into alignment.

On the remuneration of the members of the Board of Executive Officers

The Board of Executive Officers' fixed compensation will be established based on (i) the experience of each elected member and (ii) an annual market survey.

Short-term variable compensation will be given to the Board of Executive Officers members (quarterly bonus). The short-term variable compensation, which could total up to 12 fixed monthly payments, will be made quarterly and is based on the Company's economic and financial performance indicators, including: net income, EBITDA, free cash flow, ROE, ROIC, as well as individual performance, among others, in accordance with the Board of Directors' yearly approval. The use of a company car, life insurance, and health and dental benefits are also available to the Statutory Board members.

On the remuneration of the members of the Board of Directors

The Chairman of the Board of Directors shall be entitled to an annual remuneration, paid in the same terms, at least 10% higher than that of the Company's Chief Executive Officer, which includes fixed remuneration, a short- and long-term variable compensation, as well as the same benefits attributed to the Chief Executive Officer.

The Vice Chairman of the Board of Directors shall be entitled to overall annual remuneration equivalent to 15% of the remuneration of the chairman of the Board of Directors, including short and long-term remuneration.

The fixed compensation of the other members of the Board of Directors will be defined based on (i) the best market practices, (ii) the experience of the elected member, and (iii) the dedication time of each member.

The Board of Directors' Chairman and Vice Chairman will each receive short-term variable compensation (quarterly bonus). The short-term variable compensation will be paid on a quarterly basis and will be based on the Company's economic and financial performance indicators, such as net income, EBITDA, free cash flow, ROE, ROIC, as well as individual performance, among others, as approved annually by the Board of Directors. It could be equivalent to up to 12 fixed monthly payments. They are also entitled to the same benefits as the members of the Board of Directors.

(102-36) Additional information about the compensation of executives and those charged with governance – including how this compensation is tied to our short-, medium- and long-term performance – is available on the Investor Relations website, click here.



The Reference Form contains information regarding conflicts of interest, cross-shareholding in management bodies, cross-shareholding control with suppliers and other stakeholders, the existence of a majority shareholder and disclosure of information on stakeholders. We also make available information on material shareholding composition (greater than 5%) up to the individual. There is no shareholders' agreement in effect.

(102-35, 102-36)

Compensation of the Advisory Committees

The fixed compensation of the members of the Advisory Committees is defined by the Board of Directors. Board members will receive additional compensation for their participation in Committees and/or other advisory bodies of the Company, based on their experience and time of dedication. Members of the Advisory Committees shall not receive variable compensation or benefits.

Supera Program

The program stimulates the development of employees through the development of skills and the achievement of results. The goal is to challenge and recognize employee performance as well as accelerate a culture of results and self-development.

The results program, which is applicable to the Board of Directors and all Irani employees, establishes annual variable compensation ranges based on the goals attained. Employee development is tracked annually by the competency program. These evaluations include questions that capture a comprehensive understanding of sustainability related to the culture excellence indicator.

Upside Program

Board of Executive Officers and Board of Directors members may receive long-term variable compensation (upside and/or statutory profit sharing). Such variable compensation, which assigns compensation to each participant based on a hypothetical number of shares, will be paid after adhering to a lock up period and is based on the theoretical value of the stock shares in the year of implementation and in the anticipated future. Its goal is to increase the retention of executives and directors and align their interests with those of shareholders in order to build long-term, sustainable value for the company. Long-term variable compensation, which will be based on changes in the value of the Company's shares, will be equivalent to up to 80% of the annual compensation, including fixed and variable compensation.



Adair Batista,
Campina da Alegria
unit

Communication with the market

Our activities and results are communicated to the market through our official channels:



Investor Relations website, available in Portuguese and English;



Direct channel with the Investor Relations Officer and the Investor Relations team via e-mail: ri@irani.com.br;



Contact Us Tool on the IR website.



Sustainability Policy

To generate value for our stakeholders, we have a formal Sustainability Policy, reviewed and approved by the Executive Board. Following it, we commit to::

1

Ensure customer satisfaction by offering products and services with a Client Focus philosophy.

2

Use resources sustainably, preserving the environment, reducing environmental impacts, and promoting the circular economy and carbon neutraliting.

3

Ensure the raw material supply in accordance with best forest management practices and chain of custody, in a sustainable manner and undivided respect for the environment.

4

Adopt measures and strategies for mitigating and adapting to climate change through projects such as Clean Development Mechanisms and the reduction of Greenhouse Gas emissions.

5

Promote the health and wellbeing of employees through the prevention of occupational health-related injuries and disease.

6

Ensure respect for diversity, inclusion of people with disabilities and the absence of child, forced or slave-like labor.

7

Promote social investments and encourage volunteering through initiatives in the fields of education, sport, citizenship, environmental preservation, culture and income generation in the neighboring communities.

8

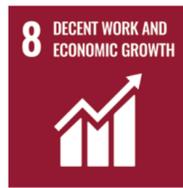
Align our actions with the global agenda proposed by the United Nations (UN) Sustainable Development Goals (SDGs) and voluntary commitments.

9

Ensure transparent governance practices and results that promote business growth and profitability in a sustainable manner.

10

Ensure an integrated management system that safeguards continuous improvement and compliance with applicable legal and other requirements.



GRI 103-1, 103-2, 103-3, 102-16, 102-17
ISE



The contents of the entire Program, as well as the Code of Ethical Conduct and the seven policies, are available for consultation [here](#)



Integrity

(102-17 and 102-25)

Integrity is one of Irani's inseparable values. Aligned to this value, the Company approved in 2008 its Code of Ethical Conduct and in 2017 the Integrity Program. In 2022, the Board of Directors approved the last revision of the Code of Ethical Conduct and the Internal Rules of the Company's Ethics Committee. In this revision, we added one more intolerable and punishable conduct - 2.26. Causing embarrassment to inspections by Public Agents, we have changed the classification of our Manifestos to 5 categories (Behavior and work environment, Consultations, Business Integrity, Use and/or misappropriation of assets and others), we have included the Internal Audit Management as one of the fixed seated members of our Ethics Committee and we have changed our contact channel. Our Integrity Program is composed of seven policies, it reinforces the need for compliance with the Company's rules and applicable laws and regulations. It also merges our practices and guidelines for ethical behavior and relationships, covering all hierarchical levels.

Irani's Ethics Committee is composed of six members, five permanent and one rotating. The permanent seats are (i) for the CEO, (ii) the Director of People, Strategy and Management Officer, (iii) the Personnel Development Department, (iv) and the Legal and Compliance Department, and (v) the Internal Audit Department. The

rotating seat is reserved for the Area Director whose topic is under discussion. Internal Audit Management is in charge of instructing the review process and has no voting rights on resolutions. At the discretion of the Ethics Committee Coordinator or the Chief Executive Officer, other persons may be called upon to contribute to the discussion and decision-making process.

The Ethics Committee shall

- Ensure, promote and disseminate the conduct listed in the Code of Ethical Conduct;
- Identify situations contrary to the Code of Ethical Conduct;
- Issue ethical interpretations and/or guidance;
- Deliberate on the application of disciplinary sanctions;
- Train and guide the Senior Management, members of other management bodies and employees;
- Offer guidance on possible solutions for conflicts not foreseen in the Code of Ethical Conduct.

(102-17.a.ii) Irani has established a procedure for denunciations: the Ethics Channel. In 2022, the Company hired a specialized outside firm to manage the system, which was relaunched on April 11, 2022. It is an open resource, with anonymity assured, and is available to receive communications from employees, suppliers and other stakeholders. A user can choose to make an anonymous

Our contacts channels are:

Website:
[clik here](#) 

Telephone hotline:
 0800 300 4499,
 24 hours per day,
 7 days per week.

or identified complaint. A protocol number is issued for both situations that can be used for follow-up contact or for requests for additional information. Retaliation against the complainant and anyone involved in the investigation process is strictly prohibited. All information will be kept confidential and treated with secrecy. Currently, the channel is managed by an independent and specialized company, ensuring full confidentiality.

Communications received are classified by the company contracted to manage the Ethics Channel according to their type:

Irani ensures the appropriate treatment of each situation without any conflicts of interest. The internal management of the Channel is the responsibility of the Ethics Committee Coordinator, who is also the Legal and Compliance Manager. The behavioral and work environment communications are directed for action by the Personnel Development Sector. The behavioral and work environment cases are dealt with by the Personnel Development Sector. The queries are fielded by the Ethics Committee. The reports related to business integrity and use and/or misappropriation of assets are investigated by Internal Audit. Other issues will be analyzed by the coordinator of the Ethics Committee and addressed by the Personnel Development Department, Internal Audit, the Ethics Committee and/or another department, as appropriate.

Classification	Subject of the contact
Behavioral and working environment	Related to situations that compromise or may compromise compliance with our Values and Code of Ethical Conduct. These statements will be followed up and handled by the Personnel Development area. Manifestations involving managers will be handled by the head of the business area and/or office involved, together with the Personnel Development area. Cases involving statutory directors will be handled by the CEO. Those involving the CEO and members of the Senior Management, with the exception of the statutory Board of Directors, will be dealt with by the Chairman of the Board of Directors.
Queries	Related to compliance with the Code of Ethical Conduct, Company Rules or other clarifications on actions or decisions that may conflict with Irani's values. The queries will be clarified by the Ethics Committee.
Business Integrity	Reports of situations related to fraud, non-compliance with Laws and Company Rules. Such cases will be investigated by the Internal Audit area.
Improper use and/or misappropriation of assets	Reports of situations related to theft, robbery or misappropriation of materials. These will be investigated by the Internal Audit area.
Others	Related to situations that do not fit into any of the previous possibilities. They will be analyzed by the coordinator of the Ethics Committee and sent to the Personnel Development area, Internal Audit, the Ethics Committee and/or another Company department, as the case may be.

In 2022,
there were:

89

communications
overall, of which

61 related to behavioral and
workplace environment

20 to business integrity

5 queries and

3 related to the use and/or
misappropriation of assets



Camile Mascarenhas,
Campina da Alegria
unit

We continued to send “integrity messages,” which aim to address the topics of the Integrity Program and the Code of Ethical Conduct in a simple and objective manner. In 2022, the Company launched a new training initiative related to the Integrity Program and Code of Ethical Conduct, designed to train 100% of active employees and members of the Senior Management. We began training the employees of outsourced service providers who enter the company’s areas. We carried out campaigns to disseminate the Code of Ethical Conduct to customers, suppliers and society. We maintained the inclusion of a clause in contracts with suppliers, regarding the disclosure and knowledge of the Code and the Integrity Program by contracted suppliers, as well as a clause about the prohibition of corruption. We conducted formal training for our sales representatives, addressing the Code and the Program. And finally, we organized the first webinar for the internal and outside public, whose theme was “Integrity and Culture.”

Compliance

To make the precautionary principle viable, we adopt all measures that are economically feasible and aligned with our Strategic Intent and financial and sustainability policies. Actions are approved by the Board of Directors and the Executive Board.

We are also guided by ABNT ISO 31000:2018 and The Committee of Sponsoring Organizations of the Treadway Commission - Enterprise Risk Management Framework (COSO-ERM) for the definition of our risk management. It comprises the steps of identification, analysis, assessment, treatment, monitoring and reporting.

We use the three-line management model. These guidelines provide direction and strengthen comprehension of risk management and control by defining roles and responsibilities and enhancing the effectiveness of risk management and controls. Each line plays a distinct role in Irani:

In 2021, we reviewed our Risk Management Policy, including roles and responsibilities of internal controls and the risk probability matrix. There were no changes in this regard in 2022.

1st line (Risk Managers)

RESPONSIBLE for defining the risks facing MANAGEMENT and maintaining effective controls to prevent the risks from occurring.

2nd line (Compliance)

SUPPORT in implementing effective risk management and internal control practices, **MONITORING** risks and non-compliance with applicable laws and regulations.

3rd line (Internal Audit)

PROVIDE assessments on the effectiveness of governance, risk management, and internal controls.

1. Identification

Our leaders are in charge of analyzing processes to find gaps in internal controls that could pose a risk to the business.

(102-15) THE MAIN RISKS IDENTIFIED IN OUR BUSINESSES ARE:

Risk	Definition	Ways of mitigating
Strategic	Risks whose materialization results in losses to the Company and that are associated with strategic decisions to achieve business objectives and/or arising from its lack of capacity or ability to protect itself from or adapt to changes in the governmental, market or regulatory environment.	Periodically, we prepare a long-term strategic plan with the evaluation of various scenarios, allowing for effective responses to the event. The market scenario analysis also tracks the rise in competition. During the Strategic Planning process, we observe competitors' growth capacity and the sector's current capacity in Brazil and around the world to make decisions.
Financial	Risks associated with the Company's financial management are those whose occurrence results in financial losses. They are subdivided into three categories: (I) Market Risks: arising from the possibility of losses that may be caused by changes in the behavior of interest rates, exchange rates, share prices and commodity prices and/or other products purchased and/or sold by Irani; (II) Credit Risks: defined as the possibility of loss resulting from the uncertainty of receiving amounts agreed with customers for products sold on credit; and (III) Liquidity Risks: possibility of loss arising from the inability to carry out a transaction within a reasonable time and without significant loss of value. Or the possibility of lack of funds to honor the commitments undertaken due to a mismatch between financial assets and liabilities.	Monitoring of outstanding receivables. Market risks (arising from the inability to respond effectively to unfavorable fluctuations, liquidity of domestic currency and changes in monetary policy to encourage and regulate the heating up of the country's economy) are monitored and define the scenarios of impact of exchange and interest rate variation. The risk of not obtaining financial resources at accessible costs, resulting in financial losses, delays or interruptions of strategic projects for the Company is monitored by mechanisms that ensure the necessary guarantees for raising funds.
Compliance	Risks of legal or regulatory sanctions, financial loss or loss of reputation that the Company may suffer as a result of failure to comply with the law. Considers both the laws applicable to the sector in which it operates and the general laws (environmental, labor, civil and tax/tax), as well as the regulations applicable to it, internal regulations, Code of Ethical Conduct and/or internal policies.	We use software that enables the monitoring of applicable legal environmental requirements, the follow-up of the validity periods of environmental licenses granted by the competent agencies, among other mechanisms. We also apply and disseminate policies aimed at reusing solid waste and reducing the generation of effluents.
Operational	Resulting from the lack of consistency and suitability of personnel management, machinery and equipment, information systems, processing and control of operations, as well as failures in the management of resources and internal controls. It also considers frauds that impair the Company's operations or risks related to the Company's infrastructure that could impact operational efficiency and the effective and efficient use of resources.	We keep track of impacts like lost productivity and damage to assets through a mix of preventive and predictive maintenance controls that keep an eye on the condition of equipment and facilities, as well as emergency management against fire in industrial units and forests. To ensure a strong relationship with our customers and meet their needs, we carefully analyze the quality of our finished products and provide follow-up technical support with a customer focus. We have improved and enhanced our relationship with people by instituting controls to ensure the health and safety of employees when performing their duties and regularly assessing their effectiveness.

2. Analysis

We ranked the gaps identified in the previous stage, defining the steps needed for the assessment.

3. Assessment

(102-15, 102-29, 102-30)

Using a tool that details the risk factors, we can classify the impacts to the business – should they materialize.

Type of Impact	Description	Capital
Operational	Production shutdown	
Occupational	Damage to the health and safety of direct employees or service providers	
Environmental	Possible damage to the environment	
Image/Reputation	Tarnishing IRANI's image with stakeholders	
Financial	Loss of monetary or financial advantage opportunities	

We then check the history and internal controls to measure the probability of occurrence of the risk factors. We also evaluate the applicable controls and requirements by type (preventive, detective, or reactive), required response (monitoring, mitigation, or tolerance), and frequency of occurrence. Finally, we consolidate a report with recommendations and qualitative weightings of the risk manager's analysis. In all, 69 risks were evaluated. In the following table, we present the most impactful to our business:

Main Risks	Impacted Capital
Increase in interest rates	
Non-compliance with clauses in financing contracts (covenants)	
Cyber attacks	
Outbreaks, epidemics and pandemics	
Environmental liabilities	
Non-compliance with LGPD	
Failure to obtain or renew environmental licenses and permits	
Political and economic instability	
Lack of financial liquidity (default)	
Unfavorable exchange rate variation	

In 2022, we validated and updated the internal controls together with the risk managers. In total, we mapped 451 internal controls, 266 corporate and 185 operational.

4. Treatment

Once the evaluation is complete, we outline action plans based on the control analyses and interpretation of the most critical and relevant points.

5. Monitoring

Periodically, we evaluate the effectiveness and execution of action plans and conduct audits to validate the controls in use.

6. Risk communication

(102-15, 102-30) The Audit and Risk Management area produces annual reports that reflect the progress of the work carried out during the year. With the support of the risk managers, the content of this work is presented to the Executive Board for deliberation and the development of action plans.

We established the Compliance area in 2020. After merging with the Legal Department, the sector formalized our commitment to develop and disseminate the compliance culture through training and awareness campaigns. This area is responsible for the analysis and evaluation of the laws and regulations applicable to our businesses, risk management and internal controls. The report is sent to the Executive Board. The Risk Management area has been part of Compliance Department since 2020. In 2021, it was tasked with implementing the Internal Controls area.

In 2020, the Internal Audit area, which previously reported to the CEO, began reporting to the Audit Committee. Thus, it further expanded its work autonomy. Additionally, Internal Audit reports to the Board of Directors regarding compliance and performance of activities.

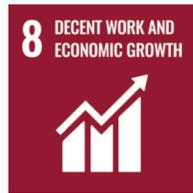
In 2020, it took on the task of giving the Executive Board a proposal for a risk review. The area also resumed the evaluation and monitoring of the identified hazards reports. Unifica (Unify), a project developed by the Risk Management, Internal Controls, Continuous Improvement, Quality and Environment, and Internal Audit areas, was implemented to achieve this goal.

The Internal Controls area was implemented in 2021. Its function is to ensure information efficiency, minimize risks, protect assets, assure the accuracy of records, promote operational efficiency and encourage adherence to policies, rules, regulations and laws. In the same year, we identified new controls and reviewed existing ones to evaluate and enhance the effectiveness of the risk management, control and governance processes.

Also in 2022, we decided to implement new risk management software, which will be done in 2023. The idea is to boost synergy between the Risk Management, Internal Controls, Internal Audit and Quality and Environmental Management areas. The goal is also to add value to the Corporate Governance process.

Last year we identified the need to review and update the risks, together with the managers so that they would be registered in the new tool. The work will extend throughout 2023.

For this year, tests are planned to evaluate the efficiency of the internal control system. In addition, we will conduct a new round to assess identified risks in order to corroborate operations, financial reporting and compliance.

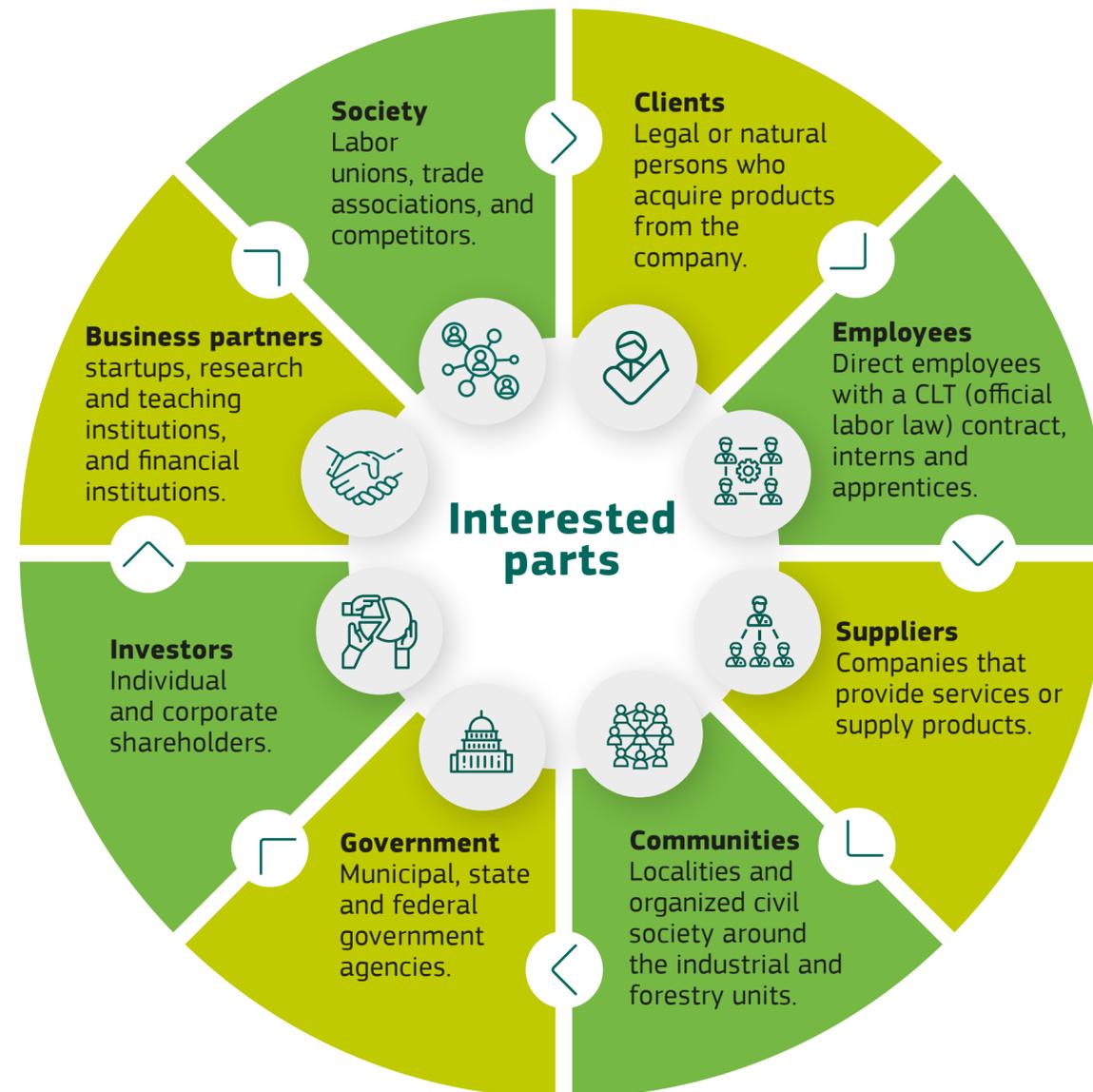


Stakeholder relations

(102-40 e 120-42)

In pursuit of mutual benefit, we prioritize building valuable relationships with the following groups:

GRI 103-1, 103-2, 103-3, 102-6, 102-9, 102-10, 102-11, 204-1, 308-1, 308-2, 414-1, 414-2, 416-1, 416-2
ISE



Conscious Capitalism Movement

Global initiative created by Raj Sisodia and John Mackey. It seeks to transform the way business is done, encouraging the promotion of sustainable, humanized, and conscious practices in companies. Alongside the Instituto Capitalismo Consciente do Brasil (ICCB), a non-governmental organization that promotes Conscious Capitalism in Brazil, we are part of an active mobilization front for the creation of a chapter of this movement in Santa Catarina. Together, we will connect businesses with purposes and generate a positive impact for society. We want to be increasingly attentive and aware, contributing effectively to a sustainable future and encouraging new companies to invest in a more humanized management.





ESG + Investor Day 2022

In 2022, we promoted our second Irani Investor Day and included the ESG agenda. The event became ESG+Investor Day 2022 and was carried out in a hybrid manner, with some analysts invited to participate in person but broadcast online for the general public. Sérgio Ribas and the entire executive team were present.

Watch the complete event on YouTube.



Client and Market Relations

(103-1 and 103-2) More than just our well-regarded products, we stand out in the market due to our customer-focused approach. We utilize the Focus of the Client concept throughout our production process, recognizing that our expertise is enhanced when combined with that of our clients. As a result, we guarantee truly innovative solutions that have a positive economic impact on the value chain.

Our teams for Innovation, Continuous Improvement, Research and Development and Technical Assistance provide employees and customers with support in managing ideas, product development and assistance throughout the process to ensure service excellence.

Focus of the Client is more than a concept. It is part of our strategy. We faithfully follow the idea that “if my client wins, I win.” Thus, we achieve long-term relationships with transparency and trust.

(102-43 and 102-44) We conduct a Customer Satisfaction Survey each year. Thus, it is possible to assess aspects that generate value and others that can be improved. We set targets to reach the largest possible number of participants and others for action plans, to quickly and assertively address the pain points identified.

Since 2021, we have applied the research methodology to the Net Promoter Score (NPS), which assesses the degree of customer satisfaction and loyalty, to a single question:

“On a scale of 0 to 10, how likely are you to refer Irani to someone you like?”

Besides eliminating interference on the respondent (without the participation of anyone from Irani), the methodology offers a more pleasant experience to customers by allowing them to participate via e-mail or even WhatsApp – one of the novelties of this past year that aims to offer another channel to access the survey.

NPS uses a higher metric than other surveys. More than satisfaction, NPS measures customer loyalty.

- **Ratings between 0 and 6 are considered “detractors”**
- **Ratings between 7 and 8 are “neutral”**
- **Ratings 9 and 10 indicate “promoters”**

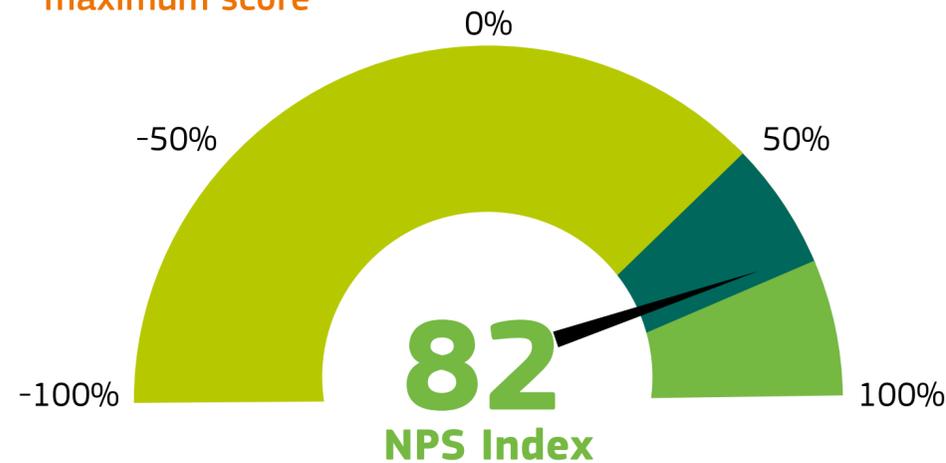
In the case of detractors, a new question is asked, asking them to suggest points of improvement. For all respondents, there is a free field for additional comments and suggestions, praise or criticism. The value of the NPS is the subtraction of the percentage of detractors from that of the promoters.

In 2022, we reached the Zone of Excellence, the highest in the methodology, with an NPS score of 82.

General results

466 respondents **+ 13%** over 2021

59% of respondents gave the maximum score



The excellence zone range is between 75 and 100

Paper Business

(102-6) Main clients: food segment, light and heavy sacks, bags, among others.

Domestic market: Amazonas, Bahia, Ceará, Distrito Federal, Espírito Santo, Goiás, Mato Grosso do Sul, Minas Gerais, Pernambuco, Paraná, Rio de Janeiro, Rio Grande do Norte, Rio Grande do Sul, Rondônia, Santa Catarina and São Paulo. **84 NPS Index**

External market: South Africa, Germany, Saudi Arabia, Argentina, Bolivia, Chile, China, Colombia, Israel, Kuwait, Mexico, Pakistan, Paraguay, Peru, Portugal, Dominican Republic, Sweden, Turkey and Uruguay. **63 NPS Index**

Resin Business

(102-6) Main clients

- **Pitch:** producers of printing inks, glues for paper and hair removal wax.
- **Turpentine:** Producers of solvents in paints and coatings, dyes, waxes, camphor pine oil, soaps, greases, insecticides, sealants and perfume fixers.

Domestic market: Bahia, Rio Grande do Sul and Santa Catarina. **80 NPS Index**

External market: Belgium, Canada, Chile, Egypt, France, Germany, Greece, India, Japan, Mexico, Pakistan, Peru, Portugal, Spain, South Africa, Turkey, the Netherlands, the United States, and India. **65 NPS Index**

Packaging Business

(102-6) Main customers: cartonboard, meatpacking, food, chemical, plastic, and beverage industries.

Domestic market: Acre, Alagoas, Amazonas, Bahia, Ceará, Distrito Federal, Espírito Santo, Goiás, Maranhão, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Pará, Paraíba, Pernambuco, Paraná, Rio de Janeiro, Rio Grande do Norte, Rio Grande do Sul, Rondônia, Santa Catarina and São Paulo. **86 NPS Index**

Government and society

(102-13) Our relationship with governments and entities representative of society also occurs through our leaders when they join outside committees and sit on boards. It also occurs when they contribute to projects and actions developed in organizations such as:

- Associação Brasileira das Companhias Abertas (Brazilian Publicly Traded Companies Association-Abrasca)
- Associação Brasileira de Embalagem (Brazilian Packaging Association-ABRE)
- Associação Brasileira de Embalagens de Papel (Brazilian Association of Paper Packaging-Empapel)
- Associação Brasileira de Recursos Humanos/RS (Brazilian Association of Human Resources/RS-ABRH/RS)
- Associação Brasileira Técnica de Celulose e Papel (Brazilian Technical Pulp and Paper Association-ABTCP)
- Associação Catarinense das Empresas Florestais (Santa Catarina Business Association-ACR)
- Associação Comercial e Industrial do Oeste Catarinense (Western Santa Catarina Commercial and Industrial Association-ACIOC)
- Associação de Pais e Amigos dos Excepcionais (Association of Parents and Friends of Children with Disabilities-APAE) of the municipalities of Joaçaba, Vargem Bonita and Concordia, in Santa Catarina
- Associação dos Resinadores do Brasil (Resin Producers Association of Brazil-ARESB)
- Associação Empresarial de Santa Luzia (Santa Luzia Business Association-AESL)
- Associação Gaúcha de Empresas Florestais (Gaúcha Forest Companies Association-Ageflor)
- Capitalismo Consciente (Conscientious Capitalism)
- American Chamber of Commerce/Brazil (Amcham)
- Centro das Indústrias do Rio Grande do Sul (Rio Grande do Sul Industries Center-CIERGS)
- Comitê de Bacia Hidrográfica do Rio Irani / Chapecó (Irani / Chapecó River Hydrographic Basin Committee)
- Conselho Estadual do Meio Ambiente (State Environmental Council -CONSEMA)
- Federação das Associações Comerciais e de Serviços do Rio Grande do Sul (Federation of Trade and Services Associations of Rio Grande do Sul - Federasul)
- Federação das Indústrias do Estado de Santa Catarina (Industry Federation of Santa Catarina-FIESC)
- Fundação Centro Tecnológico de Produção Industrial – CETEPI de Joaçaba (SC) (Industrial Production Technological Center Foundation Cetepi of Joaçaba (SC))
- Indústria Brasileira de Árvores (Brazilian Tree Industry-Ibá)
- Instituto Brasileiro de Avaliações e Perícias de Engenharia (Brazilian Institute of Engineering Evaluations and Appraisals-IBAPE)
- Instituto Euvaldo Lodi (Euvaldo Lodi Institute-IEL)
- Junior Achievement Santa Catarina
- Movimento Catarinense pela Excelência – Excelência SC (Santa Catalina Excellence Movement)
- Movimento Nacional ODS Santa Catarina e Rio Grande Sul (National SDG Movement Santa Catarina and Rio Grande Sul)
- Ordem dos Advogados do Brasil de Santa Catarina (Brazilian Bar Association of Santa Catarina-OAB-SC)
- Secretaria de Desenvolvimento Sustentável de Santa Catarina (Secretariat of Sustainable Development of Santa Catarina-SDS)
- Sindicato das Indústrias de Marcenarias, serrarias, carpintarias e tanoarias de Caxias do Sul (Union of the Manufacturing Industries, sawmills, carpentry and tanneries of Caxias do Sul-Sindimadeira RS)
- Sindicato da Indústria do Papelão do Estado de São Paulo (Cardboard Industry Union of the State of São Paulo-Sinpesp)
- Sindicato das Indústrias de Celulose e Papel de Santa Catarina (Union of Pulp and Paper Industries of Santa Catarina-Sinpesc)
- Sindicato das Indústrias de Celulose, Papel e Papelão do Estado de Minas Gerais (Union of the Pulp, Paper and Cardboard Industries of the State of Minas Gerais-Sinpapel)
- Sindicato das Indústrias de Papel, Papelão e Cortiça do Rio Grande do Sul (Union of Paper, Cardboard and Cork Industries of Rio Grande do Sul -Sinpasul)
- Sindicato dos Trabalhadores da Indústria de Papel e Papelão em Santa Luzia (Union of Workers in the Paper and Cardboard Industry in Santa Luzia-Sintipel)
- Sindicato dos Trabalhadores nas Indústrias de Artefatos de Papel Papelão Cortiça em Joaçaba e Região (Union of Workers in the Cork Paper Artifacts Industries in Joaçaba and the Region-SITIAPAPEL)
- Sindicato dos Trabalhadores nas Indústrias de Papel, Papelão e Cortiça de São Paulo, ABCDM, Osasco, Taboão da Serra e Região (Union of Workers in the Paper, Cardboard and Cork Industries of São Paulo, ABCDM, Osasco, Taboão da Serra and Region-Sintrapel)
- Sindicato dos Trabalhadores Rurais de Osório (Union of Rural Workers of Osório-SITRROSO)
- Subcomitê Poderoso-Vermelho - Comitê de Bacia Hidrográfica do Rio das Velhas (Powerful-Red Subcommittee - Rio das Velhas River Basin Committee)
- Young Presidents' Organization (YPO)

Surrounding community

(103-2, 413-1) Our definition of the surrounding community comprises those municipalities where the Company’s business units are located and where most of the employees reside. The definition is also used in the analysis and prioritization of partnerships, in relationship strategies, and in directing social investments or community service activities.

(413-1) All cities where we have operations run local community development programs. The intention is to develop children and young people through initiatives focused on education, the environment, citizenship and sports. We also support specific projects that meet the same guideline.

For Irani, a company that **generates value** is one that, in addition to producing results for customers, is able to **contribute in a significant way** to the world, one that generates a **positive impact** on people’s lives and brings **prosperity to the communities**. It also operates as an **agent of change** capable of transforming relationships into prosperous relationships.

Since 2020, Irani has been running the **Transforma Program**, which gives people the knowledge and strategic support they need to create opportunities through five vectors that create value and transform lives.

programa transformã



	Priority Attention	Timely Attention
Santa Catarina	Irani, Ponte Serrada, Joaçaba, Herval d’Oeste, Luzerna, Catanduvas, Concórdia, Vila Campina da Alegria and the head offices in the municipality of Vargem Bonita	Água Doce
São Paulo	Indaiatuba	Salto
Minas Gerais	Santa Luzia	Belo Horizonte
Rio Grande do Sul	Vila do Bojuru (São José do Norte) e Balneário Pinhal	Porto Alegre, São José do Norte, Tavares, Mostardas

As doações institucionais da Irani somaram R\$ 642 mil

The strategic goal of Irani's social investments is to help the surrounding communities develop. The intention is to generate prosperity for all people impacted by the Company's businesses.

Volunteer groups continue to be active in all our business units, fostering opportunities to improve skills and community development. In total, some 500 volunteers from across the company were involved in 29 actions, accounting for more than 1,000 hours of volunteering.

In the scope of private social investment, we also seek to establish solid partnerships for the development of citizenship, socio-environmental education, culture, sports, and social inclusion projects. In 2022, almost R\$ 267,000 was invested in projects such as:

- **Outstanding Student Project**, which aims to encourage and develop the five best students at E.E.B. Galeazzo Paganelli, in Campina da Alegria (SC).
- **Partnership with the Junior Achievement Association in Santa Catarina, Rio Grande do Sul and Minas Gerais**, encouraging entrepreneurship for public and private school youths.
- **Volleyball initiation centers in partnership with the Joaçabense Volleyball Association (AJOV)**, sharing sports techniques online for about 300 students.
- **Broto do Galho Project**, with a productive handicraft core group working with industrial waste in the Campina da Alegria community, generating productive occupation and extra income.

- **Choir for the community of Campina da Alegria and surrounding areas**, with classes conducted by a conductor and the production of special videos for the Company's internal campaigns.
- **Contribution of resources to the 20th Support Fund for Social Projects (FAPS)**, promoted by the Guga Kuerten Institute, contributing to the realization of 30 projects in the region of Alto Irani, Alto Uruguai, Midwest and Planalto Sul Catarinense.

Irani's institutional donations totaled R\$ 642,000, contributing to various initiatives in the fields of health, culture and leisure, welfare activities and citizenship. We also earmarked a series of contributions to municipal funds and projects from Tax Incentive Laws that totaled more than R\$ 3.2 million in December 2022.

(413-1 and 413-2) In the same year, we undertook a new Social and Environmental Impact Assessment cycle in the surrounding communities in Santa Catarina and Rio Grande do Sul. We used the NPS methodology and obtained an image and reputation rating in these regions of 88. In all, 195 interviews were conducted involving communities, suppliers, neighboring communities and government agencies. We also outlined action plans with the support of multidisciplinary teams, seeking to delineate or improve practices as of 2023.

Awards and recognition

The awards and recognitions we received over the course of 2022 further inspire us to pursue initiatives that promote sustainability, excellence and appreciation of people. Access the list of all acknowledgements [HERE](#)



Suppliers

(103-1) By working together, we can amplify our positive impact on the world. We act and think so that our relationships with suppliers and service providers are strengthened in a way that is ethical, transparent, focused and always open to dialogue. The result? Successful bilateral achievements and long-term mutual strengthening. Practices of excellence ensure our commitment to creating these bonds, reinforcing the significance of initiatives that promote expanded, real and relevant interfaces for all.

In 2021, we launched the **Good Practices in Sustainability Recognition Initiative for Suppliers and Service Providers**. Since it takes place every two years, we started preparations for the 2023 edition as early as 2022. The objective is to share knowledge that strengthens the network around this central theme and encourages the entire production chain to develop progressively more sustainable actions.

Bolstering our mission to build relationships of value to generate prosperity, our contracts include clauses related to social, environmental and human rights considerations. These clauses are consistent with legal compliance and ensure appropriate working conditions throughout our value chain. Our commitment to responsibility is also evident in the absence of slave and/or child labor in our operations, in addition to respect for aspects related to LGPD and ethical conduct standards. The analysis of



Alan Melo,
Balneário Pinhal
unit

the applicability of clauses to contracts is conducted by the Legal Department, which acts based on our Integrity Program, reaffirming our responsibility with life.

(102-12) We are signatories of the Global and Business Pact for Integrity and Against Corruption, ratifying our commitment to ethics and human rights. For over ten years, we have adopted the Management Excellence Model (MEG), and have earned international certifications such as FSC®, ISO 14001, ISO 9001, and the GRI Standards indicators. This has raised the level of our processes with regard to socio-environmental aspects linked to the evaluation of suppliers and service providers.

We constantly monitor and adjust based on a number of internal indicators designed to measure and manage the actions of the Procurement sector. The work involves purchases from suppliers with contracts and, among them, are the Irani Supplier and the Urban Forest metrics.

- **Irani Supplier:** indicates the percentage of purchases from suppliers through long-term contracts. In 2021, the figure was 63.13%. In 2022, the result was 62.63%.
- **Urban Forest:** measures the percentage of purchases of paper scrap from suppliers with contracts. In 2021, it was 76.76%. In 2022, we reached 82.97%. The performance resulted in greater speed and strengthened partnerships with trimmers, in addition to the expansion of the portfolio to new suppliers.

By developing a planned and sustainable supply cycle, we guarantee the supply of materials needed by Irani – and we strengthen relationships with suppliers. Our duty is to ensure accuracy in materials management and maintain the reduction of waiting time between the delivery of the desired item or emergency acquisition, translating the desire to be better every day. This is performed through an ERP system, which ensures the inventorying of warehouse items, affording a unified view of the inventories of all the industrial units. Thus, we are able to take advantage of our knowledge when planning for future materials, analyzing reserves and predicting demands.

In 2021, we launched an improvement project focused on the loading and unloading processes in all units. In 2022, we finalized its fine tuning, and now, in 2023, we will carry out Go Live, aiming to further improve the performance of the units in this regard and the quality of work of the transportation service providers.

Our suppliers are selected based on global, technical and legal criteria – in addition to the Company's internal regulations. Assuming a pro-active attitude, and as a way to stimulate local development and the forging of regional partnerships, we prioritize suppliers from the surrounding communities. In 2022, the stance was no different: we maintained the equivalence in our percentage, and even with the platform of major projects still in progress, which mainly raised the spend on machinery, we delivered significant results.

	2020	2021	2022
(204-1) Total purchased from local suppliers (R\$ million)	191,730	234,907	312,104
Percentage of total purchases made by the Company (%)	23.39%	18.73%	18.22%

We stimulated the circular economy by promoting the reverse logistics of corrugated cardboard scraps. In 2021, the volume of trimmings returned by customers to the production process was 6,403.20 tons, equivalent to 6.72% – higher than the target for the period. In 2022, the return was even higher, reaching 8,263.70 tons, representing 37.73% above the target for the year.

Our current base has more than 14,000 suppliers and service providers with active registrations in the Supply Chain. They are segmented according to the guidelines and requirements of the FSC®, ISO 9001 and ISO 14001 standards, divided into five groups:

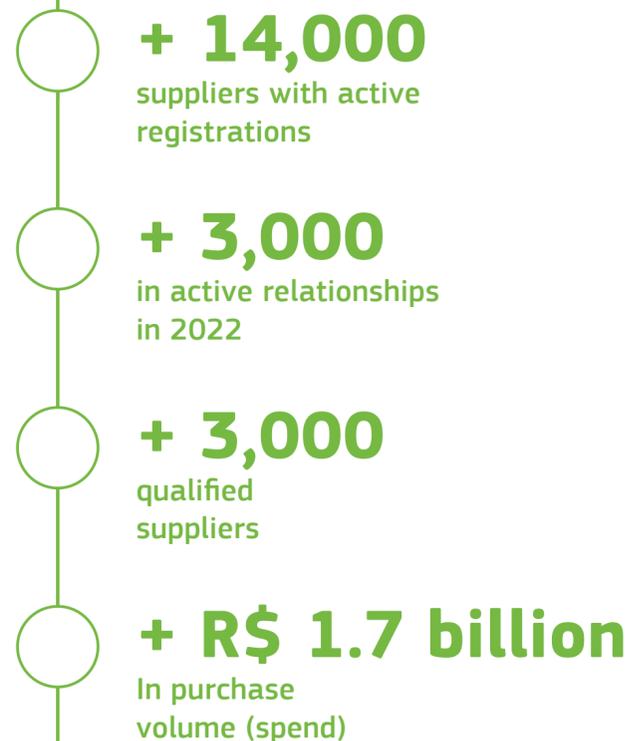
- Critical service providers
- Critical products and chemicals
- Transportation services (shipping logistics)
- FSC® and forest products
- Raw materials, consumables and intermediates

Quotations are carried out on the Purchasing Portal, including follow-up and approvals, management of contracts and documentation, results of performance evaluations and also financial information.

Guaranteeing the high level of demand in supplier quality, our hiring involves systematic steps for identification, qualification, selection and evaluation, bearing in mind the criticality of the products and services and their impact on the businesses.

In 2022, we will further improve the Company’s tools. The goal is to confer even greater agility, transparency, security and traceability to the information. In addition, we will fortify our relations with requesters and suppliers and promote the total process interaction, providing opportunities for continuous improvement.

Suppliers



(103-2, 103-3 and 308-2) We apply the evaluation that measures the Supplier Performance Index for the five purchasing groups. Following a scale of 0-100 points, the assessment encourages the continuous improvement of suppliers/service providers. Thus, we are able to go beyond what is established by legal compliance, encouraging better management practices. This item's composition combines issues like meeting technical requirements, the caliber of the provided goods and services, the nature of the business connection, as well as the efficiency of the communication process.

Number of suppliers and service providers evaluated

	2020	2021	2022
Critical services providers	178	209	238
Critical and chemical products	114	81	82
Transportation services (shipping logistics)	32	34	42
FSC® and forest products	221	193	250
Materials for use and consumption and intermediaries	79	49	39
General	607	555	647

Note: The same supplier can be evaluated in different groups, depending on the supply portfolio.

The supplier/service provider receives a notification of the outcome of the evaluation, and some measures may be required, depending on the score:

Below 60 points

Registration is canceled and contracting or purchases are not possible. Requalification can be requested from the moment the supplier/service provider meets the applicable requirements and presents an action plan approved by Irani's supply or forestry manager, depending on the type of service provided.

Between 60 and 79.99 points

Qualification conditional to the opening of a non-compliance form (RNC). Irani must receive a cause analysis of the problems pointed out and present a corrective action plan. The effectiveness of this plan is verified by the Purchasing Intelligence area every six months for the provision of services and annually for the supply of products.

Between 80 and 100 points

Automatic qualification. In this category are records of suppliers and service providers that seek us out for a joint analysis of improvement opportunities to enhance their practices. These records demonstrate the importance of this process for the supplier.

Supplier Performance Index (IDF)

	2020	2021	2022
Critical services providers	94.41	94.67	94.90
Critical and chemical products	96.69	95.57	97.92
Transportation services (shipping logistics)	98.30	98.48	97.40
FSC® and forest products	93.49	89.69	91.73
Materials for use and consumption and intermediaries.	91.02	98.35	95.63
General	95.48	95.38	95.27



Camila Guindani,
Cassandra Pavelski
e Carla Costenaro,
Joaçaba office



Social and Relationship Capital **Opportunities and Future Commitments**

Organize periodic training on the content of the Code of Ethics (at least every two years).

Continue, together with the risk managers, the new controls identified by the Internal Controls process.

By 2023, complete the testing of controls to evaluate the efficiency of the internal control system, with the ultimate goal of improving operations, financial reporting and compliance.

By 2023, implement a new risk management and internal controls software.

Structure the supply chain of cardboard chips with greater supply stability.

Stimulate actions by volunteer groups.

In 2023 we will carry out the Go Live, of the project to improve the loading and unloading process in all units, aiming at improving the performance and quality of the work of transportation service providers.

Promote the second edition for suppliers and service providers in 2023.

Implement the B Certification by 2025.

Improve communication with the surrounding communities.



Financial Capital



Adriano Pereira,
Indaiatuba unit



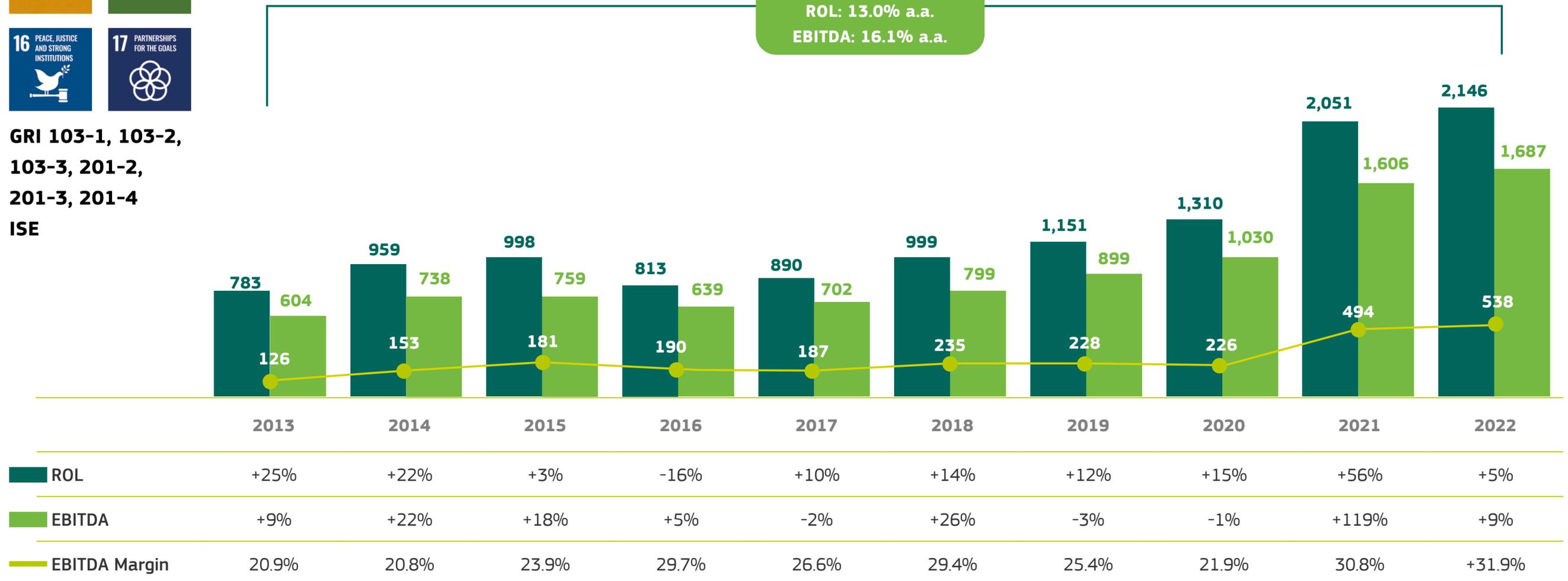
GRI 103-1, 103-2,
103-3, 201-2,
201-3, 201-4
ISE

Performance and economic growth

Our net revenue shows an average annual growth rate of 13.3% in the last ten years. Adjusted EBITDA, meanwhile, has grown an average of 16.6% per year. During the period, this latter indicator jumped from R\$ 126,210 thousand in 2013, with a margin of 20.9%, to R\$ 537,988 thousand in 2022, with a margin of 31.9%.

NET REVENUE (BRL MILLION)

CAGR 10 anos
ROL: 13.0% a.a.
EBITDA: 16.1% a.a.



BALANCE SHEETS
(CONSOLIDATED ON DECEMBER 31, IN THOUSANDS OF REAIS)

	12/31/2022	12/31/2021
ASSETS	3,515,338	2,365,300
Current	1,515,181	958,723
Non-current	2,010,157	1,406,577
LIABILITIES AND NET EQUITY	3,151,338	2,365,300
Current	577,460	344,609
Non-current	1,812,799	1,063,253
Net equity	1,125,085	957,438

(102-7) CONSOLIDATED INCOME STATEMENTS FOR THE YEARS ENDED DECEMBER 31
(IN THOUSANDS OF REAIS)

	12/31/2022	12/31/2021
Net Sales Revenue	1,686,666	1,605,834
Change in fair value of the biological assets	139,003	43,849
Cost of products sold	(1,017,597)	(1,017,659)
Gross Profit	808,072	632,024
Operating Revenues (Expenses)	(228,209)	(196,200)
Income before financial results and taxes	579,863	435,824
Net financial revenues (expenses)	(61,503)	(45,611)
Operating profit before tax effects	518,360	390,213
Net income from continuing operations	378,210	285,313
Net profit from discontinued operations	378,210	285,313

(103-2, 103-3) On the [Investor Relations](#) website, our full annual financial statements are available, encompassing the Explanatory Notes, the Independent Auditors' report and the Management Report. The preparation of these documents respect the Corporations Law and its amendments, and the rules established by the Brazilian Securities and Exchange Commission (CVM).

The earnings results were published on February 24, 2023 in the large circulation newspapers in which we publish our corporate acts, as well as on the CVM and B3 websites.

Main economic-financial indicators

In 2022, after a long pandemic period, we sensed a normalizing of social and economic activities, which boosted the activities of previously limited services. Sustainable lifestyles and commitments to diversity were further strengthened as society and entities, particularly companies, developed environmental, social, and governance (ESG) agendas.

According to the Brazilian Paper Packaging Association (Empapel), shipments of corrugated cardboard in tons in 2022 was 2.2% lower than in 2021, with 3,953 tons, reflecting the shift in consumption from goods and commodities to services.

The past year was characterized by increasing inflation around the world, leading central banks to raise interest rates significantly. This tightening of interest rates has resulted in predictions of lower growth in 2023, both in Brazil and globally.

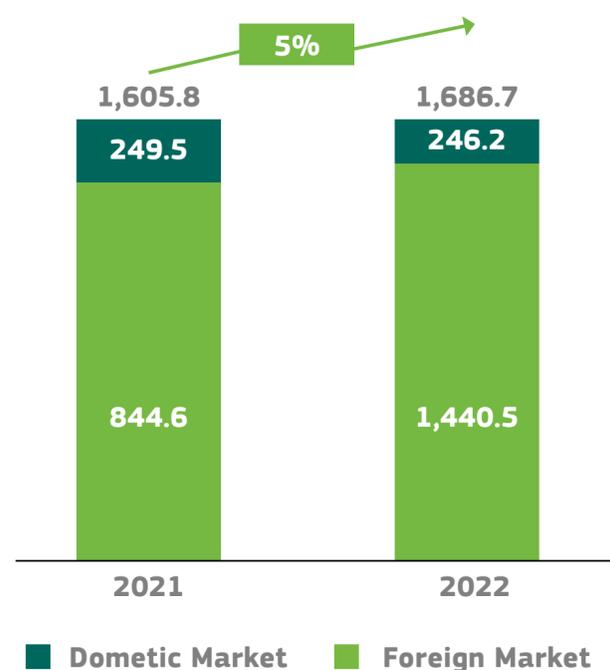
MAIN INDICATORS – CONSOLIDATED	2022	2021	Var. 2022/2021
Economic and Financial (R\$ Thousand)			
Net Sales Revenue	1,686,666	1,605,834	5.0%
Domestic Market	1,440,498	1,356,318	6.2%
Foreign Market	246,168	249,516	-1.3%
Gross Profit	808,072	632,024	27.9%
(*) Change in Fair Value of Biological Assets	139,003	43,849	217.0%
Gross Margin	47.9%	39.4%	8.5p.p.
Operating Income before Taxes and Interests	518,360	390,213	32.8%
Operating Margin	30.7%	24.3%	6.4p.p.
Net Profit	378,210	285,313	32.6%
Net Margin	22.4%	17.8%	4.6p.p.
Adjusted EBITDA ¹	537,988	493,921	8.9%
Adjusted EBITDA Margin	31.9%	30.8%	1.1p.p.
Net Debt	741,920	386,472	92.0%
Net Debt /EBITDA adjusted(x)	1.38	0.78	76.9%
Operational Data (t)			
Sustainable Packaging (Corrugated Cardboard)			
Production/Sales	159,840	157,549	1.5%
Paper for Sustainable Packaging (Paper)			
Production	293,556	297,188	-1.2%
Sales	124,880	126,056	-0.9%
Domestic Market	107,460	109,157	-1.6%
Foreign Market	17,420	16,899	3.1%
Sustainable Resins (Pitch and Turpentine)			
Production	13,732	15,450	-11.1%
Sales	13,700	15,529	-11.8%
Internal Market	350	441	-20.6%
Foreign Market	13,350	15,088	-11.5%
*Accumulated in the last 12 months.			

¹ EBITDA (earnings before interest, taxes, depreciation, amortization, and depletion). See chapter in this release.

Net Sales Revenue

Our net revenue reached R\$ 1,686,666 thousand in 2022, a growth of 5% in relation to 2021. The increase is due mainly to the increase in volume and prices in the Sustainable Packaging segment (Corrugated Cardboard).

NET REVENUE (R\$ MILLION)



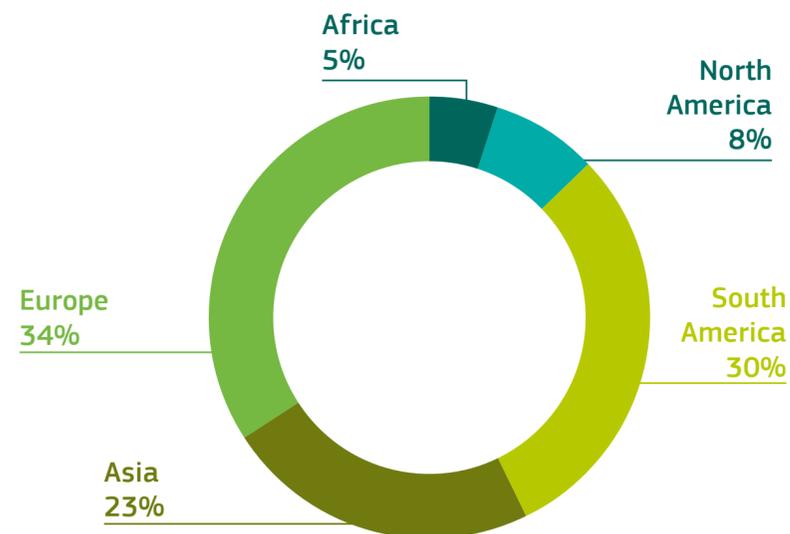
SHARE PER MARKET

	2021	2022
Domestic Market	84%	85%
Foreign Market	16%	15%

RECEITA LÍQUIDA POR SEGMENTO (R\$ MILHÕES)



NET REVENUE FOREIGN MARKET



Assessment of Fair Value of the Biological Assets (Forests)

Irani periodically measures the fair value of its biological assets (forests), as determined by CPC 29/IAS 41. The variation produced effects on the Company's results for 2022, as shown below:

EFFECTS OF THE VARIATIONS IN THE FAIR VALUE OF THE BIOLOGICAL ASSETS

R\$ thousand	2022	2021
Change in the fair value of biological assets	139,003	43,849
Depletion of the fair value of biological assets	(24,191)	(15,454)

The change in this value and its depletion are recognized in the Cost of Goods Sold (COGS). With this accounting determination, we were able to evaluate the market value of our forests, making the Financial Statements more accurate.

Net Income

In 2022, the net income was R\$ 378,210 thousand (profit), against R\$ 285,313 thousand (profit) in the previous year. The main impacts on net income in 2022 were related to the growth in net sales revenue and also to the change in the fair value of biological assets, with a consequent percentage increase in gross margin and net income.

OPERATING CASH GENERATION (ADJUSTED EBITDA)

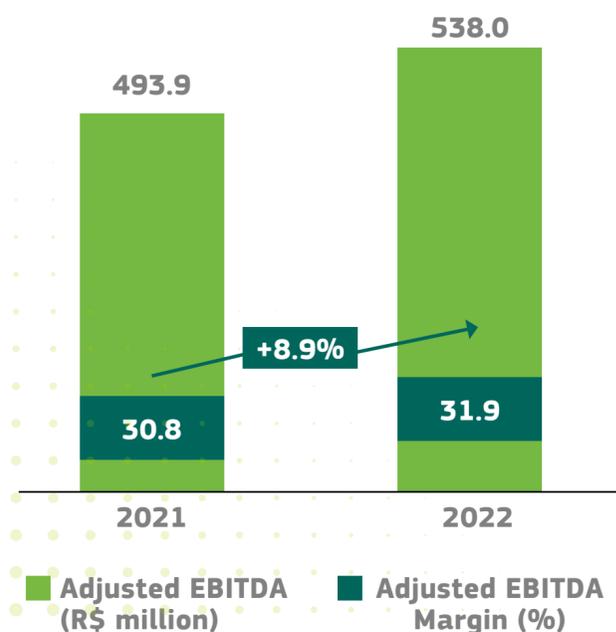
Consolidated (R\$ thousand)	2022	2021	Var. 2022/2021
Net Income	378,210	285,313	32.6%
Current and deferred income tax and social contribution	140,150	104,900	33.6%
Depletion	32,521	21,991	47.9%
Depreciation and Amortization	70,507	70,53	0.1%
Financial Income	61,503	45,611	34.8%
EBITDA	682,891	528,268	29.3%
EBITDA Margin	40.5%	32.9%	7.6p.p.
Adjustments according to Inst.CVM 527/12			
Change in Fair Value of Biological Assets ⁽¹⁾	(139,003)	(43,849)	217.0%
Non-recurring Events ⁽²⁾	(21,352)	(4,530)	371.3%
Managers Profit Sharing ⁽³⁾	15,452	14,032	10.1%
Adjusted EBITDA	537,988	493,921	8.9%
Adjusted EBITDA margin	31.9%	30.8%	1.1p.p.

¹ Variation in the fair value of biological assets, as they do not represent cash generation in the period.

² Non-Recurring Events: the amount of (R\$ 21,352) thousand refers to the credit of PIS and Cofins on depreciation in the amount of (R\$ 3,225) thousand, the Provision for INSS Contingency - Substitutive Account in the amount of R\$6,376, (R\$ 17,229) thousand refers to extemporaneous tax credits recognized in the period and the amount of (R\$ 7,274) thousand refers to the sale of property for investment.

³ Managers Profit Sharing: the amount of R\$ 15,452 thousand refers to the provision for management profit sharing. .

The operational cash generation, measured by the adjusted EBITDA of the operation, totaled R\$ 537,988 thousand in 2022, with a margin of 31.9% and 8.9% higher than 2021, calculated at R\$ 493,921 thousand. The 1.1 percentage point increase in the margin is mainly due to the Company's good performance in all segments, including in relation to revenue increases and cost reductions.



Financial Result

In 2022, the financial result, without exchange variation, was negative R\$ 58,400 thousand, against R\$ 43,926 thousand in 2021. The increase in 2022 compared to 2021 is mainly due to:

- The increase in the basic interest rate (Selic), which impacted the average cost of debt;
- The increase in net debt, mainly due to the disbursements of the Gaia Platform investments.

The exchange variation was a negative R\$ 3,103 thousand in 2022 compared to R\$ 1,685 thousand negative in 2021. The appreciation of the real against the dollar in the last quarter and year negatively impacted the balance of accounts receivable from foreign customers and positively impacted the balance of debt in foreign currency.

R\$ thousand	2022	2021	Var. 2021/2022
Financial Revenues	102,825	53,261	93.1%
Financial Expenses	(164,328)	(98,872)	66.2%
Financial Result	(61,503)	(45,611)	34.8%
Net Exchange variation	(3,103)	(1,685)	84.2%
Financial result without Exchange variation	(58,400)	(43,926)	33.0%

Net Debt

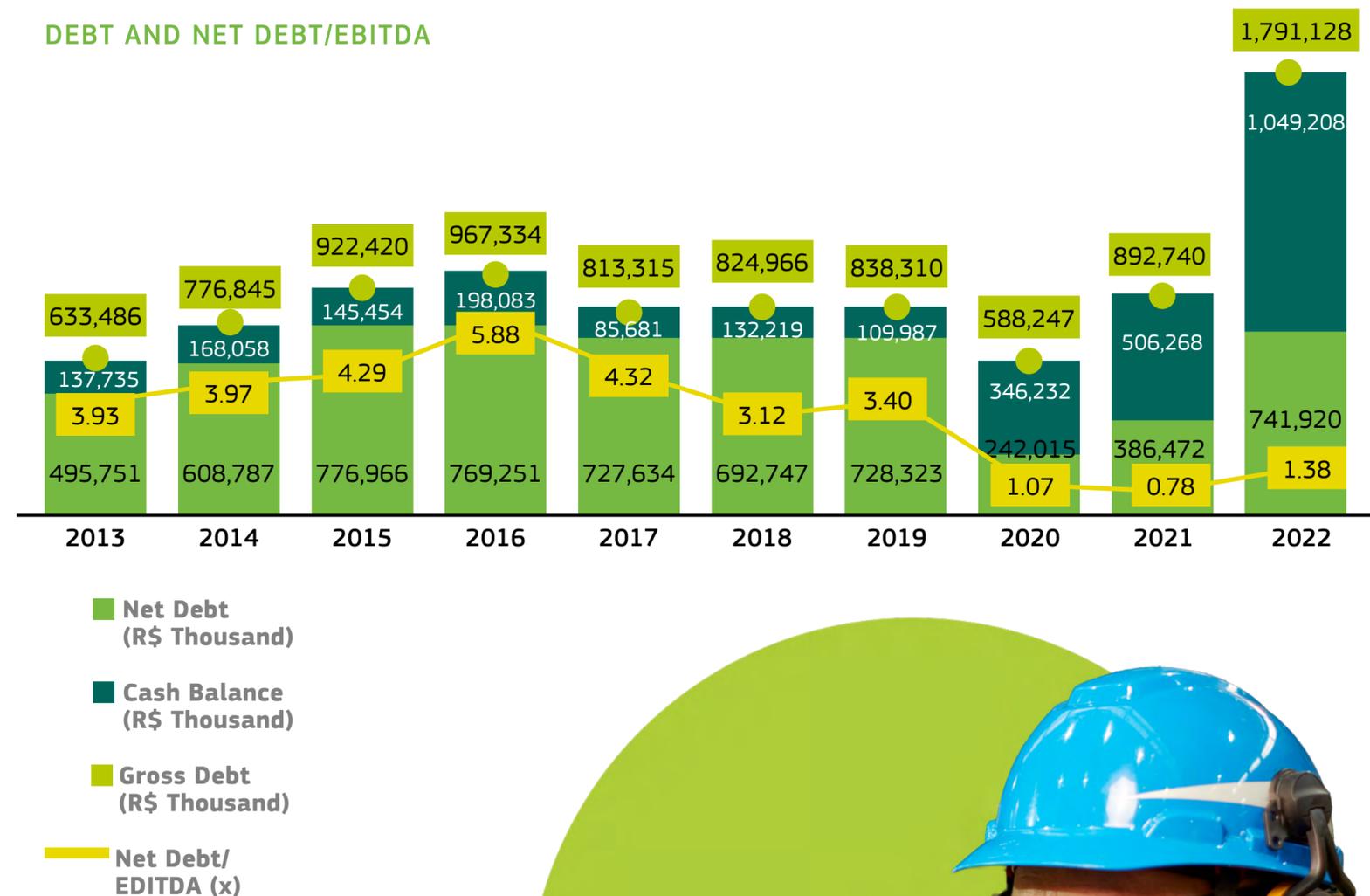
Irani's consolidated gross debt totaled R\$ 1,791,128 thousand in 2022, with 85% of maturing in the long term. The variation in the indicator was influenced mainly due to:

- 5th Issue of Green Private Debentures in 4Q22, in the amount of R\$ 720,000 thousand, linked to a securitization operation, serving as backing for the issue and public distribution of certificates of agribusiness receivables (CRAs) of the 194th Issue of Eco Securitizadora de Direitos Creditórios do Agronegócio S.A. (information regarding this operation can be seen in the item Capital Markets);
- Partial inflow of funds from Finame Direto with the BNDES in 2Q22, amounting to R\$ 176,099 thousand.

Thus, our consolidated net debt in 2022 totaled R\$ 741,920 thousand, compared to R\$ 386,472 thousand in 2021. The net debt/EBITDA ratio was 1.38 times at the end of 2022, compared to 0.78 times at the close of 2021.

The increase in the indicator is due to the net debt being higher than the increase in Adjusted EBITDA. This is due to the negative free cash flow in the period, resulting from the disbursements of the Gaia Platform investments. Re-leveraging is expected during the investment period, as established in the parameters of the Company's Financial Management Policy, which sets a target of 2.5x.

DEBT AND NET DEBT/EBITDA



Élcio Romancini,
Campina da Alegria
unit

GROSS DEBT PROFILE

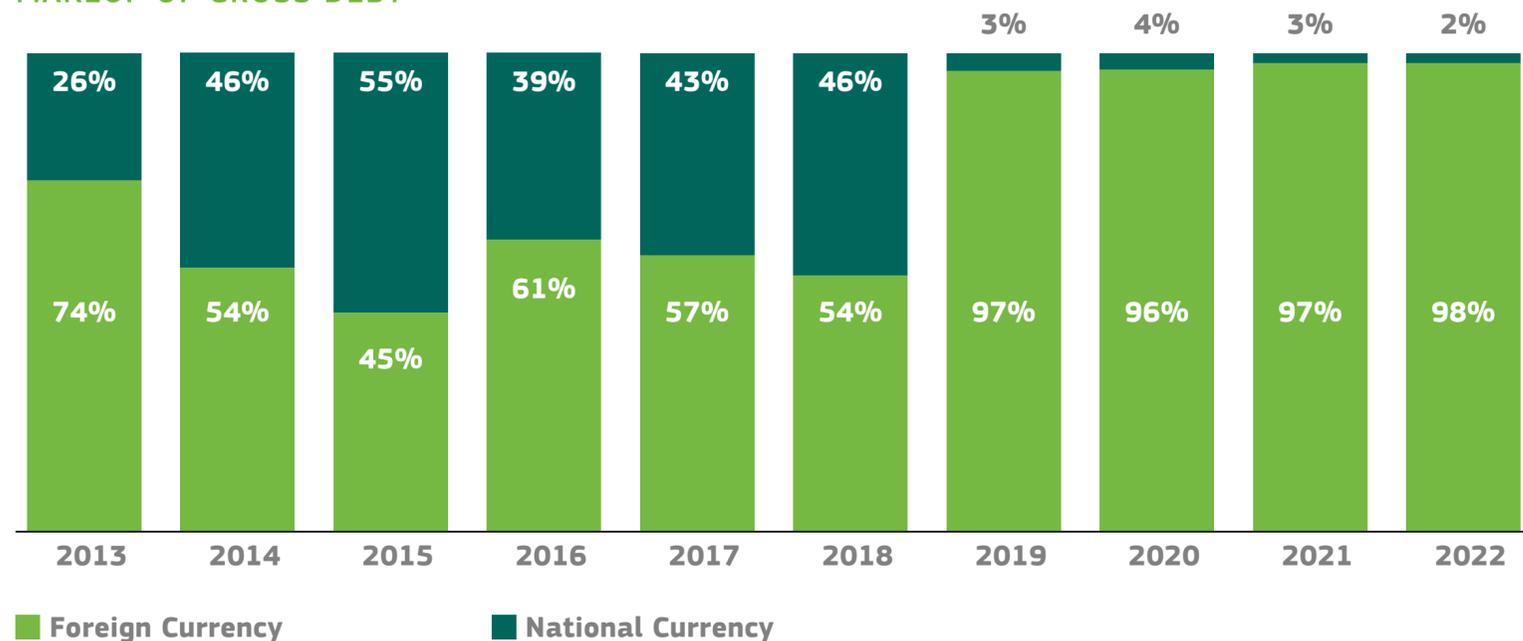


CREDIT RATING

In 2022, S&P Global Rating performed the annual review of the Company’s credit ratings and maintained Irani’s long-term issuer credit rating at ‘brAA’ on the Brazil National Scale. The ratings assigned to the Green Debenture Issues (3rd Public Issue and 4th Private Issue) were also maintained at ‘brAA+’. According to the agency, the stable outlook of the issuer rating indicates the expectation that Irani will maintain increasing cash generation in the coming years, with higher profitability and a strengthening of its credit metrics. In addition, it is expected that the Company will remain insulated from refinancing risks at the controlling group level.

In 2022, S&P Global Ratings assigned the ‘brAA (sf)’ rating to the CRAs of the 194th Issue of Eco Securitizadora linked to and backed by the 5th Private Issue of Green Debentures.

MAKEUP OF GROSS DEBT



Share Buyback Program 2022

In 2022, the Board of Directors approved the new Repurchase Program for shares issued by the Company (“2022 Repurchase Program”). The objective is to maximize the generation of value for shareholders through efficient management of the capital structure. The program became effective on August 18, 2022 with a limit on the acquisition of up to 9,833,806 common shares, representing 10% of the total common shares issued by the Company and outstanding. By December 31, 2022, the Company repurchased 1,487,700 shares, which represents 15.13% of the program executed, for an amount of R\$ 11,642 thousand, including trading costs, equivalent to an average price per repurchased share of R\$ 7.82. On December 31, 2022, Irani’s capital stock was represented by 246,359,319 common shares (RANI3), and the Company held in treasury 1,487,700 common shares.

Green Debentures

In 2022, the Company concluded its fifth issue of 720,000 thousand simple debentures, not convertible into shares, unsecured, in two series, for private placement, with a unit value of R\$ 1 thousand each, on the issue date, for a total amount of R\$ 720,000 thousand. The net funds obtained by Irani with the issue will be used exclusively in its agribusiness

activities, in forestry and agriculture, in particular through the use of resources in investments, costs and expenses related to forestation, reforestation, acquisition of pesticides, fertilizers, wood, management services and harvesting of forests and derivatives such as resins and integrated logistics of transportation, storage, wood debarking and chipping.

The debentures and, consequently, the CRAs were characterized as “green debentures” and “Green Bond,” respectively, based on a Second Opinion issued by the specialized consulting company NINT - Natural Intelligence Ltda.

In 2022, S&P Global Ratings assigned the ‘brAA (sf)’ rating to the CRAs of the 194th Issue of Eco Securitizadora linked to and backed by the 5th Private Issue of Green Debentures.

More than 80% of the CRAs were subscribed by individuals.

Our issues of green debentures have an Independent Second Opinion, issued by SITAWI Good Finance. The opinion attests that the uses of resources of the emissions are aligned with Irani’s strategy and that the operation provides environmental benefits. Thus, it is possible to contribute to sustainable development and the transition to a low carbon economy.

Cash flow

In 2022, the Adjusted Free Cash Flow was R\$ 337,867 thousand, an increase of 14% compared to the R\$ 296,376 thousand recorded in 2021. This increase was due to an 8.9% growth in annual EBITDA, lower interest payments, and the receipt from the sale of assets. On the other hand, there were higher disbursements for Maintenance Capex, higher taxes on profit due to the increase in net income in the period, and an increase in the need for working capital, driven by the growth in annual net revenue.



Daniel dal Pupo,
Campina da Alegria
unit

Free Cash Flow (R\$ thousand)	2022	2021
Adjusted EBITDA	537,988	493,921
(-) Capex ¹	(544,689)	(395,561)
(-) Interest paid/received	(11,361)	(42,834)
(-) Income tax and CSLL (cash)	(102,446)	(85,653)
(+/-) Working capital	(10,538)	5,047
(-) Dividends + IoE	(158,786)	(89,933)
(-) Share buyback	(46,471)	(18,565)
(+/-) Others	28,496	5,640
Free Cash Flow	(307,807)	(127,938)
Dividends + IoE	158,786	89,933
Share buyback	46,471	18,565
Gaia Platform ²	440,339	313,953
Expansion Projects	78	1,858
Adjusted Free Cash Flow³	337,867	296,376
Adjusted FCL Yield³	18.8%	16.7%

¹ Considers the disbursement of R\$ 5,965 thousand in 4Q21, R\$ 1,162 thousand in 1Q22, R\$ 24,845 thousand in 2Q22, R\$ 1,329 thousand in 3Q22 and R\$ 10,120 thousand of interest and fixed guarantees, referring to the financing of the Gaia Platform investments.

² Excluding dividends, IOC and Share Buyback, Gaia Platform and Expansion Projects.

³ Yield - FCL adjusted divided by the average market value in the DMUs.

Return on invested capital (ROIC)

Return on Invested Capital (ROIC) was 23% for the last 12 months, a decrease of 1.9 percentage points compared to the 12 months ended December 31, 2021. The reduction in the comparisons is mainly due to the increase in Adjusted Invested Capital. This is a natural effect during the ramp-up of the Gaia Platform Investments, as the completed Capex is added immediately to the Adjusted Invested Capital, while the returns generated by the projects impact the Adjusted Operating Cash Flow gradually.

At high levels, the ROIC demonstrates a commitment to generating consistent returns above the cost of capital (WACC). It is even a reference in the Brazilian and global sustainable packaging sectors, demonstrating the power of sustainability (ESG) as a long-term trend that drives our economic results.

ROIC (R\$ thousand) - UDM(1)	2022	2021
Total Assets	2,689,926	2,083,547
(-) Total Liabilities (ex-debt)	(533,923)	(482,848)
(-) Construction in Progress	(580,687)	(201,851)
Invested Capital	1,575,317	1,398,849
(-) CPC 29 Adjustment(2)	(132,556)	(81,116)
Adjusted Capital Invested	1,442,761	1,317,733
Adjusted EBITDA	537,988	493,921
(-) Maintenance Capex	(104,274)	(79,745)
(-) Income Tac and CSLL (cash)	(102,446)	(85,653)
Adjusted Operating Cash Flow	2,689,926	2,083,547
ROIC(3)	23/0%	24.9%

(1) Average of equity balances of the last 4 quarters (Last Twelve Months)

(2) Difference of fair value biological assets less Deferred Taxes from Fair Value of biological assets

(3) ROIC (Last Twelve Months): Adjusted Operating Cash Flow / Adjusted Invested Capital

(201-1) Direct economic value generated and distributed

The values related to the wealth we generate and their distribution among the parties that contributed to its generation (such as employees, government, financiers, and shareholders) are presented as follows::

(R\$ thousand)	12/31/2021	%	12/31/2021	%
1. Revenue	2,226,789		2,081,879	
2. Inputs acquired from third parties	1,199,006		1,124,731	
3. Gross added value (1-2)	1,027,783		957,148	
4. Depreciation, amortization and depletion	103,028		92,444	
5. Biological asset fair value variation	(139,003)		(43,849)	
6. Net added value produced by the entity (3-4-5)	1,063,758		908,553	
7. Added value received through transfers	102,825		53,261	
8. Total added value to distribute (6 +7)	1,166,583		961,814	
9. Distribution of Added Value				
9.1) Personnel	234,154	20.07%	205,752	21.39%
9.2) Taxes, fees and contributions	352,734	30.24%	338,309	35.17%
9.3) Remuneration of third-party capital	172,519	14.79%	105,904	11.01%
9.4) Remuneration of own capital	2,226,789	33.58	2,081,879	30.96%

Note: information about social investments is presented in the chapter "Our commitment to the development of the surrounding communities"



Financial Capital

Opportunities and future commitments

Maintain cash resources for immediate liquidity of at least R\$ 150 million.

Maintain a target operating leverage (Net Debt/Adjusted EBITDA) of 2.5x, which represents an adequate capital structure, with a higher index up to the limit of 3.5x being allowed in post-investment periods.

Maintain a capital structure composed of 30% to 50% of own capital, and 70% to 50% of third-party capital.

Maximize, until 2024, the generation of value for shareholders by means of the efficient management of the Company's capital structure through the Share Buyback Program.

Maintain the rating at a high level, demonstrating the credit quality.



Agnaldo Silva,
Indaiatuba unit

Human Capital



(103-2, 103-3) People are at the heart of all of Irani's strategies. And so they will remain, underpinning our position as one of the Best Companies to Work for in the country.

We foster a culture marked by the positioning of human capital as protagonists, aligned with the cultural practices encouraged by the Great Place to Work® (GPTW) group. Here, employees not only undergo changes: they are in charge of the changes, developing and enhancing their personal and professional journeys and strengthening the construction of prosperous relationships. Thus, we can focus on the goal of promoting an environment formed by employees engaged with the Company's strategy and results – and that, above all, will lead them to be proud to work in Irani. The process is based on five structuring programs:



In 2022, we continued our work to develop the **organizational culture**, strengthening our values as Climate Protagonists. We conducted the GPTW Climate Survey online with the participation of 79% of employees and leaders. Based on the results, we applied the 3CS methodology in accordance with the principles of andragogy to analyze the data and develop action plans with the collaboration of the teams and the climate management support group.

Our satisfaction rating averaged 86%.

We consider GPTW's five dimensions that nurture the trust relationship between people and their work environment:

- Credibility
- Respect
- Pride
- Camaraderie
- Impartiality

Words that imbue our employees with the most pride:





**GRI 103-1, 103-2,
103-3, 405-1,
405-2
ISE**

Diversity and inclusion



It accompanies the professional cycle of the employees, including the processes of attraction, engagement and tracking of each one's progress in Irani. We work to improve cultural alignment and empower people to take the lead in their own careers. Additionally, we strive for diversity and inclusion; for example, Gera Diversity has activities conducted with respect for equal opportunities, regardless of gender, age, ethnicity, religion, nationality, marital status, sexual orientation, and disabilities of any kind.

The team of analysts that conducts the selection processes is in-house or is supported by outside consultants. The process is accompanied by online stages, from application to admission, which offers greater transparency and faster returns to the participants. For Irani, finding people with values aligned to those of the Company ensures greater success and better adaptation to the organizational culture.

We train the attraction team to conduct a quality selection interview. It also means paying attention to diversity, understanding how beliefs,

prejudices and stereotypes form **unconscious biases** and how they impact decision-making. This expanded awareness promotes and **favors more effective and confident decisions**, positively impacting the relationship between employees, processes and the company's sustainability.

	2020	2021	2022
Vacancies filled by internal recruitments	53%	67.47%	67.23%

We continued to implement our initiatives to develop talented young people with mandatory and non-mandatory internship programs in technical, administrative and production areas. We plan to restructure the program, realign practices and review indicators such as retention rates.

The “My Apprenticeship” program, which was designed specifically for young apprentices, was also extended. The young people establish a chain of learning, training and growth based on a coaching plan focused on labor market skills. To that end, they work on topics such as:

- corporate behavioral posture
- self-understanding
- communication
- teamwork
- creativity and innovation
- emotional intelligence

The employee integration process is aligned with the “hire and welcome” pillar, one of the nine practices encouraged by GPTW®. In addition to standardizing the materials, ensuring that all units present the same content, the alignment values greeting the newly hired, presenting them with a welcome kit containing a letter signed by the CEO. We also trained internal facilitators about the importance of the first contact with the new employee. They received guidance on how to perform a good welcome, with techniques and language appropriate to the participant’s profile.

We also offer online integration, with content available in EAD through our SuccessFactors platform. There are virtual meetings with facilitators and moments for clarification of doubts. Events like these enable alignment with the managers so that a personalized program can be developed for each position. Irani provides electronic equipment, chair and a welcome kit to new colleagues at their homes.

At the end of each welcome process, we assess the degree of satisfaction of each of the new employees. In 2021, the satisfaction assessment was 83%. In 2022, it was 92!



Junior Rodrigues
Balneário Pinhal
unit



The initiatives to include employees with disabilities continued in 2022. There were actions such as raising awareness and preparing the teams that work with these professionals, helping them to better understand the aspects of the disability of the colleague who is being integrated. And, of course, so that the person can develop the maximum of his/her potential. The result of these practices has a direct impact on the work environment, ensuring mutual learning experiences.

Setembro Verde (Green September)

We celebrated **People with Disabilities Month** thinking about how to contribute to the better accessibility in our spaces. We created the **Gera Acessibilidade** project for an architectural/ accessibility review of our industrial plants. With the support of an outside consulting firm, we surveyed accessibility possibilities to improve the environments and make spaces reachable by all, guaranteeing fundamental rights, the right to come and go, and the right to work safely and autonomously.

(103-2) We follow the most significant and innovative business movements. Toward this end, we are further refining internal practices related to diversity in order to promote a work environment that welcomes, integrates and respects differences.

(103-2) For us, diversity is everything that distinguishes one person from another: gender, age, nationality, color, ethnicity, religion, marital status, sexual orientation and disabilities of any kind. It is synonymous with plurality, an elementary characteristic of what is collective and of life in society. We are present in four

states of one of the most multicultural countries in the world, and we recognize that this is one of our strengths.

In 2021, Irani became a signatory to the **Citizen Company Program**, which enables the extension of maternity and paternity leave beyond the period already guaranteed. Through the initiative, employees have more time to enjoy the arrival of their children, whether biological or adopted, strengthening family ties and reinforcing our values of caring for people. We also developed a training program for new fathers: “Father, presence of love and protection,” with 166 employees participating as of implementation.

The World Day for Cultural Diversity, which is May 21, gave us the idea for the “Encounter with Diversity” campaign two years ago. These are online meetings available through YouTube and open to all interested parties. In 2022, we introduced the theme “Safe Spaces and Desirable Futures: What’s the Story You Want to Tell?” The two panels were supported by speakers representing the LGBTI+, masculinities, and culture of peace topics. At the meeting, available to in-house and outside audiences, we registered 142 simultaneous participants through Zoom, totaling 267 views on YouTube and new subscribers to our channel.

We believe in the importance of promoting equal opportunities and fair treatment to all people, regardless of their sexual orientation and gender identity. It also means that we reject discriminatory practices and their implications for people’s lives, for business activities and for society. Hence, we became **signatories to the Companies and LGBT+ Rights Forum**, a guideline under which

we join efforts so that the 10 Company Commitments to LGBTI+ Rights become reality and can be beneficial to society as a whole. We established our first LGBTI+ talent bank in 2022, which currently contains 105 registered résumés.

We sponsor the DiverS/A 2022 Fair! It is the largest LGBTI+ employability fair in Latin America, which aims to connect lesbian, gay, bisexual, trans, intersex professionals, among others, with companies that target more diverse teams. The sponsorship includes access to the fair's talent bank, which enables us to promote more and more candidates from minority groups.

We signed an **open letter** to the presidential candidates in support of diversity, respect, and inclusion of LGBTI+ people in Brazilian work environments.

In 2022, we introduced the 1st Women's Mentoring Program, with the participation of 20 invited women, designed to heighten self-confidence and promote the expansion of awareness, leveraging possibilities for women's performance, career and personal and professional development. There were seven biweekly meetings, held in groups and conducted by an outside consultant, totaling 21 training hours. The participants then spread the training knowledge to other groups of employees, totaling 80 people, reflecting on the journey of equality, respect and freedom.

We also launched the I Value Diversity project, a referral program for minority groups within the company. For each referral,

employees will accumulate points, and those with the most points will be rewarded with training courses that can be extended to their dependents. The aim is to use affirmative action to ensure that we are engaging all members of our team, so that we can become a more diverse and inclusive organization. Since its inception, in March/22, we have had more than 40 nominations.

We developed a pilot initiative at our Indaiatuba unit: the "+ Delas na Operação" (More Women in Operations) program, which seeks to provide opportunities for women to professionalize in the industrial area, promoting gender equity. They are part of the "Maria Luiza" project, named after Maria Luiza Soares Fontes, the first female electrical and mechanical engineer in Brazil. An immediate result was the hiring of two trainees for the unit's Industrial Maintenance area. Both are students of the Technical course in Electrotechnics offered by Senai in Indaiatuba.

We focused on leadership training through initiatives such as including the Lidera Program topic for managers, coordinators, and supervisors; a Plural Journey of (re)learning about the topic and the role of senior leaders for the executive officers; and Mentoring in Diversity for the CEO.

Pursuing the theme, we promoted initiatives such as::

- Creation of a Diversity Primer
- Expansion of + Delas na Operação to other units
- New Diversity Diagnostic Research cycle
- Strengthening the Diversity theme with the outside public, by disseminating our practices and constantly coaching the internal team.

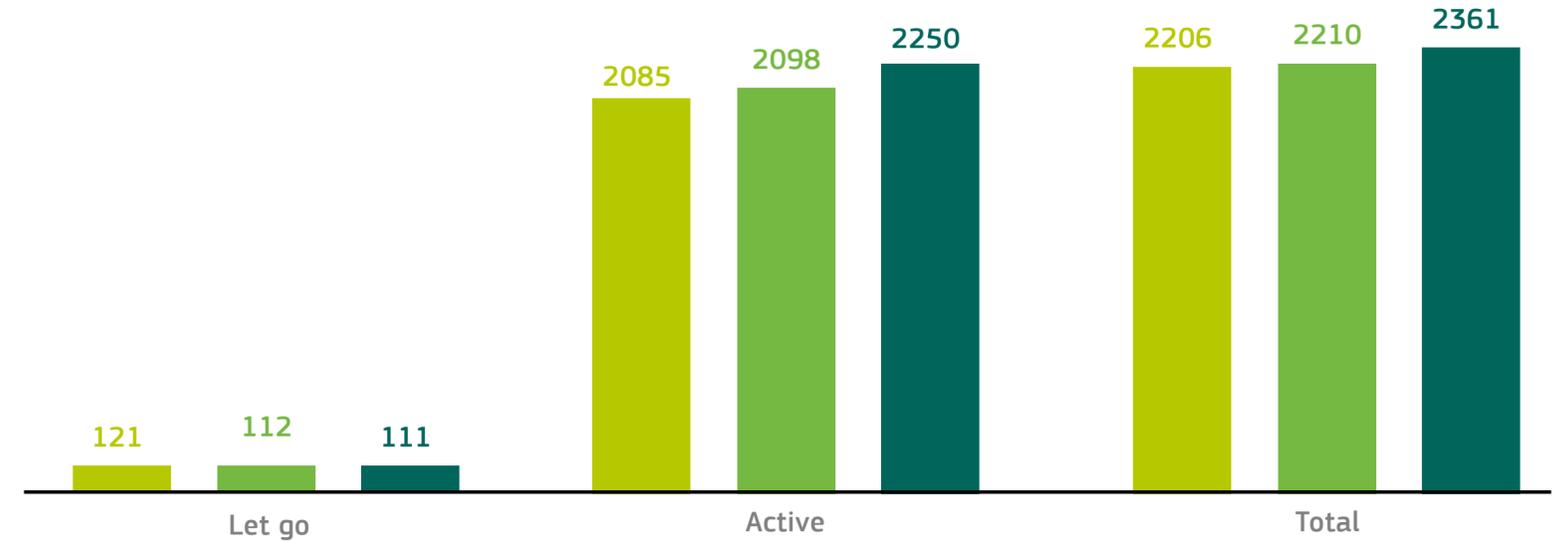
Remote and hybrid work

Continuing the work that has already been consolidated for remote and hybrid work, we revised the Remote Work Manual's presentation of the Company's guidelines and directives. We also made the content available on the EAD platform, with the inclusion of ergonomics training – which by Dec/22 counted 82% of the employees as participants. In the satisfaction survey with remote and hybrid work, we received feedback from 96% as being satisfied or very satisfied with their current work model. To control working hours, we are implementing, in 2023, a time and attendance system in which the employee can set his/her own time and attendance parameters.

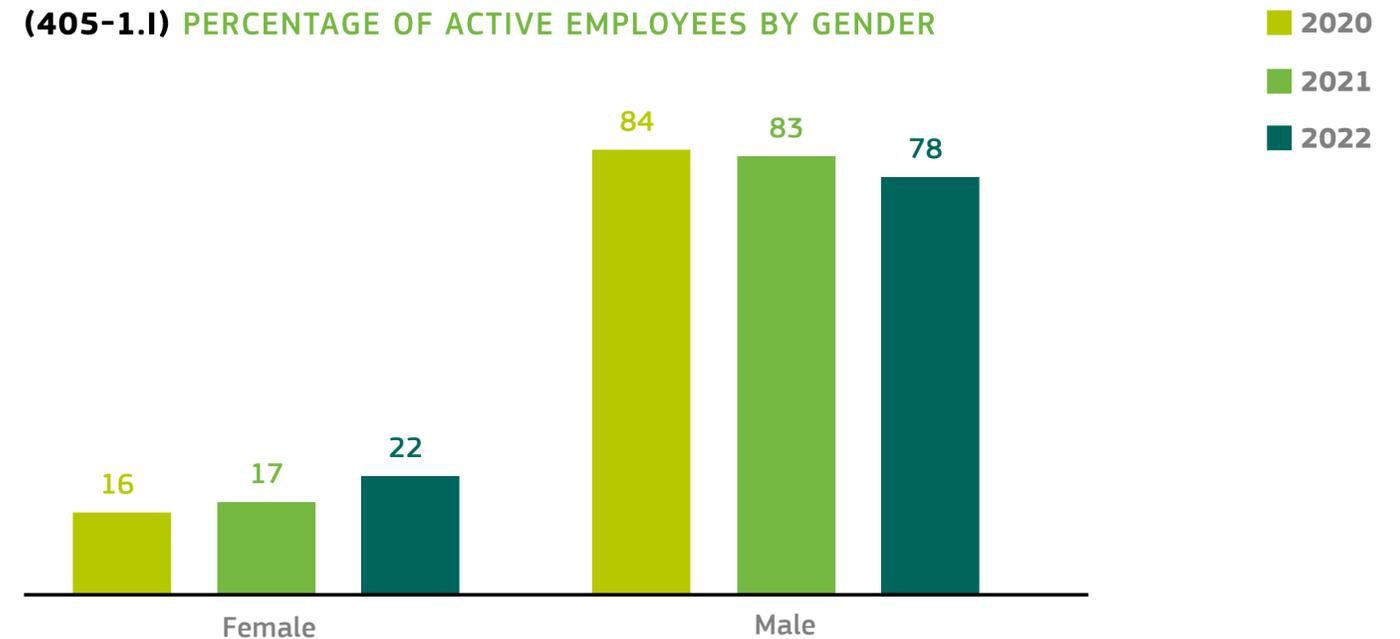
Labor force demographic information

(102-8.f) The information presented here was extracted from our ERP system, with a base date of 12/31/2022. We consider all Irani branches and subsidiaries to be important operational units, because they are equally representative for the group, adopting the policies and strategies that seek the development and growth of people.

(102-7.A.I) TOTAL NUMBER OF EMPLOYEES



(405-1.I) PERCENTAGE OF ACTIVE EMPLOYEES BY GENDER



(102-8.C) HIRING REGIMEN

	2020		2021		2022	
	Female	Male	Female	Male	Female	Male
Halftime	42	25	14	10	51	24
Fulltime	322	1817	363	1,823	466	1,820

(102-8.A) NEW HIRES OF EMPLOYEES BY AGE GROUP AND GENDER

	2020		2021		2022	
	Female	Male	Female	Male	Female	Male
CLT – Undetermined period	297	1,773	351	1,805	447	1,795
CLT – Young apprentices	21	11	14	10	52	24
CLT - Determined period	9	8	12	12	18	20
Statutory	0	6	6	6	0	5
Total	327	1,798	377	1,833	517	1,844

(102-41.A) ACTIVE EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS

	2020	2021	2022
Collective Agreements	92.42%	98.62%	96.53%
Pro-labor	0.29%	0.29%	0.22%
Minimum salary	7.29%	1.10%	3.24%

(405-1.II) PERCENTAGE OF EMPLOYEES BY AGE GROUP

	2020	2021	2022
Up to 30	39.4%	37.4%	38.8%
From 31-50	48.8%	50.8%	50.5%
More than 50	11.8%	11.8%	10.7%

(405-1.III) PERCENTAGE OF EMPLOYEES BY JOB CATEGORY

	2020	2021	2022
Management	6%	7%	7%
Administrative	24%	25%	28%
Operational	70%	69%	65%

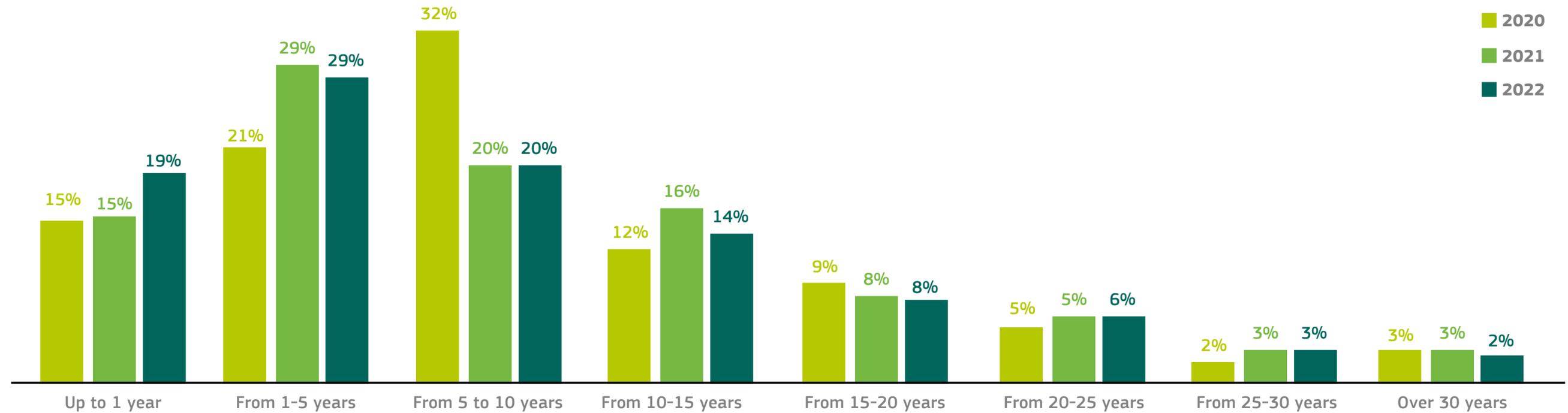
(401-1.A) NEW EMPLOYEE HIRES BY AGE GROUP AND GENDER

	2020		2021		2022	
	Female	Male	Female	Male	Female	Male
Under 30	17%	50%	17.3%	4.8%	27.7%	35.9%
From 31-50	0%	1%	0.3%	3.6%	15.0%	19.8%
More than 50	9%	22%	11.8%	25.2%	0.0%	1.5%

(401-1) TURNOVER BY AGE BRACKET AND GENDER

	2020		2021		2022	
	Female	Male	Female	Male	Female	Male
Under 30	36%	24%	26%	20%	15%	22%
From 31-50	22%	16%	20%	20%	20%	12%
More than 50	23%	15%	14%	11%	13%	16%

PERCENTAGE OF EMPLOYEES BY TIME WITH THE COMPANY



Demographic information stratified by business units

(102-8.B, 102-8.C) EMPLOYEES BY BUSINESS UNIT AND GENDER

	2020		2021		2022	
	Female	Male	Female	Male	Female	Male
Office RS – Porto Alegre	18	19	28	21	28	21
Office SC – Joaçaba	52	86	64	97	82	106
Paper SC – Campina da Alegria	70	652	108	703	141	722
Paper MG – Santa Luzia	16	131	21	151	29	158
Packaging SC – Campina da Alegria	33	249	43	260	81	271
Packaging SP – Indaiatuba	48	326	44	358	72	344
Resin RS – Balneário Pinhal	14	42	19	58	19	57
Subsidiaries	39	172	50	185	65	165

(401-1.B) TURNOVER PER BUSINESS UNIT

	2020	2021	2022
Office RS – Porto Alegre	1.39%	0.97%	1.20%
Office SC – Joaçaba	0.57%	0.45%	0.49%
Paper SC – Campina da Alegria	0.72%	1.33%	0.92%
Paper MG – Santa Luzia	0.42%	1.25%	1.01%
Packaging SC – Campina da Alegria	1.38%	1.23%	1.21%
Packaging SP – Indaiatuba	0.79%	1.18%	0.96%
Resin RS – Balneário Pinhal	0.54%	0.82%	1.38%
Subsidiaries	1.94%	3.42%	3.72%

Compensation and benefits

(102-7) We ended 2022 with 2,361 employees on staff, of which 111 (4.7%) were on leave. Of the total, 99.79% are contracted under the CLT regime and 0.21% rely on pro-labore. In the composition of the staff, 96.65% are covered by collective bargaining agreements.

(103-2 and 103-3) With the support of specialist consultants, we are able to evaluate the Company's regional practices and positions to guide our compensation and fringe benefit packages.

(202-1) The average of the lowest remuneration practiced is equivalent to 0.77 for men and 0.79 for women of the minimum wage in force in Brazil on December 31, 2022. In relation to the total number of employees, 17.03% receive the floor of the category.

(102-38 and 102-39) Proportionally, the organization's highest paid individual receives 34.84 salaries more than the average of the other employees. To prepare this data, we considered as total annual remuneration the following composition: base salary + 13th salary + vacation. This same individual had a salary increase of 29.48% comparing 2021 to 2022, while the average of the other employees increased by 8.71%.

TOTAL PAYROLL VALUE (IN R\$ MILLION)

2020	2021	2022
138	154	180

(405-2) PROPORTION OF WAGES PAID TO MEN AND WOMEN

	2020		2021		2022	
	Men	Women	Men	Women	Men	Women
Management	1	0.83	1	0.85	1	0.85
Administrative	1	0.83	1	0.86	1	0.81
Operational	1	0.78	1	0.71	1	0.69

Note: for the presentation of this information, we consider only the average of the base salary paid per job category. Men and women performing the same job in the Company receive the same wage. On average, men earn more by being the majority at all levels, impacting the highest leadership wages.

(401-2.A) BENEFITS CONCEDED TO EMPLOYEES (R\$ THOUSAND)

	2020	2021	2022
Meals	11,065	13,597	16,591
Transportation	8,043	10,704	11,851
Life insurance	312	331	388
Health plan	11,135	12,314	14,674
School materials and pre-school	130	180	262
Home office	310	589	764
Gympass	44	250	284
TOTAL	31,039	37,967	44,814

Notes: food includes the sum of the amounts invested in meals for employees and basic food baskets. All benefits are offered to full-time and part-time direct employees, regardless of the type of contract.

Parental leave

(401-3.a) All employees are entitled to maternity/paternity leave upon presentation of supporting documentation. The information presented below is based on the number of direct employees active on 12/31/2022.

	Male	Female	Total
(401-3.c) Total number of employees who returned to work after taking maternity/paternity leave, broken down by gender.	22	81	103
(401-3.c) Total number of employees who returned to work after taking maternity/paternity leave, broken down by gender.	22	81	103
(401-3.d) Total number of employees who returned to work after taking maternity/paternity leave and remained employed 12 months after returning to work, broken down by gender.	12	58	70



Camila Ferreira e Angeli Araujo, Balneário Pinhal unit



**GRI 103-1, 103-2,
103-3, 102-8,
102-36, 102-37,
401-1, 401-2,
401-3, 404-1, 404-2,
404-3, 405-1, 405-2
ISE**

Development of people

programa **cresce**

(103-2) The Cresce (Grow) Program comprises actions to train and develop people aligned with the Company’s strategies. The goal is to stimulate the constant qualification of employees training – both for their personal and professional growth – focusing on the demands of each area and the following competencies:

- **Life, First of All:** Ability to take care of oneself and others, prioritizing the life, health and safety of all.
- **Focus of the Client:** Ability to understand and anticipate client needs. Empathy is developed and effective actions are taken to solve client demands. The result is an increase in value and loyalty relationships.
- **Excellence Culture:** Attitude oriented to ensure excellence and continuous improvement of products, processes and services.
- **Innovation:** Ability to act creatively, generating and implementing successful ideas in processes, products and service delivery.

- **Self-Development:** Commitment of each to the continuous quest for personal and professional development, using the different means of access to learning – internal and external. It means being the protagonist of one’s own career.
- **Teamwork:** Ability to combine everyone’s efforts to achieve results through engagement and the sum of different profiles within the company.
- **Communication:** Ability to convey ideas, guidelines and opinions, clearly and assertively, using the means of communication available and appropriate to each audience. Here we seek to stimulate active listening and understanding of what is being communicated.
- **Leadership:** Ability to engage and influence people to achieve differentiated and sustainable results, with simplicity, humility and balance.

Irani Corporate Education

This is our way of improving how we capture knowledge, making it accessible, available and easy to understand. Segmented in three schools and their respective strategic focuses, our Corporate Education dives deeper into the subjects experienced in the Company through various teaching methodologies. This fosters a culture of continuous learning and career activism. We concentrate on adult learning, introducing teaching methodologies tailored to each demand. The premise is to work on training and development actions, focusing on the 70-20-10 learning experience.



It strengthens our roots and technical bases to, side by side, pursue excellence.

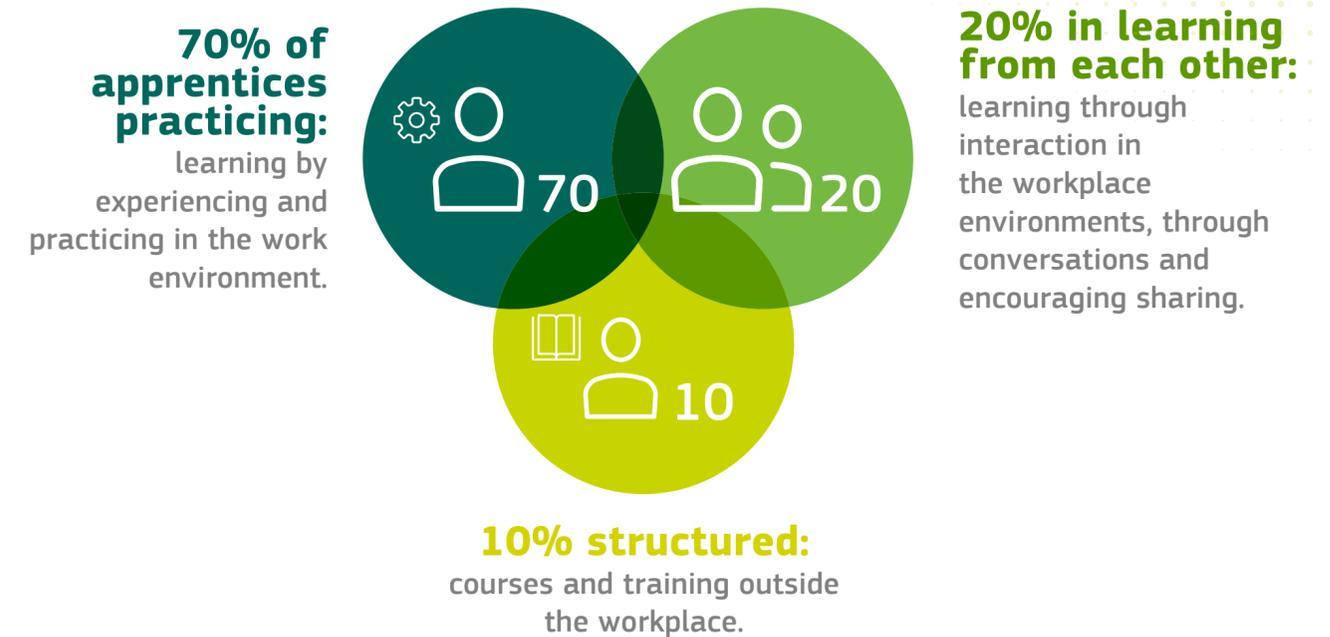


It urges our “thinking and doing” as a strategy to embrace the future.



It encourages the leadership in each one of us to lead the future.

(103-3) The Executive Board evaluates the results of this initiative and is advised by a specialist committee regarding the development of educational solutions appropriate to our business strategy.



In 2022, we were centered on courses about the Distance Education Platform, Regulatory Training and Team Development. We ensure the safety of our employees, especially on account of the pandemic, without neglecting staff training actions.

(404-1) AVERAGE HOURS OF TRAINING PER JOB CATEGORY

Hierarchy level	2020			2021			2022		
	Total class hours	No. of employees	Average hours of training	Total class hours	No. of employees	Average hours of training	Total class hours	No. of employees	Average hours of training
Administrative	6,747	144	47	8,045.9	137	58.7	10,387.43	174	59.70
Operational	14,074	554	25	21,098.1	566	37.3	26,774.57	687	38.97
TOTAL	47,958	1,547	31	51,718.2	1,431	36.1	48,392.03	1,442	33.56
TOTAL	68,778	2,245	34	80,862.2	2,134	37.8	85,554.03	2,303	37.2

(404-1) AVERAGE HOURS OF TRAINING PER GENDER

	2020			2021			2022		
	Total class hours	No. of employees	Average hours of training	Total class hours	No. of employees	Average hours of training	Total class hours	No. of employees	Average hours of training
Female	14,807	388	38	16,713.86	377	44.33	18,626.32	514	36.24
Male	53,972	1857	29	64,148.36	1757	36.31	66,927.71	1789	37.41

INVESTMENTS (IN R\$ THOUSAND)

	2020	2021	2022
Investment capacity-building and development	1,240	1,225	1,597
Incentives to education through grants	243	237	311



To bolster the learning culture, in 2022 we strengthened how we conduct new training in the distance learning and hybrid format. We offered 59 online courses in the Distance Education Platform and conducted Leadership Development 100% online. In addition, to reinforcing career protagonism, we promoted the second edition of the Self-Development Journey.

We launched the 1st cycle of the Growing Together Mentoring initiative, aimed at the personal and professional development of employees, generating connection between the company, the values and the social relationships of mentor and mentee. In this first edition we had 22 mentors and 34 mentees enrolled, totaling more than 300 hours of Mentoring.

Encouraging reading

We have a physical library in Vargem Bonita (SC) with a diverse collection that is open to all employees. The collection is made available to the other units through remittances of books and journals.

Aline
Bernadine,
Joaçaba
office

programa motivã

(102-43, 102-44) Initiative for organizational climate management. It aims to increase employee engagement through structuring actions that provide a stimulating and motivating work environment, allowing people to maximize their potential. We believe that such stimuli contribute to the development of collaborators' identities with the Organization, as well as their shared responsibility for Irani's growth.

The organizational climate survey is the Program's primary tool. It has been used annually since 2021 and is based on the GPTW methodology. It demonstrates the level of satisfaction of teams in relation to various aspects of work, such as:

- Interpersonal Relationship;
- Communication;
- Leadership style;
- Development opportunities;
- Recognition;
- Company Image;
- Remuneration;
- Health;
- Safety.



Adair Vargas,
Balneário
Pinhal unit

Employee Satisfaction was 86% in the GPTW 2022 survey. We were named one of the best companies to work for and entered the group of large companies in three different rankings: in RS, we came in fifth; in SC, we came in eighth; and we also received the **Destaque Saúde Emocional** (Emotional Satisfaction) trophy, which recognizes companies that stand out for good indices of practices to improve the emotional and mental health and well-being of employees and leaders.

In the Industry Ranking, we were among the 20 best to work for in Brazil, according to GPTW. The jump in relation to 2021, when we were in 39th place, was 19 positions. The consultancy's ranking in the Industry category contemplated 100 organizations from all over Brazil, among 362 participants.

This type of recognition is the result of a series of structured and consistent actions, which is especially important in a year of great challenges. In practice, they reflect the efforts made to create a more healthy and welcoming work environment.

Furthermore, we won the **GPTW Best Companies to Work For ranking – 50+ 2022 for the first time.**

The Climate Survey diagnosis is implemented by Irani's leaders in the development of corporate action plans, as well as by units in all areas. Each improvement opportunity is highlighted, along with suggestions for how to improve. We also have climate management support groups in each of our business units; they act as employee spokespersons and help the leadership implement action plans.

We launched the #ProtagonistasdoClima campaign to encourage the development of a better organizational climate. The initiative is consistent with our Strategic Planning and the application of the Protagonism value. After all, we believe in people's autonomy and empowerment.

Some of the teams are still in the home office, but since the pandemic, no cultural practices have been stopped and support groups are constantly pursuing new and creative ways to integrate people, strengthen the connection with corporate values and encourage team camaraderie. Examples include the annual tribute to employees for their service to the company, Irani and employee anniversary celebrations, end-of-year parties, and retirees.

programa **supera**

After more than ten years, the Supera (Overcome) Program has undergone significant changes that reflect the Company's maturity. The most significant shift occurred in 2020, when the organization was divided into two axes: Competencies and Results.

Supera Skills

The Supera Competências (New Skills) program encourages employees' personal and professional development, provides self-awareness, strengthens the feedback culture, increases productivity, identifies talents, and recognizes differentiated performance.

The skill assessments take place annually and are specific to each job category:

Who evaluates?

Management	Self-Assessment Immediate leader Led Peers
Administrative/Commercial/Technical	Self-evaluation Immediate leader Peers
Operational	Self-evaluation Immediate leader

The organizational competencies were also divided by functional groups::

Competencies	 Life, first of all	 Focus of the client	 Excellence culture	 Innovation	 Self-development	 Teamwork	 Communication	 Leadership
Operational	✓	✓	✓	✓	✓	✓		
Admin/Commercial	✓	✓	✓	✓	✓	✓	✓	
Leadership	✓	✓	✓	✓	✓		✓	✓

In Irani, the Skills Evaluation process is divided into two stages: Network Assessment and Manager Assessment. We conduct feedbacks every six months as a form of maintenance and monitoring.

Network Evaluation

The process is composed of self-evaluation, peer evaluation (defined by the collaborators) and the collaborators' evaluation of their leaders. It happens according to the group that each collaborator is part of:

- **Leadership:** performs self-evaluation and peer and subordinate evaluation.
- **Administrative/Commercial/Technical:** performs self-evaluation and peer evaluation.
- **Operational:** carries out self-evaluation.
- **The findings provide support for the next step:** the manager's evaluation of his employee. In other words, network evaluation allows the manager to visualize/know the employee's and other colleagues' or team members' perceptions, thereby providing support for analysis.

Manager's Evaluation

This is the stage at which the manager assesses the team's members. He uses the network assessment results, the employee's goals, and previous six-monthly feedback records as a support and guide.

This is one of the most important parts of the evaluation process because it determines the final grade for each employee. The data contributes to the feedback meeting and the preparation/maintenance of the Individual Development Plan (IDP).

(404-3) PERCENTAGE OF EMPLOYEES PARTICIPATING IN THE SUPERA COMPETÊNCIAS PROGRAM

	2020			2021			2022		
	Male	Fem	TOTAL	Male	Fem	TOTAL	Male	Fem	TOTAL
Leadership	6%	1%	7%	5%	1%	6%	7%	2%	9%
Administrative	12%	8%	20%	16%	9%	25%	16%	10%	26%
Operational	63%	4%	67%	63%	6%	69%	60%	5%	65%
TOTAL	81%	13%	94%	84%	16%	100%	83%	17%	100,0%

Note: absentees, young apprentices, interns, and new employees hired after December 15 do not qualify for the Program.

Supera results

It is based on the establishment of annual goals and the monthly monitoring of progress toward those goals. Every year, the achieved results are consolidated, determining the final classification and bonus range – which can be:

- **0% of salary if goals are not met.**
- **50% of salary if you stay in the incentive bracket.**
- **100% of the salary if you reach the target objectives.**
- **150% of salary if you exceed expectations regarding targets.**

We challenge our employees by setting targets that encourage continuous development, with a focus on operational excellence and value creation. In 2022, we set 433 targets, 222 of which were surpassed and 79 met.



**GRI 103-1, 103-2,
103-3, 403-1,
403-2, 403-3,
403-4, 403-5,
403-6, 403-7,
403-8, 403-9,
403-10
ISE**

Health and safety

programa **cuida**

(103-1, 103-2, 103-3, 403-1)

This is our commitment to life. The Cuida (Care) Program merges Irani's occupational health and safety systems and aims to ensure that working conditions are appropriate and safe for employees and service providers. To strengthen the Company's occupational health and safety culture, the actions unfold on the following fronts:



Legal Assistance



Communication programs and campaigns



Management



Standardization and Training



Recognition



Penalties



Dionathan,
Balneário
Pinhal unit



Legal Assistance

We make a commitment in the form of a value: **first of all, life.**

(103-1, 103-2, 403-1.a, 403-1.b, 403-8.a) Based on Ordinance No. 3.214/1978 (Regulatory Standards), the Cuida Program is the way we translate this value into a set of occupational health and safety management policies, procedures and practices. We offer suitable and safe conditions for the performance of activities for all employees and service providers. They are submitted to work permits with risk analysis by our Specialized Safety Engineering and Occupational Medicine Service (NR4 - SESMT) team.

(403-1, 403-2.a.i) In all business units, our SESMT teams (Occupational Medicine + Occupational Safety) have more members than required under the NR4 guidelines. Together, SESMT professionals reach a total of 45 direct employees and seven service providers – including doctors and speech therapists.

Changes in 2022: With the goal of continuously improving the process and management, the professionals are divided into 37 in Irani units and eight in the Gaia platform.

The teams are dedicated to compliance with approximately 5,700 requirements applicable to our businesses and are constantly trained in aspects related to occupational health, safety, and well-being.

(403-3.a)

The legislation governing Regulatory Standard 09 was updated in 2022. The Environmental Risk Protection Program (PPRA) was replaced by the Risk Management Program (PGR). The PGR aims to standardize the management of occupational risks of physical, chemical, biological, ergonomic, or accident origin.

Essentially, the upgrade has given occupational risk management (ORM) a one-of-a-kind methodology and tools. Risk management and control measures have improved as a result.



Communication programs and campaigns

(403-3.a)

At various points, occupational health and safety content is addressed. Among them are employee and service provider integration, periodic exams, prevention campaign dissemination, thematic meetings, Internal Work Accident Prevention Weeks (SIPATs), and follow-up report records. In other words, there are numerous actions that can be taken to make critical information available to employees.

(403-6.b) A number of Health and Safety Dialogues (H&S) and **12** internal campaigns were run in 2022.

We also have other mechanisms in place to strengthen this culture, such as:

- **Medical and dental insurance:** available to all direct employees and their dependents.
- **(403-6.b) Aptitudes for special activities:** devoted to employees who are restricted from performing special tasks, such as working at heights, in confined spaces, or operating mobile equipment. We concentrate on rehabilitation, keeping track of factors such as weight, blood glucose, and blood pressure. In 2022, 63 people were diagnosed with hypertension, and 13 were diagnosed with diabetes.
- **(403-6.b) Hyperdia:** employees diagnosed with hypertension and diabetes receive periodic monitoring as a way to prevent absenteeism.
- **Hearing Conservation Program:** We keep reports on employees' noise exposure in industrial settings up to date. The Hearing Conservation Program defines the necessary actions based on the Risk Management Program assessments (PGR).

- **Mental Health Program:** Through the Psicología Viva (Living Psychology) platform, Irani provides access to specialized mental health care. The program connects all potential collaborators with a team of psychologists. The goal is to provide ongoing assistance in treating and/or improving mental health conditions, personal development, and self-awareness. More than 650 consultations were recorded in 2022.
- **Oral Health Program:** Through dental consultations, the initiative aims to promote employees' oral health through voluntary participation. The program is managed by specialized professionals who offer diagnosis, treatment, and advice on the subject. 341 people were served in 2022.
- **The Observation and Prevention Program (POP):** seeks to prevent workplace accidents through behavioral approaches and dialogues. The health and safety teams are trained to provide guidance that is both humane and effective. Members of the management of the Internal Commission for the Prevention of Accidents at Work (CIPA) are also trained on an annual basis. When comparing 2022 and 2021, we can see the evolution of approaches, with a 14% increase in the total number of approaches, contributing to the safety culture by reducing behavioral deviations.

	2020	2021	2022
Approaches	1,571	3,275	3,731



Management

We continued to improve the occupational health and safety management process in 2022, with the SOC software integrated with the other personnel department processes. The resource allows for the administration of periodic admission exams, risk changes, dismissal exams, and certificate entry.

The software makes it possible to manage physical, chemical, biological, ergonomic (for units that already have ergonomic reports), accident, and mechanical risks all at once. The ERP is a critical tool in the development of the Risk Management Program (RMP) and the Occupational Health and Medical Control Program.

(403-4.a and 403-4.b) Formal committees represent employees and help define, implement and monitor health and safety practices.

Communication	Representativity	Responsibility	Degree of autonomy for interruption of operations	Meeting frequency
Internal Accident Prevention Commission (CIPA)	As provided by law. Surplus vacancies are filled by professionals appointed by the Company.	As provided by law.	It respects the provisions foreseen in the legislation. Members may at any time interrupt an operation when unsafe conditions or behavior are determined.	Monthly
Emergency brigade	100% of employees on all work shifts.	Identification of scenarios that can lead to occupational risk conditions and emergency care.	Total during callout for emergency occurrences.	Monthly
Ergonomics Committee	Occupational medicine and managers.	Management of TSE in the prevention of musculoskeletal diseases.	Full autonomy, according to the eventual need.	Monthly
Breakfast & Safety	Managers, occupational health and safety.	Macro discussion of aspects related to occupational safety and health.	Full autonomy, according to the eventual need.	Quarterly
Attestation Critical Analysis Committee	Managers, occupational health and safety.	Analysis of the main causes of leaves, to take necessary actions.	Full autonomy, according to the eventual need.	Monthly
NR10 Committee - Safety in Facilities and Services in Electricity	Managers, occupational health and safety.		Full autonomy, according to the eventual need.	Bimonthly

(403-2.a.ii, 103-3) On a monthly basis, the Executive Board monitors the strategic health and safety indicators:

- Number of occupational accidents with and without lost time
- Severity rate
- Frequency rate
- % legal compliance

The responsibility is to suggest improvements to the theme and to monitor performance in order to eliminate accidents in the company.

Health and safety indicators are periodically monitored by the SESMT teams in all units:

(403-9)	2020	2021	2022
Number and frequency rate of fatalities as a result of work-related injuries	0	0	0
Severity rate ¹	79.75	89.69	105.69
Number and rate of injuries without lost time	29 Accidents Rate: 8.50	21 Accidents Rate: 6.12	17 Accidents Rate: 5.43
Number and rate of lost time injuries	29 Accidents Rate: 8.50	38 Accidents Rate: 11.07	25 Accidents Rate: 7.99
Number of man-hours worked	3,410,670h	3,434,060h	3,128,217h
Main types of work-related injuries	Upper limbs	Upper limbs	Upper limbs

¹ The severity rate is calculated considering (HHT*1000000/number of accidents)

² Information on high consequence injuries is not available

Lives changed

The conceptualized Changed Lives quantitative indicator is related to the consequences of workplace accidents that result in very serious and/or permanent injuries. Irani has been using the concept since 2019, but 2021 was the first year that this data was reported. We have changed zero lives so far.

Some tools have been critical in this regard. Among them are the PET (Special Work Permit); the POP (Observation and Prevention Program); health and safety campaigns; on-the-job safety inspections; employee training and qualification; and the 5 Attitudes for Life. All of these efforts subsidize accident prevention and contribute to the fact that no lives are lost, strengthening our purpose in terms of caring for the physical integrity of direct and indirect employees.

NUMBER OF LIVES CHANGED

2020	2021	2022
0	0	0

(103-3, 403-1, 403-8.a.iii and 403-8.c) We rely on internal and external audits and certifications such as ISO and FSC®, in addition to licenses granted by the appropriate authorities, to ensure the effectiveness of occupational health and safety management processes. This collection of practices helps to deepen the treatment of risks and ways to mitigate them.

(403-4.a) The movement also intends to achieve ISO 45001 certification by 2024. In the meantime, we continue to investigate accidents and qualify actions that have resulted in a decrease in the severity rate and number of occurrences.

(403-8.a.i) Standard and non-standard contractors are integrated initially. They participate in the health and safety activities carried out in the industrial units and are covered by the occurrence records.



Standardization and Training

(403-3.a, 403-5.a)

We have had an interactive Regulatory Standards training platform since 2020. In it, we develop the necessary skills for each activity, promoting employee integration with the technological platform. The applicable standards guide the content of the free training courses held during working hours. About 90% of the courses are conducted by our own teams. Irani's technical instructors taught more than 750 hours per class in 2022.



Recognition

We formalized the recognition of eight outstanding areas and employees during Sipat 2022. The professionals were evaluated based on their perception of safety, safe behavior, preventive actions, and mutual care. Aside from the low number of occurrences, the health and safety actions successfully implemented were considered in relation to the criteria of the highlighted area.



Penalties

We also registered behavioral deviations in 2022 and applied appropriate disciplinary measures in accordance with the Disciplinary Measures Matrix.

The health and safety culture has been strengthened by the implementation of several programs aimed at lowering the severity rate (TG) and achieving TG (zero) in up to ten years. In terms of Business Intelligence of Indicators, there was a change in the management strategy for monitoring, which is still in the works.

In 2022, R\$ 2.9 million was invested in health and safety improvements in all business units.



Human Capital **Opportunities and future commitments**



Intellectual Capital



Luciane Correa,
Gisele Esteves
e Bianca
Salatino, Porto
Alegre office





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

Innovation

Irani recognizes that resilience, agility and building learning through trial and error are all components of the innovation process. As a result, our strategic goal is to make room for creativity and the emergence of new ideas, thereby driving economic growth and productivity across the entire ecosystem.

Tech Platforms

We operate through Technology Platforms in order to build a competitive Research, Development, and Innovation (RD&I) portfolio. These are multidisciplinary teams that are organized into tactical and operational groups to identify opportunities, plan, and execute projects.

In 2022, we prioritized 17 topics for the development of RD&I projects, 50 of which are carried out through four Technology Platforms: **Forestry and Resins; Pulp and Paper; Corrugated Cardboard; Environmental and Energy**. Among the projects and innovation initiatives, 22 are in the development phase, 12 in research, 10 in ideation and 6 in implementation.

The Platforms seek to look at business challenges as opportunities to chart the future of the organization. In this sense, some projects stand out:

- **Environmental and Energy Platform:** we use new remote sensing technologies for the environmentally vulnerable areas for preventive identification of environmental occurrences minimizing the associated potential impacts.
- **Pulp and Paper Platform:** through collaborations with Mobri and Xalingo, we expanded our promotion of the sustainable packaging market. The commitment represents the continuation of the collaboration begun in 2021 with Nanox Tecnologia, which resulted in the launch of the first paper packaging in Brazil with antifungal, antibacterial and antiviral technology.

To launch a number of toys, Mobri relied on the supply of sustainable corrugated cardboard sheets. In addition to promoting sustainability, the items stimulate children's creativity and manual skills because they can be assembled and colored in a variety of ways. And the safety is guaranteed: the material used in the production of toys by Mobri is from Irani's Antimicrobial Line.

In addition, the Company has collaborated with Xalingo to produce the packaging for an exclusive, limited edition of the game Brincando de Engenheiro (Playing the Engineer) — the famous wooden blocks that have crossed generations and become one of Brazil’s most classic toys. The packaging is environmentally friendly and, like Mobri, employs antimicrobial technology. The solution also has the differential of durability, with active protection throughout the useful life of the packaging.

- **Forestry and Resin Platform:** in partnership with the RealWorld Agronomy startup, we created equipment that enables a mechanized process for the extraction of resin gum. We then filed a patent application with the National Institute of Industrial Property (INPI).
- **Corrugated Cardboard Platform:** we produce sustainable sheets in wave D in the Naomi Corrugator through investments in the Gaia Platform, Irani’s portfolio of expansion projects to boost competitiveness, production capacity and energy self-sufficiency.

Irani Labs

We want to develop competitive solutions that generate value while also strengthening relationships with innovative ecosystems. Irani Labs, an open innovation program, aims to do just that: connect the Company with startups in the traction and scale stages, capable of running rapid tests in our business context.

In 2022, we conducted seven Proofs of Concept (PoC) of the startups chosen through the 2nd edition of the program’s intervention and other connections. The following themes were tested for solutions below.

Proofs of Concept undergo a Fast Track process, designed to surge the effectiveness of external partnerships. Contracts with startups can now be approved in record time thanks to this resource. The analysis of the Net Promoter Score (NPS) survey resulted in a 100% satisfaction rate in relation to the Company, demonstrating Irani’s experimental laboratory’s success.



Customer Experience
Development of a Virtual Packaging Catalog with visualization in augmented reality.



Packaging Design
Project management and annotation platform.



Industry 4.0
Use of RFID (Radio Frequency Identification) and IoT (Internet of Things) technologies to automate the stockpiling of rolls and finished products; automation of the wood volume counting process through Artificial Intelligence (AI); and sensing technology for monitoring maintenance equipment.



New Materials and Barriers:
Surface applications of additives with various concentrations of resin (among other vehicles); application of CBM in paper production.



Irani Ventures

Irani Ventures, our Corporate Venture Capital Vehicle (CVC), made its first investment in Trashin with the goal of ramping up emerging companies with high growth potential. The startup, which focuses on 360° waste management and reverse logistics, provides innovative and customized solutions to help businesses become more sustainable by reducing waste and generating positive impact.

Trashin, which is present at all stages of the manufacturing process, assists waste generators and businesses with materials collection, disposal, reuse and recycling. Furthermore, it employs technologies that enrich process transparency and traceability. The goal is to safeguard that clients are aware of each input's origin where there is a material and logistical cost. A platform can be used to track the data.

The startup received R\$ 1.5 million as part of Irani's Investment Thesis. It expects to expand the company's operations through this funding, allowing for the execution of new projects in previously uncharted locations. It is worth noting that the Investment Thesis is divided into the following sections:

- **New Materials and Barriers**
- **Environment**
- **Circular Economy**
- **Social Innovation**
- **Digital Platforms**
- **Industry 4.0**

Irani Ventures-funded companies will have access to the 10-WeekLabs™ Acceleration Program through a partnership with Grow+, an investment manager and startup accelerator. They can take part in an immersion and leverage process involving operational support, mentoring and networking. The assistance is intended to encourage each company's growth.

Also in 2022, Irani hosted Demoday, where startups presented their business models and solutions in preparation for a second round of funding. The event was streamed live online from the Tecnopuc technology park. There were 132 registered participants, with eight finalists. The company's evaluation panel chose six startups whose business models, as well as the potential for financial and intellectual capital contributions, will be thoroughly examined. Some of the evaluation criteria included growth stage, equity percentage and valuation.

Inova Ideias

Irani will commemorate ten years of the Inova Ideias (Innovative Ideas) program in 2022, which recognizes the creative potential of all of its employees. The program's management's maturing state made this journey possible. Our strategy for involving staff members in the creation and application of novel ideas in a number of fields has evolved over time.

We held celebrations to mark the program's tenth anniversary, including the giving out of gifts and special T-shirts. We worked on the Innovation QUIZ all year as a way to review the background of the program and assess employee knowledge. Additionally, we support the "Where do good ideas come from?" YouTube channel, which was set up to offer guidance on how to regularly engage in corporate innovation.

We also launched challenges through Inova Ideias to encourage the integration of processes and new technologies such as Machine Learning, RPA (Robotic Process Automation) and Artificial Intelligence (AI). The sensitizations clarified the content for the Company's internal public and detailed the platform's rules. Over 30 creative actions were carried out with the participation of approximately 1,400 employees, resulting in at least 450 hours of training.

We announced changes to the platform's layout and usability to commemorate our third year. With the "Transforming the Future into the Present" campaign, we recognized employees who implemented and generated the most ideas throughout

the dynamic process. Culture and innovation fostering actions demonstrate the program's relevance and stimulate the search for new opportunities.

Over 6,600 ideas have been registered for the initiative, and 584 of those have been put into practice, for a utilization rate of 8.84%. Our operational/potential results will have increased by more than R\$ 9 million by 2022. Additionally, we will make employee payments totaling more than R\$ 233,000. Over 275 ideas were acknowledged throughout the project, and 183 contributors received financial compensation. Irani is a proponent of outcome sharing through valuation.

Some 252 ideas were registered in 2022 alone. We put 66 of them into action, 52 qualitative and 14 quantitative. We broke the record for idea recognition this year, and 111 of them were rewarded financially. In 2022, the operational/potential result was R\$ 692,000. We also contributed R\$ 15,000 as a token of appreciation at the same time. Lastly, to ensure consistency in multidisciplinary evaluations, we provided training to leaders.

Lei do Bem (Law of the Good)

Irani identified 37 projects that fall under the Law of the Good, which offers tax breaks for businesses that invest in R&D and technological innovation. In 2022, there was a 208% increase over 2021, when there were 12 projects. R\$ 10,508,760.96 was invested, with a net tax benefit of R\$ 2,858,382.98 expected. The increase was 388% higher than the previous year, when the result was R\$ 585,228.41.

It is worth mentioning that we formed five workshop classes to strengthen knowledge about the concepts and procedures of the Law.

Ranking 100 Open Startups

We entered the TOP Open Corps 2021 Ranking as leaders in open innovation with startups in Brazil. We were named TOP 3 Pulp and Paper.

Since 2016, the Ranking 100 Open Startups has focused on promoting and generating business between companies and startups. The methodology recognizes and rewards the leading corporations in open innovation, as well as the most appealing startups for the corporate market, using objective criteria.

National Innovation Prize

Irani became a finalist in the National Innovation Award (PNI) for the first time in 2022, finishing third in the category “Innovation in Sustainability.” The PNI is regarded as one of the most important innovation awards in Brazil.

Valor Innovation Prize

According to the 8th edition of the Valor Innovation Brazil Award, from the most important publication devoted to innovation in the country, conducted by Strategy& (PwC strategic consultancy) and the newspaper Valor Econômico, we were among the 150 most innovative companies in the country. Irani was also regarded as the third largest company in Brazil in the Pulp and Paper sector.

Ranking Innovation Champions in the South

Irani was named one of the 25 most innovative companies in the country’s southern region in the Amanhã Group’s 18th Champions of Innovation Ranking in the South. The study employs the Innovation Management Index, a tool from the Global Innovation Management Institute (GIMI) methodology used by the IXL-Center in Cambridge (USA).

GIMI is a global non-profit organization founded by a group of executives, academics and consultants in the field of innovation. Through global standards, metrics, testing protocols and certifications, the group assists individuals, businesses and regions in developing world-class innovation management skills.

Digital Optimization

In 2022, Irani’s expansion strategy for process automation has advanced significantly. We have automated over 700 hours of work, bringing our total to over 1,300 automated monthly hours spread across at least 35 processes. This means that previously performed repetitive tasks by humans are now carried out by robots. As a result, employees save time and can devote it to projects that require human intelligence and add value.

We also improve the internal and external customer experiences through the Sofia and Flora chatbots. Furthermore, we are planning significant releases for 2023. In parallel, we have digitized 13 complex processes and workflows on the Digital Process Automation (DPA) side, resulting in increased efficiency and resource allocation.



Marco de Oliveira,
Balneário Pinhal
unit

This was made possible by Irani's establishment of the Center of Excellence (CoE) for Hyperautomation in 2022. The unit brings people and resources together to look into new techniques and technologies while following the best practices for the market. Automation projects in this space are subjected to an agile governance process based on Customer Focus and Delivery Excellence. As a result, business scalability can be achieved without sacrificing security.

In 2023, the company launched the Data Science and Analytics division. The sector, which is made up of a team of experts, is already working on a project that is expected to be completed this year. Irani is developing data governance for the entire company, as well as a Data Lakehouse that radically simplifies the data infrastructure and accelerates innovation, based on an integrated Big Data, Data Science, and Analytics strategy.

All of these projects were done using agile and innovative methodologies, which allow for a process of continuous learning that helps create value right from the first delivery.

Information Security



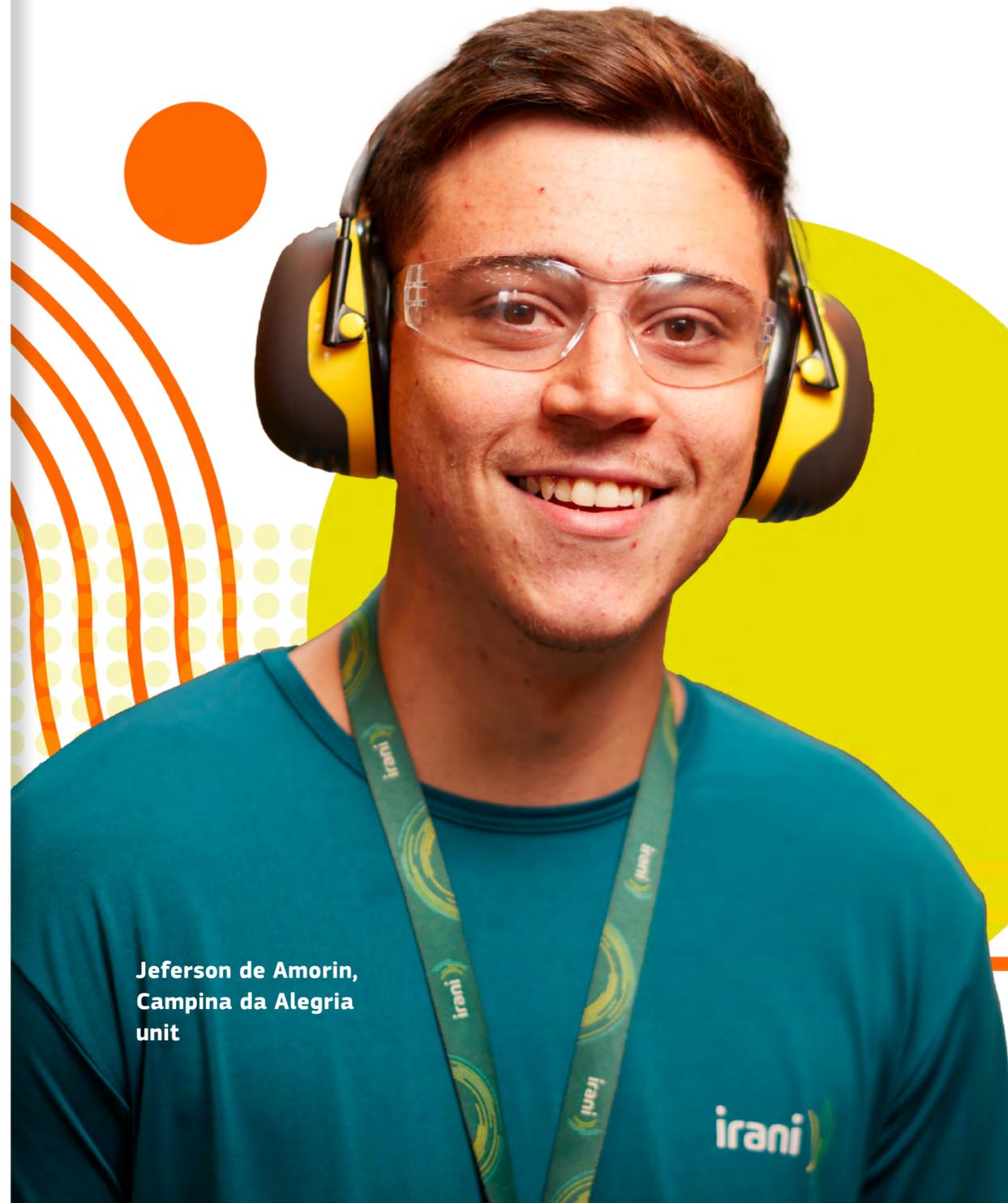
**GRI 103-1,
103-2,
103-3**

Irani established the Information Security (IS) area in 2022, which is responsible for protecting the information and data that circulates on the network, minimizing threats and ensuring the Company's continuity. The initiative enabled the development of policies and methods based on five fundamental characteristics: confidentiality, integrity, availability, authenticity and legality.

In parallel, we enabled the Security Operations Center's implementation (SOC). The platform employs a dedicated 24/7 team to look for ways to improve the company's defense posture and prevent future cyber-attacks.

We have also developed a Disaster Recovery strategy to protect business operations. The goal is to allow the company to resume use of critical systems and IT infrastructure as soon as possible in the event of failures or threats.

These and other initiatives undertaken by the IS area demonstrate the importance of risk mitigation and contingency planning that involve the entire Company. In 2023, we will maintain our strong presence in the sector, leveraging new projects to protect the company's systems and information from any external action that could harm them.



Jeferson de Amorin,
Campina da Alegria
unit



Intellectual Capital **Opportunities and future commitments**





Délcio de
Freitas, Santa
Luzia unit

Manufacturing Capital

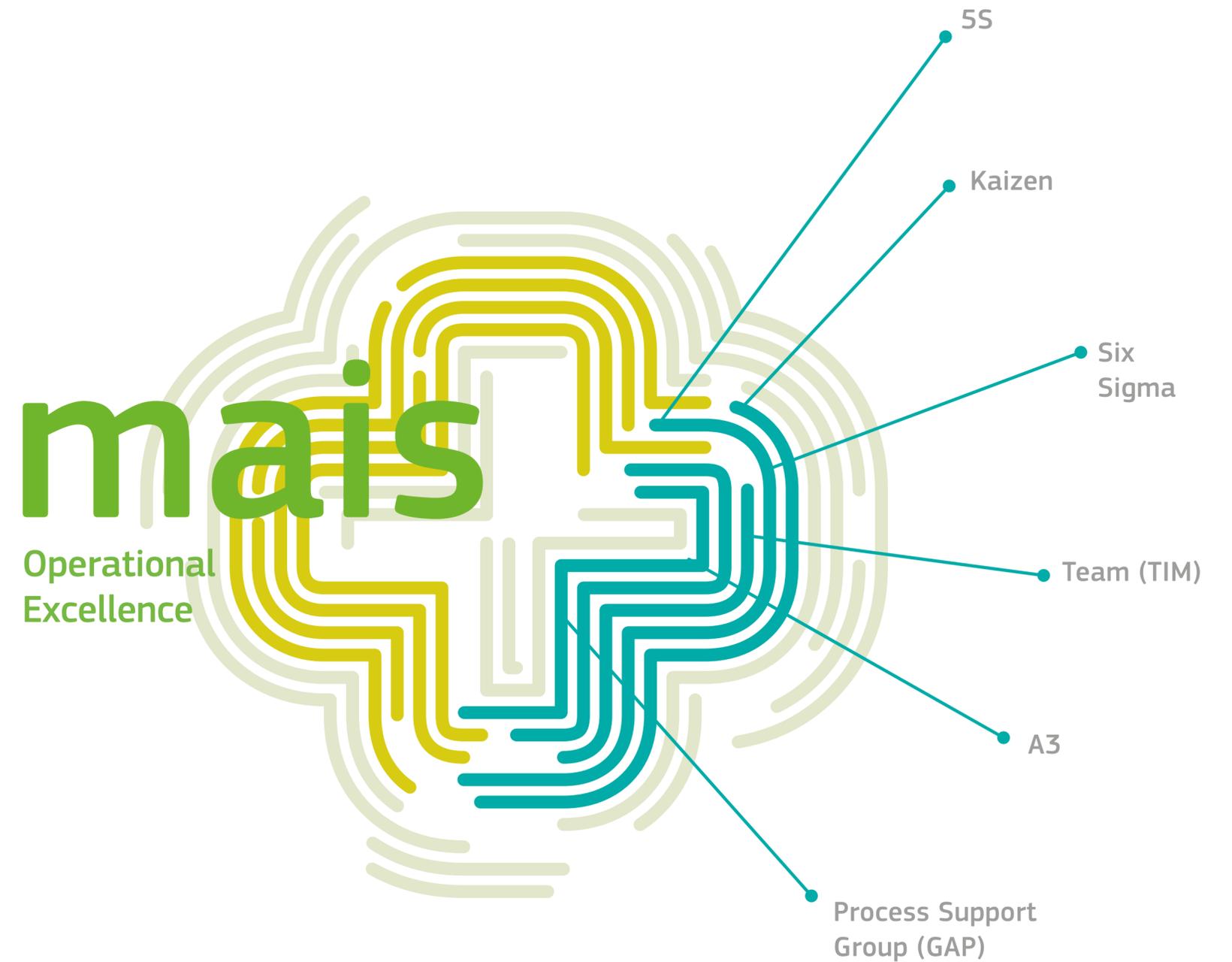


(103-1) The Mais (More) Program advances our goal of operational excellence. Its goal is to reduce waste and add value to processes, products and services, as well as to strengthen the Lean culture and apply methods and tools for continuous improvement of deliveries.

The company's **Lean journey** began in 2010. Since then, we've held more than 160 Kaizen Weeks and captured approximately R\$ 14.3 million for improvement projects.

Our employees' development passes through the **Lean Development Track**, a learning journey that covers Lean and Six Sigma content. In 2022, 220 hours of training were provided. The entrance to the track is through the training of **Lean Facilitators**, with 159 employees with Yellow Belt certification. The next step is the training of Lean Maintainers, which accounted for 23 Green Belt certified employees.

We also intensified the Company's **extended interface** by organizing 7 Kaizens in customers. The intention is to propagate the **Lean culture** and operational excellence. As a result, we set 106 productivity records in all businesses.



Embalei

A pilot project for recycled packaging for retail, delivery, and e-commerce that ran between 2021 and 2022 through the Irani online store. The packages are efficient and innovative, made from renewable and biodegradable materials. Through a pilot project of online sales to the B2C and B2B public via e-commerce, the company increased the product mix and strengthened its own communication channels throughout 2022.

Consumer trends continue pointing to intensifying interest in the impact that companies generate in everyday life. In a society in which consumption has been repurposed, online sales have become fundamental for those who already bought into this format. But it is also important for a large part of the new digital consumers, who made their first purchases over the Internet in the last two years. In this context, every attitude makes a difference for the creation of a more sustainable world. Consumer trends continue to point to a growing interest in the impact that businesses have on people's lives. In a society where consumption has been redefined, online sales have become of critical importance for those who have already embraced this format. However, it is also significant for a large proportion of new digital consumers who made their first online purchases in the last two years. In this context, every attitude counts toward the creation of a more sustainable world.

As a result, we encourage all our companies to engage with customers, as of the first point of contact with the brand: the packaging.



**Braulio
Romancini, Santa
Luzia unit**



**GRI 103-1, 103-2,
103-3, 304-1,
304-2,
304-3, 304-4
SASB RR-FM-160,
RR-FM-210,
RR-PP-430
RT-CP-430
ISE**

Forestry management

(103-1, RR-PP-430 and RT-CP-430)

The maintenance of the Irani **FSC**[®] forest management certificate for all its forests ensures that the forestry operations follow premises based on sustainable practices. Such as:

Environmentally adjusted

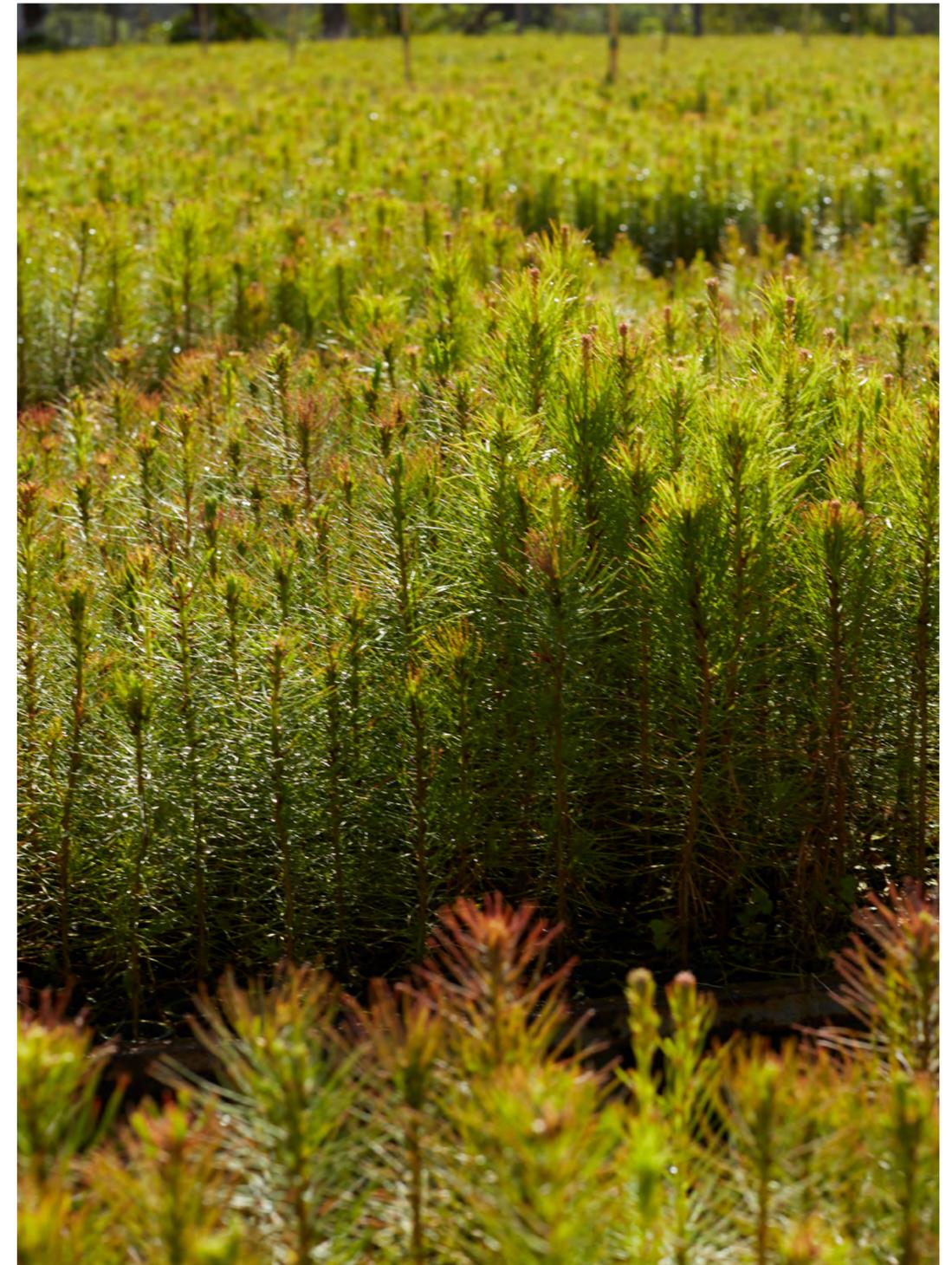
- Protection and conservation of High Conservation Value Areas (HCVAs);
- Adoption of best practices for identification, control, minimization and mitigation of environmental impacts;
- Conservation of biodiversity.

Socially beneficial

- Respect for workers' rights;
- Respect for local communities;
- Dialogue and strengthening of our relations with the public in the locations where we operate.

Economically viable

- Building markets, adding value;
- Creating equitable access to forest benefits;
- Securing wood and resin supply from renewable plantations.



MAIN MANAGEMENT INDICATORS:



Quality of operations



Production and Quality of Biomass



Monitoring of Occupational Health and Safety requirements



Monitoring of Environmental Impacts



Stakeholder Engagement

Public Summary of Forest Management is a transparency instrument, directed to our stakeholders, covering topics such as: management, forest management and protection, biodiversity, monitoring and contact channels.

We have published the Public Summary of Forest Management of our areas in Rio Grande do Sul and Santa Catarina. The information is available on the page:



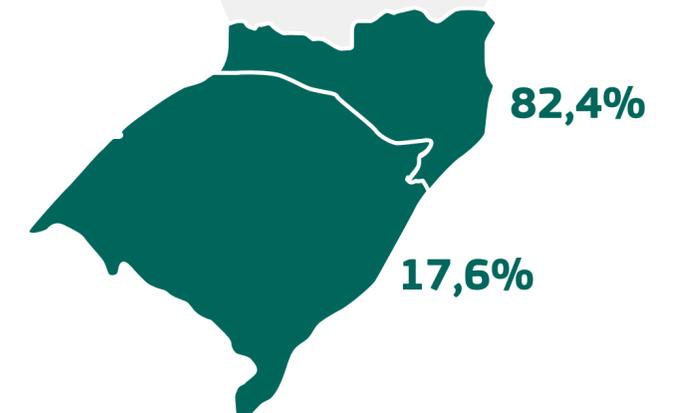
(103-2)

The planning of the forestry operations and the utilization of the soil considers factors unique to each region. According to the requirements of the forest certification standard, the basis is always to respect the socio-environmental and operational efficiency aspects. The result of such planning is the generation of forest mosaics that are formed between planted forest and native forest. This creates biodiversity corridors for native species, ensuring connectivity between areas of environmental preservation, shelter and food for animals. Another relevant point is the perpetuation of several plant species with environmental and social importance, such as the Araucaria tree.

(103-3)

Every month, operational and monitoring indicators for social and biodiversity issues are evaluated critically. These tools are designed to guarantee excellent performance in forest management based on initiatives that promote innovation, ongoing development and business sustainability.

In all, there are **33,899.48 hectares of land, of which 82.4% is located in Santa Catarina and 17.6% in Rio Grande do Sul.**



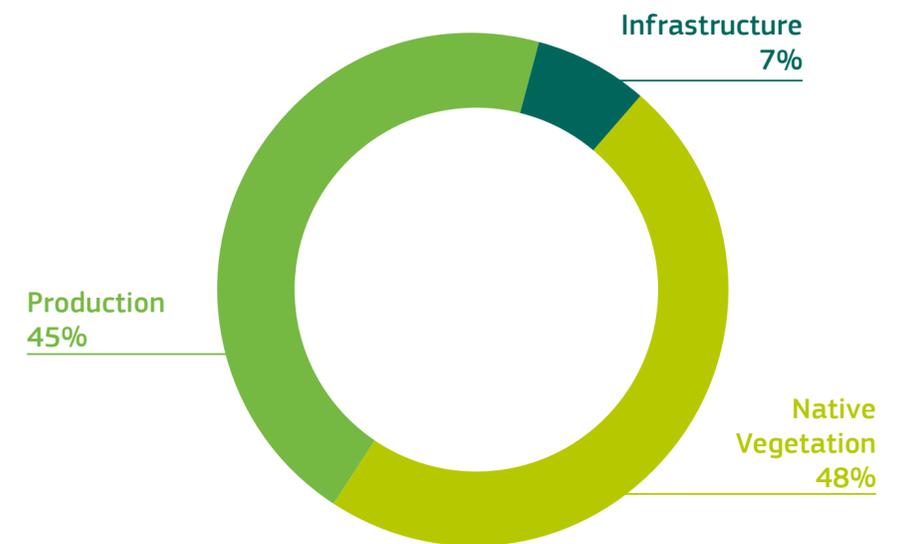


Our forests in Santa Catarina

Our forest base in Santa Catarina comprises 27,900 hectares and is distributed among the municipalities of Água Doce, Catanduvas, Vargem Bonita, Ponte Serrada, and Irani.

Of this total, 12,400 hectares are planted forest areas, of which 11,000 hectares are Pinus and 1,400 hectares are eucalyptus. About 1,800 hectares correspond to the area destined to infrastructure and reservoir, among others.

SOIL USE

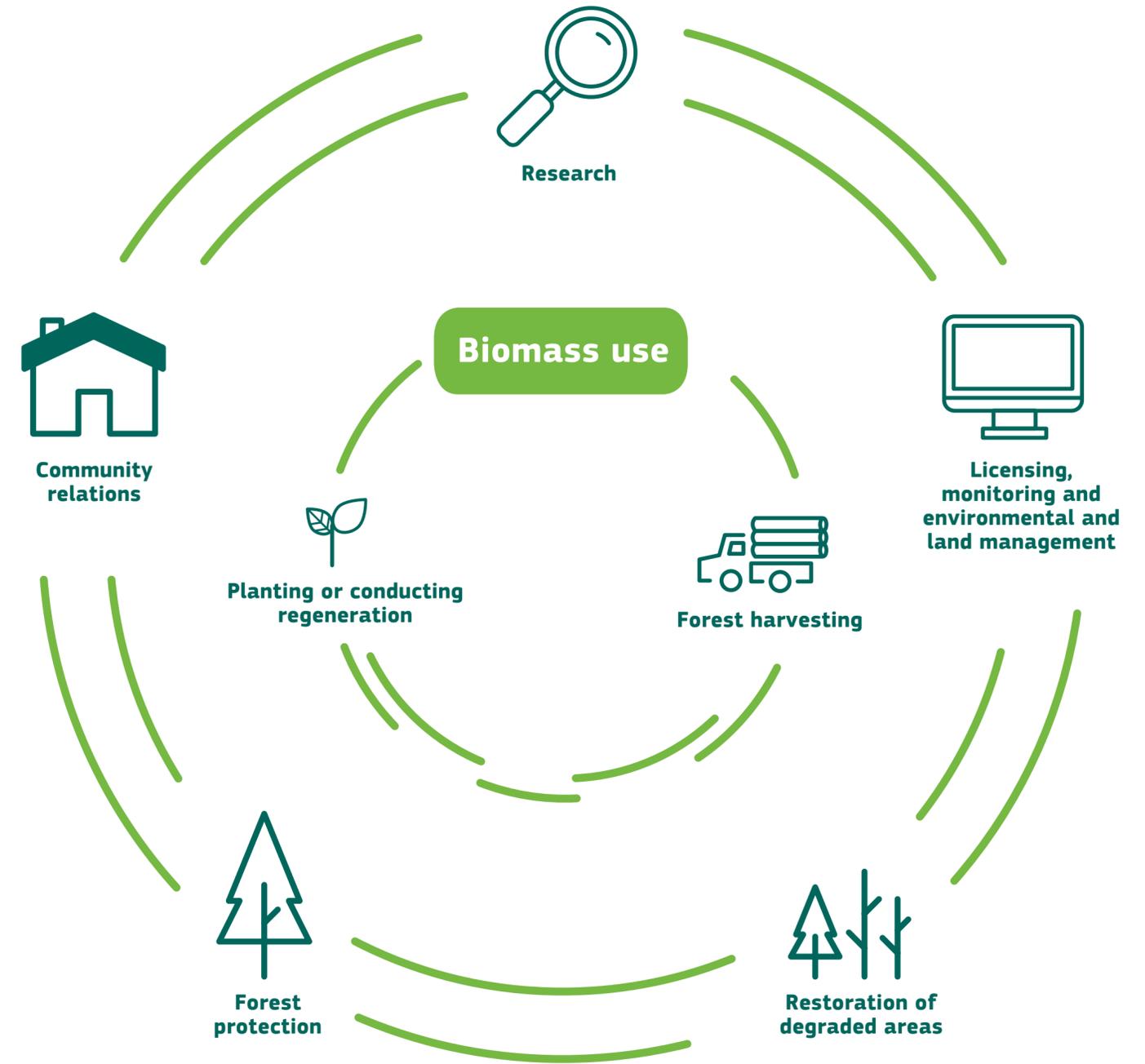


(102-2) The predominant species of Pinus in the composition of reforested areas is *Pinus taeda*. The species was chosen due to its high adaptability to the environment in which the business operates as well as to the qualities of the wood, which are crucial for producing high-quality products. All the harvested timber is sent to the mill in Vargem Bonita (SC). The selection of the wood occurs inside the wood yard. Afterwards, the wood with specifications for sale is sold to laminators and sawmills in the region, stimulating the local economy. The remainder is destined for the paper production process.

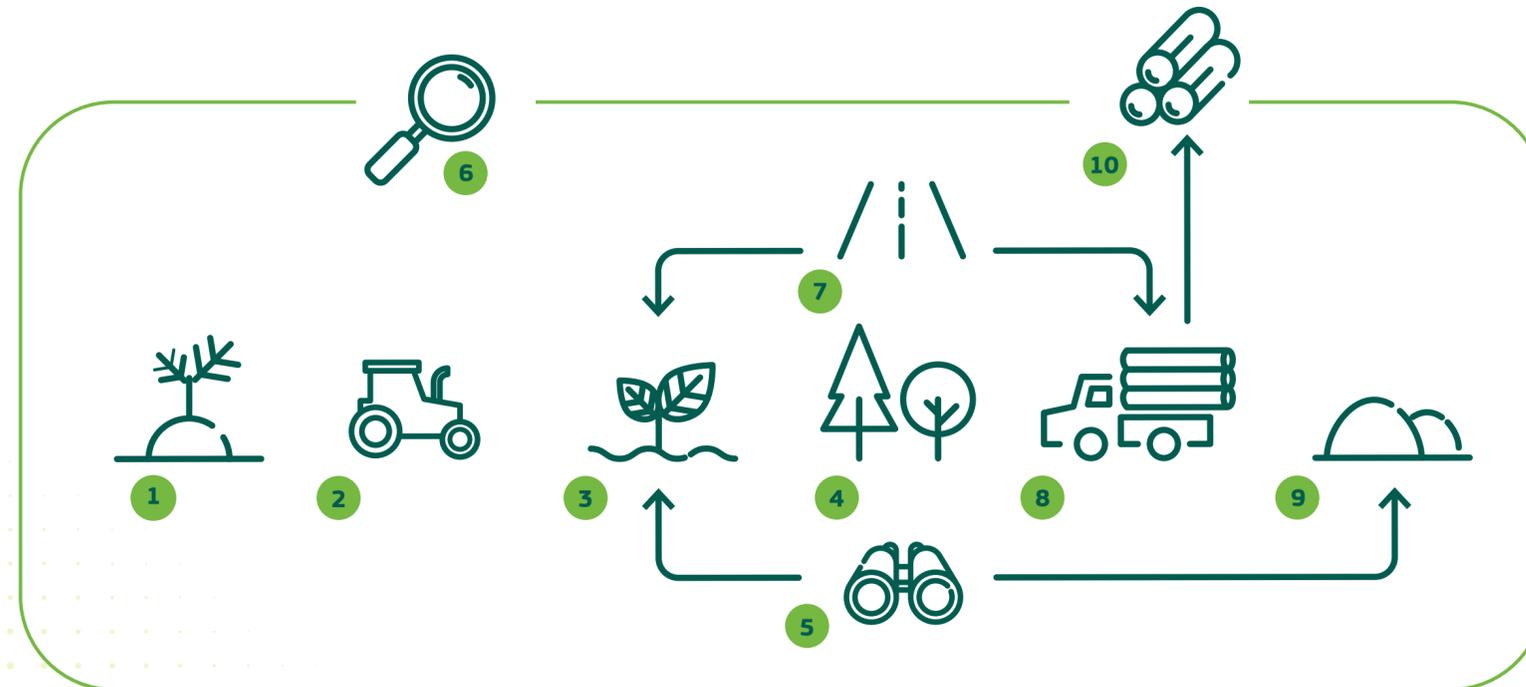
After the plantations are harvested, the spare material is accumulated and processed by a mobile chipper, and subsequently transported to the mill. Together with the eucalyptus biomass, this material feeds the boiler for the co-generation of steam and energy.



(304-2) FORESTRY PROCESS



Main impacts of Santa Catarina's forestry activities, products and services on biodiversity



1. SEEDLING PRODUCTION

The Pinus and Eucalyptus reforestation seedlings are grown in Irani's own Forestry Nursery, which is located next to the Vargem Bonita production facility. The seeds used to produce seedlings are obtained from well-known national suppliers, who guarantee high quality and excellent germination percentages, as well as from collections made in our own plantations, which have been cared for and assisted for years to ensure the best quality and adaptability of the seedlings.

In the Nursery, there is also a place for the production of native forest seedlings. The cultivation seeks to guarantee seedlings for use in internal degraded area recovery projects and to support restoration actions and environmental events promoted by the local community.

Currently the nursery contains about 40 species. In 2022, approximately 9,000 native seedlings were donated.

2. SOIL PREPARATION

Soil preparation is the beginning of a new forest management cycle for an area. It begins after the stage of chopping up the surplus material from the previous harvest cycle. An agricultural tractor makes use of an implement known as a subsoiler. Coupled to the rear of the vehicle, the device's function is to open furrows in the soil for the planting of seedlings. The preparation is automated if the relief is flat. When the terrain is steep, physical digging is used to prepare the soil and mark the planting rows.

3. PLANTING

The planting stage occurs after soil preparation and follows specific procedures for Pinus and Eucalyptus due to the particularities of each species. Due to its adaptation capacity and resistance to cold, Pinus is planted throughout the year. Eucalyptus, on the other hand, is vulnerable to cold weather and is planted between the months of October and December. For both species, the standard spacing is 2.5 meters between the planting line and 2 meters between seedlings in the line.

PLANTING PER SPECIES (IN HECTARES²)

	2020	2021	2022
Pinus	609.70	584.45	888.80
Eucalyptus	141.64	107.92	155.17
Total	751.34	692.37	1043.97

²Hectare – metric used to measure area; corresponds to 10,000 square meters.

4. FOREST MANAGEMENT

Sustainable forest management ensures the conservation of native forests and the optimal use of forest resources. Annually, we control the wood wasp in Pinus plantations that are more than five years old. The combat against the leaf-cutting ant and the application of agrochemicals are carried out in a controlled manner, following the monitoring and analysis standards in accordance with the forest certification process. A biannual inspection is conducted in all stands, with the objective of monitoring the development of the plantation and evaluating the eventual need for interventions. This includes the control of pests, mato-competition, mortality or any other adverse symptom.

The monitoring of forest growth is carried out through forest inventories. Every three years, the continuous forest inventory (IFC) is conducted in all stands that are older than 5 years for Pinus and 3 years for Eucalyptus. A pre-cutting forest inventory is also taken of the forests that are close to the harvest period, in order to ensure greater forest production information accuracy.

5. ASSET STRUCTURE AND SURVEILLANCE

The sector responsible for the monitoring and care of the farms counts on a team that monitors the areas on a monthly basis. For this, the ibottons system is used in places with greater vulnerability or a higher incidence of accidents. In the case of environmental accidents, the Environmental Military Police (PMA) of Concordia helps, offering support patrols and environmental awareness actions. We installed a fire detection and surveillance monitoring system. In all, four watch towers with long-range cameras, which rotate 360°, were placed at strategic points. Two of them are located in Santa Catarina and two in Rio Grande do Sul. The Monitoring Room of the Forestry Unit in SC has all the necessary equipment, which is monitored by operators 24 hours/day during periods of higher risk. The objective is to detect fires early on in the Company's forest base and in the surrounding areas, and to carry out a more accurate monitoring of these areas.

The actions and procedures for fighting fires and emergencies, which have been in place for a long time, continue to work. The surveillance structure provides specific anti-flame equipment and clothing, in addition to employing a fire engine. Irani has set up an Emergency Brigade and surveys locales for water catchment. Furthermore, it signed an agreement with the Irani Volunteer Fire Department, implementing an annual training schedule. The Emergency Brigade of Forestry SC conducts at least four practical-theoretical training sessions a year and consists of more than 20 people.

By taking such measures, exceptional performance in controlling fire outbreaks and responding to emergencies has been guaranteed.

	2020	2021	2022
Number of fire outbreaks	3	3	0
Burned area (ha)	0	0	0

6. RESEARCH, QUALITY CONTROL, HEALTH, SAFETY AND ENVIRONMENT

Forestry research is primarily concerned with productivity and sustainability. In addition to doing research domestically with our own specialist staff, we maintain connections with government agencies and academic institutes. We participate in the PPPIB (Cooperative Program on the Potential Productivity of Pine in Brazil), in partnership with the Institute of Forestry Research and Studies (IPEF) and the State and Santa Catarina University (Udesc). In 2022, the Wild Boar Project, prepared in partnership with EMBRAPA Suínos, of Concórdia, was resumed, expected to be run over a two-year period.

All forestry operational activities are subject to quality control, a distinct sector aimed at maintaining operational quality standards and ongoing process improvements. In addition to operational monitoring, the teams examine and critically analyze safety issues on a monthly basis. The SESMT team evaluates items for compliance with safety standards and internal procedures to ensure compliance with the forest management certification standard.

7. ROAD MAINTENANCE

This project, carried out by a designated team, strives to maintain access to farms, areas in need and the flow of forestry products. In projects where there will be forest harvesting, the widening, gravelling, drainage and water outlet construction works adhere to a detailed operating plan and are continuously monitored. A study of key locations and the requirement for access form the basis of an annual maintenance plan that the operation follows.

8. HARVESTING AND TRANSPORTATION

Before the harvest and transport operations, all of the stands that will be harvested are operationally micro-planned. This action is critical for avoiding potential consequences of the operation, ensuring operational efficiency, worker safety and increasing production assertiveness. Harvesting and transportation are handled by an outsourced workforce using high-performance machinery. The Pinus management cycle is about 15 years, while that of eucalyptus is seven years. All the harvested wood is transported to the mill’s wood yard located in Campina da Alegria. In 2022, 557,856.91 tons of Pinus and Eucalyptus wood were transported. The wood is sorted in the yard, which ensures raw material for consumption at the mill and logs for sale on the local market.

9. CHIP PRODUCTION FOR BIOMASS

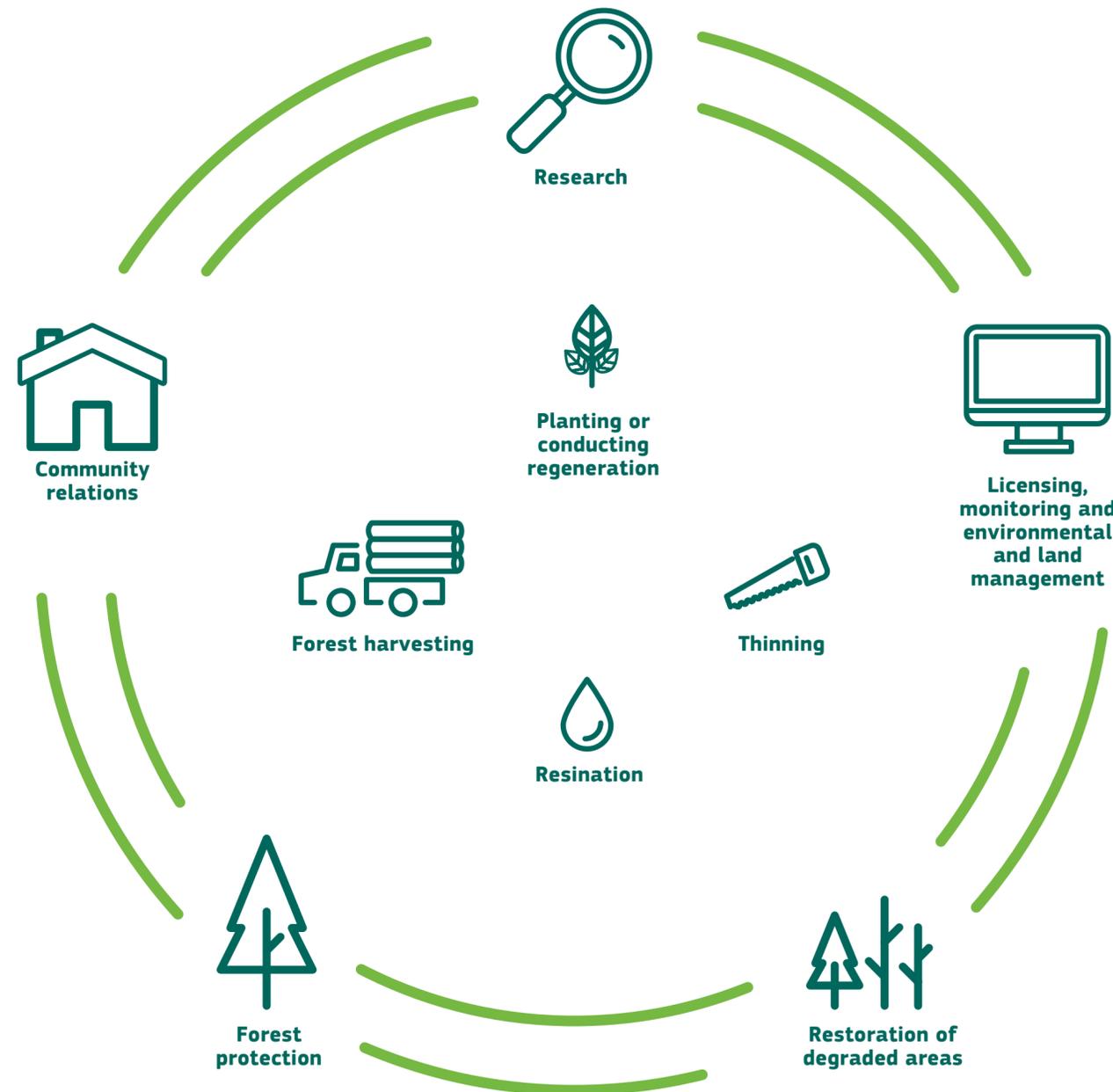
After harvesting the trees on a stand, tree tips, branches and needles remain on the ground. The material is stacked on the edge of the stand, processed by a mobile chipper and transported in dump trucks to the wood patio. On site, the material is sent to the co-generation boiler, which produces steam and energy for the Vargem Bonita (SC) industrial units. With the exception of transportation, the entire operation is carried out by our own team using our own machinery.

(102-7.v) 10. WOOD SALES

The harvested wood is destined for the wood patio of the Vargem Bonita (SC) manufacturing unit. After a selection based on the size of the assortment, logs with a diameter greater than 28cm, also known as loglets, are destined for sale to sawmills and rolling mills in the region where the company operates. In 2022, 5,900 tons of logs were sold to the local market.

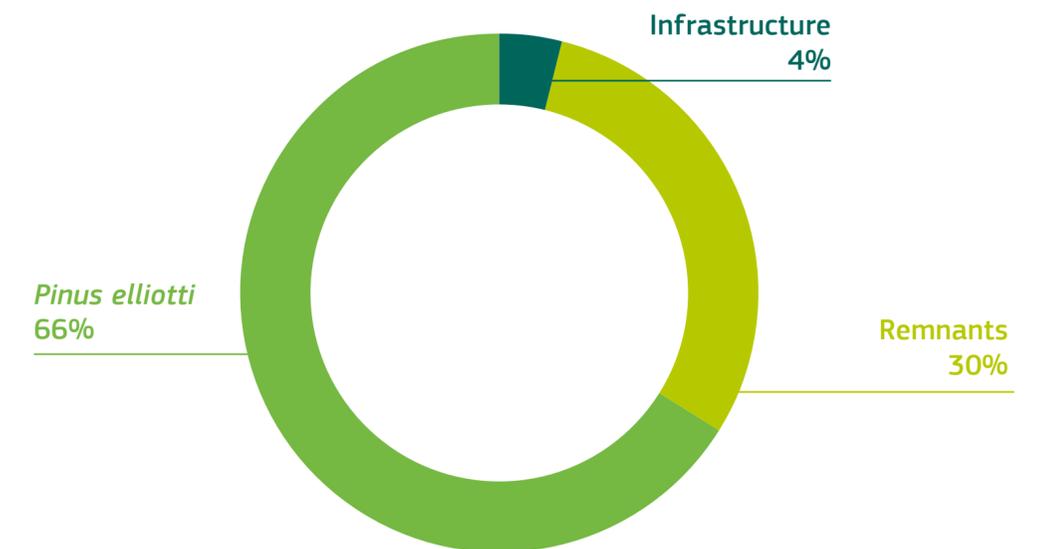
Our Forests in Rio Grande do Sul and Resin

(102-2 and 102-7.v) In Rio Grande do Sul, resin production is a way to anticipate revenues from *Pinus elliotti* forests in the Mostardas, Tavares and São José do Norte localities. This value chain generates direct and collaborative jobs, contributing to convincing people to remain and work in agricultural regions.



Our forest base has a total of 5,926.55 hectares, of which 3,912.22 are dedicated to the effective planting of *Pinus elliotti*.

SOIL USE (HA)



Remnants: Typologies sandy field, wet field, dry field, reclaimed, native vegetation, water, dune fixer.

From pine trees we extract the gum-resin that is processed in the Resin RS – Balneário Pinhal unit, leading to pitch and turpentine products, featuring a wide variety of applications.

A solid, pitch is packaged and recommended for application in products such as glues, adhesives, soaps, enamels, electrical insulators, chewing gum, waxes and expectorants. Turpentine is a liquid product stored in tanks and suitable as a solvent in paints and varnishes, the manufacturing of dyes, waxes, disinfectants (pine oil), camphor, soaps, insecticidal greases, sealants and perfume fixation purposes.

Em 2022, foram produzidos 40.234 tambores próprios, o que representa 99,75% da demanda da fábrica de resinas.

Certified under ISO 9001:2015 and ISO 14064:2006, Irani was the first company in this sector in Brazil and a pioneer in certifying forest management and chain of custody by the FSC® (FSC® C009947/FSC® C116791).

In a management cycle that lasts up to 21 years, we conducted four major steps: spontaneous regeneration and planting, resin production, processing and close cutting. In each of them, we comply with the guidelines of the certifications obtained and the Company's own quality and excellence standards.

- **Regeneration:** we chose to spontaneously regenerate pine trees using a natural process. The planting option occurs only when there is a technical impediment with regard to quality or inadequate productivity. Or, when there is loss of an area. The total amount of wood removed through thinning in 2022 was 58,688 tons.
- **Resination:** manual activity in which we section the pine tree and carve grooves for gum-resin collection. This process can occur for up to eight years, followed by a 12-month tree de-stressing rest period. **In the 2021/2022 harvest, in the Bojuru region, 845,741 trees were resinated, which allowed for the collection of 1,966.673 tons of resin.** The volume of own resin delivered corresponds to about 22.96% of the demand of the industrial unit, considering the resin from the Balneário Pinhal and Bojuru forests. The rest is purchased

from small producers in the surrounding areas and on the domestic market. The Irani Quality Resin Program establishes the degree of purity of the resin to suppliers, applying a discount or increase in the payment of this raw material according to the level achieved in the delivery. We ended 2022 with more than 184 tons of gum-resin received, always following the guidelines of the Program.

- **Processing:** in the industrial unit, the gum-resin undergoes stages of malaxing, filtering, decanting and distillation. In distillation, we can separate the resin in pitch, which is solid, and in turpentine, which has liquid characteristics. The rosin and turpentine processing chemical industrial facility underwent modernization in 2022. The plant is now more efficient, cleaner and better organized. Working conditions have also improved as a result. Besides this, according to FEPAM, it also innovated: a gas treatment plant, never before seen in Brazil, was built aiming at environmental compliance.
- **Close cutting:** this stage is carried out when the forest area completes approximately 21 years. The harvested timber is sold on the regional market in the form of logs and loglets. Wood logs supply sawmills and the loglets are transformed into MDP and MDF sheets by furniture makers.

In 2022, 40,234 proprietary drums were produced, which represented 99.75% of the resin plant's demand.



GRI 103-1, 103-2, 103-3, 301-1, 301-2 e 301-3
SASB RT-CP-250, RT-CP-410, RR-PP-430 and RT-CP-430
ISE

More information regarding Irani's papers can be found here.



Product and market management

Paper

We are among the leading producers of paper for packaging in Brazil. We have a Quality Management System certified by ISO 9001:2015, a greenhouse gas inventory certified by ISO 14064:2006 and chain of custody certified by FSC® (FSC® C009947).

(102-2 and 102-7.v) With weights ranging from 30g/m² to 200g/m², we offer virgin fiber papers suitable for production for rigid or flexible packaging. **(416-2)** Among the types offered is a special line of papers representing 25% of the products supplied.

This paper line is comprised of the Fine Kraft, Fine Kraft white, Flash Kraft, Flat Kraft and Flexi Kraft families. These papers can come into direct contact with food, because they are produced with inputs allowed by the positive list of Resolution RDC No. 88 of June 29, 2016 and approved in our internal ratification processes. They represent examples of legal care and good manufacturing practices that prevent physical, chemical or biological contamination of the product.

In addition, constant assessments ensure that the products do not impact consumer health and safety. Furthermore, every two years we complete all the analyses set forth by RDC Resolutions No. 88 and RDC No. 90 and revalidate the ISEGA certification.

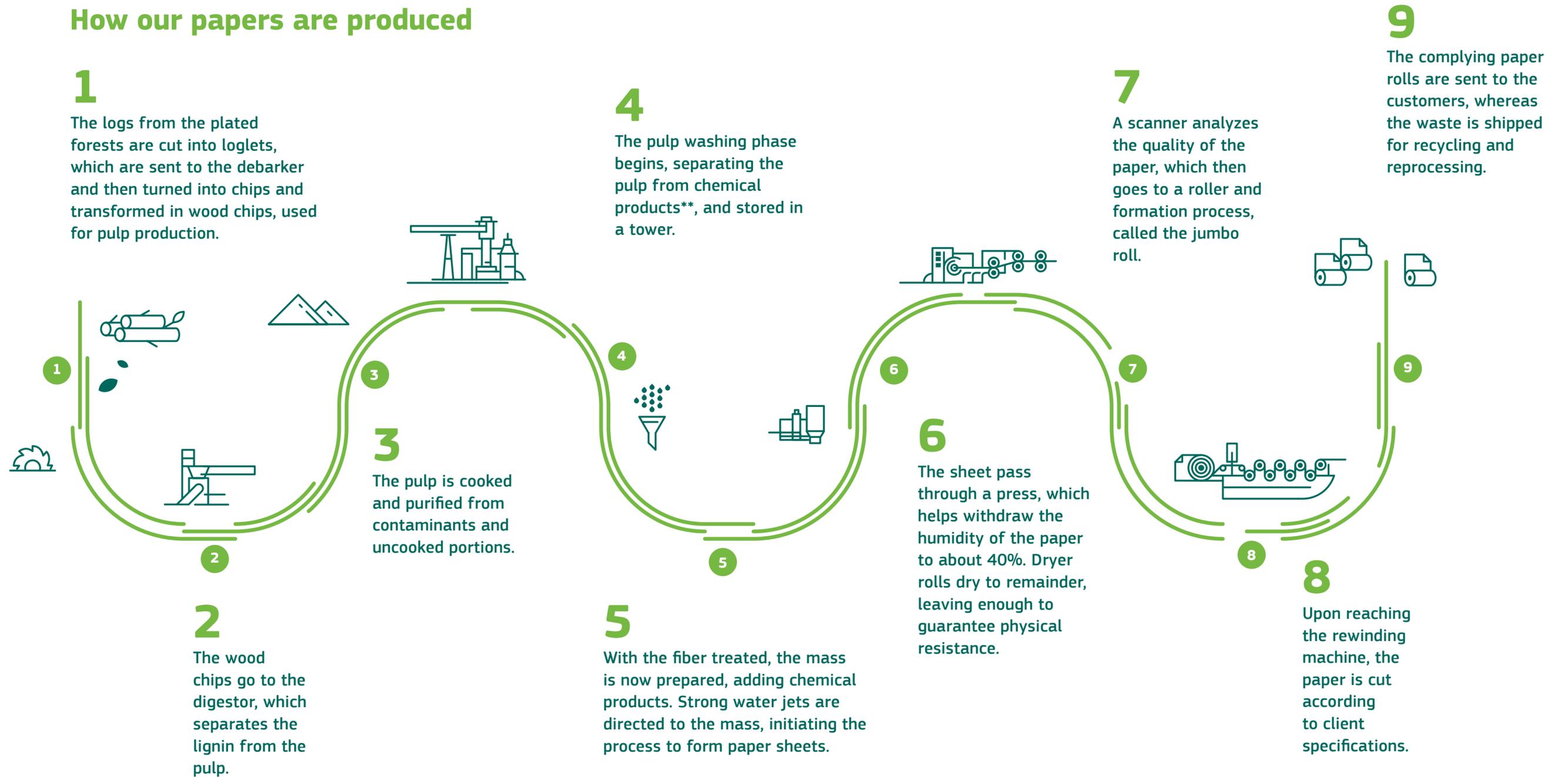
In 2022, the Paper business developed 20 new inputs, of which 13 were approved. Also, 21 new papers were created, with eight approvals. With a focus on operational efficiency and new solutions for the market, we strengthened our relationships in the research field with national and international partners.

Our production totaled 293,556 tons, down 1.2% compared to 2021, and sales totaled 124,880 tons, stable compared to the previous year. As for internal transfers in 2022, 51% went to the Packaging SP Indaiatuba plant and 49% to Packaging SC Campina da Alegria.

SHIPMENTS/INVOICING OF PAPER IN 2022 (%)



How our papers are produced



See the video about our production process (only Portuguese)



Packaging

We are among the main producers of packaging and corrugated cardboard sheets in Brazil. **(102-2 and 102-7.v)** We produce boxes and sheets of white and recycled Kraft paper with excellent performance and corrugated cardboard sheets in single and double waves. We have an environmental management system and

follow strict quality control processes. All of these procedures are certified to ISO 9001:2015, ISO 14064:2006 and ISO 14001:2015 standards, as well as the FSC® (FSC® C009947) certified chain of custody.

How our packaging is produced

FOCUS OF THE CLIENT

This is the concept that guides our relationship. We put ourselves alongside our clients from start to finish, so that our company will be recognized as their preferred choice to offer innovative, distinctive and customized solutions, striving to reduce costs and deliver exceptional performance.

The papers, produced by Irani or purchased, are corrugated and placed in the ripple machine, which originates the sheets pursuant to the specifications of each client. This stage represents 70-80% of the steam consumed in the production process.



We offer the best solutions for client needs, evaluating the products to be packaged, weight, measurements and the various logistical operations.



Based on this analysis, our team of packaging engineering creates a prototype that is submitted for approval by the client before production starts. We seek to always create boxes that are lighter and more resistant, ensuring better performance and lower weights.



The sheets are palletized and have two distinct destinations:

Shipped to the end client in the cartonboard segment.

Undergo a conversion process to be creased, cut and printed to, then, be sent to our clients.

Our technical assistance team monitors all stages of the process, conducting development, preventive and corrective visits.

(416-1) More information about Irani's packaging can be found at here.



Carolina Silva,
Santa Luzia unit



We remain committed to supplying ever-smaller weights and superior mechanical strength. As a result, recent investments in infrastructure and industrial processes have been made at the Packaging business units.

According to Empapel, in 2022, the packaging market shrank 2.2% compared to 2021. In the same period, Irani's market grew 1.5%, with sales of 159,840 tons of packaging.

Focus of the Client is the foundation of Irani's product development. Thus, we develop customized packaging, making our Research & Development and Technical Assistance structure available to produce boxes that meet and optimize specific needs and logistics for different client groups.

Furthermore, our clients have been trained how to handle corrugated cardboard. Run by the R&DI area, courses are offered to employees who work with cartonboard products and aim to contribute to client development and growth.



Gaia Platform

Gaia symbolizes the Earth, nature. It is precisely this infinite and wise force, of which humanity is a part, from which our motivation to grow derives. Our robust expansion plan, with projects developed between 2020 and 2024, is guided by a deep commitment to sustainable development in its three spheres: economic, social and environmental.

We kept working to achieve the Gaia Platform's objective of enhancing competitiveness, production capacity and energy sufficiency in 2022. In order to achieve this, we made a number of investments that had an advantageous effect on the environment and an internal rate of return (IRR) greater than the Company's cost of capital.

More information about the Gaia Platform can be found here.



1st Cycle | 2020 – 2023

Gaia I - Chemical and Utilities Recovery Expansion

Gaia II - Expansion of SC

Gaia III - MP#2 Reform

Gaia IV - Cristo Rei Repowering

Gaia V - São Luiz Repowering

2nd Cycle | 2021 – 2024

Gaia VI - Process Information Management System

Gaia VII - ETP Phase 1 Expansion

Gaia VIII - New Cut and Crease Printer

Gaia IX - Automation of Intermediate Stock

Gaia X - New FFG Dual Slotter Printer



GRI 103-1, 103-2, 103-3, 302-1, 302-2, 302-3, 302-4, 302-5
SASB RR-PP-130 and RT-CP-130
ISE

Energy efficiency

(103-1) Energy self-sufficiency is one of the main challenges for our businesses. Therefore, one of Irani’s strategic objectives is to secure its energy supply.

(103-2, 103-3, 302-1.a) In the Vargem Bonita (SC) units, where energy consumption by processes is high, we have made significant efforts to achieve operational excellence and efficiency. One of the alternatives we’ve been researching is the use of biomass derived from forest waste. This material, currently sent to landfills, decomposes, emitting greenhouse gases such as methane and carbon dioxide. Since 2005, we have used a boiler for steam and energy generation from the burning of this biomass to supply the SC Paper and Packaging units. The process was registered with the UN as the Irani Biomass Electricity Generation Project and validated as a Clean Development Mechanism (CDM). We operate a Small Hydroelectric Power Plant (SHP) and two Hydroelectric Power Plants (HPPs) in this same location, featuring automated control and remote operation, in addition to four other boilers for thermal power generation.

(103-3, 302-3, 302-4) In all business units, we seek more effective mechanisms. We also carry out the necessary operational adjustments to reduce the consumption of electric energy or maintain suitable metrics.

SPECIFIC ELECTRICITY CONSUMPTION (MWH) PER TON PRODUCED

UNITS	Specific / gross production			Specific / liquid production		
	2020	2021	2022	2020	2021	2022
Paper SC – Campina da Alegria	0.729	0.711	0.729	0.777	0.752	0.774
Paper MG – Santa Luzia	0.392	0.427	0.410	0.416	0.454	0.435
Packaging SC – Campina da Alegria	0.077	0.076	0.081	0.087	0.088	0.093
Packaging SP - Indaiatuba	0.077	0.073	0.076	0.082	0.079	0.081
Resin RS – Balneário Pinhal	0.029	0.031	0.033	0.029	0.031	0.033

Note: The specific metric used to calculate the specific electricity consumption is gross production and net production. The ratio used refers to the energy consumed within the organization, as it does not have enough information to report energy consumed outside it.

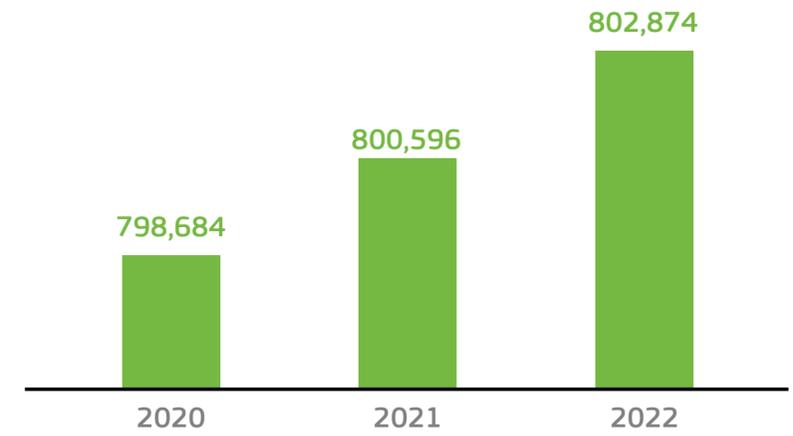
(302-2 e) The total energy consumption inside and outside the organization in the form of steam, fuels and electricity was 6,906,490.29 GJ.

(302-1.C, 302-3) TOTAL ELECTRICITY PURCHASED (IN GJ)



(RR-PP-130 E RT-CP-130)

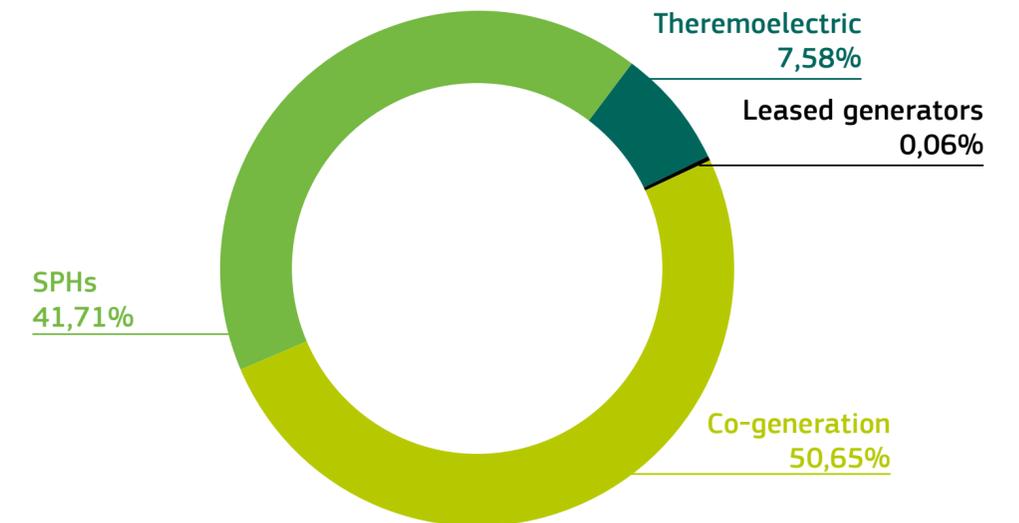
TOTAL ELECTRICITY CONSUMPTION IN GJ



Note: electricity consumption within the organization.

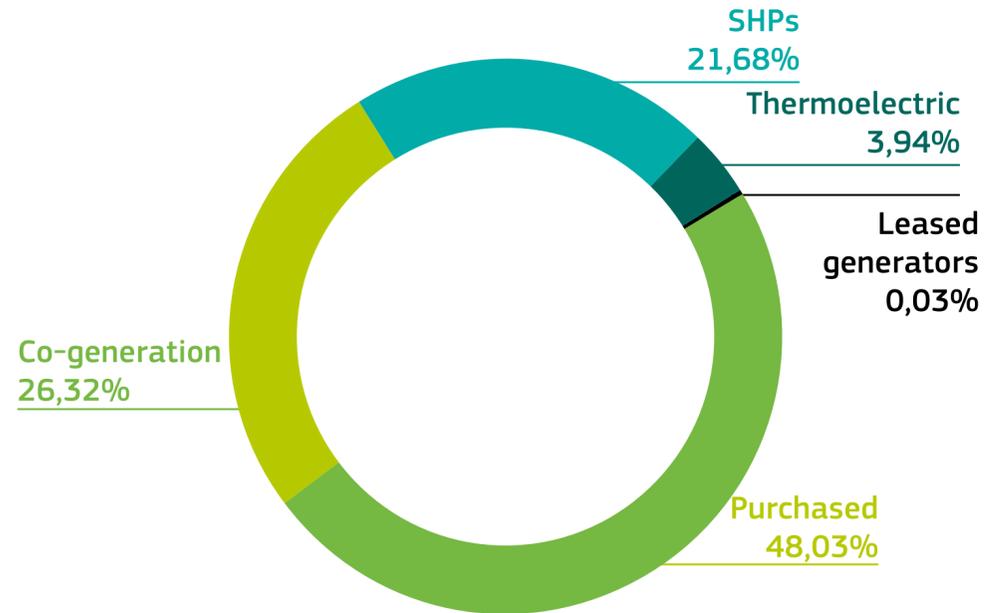
(RR-PP-130 E RT-CP-130)

PERCENTAGE OF SELF-GENERATED ENERGY PER SOURCE



Note: refers to the self-generation of energy for the SC Paper unit - Campina da Alegria

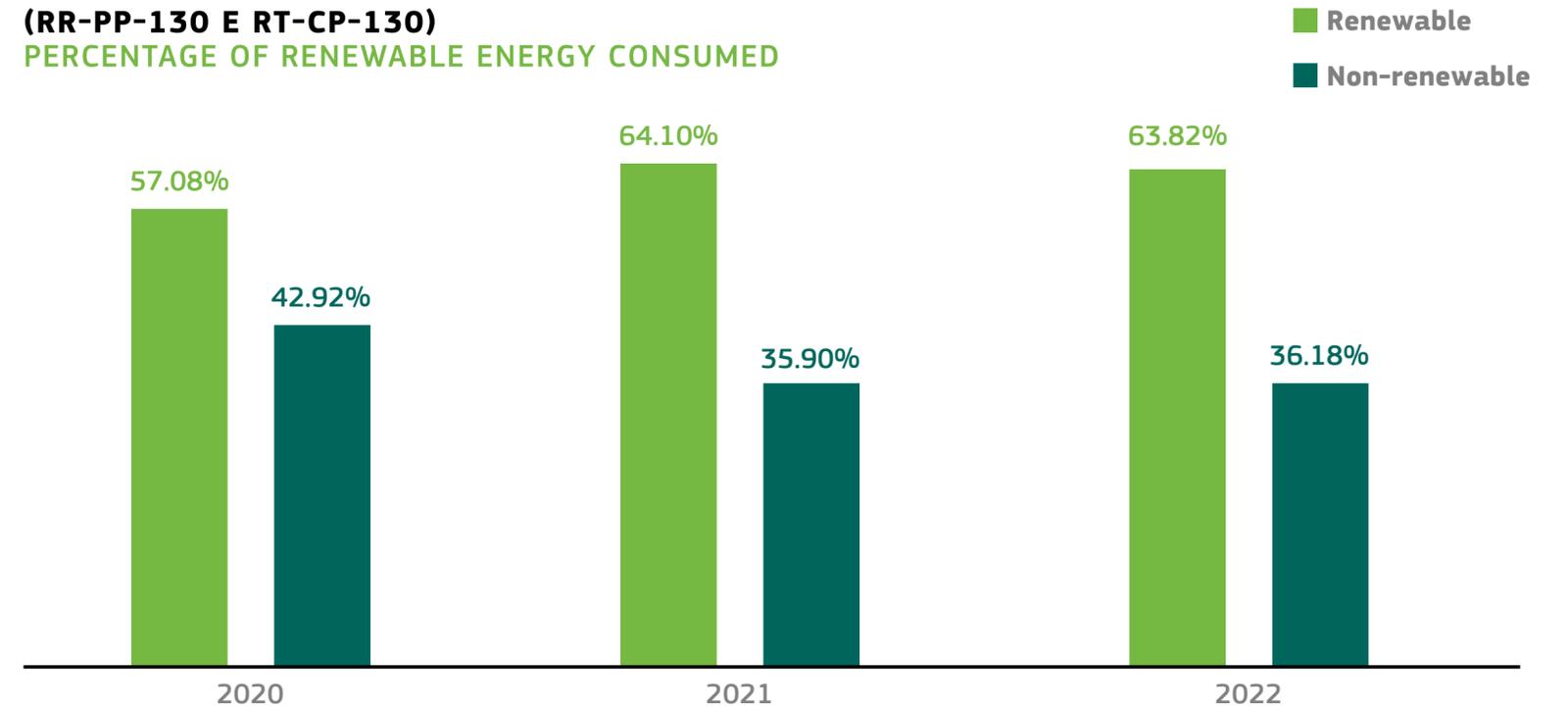
(RR-PP-130 E RT-CP-130)
ENERGY CONSUMED PER GENERATION SOURCE



Note: represents the purchase and self-generation of energy, considering all units, with 25% of the energy purchased coming from renewable sources.

51,97%
of self-generated energy

(RR-PP-130 E RT-CP-130)
PERCENTAGE OF RENEWABLE ENERGY CONSUMED



Unit	2020	2021	2022
Paper SC – Campina da Alegria	22,569.86	24,062.69	39,294.11
Paper MG – Santa Luzia	225,803.46	211,140.31	219,387.19
Packaging SC – Campina da Alegria	19,262.32	20,130.92	17,084.31
Packaging SP – Indaiatuba	57,504.34	60,357.11	58,339.06
TOTAL	325,139.98	315,691.02	334,104.67

Note: the Resina RS unit – Balneário Pinhal does not use non-renewable fuel.

(302-1.B)) CONSUMPTION OF RENEWABLE FUEL (IN GJ)

Unidade	2020	2021	2022
Paper SC – Campina da Alegria	3,253,897.54	3,185,686.39	3,033,908.24
Resin RS – Balneário Pinhal	7,553.98	7,550.22	7,070.85
TOTAL	3,261,451.52	3,193,236.61	3,040,979.09

PERCENTAGE OF RENEWABLE FUEL CONSUMED

Consumption of fuel
– Non-renewable (GJ)
9.90%

Consumption
of fuel –
Renewable (GJ)
90.10%


(302-1.A) STEAM CONSUMPTION (IN GJ)

Unit	2020	2021	2022
Paper SC – Campina da Alegria	2,580,999.84	2,499,623.16	2,416,645.20
Paper MG – Santa Luzia	203,151.19	186,721.72	191,763.35
Packaging SC – Campina da Alegria	45,116.13	44,936.09	39,371.69
Packaging SP – Indaiatuba	58,143.25	60,844.28	58,747.51
Resin RS – Balneário Pinhal	20,669.56	22,775.34	21,876.48
TOTAL	2,908,079.97	2,814,900.59	2,728,404.22

(302-2 AND 302-1.F) ENERGY CONSUMPTION OUTSIDE THE ORGANIZATION

Fuel	Consumption(in l)			Consumption(in l)		
	2020	2021	2022	2020	2021	2022
Diesel	4,066,588.84	4,305,221.58	3,289,153.73	155,853.81	164,999.51	126,058.26
Gasoline	49,961.73	44,865.50	48,018.79	1,740.26	1,562.75	1,672.58
LPG Restaurant	15.667,00	14.675,00	17.804,60	770,22	721,45	875,31
TOTAL	4,132,217.57	4,364,762.08	3,354,977.12	158,364.28	167,283.71	128,606,15

Note: (302-1.e) the total energy consumption within Irani in the form of steam, fuels and electricity was 6,906,490.29,GJ. (302-1.f) The total energy consumption outside the organization was 128.60 GJ, according to scope 3 of the GHG inventory. (302-1.g) The conversion factors come from the Petrobras website. .



Manufacturing Capital **Opportunities and future commitments**

Continue to harvest in partnership areas, in addition to increasing the forest base, in order to meet the pulp production expansion project's targets.

Take advantage of opportunities to boost productivity with operational efficiency.

Use 100% renewable energy in all our businesses by 2025.

Achieve self-sufficiency in renewable energy generation in all businesses by 2025.

Strengthen the market positioning with value offerings with a Focus of the Client.

Maintain focus on cost management and profitability.

Progress the development of new markets for the paper manufactured at Paper MG.

Preserve the investments in the Gaia Platform.



Natural Capital

Carlos Rodrigues
e Lodônio da Cruz,
Santa Luzia unit



Irani recognizes the importance of minimizing the damage caused to Natural Capital. A benchmark company in quality and integrity, it monitors the current legislation by means of specialized software, and has a specific policy in place to maintain the continuity of natural resources. The Company's strategic map for the 2021-2030 cycle shows its commitment to climate stability.

(103-2, 103-2, 102-11, 102-43, 416-1) Because we are a renewable forest-based industry, the interaction of the processes with the environment is a fundamental factor for the prosperity of our businesses. We constantly seek opportunities for improvement that reflect on operational effectiveness, sustainable management of Natural Capital and new business creation. Always, of course, focused on circular economy strategies.

(103-2 and 103-3) All of Irani's business units apply a structured Environmental Management process. Actions and projects oriented to the mitigation and reduction of environmental impacts are developed, meeting the guidelines of ISO 14001 and of our Sustainability Policy. We also have established a Social Management process, managing social aspects and impacts

through research into the surrounding communities and the Sustainability Policy guidelines.

(103-1 and 306-3) We received no formal complaints or grievances about environmental impacts in 2022. We also had no incidents involving chemical spills.

Throughout the year, we invested R\$ 321,979,356.31 in initiatives, improvements, environmental management processes and projects of an environmental nature. Our education practices with this focus totaled almost 2,450 hours of work, benefiting 4,005 people. Furthermore, the Environmental Management System course was launched on the learning platform in 2021, followed by recycling in 2022, contributing to an increase in the number of people involved and the number of hours dedicated to environmental education.

(103-2) The commitment to sustainability is pervasive throughout the Irani business chain: it is born in the forests and concludes with our actions in the neighboring communities, prompting a cycle of prosperity and sustainability.

Throughout the year, we invested R\$ 321,979,356.31 in initiatives, improvements, environmental management processes and projects of an environmental nature.



**GRI 103-1, 103-2,
103-3, 102-12,
102-13, 102-41,
308-1, 308-2,
413-1, 413-2,
414,1 e 414-2
SASB RR-PP-120,
RT-CP-120,
RR-FM-160 and
RR-FM-160
ISE**

Biodiversity

(103-1 and 103-2) Obtained in 2008, the FSC® (Forest Stewardship Council®) Forest Management certification recognizes Irani as a company whose forests are managed responsibly. Its operations are guided by environmental preservation practices, respecting workers and communities and by the guarantee of a forestry management program based on efficiency.

Biodiversity in Santa Catarina forest areas

(304-3.a, RR-FM-160 and RR-FM-160) The native vegetation areas, such as Permanent Preservation Areas and Legal Reserves, represent 48% of the total land use in the Santa Catarina forest base. All of them are important for the formation of biodiversity corridors.

(304-3) In 2011, together with the Public Prosecutor's Office of Santa Catarina (MPSC) and the Environmental Institute (IMA), a Conduct Adjustment Accord (TAC) was signed to regularize permanent preservation areas. The areas included in the TAC are continuously monitored and the pact remains in force.

Araucárias National Park (PNA)

Founded in 2005, the Araucárias National Park (PNA), an integrated conservation unit located in the municipalities of Passos Maia and Ponte Serrada (SC), back up directly against some Irani areas. In two of them, the limits of the Park cross the border with the Company's areas. These areas have not yet been indemnified and are still under negotiation. It is worth noting, however, that Irani has participated on the Advisory Board of the PNA since its creation in 2010, sitting on Working Groups (WGs), active in environmental preservation actions alongside the Environmental Military Police (PMA) and in the development and revision of the Management Plan.

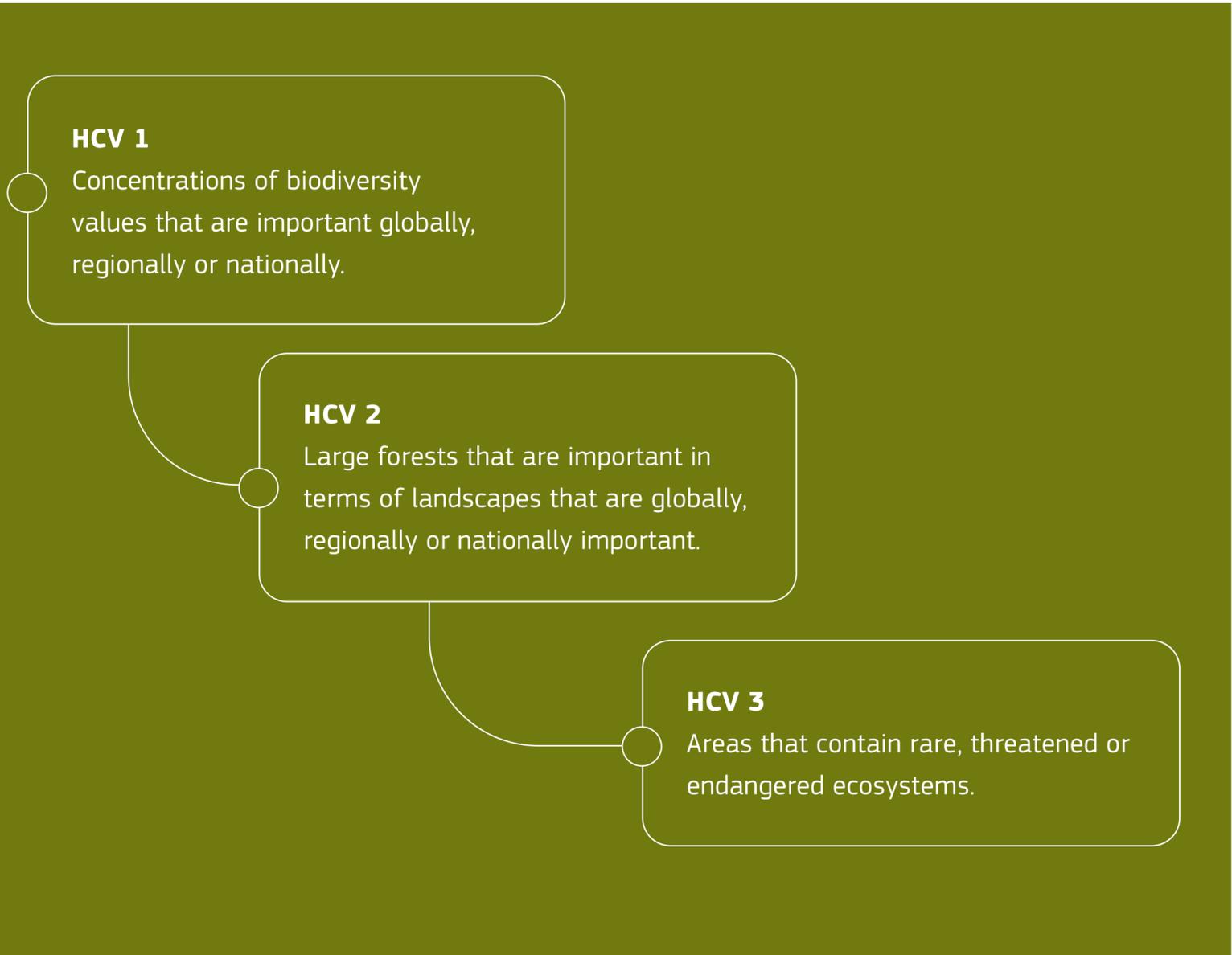
RPPN Estadual Prof. Yara C. Nicoletti

Recognized in 2018, the State RPPN Prof. Yara C. Nicoletti, located in the municipality of Vargem Bonita (SC), is now owned by Irani. Its function is to protect 285 hectares of Atlantic Forest (Mixed Ombrophylous Forest), where several endangered species live. The Company also offers an ecological tour option on the Xaxins Trail. With the presence of a large number of plants of the species that lends its name to the site, the guided tour covers 2.5 km, during which visitors observe springs, streams, native vegetation, small animals and the lush beauty of the Atlantic Forest. Biodiversity surveys and research projects are also carried out in the reserve.

**RPPN (Private Natural Heritage Reserve)*

High Conservation Value Areas (HCVAs)

High Conservation Value Areas (HCVAs) have values considered exceptional or critical for species diversity, maintenance of threatened ecosystems, promotion of ecosystem services, and community values. The evaluation of these attributes is part of the certification process applied under the FSC® forest management guidelines. The Company carried out this process and identified attributes of types 1, 2 and 3. .



The environmental attributes were observed in two areas that total about 3,150 hectares of well-preserved native vegetation, located in the municipalities of Irani (SC) and Vargem Bonita (SC). These areas, together with the Araucárias National Park (PNA) and other locations legally protected by Irani, form ecological corridors of great importance for environmental preservation in the region.

(103-3) Fauna and flora monitoring is conducted in the HCVAs and other native vegetation areas belonging to Irani. Such procedures are carried out periodically by contracted specialists and generate indicators that evidence the levels of conservation and maintenance of the local biodiversity.

Fauna and flora monitoring

The monitoring of the groups of birds, mammals and flora is undertaken jointly every five years. The surveillance of herpetofauna follows the same frequency, but separately. The field stages took place throughout 2022, with a final campaign in early 2023.

Until the most recent mammal survey, 31 large mammals had been identified. So far, the avifauna survey has identified 168 species, some of which are listed on conservation lists.



Group	Species	Common name	IUCN	ICMBio	CONSEMA
Mammals	<i>Mazama americana</i>	Red brocket deer	DD	-	EN
Mammals	<i>Pecari tajacu</i>	Collared peccary	LC	-	VU
Mammals	<i>Leopardus pardalis</i>	Ocelot	LC	LC	EN
Mammals	<i>Puma concolor</i>	Puma	LC	VU	VU
Mammals	<i>Puma yagouarondi</i>	Jaguarundi	LC	VU	-
Mammals	<i>Leopardus guttulus</i>	Southern tigrina	VU	VU	-
Mammals	<i>Alouatta guariba clamitans</i>	Southern brown howler	LC	VU	VU
Mammals	<i>Cuniculus paca</i>	Lowland paca	LC	-	VU
Mammals	<i>Leopardus wiedii</i>	Margay	NT	VU	-
Birds	<i>Tinamus solitarius</i>	Solitary tinamou	NT	-	VU
Birds	<i>Triclaria malachitacea</i>	Blue-bellied parrot	NT	-	VU
Birds	<i>Pyroderus scutatus</i>	Red-ruffed fruitcrow	LC	-	EN
Birds	<i>Sporophila melanogaster</i>	Black-bellied seedeater	NT	VU	VU
Amphibians	<i>Melanophryniscus simplex</i>	Bufoidea toad	DD	-	EN
Amphibians	<i>Vitreorana uranoscopana</i>	Glass frog	LC	-	VU
Amphibians	<i>Hypsiboas curupi</i>	Yellow-spotted tree frog	LC	VU	EN

International: Official List Union for Conservation of Nature (IUCN) version 2022-2;

National: Red Book of the Brazilian Fauna Threatened with Extinction (ICMBio, 2018)/MMA Ordinance No. 148, June 7, 2022;
State (SC): Official List of Species of Fauna Threatened with Extinction in the State of Santa Catarina (CONSEMA Resolution No. 002/2011)

Where: EN - Endangered; VU - Vulnerable; NT - Near threatened; LC - Secure or of low concern; DD - Data Deficient.

In 2023, Irani plans to start another cycle of herpetofauna monitoring. In the case of amphibians, the highlights are those that have a distribution restricted to the Araucária forest, such as *Ischnocnema henselii* (leaf-litter frog) and *Trachycephalus dibernardoi*.

In the last flora monitoring, 44 families and 120 species were recorded. Some are threatened with extinction::

Scientific name	Common name	IUCN	National	Etatel (SC)
<i>Araucaria angustifolia</i>	Araucaria, Brazilian pine tree	CR	EN	CR
<i>Butia eriospatha</i>	Wooly butia palm	VU	VU	CR
<i>Cedrela fissilis</i>	Argentine Cedar	VU	VU	-
<i>Dicksonia sellowiana</i>	Xaxim	-	EN	CR
<i>Inga lentiscifolia</i>	Ingá	VU	NT	-
<i>Myrcianthes pungens</i>	Guaviyu	EN	-	-
<i>Myrciaria cuspidata</i>	Camboim	VU	LC	-
<i>Ocotea porosa</i>	Imbuia	VU	EN	CR
<i>Podocarpus lambertii</i>	Yellowwood pine	NT	LC	EN
<i>Podocarpus sellowii</i>	-	EN	LC	-
<i>Quillaja lancifolia</i>	Quillaja	-	EN	-

International: Official List Union for Conservation of Nature (IUCN) version 2022-2;

National: Red Book of the Brazilian Fauna Threatened with Extinction (ICMBio, 2018)/MMA Ordinance No. 148, June 7, 2022;

State (SC): Official List of Species of Fauna Threatened with Extinction in the State of Santa Catarina (CONSEMA Resolution No. no. 51/2014)

Where: CR – Critically endangered; VU – Vulnerable; NT – Near threatened; LC – Secure or of low concern.

(304-3.b) Irani supports and seeks partnerships with researchers and governmental and private institutions for the development of forestry studies. Here are some examples:

- **Reintroduction of the Vinaceous-breasted parrot:** project of the Espaço Silvestre Institute with the Araucárias National Park (PNA), in Santa Catarina, in defense of the reintroduction of the species in the region.
- **Wild Boar Project:** carried out in partnership with Embrapa Suínos, it was restarted in 2022, and its objective is to expand the studies on the wild boar population and carry out health monitoring in Irani's Santa Catarina forest areas.
- **Capuchin Monkey Project:** carried out in partnership with Embrapa Florestas, it aims to study the species *Sapajus nigritus* (Capuchin monkey) and its interactions with Irani's planted and native forests. The objective of the project is to reduce the damage caused in commercial plantation areas. The end of the field surveys occurred in early 2022.
- **Fauna and flora monitoring:** carried out by specialists in the area, the project is conducted every five years in the High Conservation Value Areas (HCVAs) and other native forest blocks. The goal is to demonstrate the maintenance or improvement of the attributes that characterize these areas.

(304-1.vi e 304-2) Additional information on HCVAs, such as stages, partnerships established with a focus on protection and restoration and impacts in relation to the introduction of Pinus are addressed in the Public Summary of Forest Management, available at [here](#).

(304-3, RR-FM-160 AND RR-FM-160) HIGH CONSERVATION VALUE AREAS (AAVCS)

Location	Area (in hectares)	Evaluation result
Vargem Bonita (SC)	1,441.34	<ul style="list-style-type: none"> • The presence of imperiled species of birds, mammals and flora in highly endangered categories; • Sections of remnants in good conservation stage; • Large remnants (over 1,000 hectares), given the extremely fragmented region; • Legal Reserve Area registered and preserved
Irani (SC)	1,708.66	
TOTAL	3,150.00	

(304-3) PROTECTION AND MONITORING MEASURES IN HIGH CONSERVATION VALUE AREAS (HCVAS)

	Vargem Bonita (SC)	Irani (SC)
Environmental education	☑	
Asset Surveillance (monitoring with ibuttons)	☑	☑
Mastofauna Survey	☑	☑
Birdlife Survey	☑	☑
Herpetofauna survey	☑	☑
Flora survey	☑	☑
Control of invasive exotic species	☑	☑
Firebreak maintenance	☑	☑
Road erosion control	☑	☑
Environmental impact assessment	☑	☑
Creation of an RPPN in part of the area	☑	

Note: firebreaks are strips of unplanted land that make it difficult for forest fires to spread.



Adriano de Campos,
Campina da Alegria
unit

51 fauna species identified in the spring monitoring that occurred during 2022.
96 species of flora identified in 2022.

Biodiversity in RS forest areas

(304-1, 304-3)) Irani's planted forests form mosaics with permanent preservation areas (APPs) and other natural areas. None of them are located in or adjacent to protected areas. .

(304-1, RR-FM-160 and RR-FM-160) We used the ProForest Guide classification and FSC® Certification guidelines to determine High Conservation Value Areas (HCVAs). After the purchase and sale agreement of the forest areas in Cidreira and Balneário Pinhal, in Rio Grande do Sul, we retain a total of 13.3 hectares of land with this characteristic.

Located in the bed of the Paurá Lagoon, in the rural area of the municipality of São José do Norte (RS), the area presents four HCVA attributes. Among them, we can highlight the high presence and conservation of biodiversity. The area includes native dune-

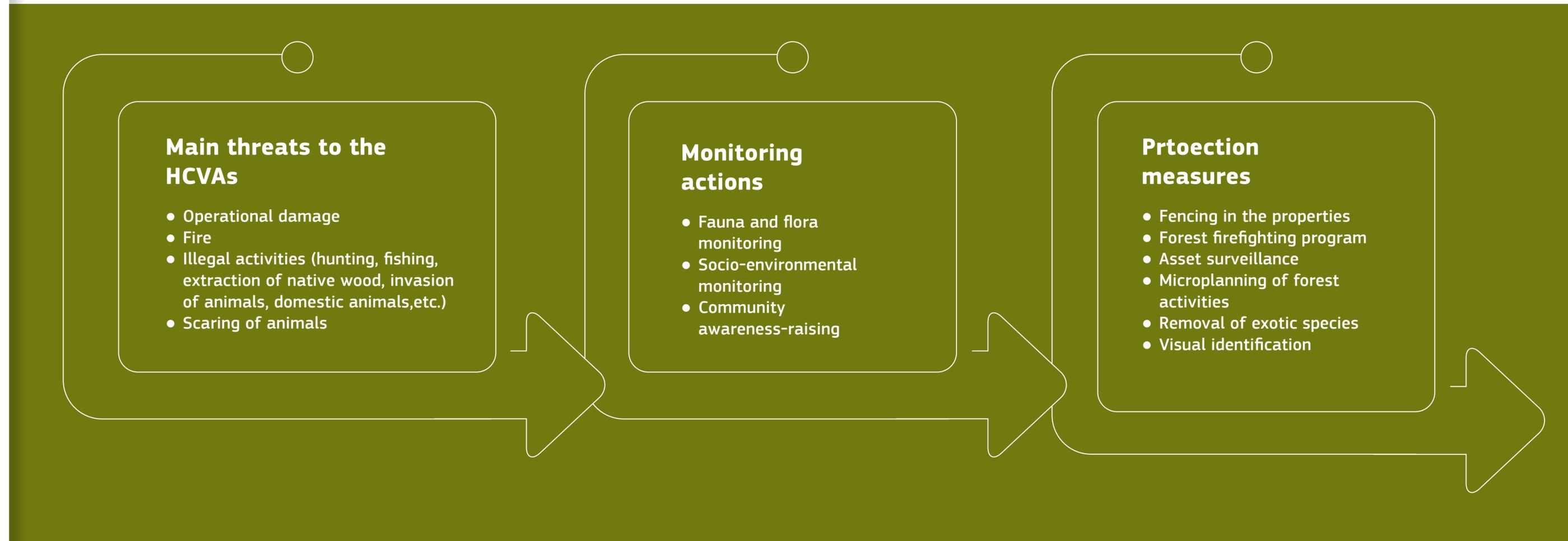
fixing restinga vegetation of great regional importance and representativeness.

(304-4) Biennially, we monitor the site's biodiversity. We accompany the fauna during the four seasons of the year, and the flora in the spring, in order to understand the environmental dynamics of these areas and the impacts of the operations. **(304-2)**. Using a matrix of aspects and impacts, we map the effects of our activities on fauna, soil, flora, water resources and surrounding communities, assessing the social and environmental impacts that may occur in the forestry operations.

(103-3, 304-2) Measures such as management effectiveness monitoring are applied in HCVAs. The intent is to ensure the maintenance and improvement of the identified values, consolidate their conservation and perpetuate their benefits.

HCVA	Location	Area Description
Bojuru Lake and Restinga Forest	São José do Norte	There is a gallery forest with characteristic species of the Dense Ombrophylous Forest, formed by Fig trees (<i>Coussapoa microcarpa</i>), <i>Scutia bruxifolia</i> , <i>Sebastiania commersoniana</i> , <i>Psidium araca</i> , <i>Iodina rhombifolia</i> , and <i>Myrsine umbellata</i> , which harbor orchids and bromeliads. Among the dunes is a species of wild fauna classified as vulnerable on the IUCN - World Union for Nature red list, the Tuco-tuco, a rodent belonging to the genus <i>Ctenomys</i> .

The partnership instituted with the Rio Grande do Sul government, through the RS Biodiversity project, allowed the Rapid Ecological Assessment (REA) in one of these locations, pointing out:



In the Public Summary of Forest Management, we provide more information about the biodiversity in our forest areas on the coast of Rio Grande do Sul, accessible through the link:

Permanent preservation areas, legal reserves and other forest fragments of the company are also subject to management and monitoring measures. The goal is to curb illegal activities and promote the conservation of biodiversity. Among these measures are the integrated forest production system and restoration actions, asset surveillance and operational diligence.



**GRI 103-1, 103-2,
103-3, 303-1,
303-2, 303-3,
303-4, 303-5 e 306-1
SASB RR-PP-140
and RT-CP-140
ISE**

Water and effluents

(303-1, 303-3b, 303-3c, 303-4.c) The water used in Irani's production processes is fresh water. In the Vargem Bonita (SC) units, water is also used for power generation and three Hydroelectric Generating Plants (CGHs).

(303-2) All water sources of our business units, are licensed by the appropriate agency, ensuring there is no negative impact on the respective bodies of water due to the volume abstracted. Opportunities for gains in operational efficiency are constantly under evaluation. Here, we prioritize actions that allow productivity gains coupled with usage reduction, alternatives for reuse, and circuit closure. **(103-1, 103-2 and 303-1)**. This is one of the fundamental strategies of our business, which, by its very nature, depends on the availability of water and other natural resources.

(103-2 and 303-1c) We also participate in a water basin committee that involves various sectors of society, established to define guidelines that ensure the conservation of springs, headwaters and local biodiversity.



**Adair Fernandes,
Santa Luzia unit**

(303-3, RR-PP-140 AND RT-CP-140) TOTAL WATER WITHDRAWN BY SOURCE (IN MEGALITER)

Source	What it comprises	2020	2021	2022
Surface	River water captured for Paper and Packaging SC - Campina da Alegria and Paper MG - Santa Luzia units	5,335.31	4,905.75	4,763.48
Groundwater	Captured in wells for the Paper MG, Packaging SP - Indaiatuba, Packaging SP - Vila Maria and Resina RS - Balneário Pinhal units	153.45	183.92	209.06
Concessionaire	Water supplied by Casan, Sabesp and Corsan and Copasa to the Paper and Packaging SC - Campina da Alegria and Resin RS and Paper MG - Santa Luzia, respectively	16.76	18.81	34.6
TOTAL	5,505.52	5,108.49	5,006.91	5,006.91

Note: **(303-3d)** the records presented come from daily flow meter readings.

All the industrial units have water consumption targets defined from the historical analysis of the reduction of consumption and the production projection for each location. It is worth noting that there was a 1.5% reduction in specific raw water use in 2022.

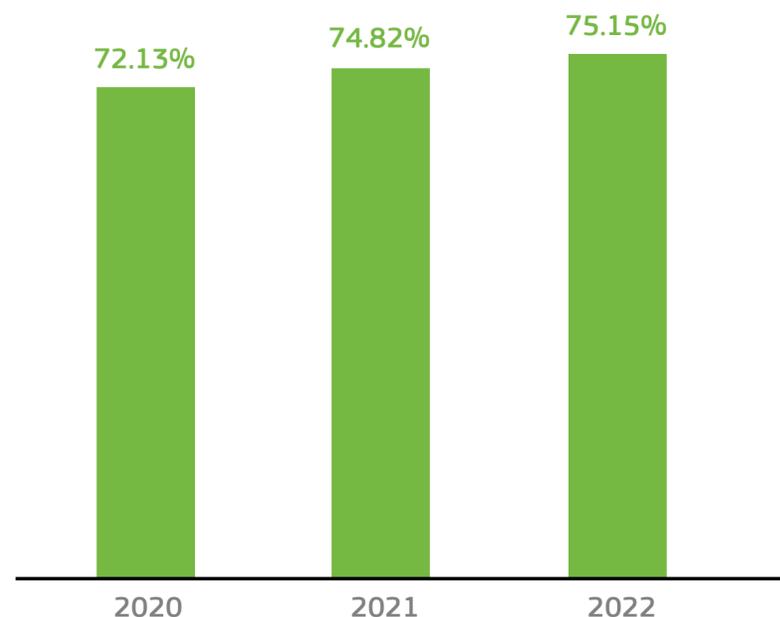
(303-3) SPECIFIC WATER CONSUMPTION (M³) PER TON PRODUCED

Unit	Specific water consumption (m ³) per ton produced			Specific water consumption (m ³) per ton produced		
	2020	2021	2022	2020	2021	2022
Paper SC - Campina da Alegria	20.60	18.14	17.98	21.96	19.18	19.09
Paper MG - Santa Luzia	3.37	5.43	6.53	3.57	5.77	6.93
Packaging SC - Campina da Alegria	0.26	0.276	0.255	0.29	0.319	0.294
Packaging SP - Indaiatuba	0.36	0.30	0.37	0.38	0.33	0.39
Resin RS - Balneário Pinhal	0.95	1.15	0.04	0.95	1.15	0.04
TOTAL	11.01	10.21	9.92	11.82	10.97	10.65

Notes: in the Paper MG - Santa Luzia unit, the target is calculated based on the volume of treated water consumed in the production process x net production, and not on the volume of water collected directly at the source. That is, the less water consumed to produce a larger quantity of finished products, the more efficient the process is - and the better the use of natural resources.

**Highlight ESG
commitment:
Reduction of
9.9% in relation
to 2020.**

(303-3) PERCENTAGE OF WATER REUSED IN THE SC PAPER – CAMPINA DA ALEGRIA UNIT



Note: Reused water is considered that which “recirculates” within a process, and may or may not be treated prior to its reuse/recirculation

(303-4) VOLUME OF EFFLUENTS GENERATED (IN MEGALITERS)

Unit	2020	2021	2022
Paper SC – Campina da Alegria	4,757.74	5,101.44	4,797.47
Paper MG- Santa Luzia	*	3.27	289.77
Packaging SC – Campina da Alegria	13.78	14.34	11.62
Packaging SP – Indaiatuba	11.87	11.53	10.78
Resin RS – Balneário Pinhal	5.32	6.51	7.04
TOTAL	4,788.71	5,137.10	5,116.68

Note: The year 2020 is not applicable to the Paper MG – Santa Luzia unit, which has a closed circuit.

Paper SC – Campina da Alegria is the Company’s largest water consumer. Therefore, this is the unit we work the hardest to achieve more efficient use solutions.

(103-2 and 303-4b) Effluents from production processes, equipment cleaning, tank drains and cooling water are treated for the removal of solid materials and stabilization of dissolved organic matter before water is returned to its source, into a freshwater course.

(303-2, 303-4, 303-5) All water bodies affected by the discharges or runoff of water from the Company’s effluent treatment come from freshwater sources and are not located in environmental protection areas. In the Bonita Vargem Units (SC), the water bodies affected by the discharges or runoff of the effluent treatment water are 22m wide and 70.2km long. The biodiversity value was not measured. However, in the previous ichthyofauna (animals living in fresh water) monitoring campaign at this locality in 2015, we identified 646 specimens divided into nine species.

(103-3) We periodically and systematically carry out analyses in our own or outside laboratories – as long as they are recognized by environmental agencies. The reports are forwarded to the regulatory agency, as required by the environmental licenses and accompanying conditions.

(103-3, 303-4d, 306-1, 306-5 and RT-CP-140) Environmental permits define the priority substances of the treated effluent and the quality of the receiving water resource, including the parameters that must be monitored. Limits are based on region-specific environmental legislation exclusive to each region. Explicit parameters also orient the monitoring of the quality of the effluent generated. We systematically conduct internal and external laboratory analyses. There were no incidents of non-compliance associated with permits, standards or water quality regulations.

Unit	Destination	Treatment Method	Legal Parameters
Paper SC – Campina da Alegria	Rio do Mato	Biological (prolonged aeration)	Conama Resolution 430/2011 and Conesema 181/2021
Paper MG- Santa Luzia	Córrego Bicas	Sanitary: Biological Industrial: Physical Chemical / Biological	Joint Normative Resolution COPAM/ CERH-MG No. 1/2008
Packaging SC – Campina da Alegria	Rio do Mato	Biological (prolonged aeration)	Conama Resolution 430/2011 and Conesema 181/2021
Packaging SP – Indaiatuba	City treatment station - ETE Mario Araldo Candello	Physical-chemical	State Decree No. 8468/1976, article 19
Resin RS – Balneário Pinhal	Fertigation	Physical-chemical	Conama Resolution 420/2009

Note: In none of the units is the effluent used by other organizations.

SPECIFIC EFFLUENT VOLUME (M³) PER TON PRODUCED

Unit	Specific volume of effluent (m ³) per gross ton produced			Specific volume of effluent (m ³) per net ton produced		
	2020	2021	2022	2020	2021	2022
Paper SC – Campina da Alegria	18.70	19.46	18.97	19.93	20.57	20.14
Paper MG- Santa Luzia	*	0.06	4.93	*	0.07	5.23
Packaging SC – Campina da Alegria	0.19	0.19	0.140	0.21	0.22	0.162
Packaging SP – Indaiatuba	0.12	0.12	0.11	0.13	0.13	0.12
Resin RS – Balneário Pinhal	0.36	0.45	0.51	0.36	0.45	0.52
Total	9.58	10.27	10.14	10.28	11.03	10.89

Note: In 2020, Paper MG used a closed circuit, with no generation of effluents.



GRI 103-1, 103-2, 103-3, 306-2, 306-3, 306-4, 306-5
SASB RT-CP-410, RT-CP-150
ISE

Waste Management

(103-1, 103-2 and 103-3) In our Strategic Map for the 2021-2030 cycle, we formalized our commitment to promoting the circular economy in the value chain. The goal is to optimize the operational and environmental efficiency of the plants. Aligned with the National Solid Waste Policy (Law 12.305/10), the company's teams constantly evaluate industrial processes, capturing opportunities to reduce consumption of materials and analyzing alternatives for inserting the waste generated into new production chains. Besides promoting the circular economy, we contribute to the generation of jobs and income in the surrounding communities.

(103-2, 103-3) Consumption of raw materials and inputs has a significant impact on operating costs, so we prioritize strict controls and periodic analyses to identify alternatives for the reuse and recycling of materials. This helps us reduce the volume of waste disposed of in licensed landfills and the associated environmental impacts. In 2022, 98% of our raw materials were sourced from renewable sources.

More information about Irani's circular economy practices is available at here 

(301-1 AND RT-CP-410) VOLUME OF RENEWABLE AND NON-RENEWABLE MATERIALS (TONS)

Unit	Total volume of materials used			Total volume of renewable materials			Total volume of non-renewable materials		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
Paper SC – Campina da Alegria	687,408	695,662.49	658,125.37	673,046	678,968,44	641,658.87	14,362	16,694,05	16,466.50
Paper MG – Santa Luzia	65,335	59,266.25	66,862,41	64,304	58,144.52	65,615.91	1,031	1,121.73	1,246.50
Packaging SC – Campina da Alegria	76,810	76,312.02	85,422.21	76,089	75,616.61	84,630.89	720	695.41	791.33
Packaging SP – Indaiatuba	101,758	105,981.61	98,860.95	101,086	105,32234	98,174.17	672	659.27	686.79
Resin RS – Balneário Pinhal	18,738	18,695,72	16,351.47	18,738	18,695.72	16,351.47	Not applicable	0.00	0.00
TOTAL	950,049	955,918,09	925,622.42	933,264	936,747.62	906,431.30	16,785	19,170.46	19,191.12

Note: Only the materials consumed in the production process are considered.

(301-1, 301-2, 301-3 AND RR-PP-430)**PERCENTAGE OF RECYCLED MATERIALS USED IN THE PROCESS**

Unit	2020	2021	2022
Paper SC – Campina da Alegria	21.60%	23.11%	22.26%
Paper MG – Santa Luzia	91.63%	90.49%	85.35%
Packaging SC – Campina da Alegria	92.88%	94.62%	95.57%
Packaging SP – Indaiatuba	89.33%	94.48%	90.16%

(301-1) SPECIFIC MATERIAL CONSUMPTION PER TON PRODUCED

Unit	Specific material consumption per gross ton produced			Specific material consumption per net ton produced		
	2020	2021	2022	2020	2021	2022
Paper SC – Campina da Alegria	2.70	2.65	2.60	2.88	2.81	2.76
Paper MG – Santa Luzia	1.13	1.13	1.14	1.20	1.20	1.21
Packaging SC – Campina da Alegria	1.03	1.03	1.03	1.17	1.19	1.19
Packaging SP – Indaiatuba	1.03	1.03	1.03	1.10	1.11	1.09
Resin RS – Balneário Pinhal	1.28	1.21	1.19	1.28	1.21	1.20

Note: Only the materials consumed in the production process are considered.

(301-1, 301-2, 301-3, RT-CP-150 AND RR-PP-430)**RECOVERED MATERIALS USED IN THE PROCESS (TONS)**

Unit	Recovered material	Total Sold	Percentage of materials recovered by the production process
Paper SC – Campina da Alegria	24,756.12	235,773/87	10.50%
Paper MG – Santa Luzia	7,884.52	53,309.09	14.79%

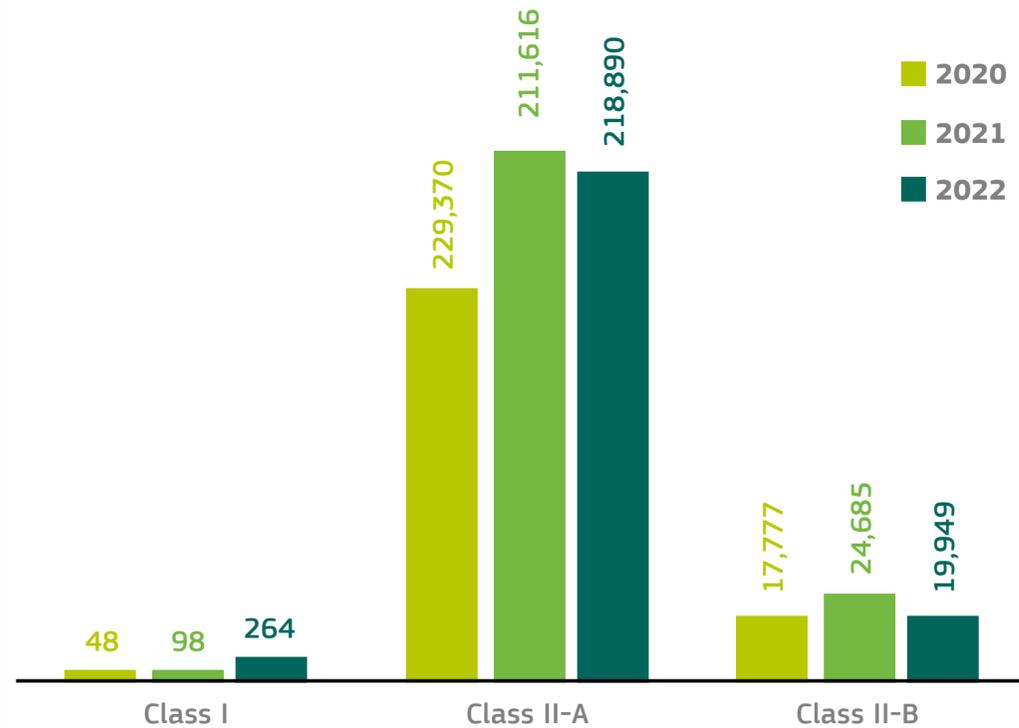
Note: we consider as recovered material a process tailings called refile, generated in the production of sheets and boxes by the packaging units. The control of the volume that returns to the industrial units for recovery is carried out by means of an invoice and stock movement from the SC Packaging unit to SC Paper, both located in Campina da Alegria and Vargem Bonita (SC).

(306-2) TOTAL WEIGHT OF WASTE (TONS)

Unit	2020	2021	2022
Paper SC – Campina da Alegria	215,880	204,548	204,891
Paper MG – Santa Luzia	7,573	7,578	8,553
Packaging SC – Campina da Alegria	10,304	10,354	11,458
Packaging SP – Indaiatuba	11,152	11,247	11,598
Resin RS – Balneário Pinhal	2,287	2,671	2,602
TOTAL	247,195	236,399	239,102

(103-2) The collection and storage of our waste complies with procedures aligned with NBR 10,004/2004, classified as Class I (hazardous), Class II-A (non-inert) and Class II-B (inert), avoiding contamination.

(306-2) TOTAL WEIGHT OF WASTE BY TYPE (TONS)



ESG Commitment:
Re-duction of 14.6%
in non-hazardous
waste sent to landfill in
relation to 2020.

(306-2, 306-4a, RT-CP-410 and RT-CP-150)

TOTAL WEIGHT OF WASTE BROKEN DOWN BY METHOD OF DISPOSAL (TONS)

Disposal Method	Non-hazardous			Hazardous		
	2020	2021	2022	2020	2021	2022
Recycling	48,408.65	35,821.39	36,705.93	15.84	16.48	11.00
Reuse	73,909.52	67,916.40	84,028.63	0.14	0.00	0.00
Incineration	0.00	0.00	0.00	2.08	2.84	0.89
Blending	0.00	201.80	3,719.81	3.65	5.20	3.95
Composting	21,148.96	26,867.53	24,328.12	0.00	0.00	0.00
Recovery	83,232.34	81,240.24	72,492.94	0.00	0.00	2.16
Landfill	20,447.53	24,185.32	17,464.54	26.51	72.52	245.01
Depressurization	0.00	0.00	0.00	0.00	0,06	0.00
External treatment	0.00	67.50	98.71	0.00	1.37	0.62
TOTAL	247,147.00	236.300,18	238,838.68	48.22	98.47	263.63

Note: the total amount of hazardous waste (263.63 tons) was transported and treated in duly licensed companies. There were no imports or exports of hazardous waste. Hence, there was no percentage of international transport. The increase in the amount of Class I waste, compared to the year 2021, is due to the cleaning of a tank in the Chemical Recovery sector, where the waste in question was characterized as hazardous, thus being sent to an external Class I landfill.

(306-4) In compliance with the current legislation, 100% of the waste recycled or destined externally is sent with a Waste Transportation Movement Document (MTR). The MTR is issued in the online control system of Environmental Institute (IMA) and the State System for Online Solid Waste Management SIGOR (CETESB), ensuring that the material is destined only for duly licensed companies.

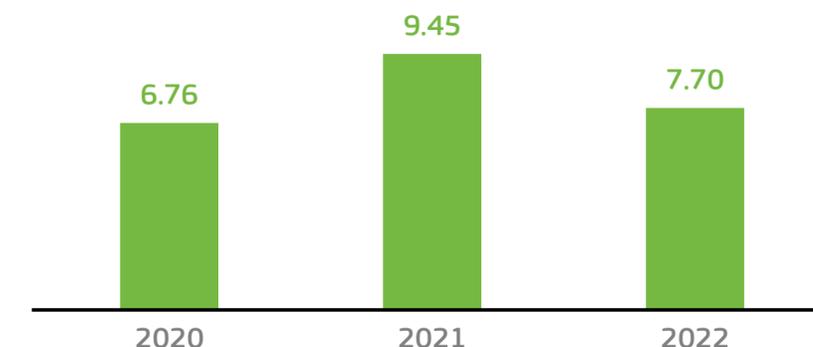
(102-12) Through the Indústria Brasileira de Árvores (IBÁ) tree industry association, we are also part of a Coalition for Business Commitment for Recycling (CEMPRE). Via CEMPRE, we have entered into a sectoral agreement for the implementation of the reverse packaging logistics system in general.

SPECIFIC VOLUME OF WASTE GENERATED PER TON PRODUCED

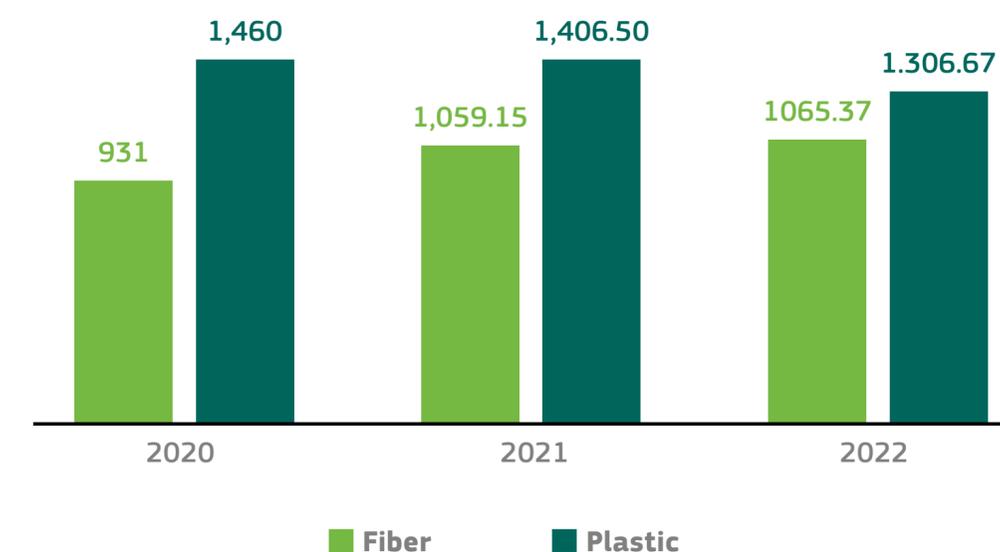
Unit	Specific volume of waste generated per gross ton produced			Specific volume of waste generated per net ton produced		
	2020	2021	2022	2020	2021	2022
Paper SC – Campina da Alegria	0.85	0.78	0.81	0.90	0.82	0.86
Paper MG – Santa Luzia	0.13	0.15	0.15	0.14	0.15	0.15
Packaging SC – Campina da Alegria	0.14	0.14	0.14	0.16	0.16	0.16
Packaging SP – Indaiatuba	0.11	0.11	0.12	0.12	0.12	0.13
Resin RS – Balneário Pinhal	0.16	0.17	0.19	0.16	0.17	0.19
TOTAL	0.49	0.47	0.47	0.53	0.50	0.51

(306-4) As the Company’s largest waste generator, Paper SC – Campina da Alegria centralizes our efforts to encounter solutions aligned with the circular economy. The initiatives extended the life of our industrial landfill by six years (2018-2023). With this, it was possible to extend the investment of approximately R\$ 3 million for the construction of a new landfill.

PERCENTAGE OF WASTE SENT TO THE LANDFILL IN THE SC PAPER UNIT – CAMPINA DA ALEGRIA



(306-2) ANNUAL RECOVERY OF PAPER FIBERS AND PLASTIC (TONS)



Note: the number of contaminants has gradually increased over time, generating a greater volume of plastic scrap. Consequently, the amount of plastic recovered also increased. Adjustments in the process and constant maintenance of the equipment used for paper pulp preparation have boosted efficiency and the use of fiber, reducing losses.

Pallet Recovery Project

Products are stored on pallets in the Packaging Unit SC until they are delivered to the customer. When possible, recycled materials are utilized. In addition, we perform reverse logistics, which includes the delivery and retrieval of palletized goods. When pallets are returned to Irani, they are inspected, repaired, and reused.

In 2022, the SC Packaging Unit used 347,895 pallets. Of these, 173,727 resulted from the practice of recovery; that is, 49.93% of the pallets used were recovered. Besides contributing to a reduction in the extraction of natural resources, this is a financially sustainable practice, because it represented a gain of R\$ 1,674,916.36.

Vitor Ferreira,
Indaiatuba unit

Climate change and air quality



GRI 103-1, 103-2, 103-3, 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7
SASB RR-PP-110, RT-CP-110, RR-PP-110, RT-CP-110 and RR-FM-450
ISE

(103-2) Irani has a positive carbon balance, that is, its areas of conserved native and planted forests capture more than enough CO₂ to offset industrial emissions. **(103-1, 103-3, 305-1.e)**. The Company also operates according to the guidelines of the GHG Protocol and the National Policy on Climate Change in scopes 1, 2 and 3. It is worth mentioning that Irani was the first Brazilian company to certify a Greenhouse Gas Inventory (GHG) according to ISO 14064:2006.

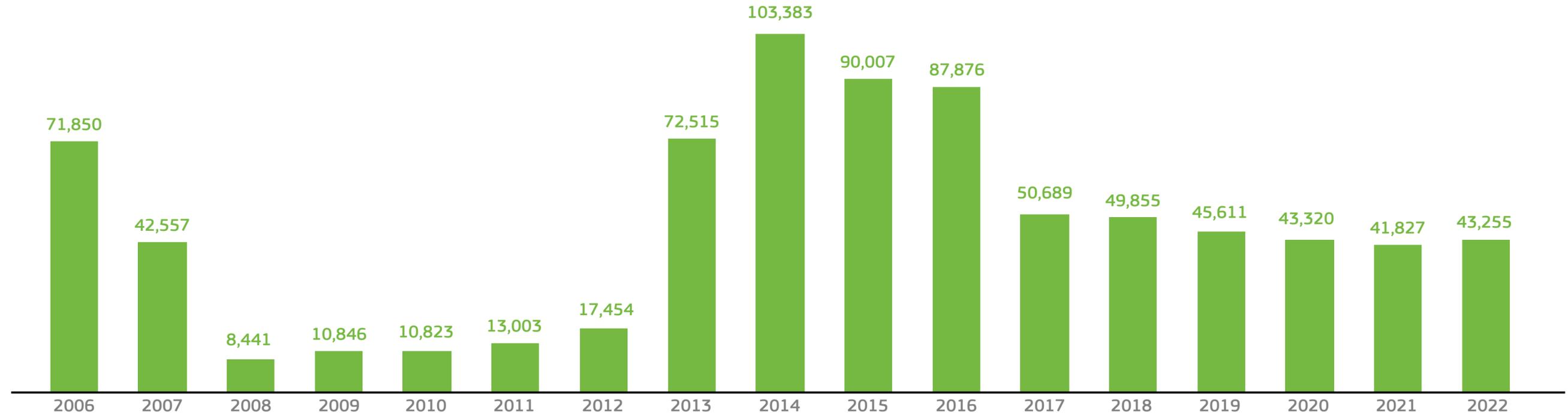
(103-2, 305-1.f and 305-2.f) The Irani Inventory identifies and quantifies the sources of greenhouse gas emissions (GHG). In this regard, the evolution of the Company in its industrial units and forestry areas, as well as in the Habitasul Florestal subsidiary, is remarkable. **(305-1b, 305-1.g, 305-2c, 305-3b)** We consider, for calculation purposes, the emissions of carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). The emissions resulting from HFCs, PFCs, SF₆, NF₃ are not considered because we do not use precursor substances of these gases in our industrial processes.

The base year used until 2013 was 2006, when we published our first inventory of greenhouse gases **(305-1d, 305-2d and 305-3d)** In 2013, due to the acquisition of Indústria de corrugated cardboard São Roberto, with two industrial units, the inventoried emissions were higher. Since then, we have managed to reduce emissions until the demobilization of the Vila Maria unit in 2019, maintaining our commitment to sustainability, process optimization and the continuous pursuit of operational efficiency.

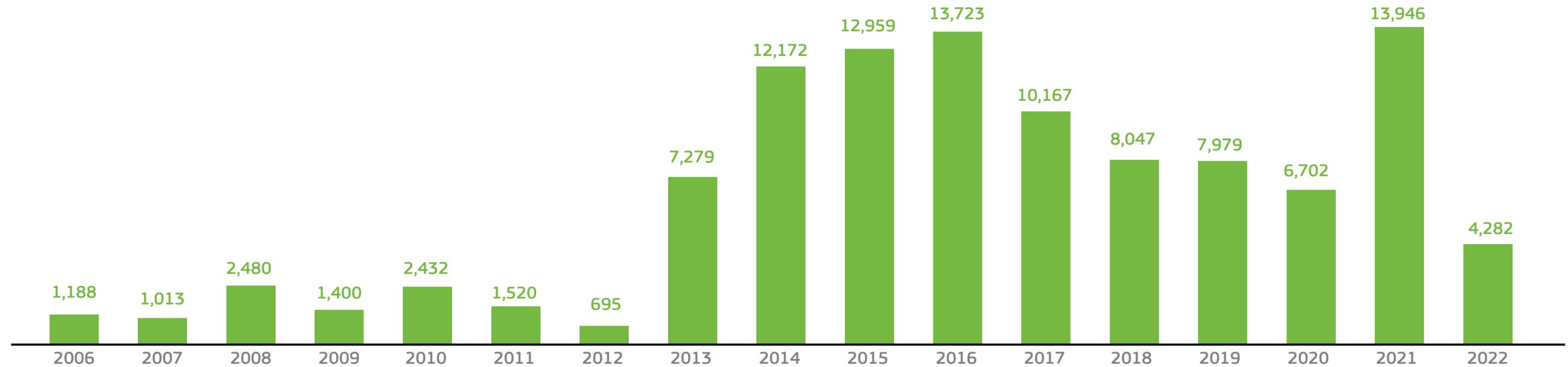


David Escalise,
Indaiatuba unit

(305-1.A, RR-PP-110 AND RT-CP-110) SCOPE 1 - DIRECT GHG EMISSIONS (IN TONS OF CO2EQ)



(305-2) SCOPE 2 - INDIRECT EMISSIONS - ENERGY (IN TONS OF CO2EQ)

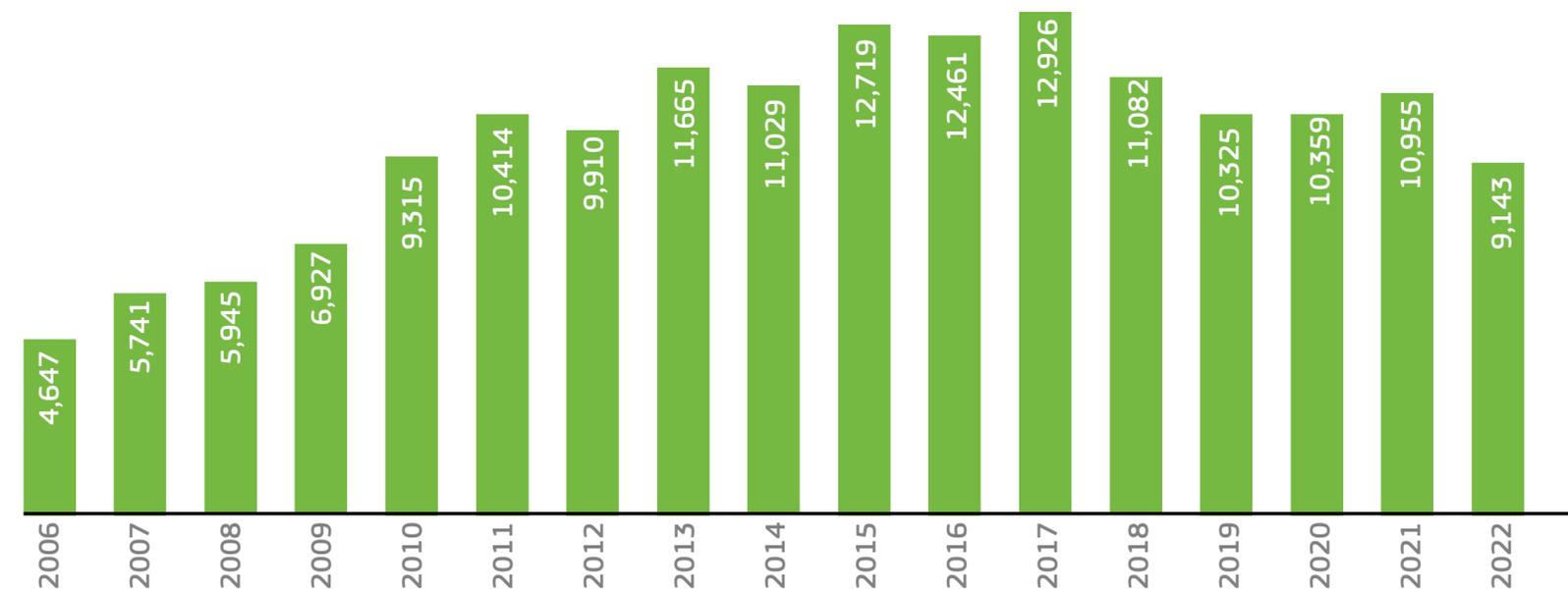


(305-2e, 305-2g) Note: the emission factors used for calculation purposes are made available by the Ministry of Science and Technology and compose the indirect emission calculation following ISO14064:2006 guidelines.

The reduction occurred because of the increase in clean energy added to the National Interconnected System (SIN), which reduced the average CO2 emission factors. Another initiative of the company in this regard was the acquisition of Renewable Energy Certificates (I-RECs) for the Packaging SP industrial unit. From this movement, we seek to contribute to the increase in the production of renewable energy in Brazil and mitigate the company's emissions related to scope 2.

(305-2 and 305-3d) Note: Scope 3 upward evolution has been observed since the base year with the number of activities in each year. Because it is a good management practice and we are dedicated to the improvement of our Inventory, we chose to include new sources, even if this scope does not require such accountability.

(305-2) SCOPE 3 SUMMARY - INDIRECT EMISSIONS - OTHER SOURCES (IN MGCO₂EQ)



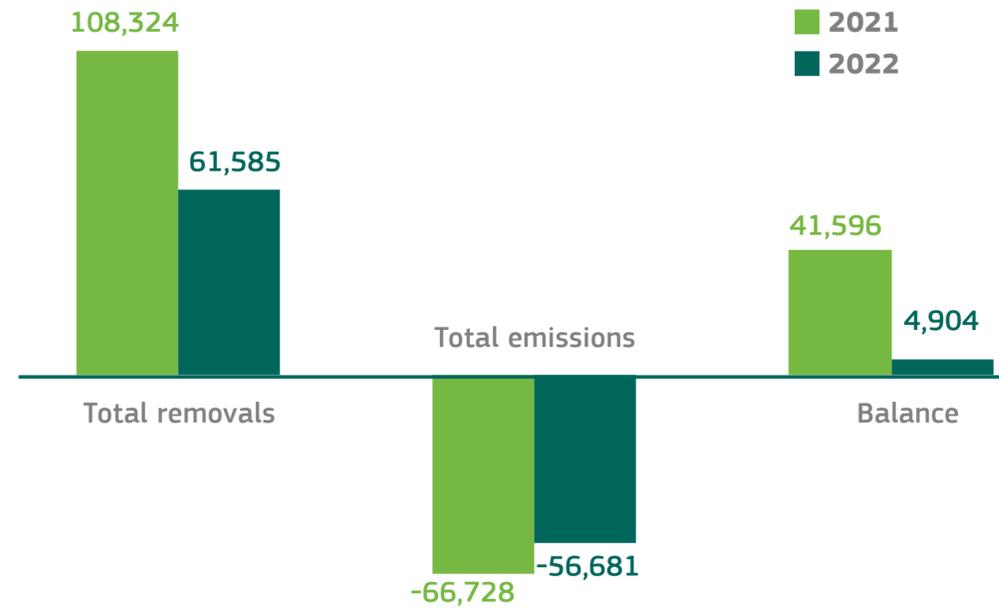
(305-3f, 305-3g) Note: the IPCC 2006 Guidelines are considered as the source of the emission factors used and the global warming potential rates, following ISO 14064:2006 guidelines.

(305-4c) DISTRIBUTION OF THE INDICES BASED ON THE OPERATING UNITS (SCOPE 1,2 AND 3)

INDUSTRIAL UNITS	Base Year: 2006			Base Year: 2013			2022		
	Net production	Emissions	Intensity	Net production	Emissions	Intensity	Net production	Emissions	Intensity
PAPER SC	172,201	64,127	0.37	203,688.04	13,262.82	0,07	238,179	24,970	0.10
PACKAGING SC	30,998	4,454	0.14	63,811.65	1,570.42	0,02	71,944	2,289	0.03
PACKAGING SP	47,859	4,725	0.10	73,243.72	5,798.40	0,08	84,508	4,957	0.06
RESIN RS	5,467	550	0.10	7,911.32	14,126.47	1,79	13,657	532	0.04
PAPER MG	-	-	-	42,910.15	15,231.41	0,35	55,377	16,986	0.31

(305-4.a) Note: intensity reports the specific per unit, i.e., the emission divided by the gross output causes the intensity indicated for each operational unit.

**TOTAL EMISSIONS, REMOVALS AND BALANCE
(IN TONS OF CO2EQ)**



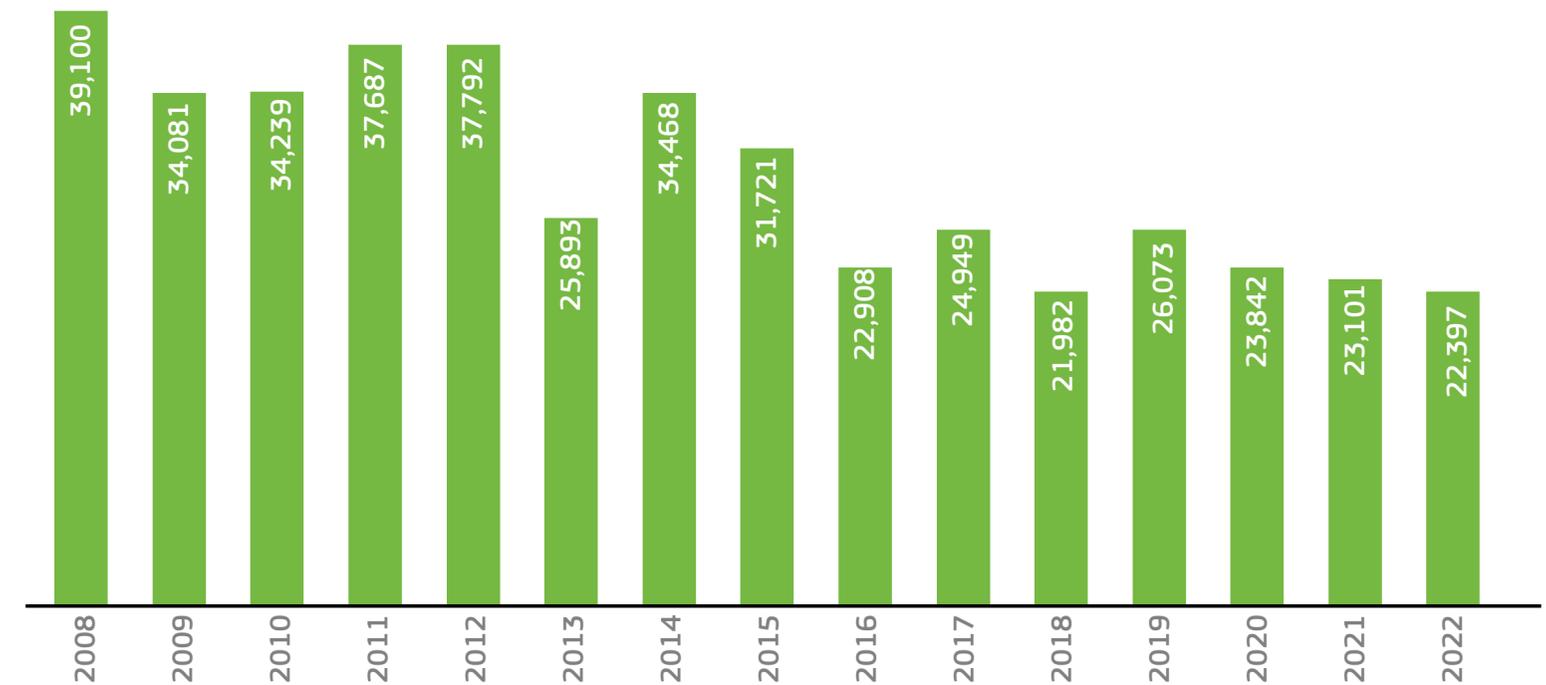
**(305-1C AND 305-3C) EMISSIONS FROM BIOGENIC SOURCES
(IN TONS OF CO2EQ))**

Biogenic Sources	
Activity	GHG (Mg CO2)
Biodiesel and Gasoline - Scope 1	239.26
Ethanol - Scope 1	7.80
Biodiesel and Gasoline - Scope 3	1,187.08
Black Liquor - Scope 1	215,003.81
Biomass- Scope 1	673,842.45
Industrial Effluent - Scope 01	4,316.18
Total:	894,596.58

**Clean Development Mechanism (CDM)
for the Effluent Treatment Station**

Approved by the CDM (Clean Development Mechanism) Executive Council in 2008, this mechanism became the first in the world to be fully aerobic. The initiative covers the modernization of the treatment system, replacing anaerobic degradation (without oxygen) with aerobic degradation (with oxygen) of organic matter. This avoids the emission of methane, a greenhouse gas (GHG) that causes global warming. Between 2008 and 2020, the project avoided the emission of 394,736 tons of GHG.

**(305-5) CERTIFIED REDUCTIONS IN EMISSIONS FROM THE EFFLUENT TREATMENT STATION
AT THE PAPER UNIT SC - CAMPINA DA ALEGRIA (IN TONS OF CO2EQ)**



Total of 440,234 CER's

**Total of
1,192,131
CER's**

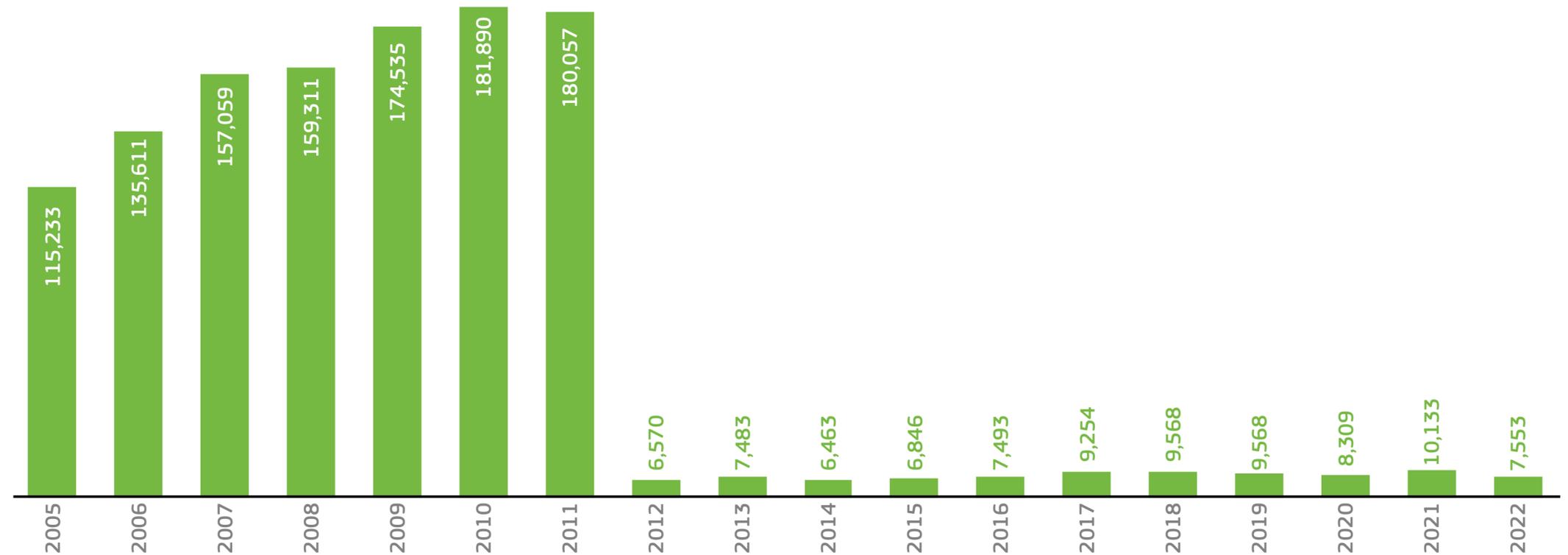
CDM Co-generation Plant

With this CDM, Irani was the first Brazilian pulp and paper company and the second in the world to have carbon credits issued under the Kyoto Protocol.

The co-generation boiler reduces greenhouse gas emissions such as methane and carbon dioxide by using forest-based waste biomass

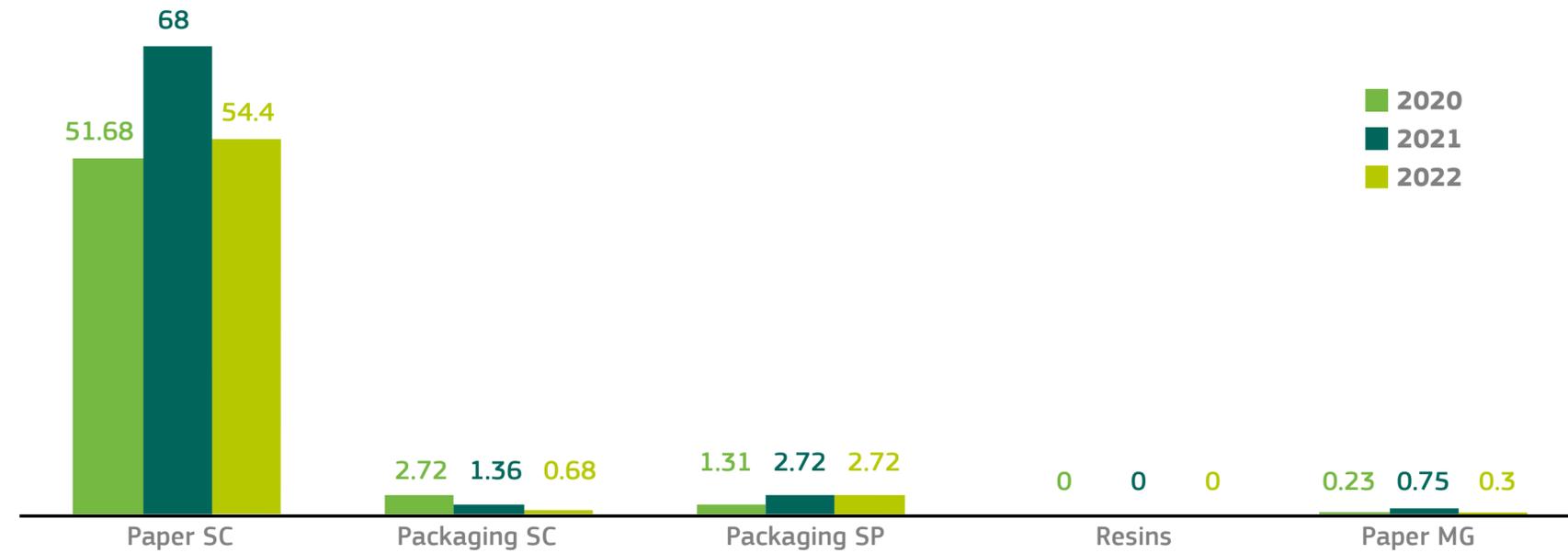
as inputs for the burning process. The CDM of the Co-generation Plant reuses these residues to avoid the process of decomposition in landfills, which leads to GHG emissions. In 2022, the boiler generated 58,696 MW of renewable energy from forest waste. Between 2005 and 2022, the project avoided the emission of 1,192,132 tons of greenhouse gases.

(305-5) CERTIFIED REDUCTIONS IN EMISSIONS FROM THE ENERGY CO-GENERATION BOILER AT THE PAPER UNIT SC – CAMPINA DA ALEGRIA (IN TONS OF CO2EQ)



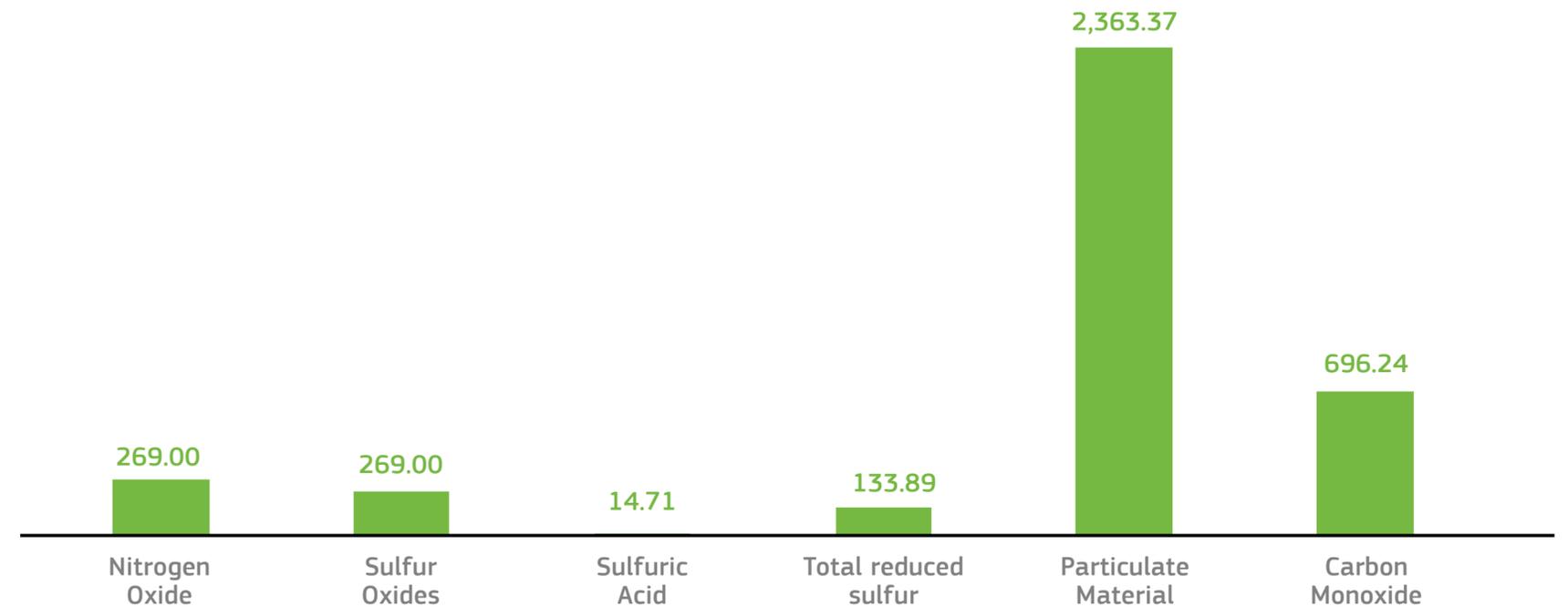
Note: As of 2012 the project was revalidated at the UN under a new methodology that reduced the certified emission removals (CERs).

(305-6) EMISSIONS OF OZONE-DEPLETING SUBSTANCES (IN TONS OF CO2EQ) KILOGRAMS OF CFF-11EQ



Note: the calculation can be done directly. Both the CML-IA and ReCiPe methods use the CFC-11 equivalent substance as an ozone depletion impact indicator. Both methods present the characterization factor as 0.05 kg of CFC-11 eq for each kg of HCFC-22. We did not adopt the formula indicated by the GRI because we do not produce, import or export ozone depleting substances. The data presented refer to emissions from the use of air-conditioning refrigeration gas.

(305-7, RR-PP-120 AND RT-CP-120) ATMOSPHERIC EMISSIONS (IN TONS/YEAR)



Task Force on Climate-Related Financial Disclosures (TCFD) and the Carbon Disclosure Project (CDP)

The TCFD is a global coalition of 32 members of the G20 community from various sectors of the economy, headed up by the Financial Stability Board (FSB).

The goal is to encourage organizations to understand the physical liability and transition climate risks to which they are exposed. In addition, TCFD proposes voluntary and consistent climate-related financial disclosures to ensure greater transparency for lenders, insurers and investors in order to make better business decisions.

For its part, the Carbon Disclosure Project (CDP) is a non-profit organization set up to create a relationship between shareholders and companies focused on business opportunities arising from global warming.

In 2022, we sought the support of an outside consulting firm to broaden discussions on the topic. We compiled the actions that had already been developed and mapped opportunities related to the CDP Climate Questionnaire. Thus, it was possible to improve the CDP score. In 2022, we exceeded the F rating (recorded in 2021) and achieved a B rating. The goal for 2023 is to implement

the opportunities mapped out and raise the CDP ranking. The expectation is to attain an even better position in relation to the issue and to upgrade the Company's level of governance.

Climate Change Committee

We participated in the Climate Change Committee of the Brazilian Tree Industry (IBÁ) and used the preliminary analyses to prepare the Strategic Plan for the 2021/2030 cycle, which is starting to be put into practice together with the Gaia Platform.

Target and Metrics

We have set emission reduction and carbon credit generation goals for the 2021-2030 at 20%. The metrics for quantifying greenhouse gas emissions are based on international standards developed by the International Organization for Standardization (ISO 14.064) and the World Resources Institute (WRI). They contemplate all Direct Emissions (Scope 1) and Indirect Emissions by Energy Consumption (Scope 2), in addition to Indirect Emissions by other Sources (Scope 3). For the Clean Development Mechanism (CDM) projects, we followed the methodologies of the United Nations Framework Convention on Climate Change, also known as UNFCCC. The financial metrics will be prepared for the next 2021/2030 Strategic Planning cycle.



Natural Capital **Opportunities and future commitments**

Reduce specific water use by 30% by 2030.

Zero delivery of non-hazardous waste to landfill by 2030.

Generate 273,000 certified carbon credits in the 2020-2030 period.

Reduce specific waste generation by 5% by 2030.

Increase the balance of the difference between GHG emissions and removals by 20% by 2030.

To be ISO 14001 certified in all business units by 2030.



About the Report

Ana Paula Santos e
Juliana Amorim, Porto
Alegre office

About the Report

Irani's Integrated Report presents not only our way of doing business, but also our results from the last fiscal year. Likewise, we speak of future challenges and commitments. The subject matter covers the period from January 1 to December 31, 2022 in all units of Irani Papel e Embalagens S.A. and subsidiaries. Fully transparent, we demonstrate how our sustainability strategy unfolds into practices that reinforce our mission of building valuable relationships with clients, employees, surrounding communities, suppliers, shareholders, governments, investors, business partners and society.

A dedicated team of technicians worked on the preparation of the publication. The content offers a balanced and appropriate presentation of the material issues, and makes explicit our ability to create value. This publication was reviewed and approved by the Board of Directors, based on the guidelines of the Accounting Pronouncements Committee CPC No. 09 and the IFRS Foundation's Integrated Reporting framework, and recognizes the responsibility to ensure the integrity, completeness and systemic vision of the information contained herein.

All relevant materiality information has been disclosed, while omissions can be found in the GRI summary.



Integrated Report

This report follows the Integrated Reporting guidelines observing the International Framework (IR) technical guidelines, considering the six capitals:

- Financial Capital
- Social and Relationship Capital
- Human Capital
- Intellectual Capital
- Manufacturing Capital
- Natural Capital



Global Reporting Initiative (GRI)

This report presents the main SDGs impacted by our businesses and how they relate to our priority strategies.

SUSTAINABLE DEVELOPMENT GOALS



Sustainable Development Goals (SDGs)

This report presents the main SDGs impacted by our businesses and how they relate to our priority strategies.



SASB

Built to SASB industry standards with accounting metrics in compliance with standards:

- SASB Application Guide
- RR-PP - Pulp and Paper Products
- RR-FM - Forest Management
- RT-CP - Containers and Packaging

Definition of the material topics

In 2022, we reviewed the material topics covered by this publication under the guidance of the Sustainability area and with the approval of the Executive Board. We sought to verify if the management practices adopted were aligned with the material topics listed by the stakeholders (see more on page 17) and, thus, contribute to improvements in organizational management.

Initially, we ascertained the stakeholders and the internal and external materials available for consultation that could provide us with significant information from the point of view of their expectations and influence.

Among the materials consulted, the following stand out: Strategic Plan for the 2021-2030 cycle; Socio-environmental impact assessment in the surrounding communities in SC and RS 2022; GPTW Climate Survey 2022; Customer Satisfaction Survey 2022; Humanized Survey 2021, Survey with Startups 2022; Risk Matrix; UN SDG; commitments related to the pacts to which we are signatories; ISE B3, CDP, TCFD, SABS questionnaires; FNQ MEG assessment; and annual reports of companies in the sector.

From the set of information internally and externally assessed, 36 topics emerged that were arranged in a matrix. From it, it was possible to extract the set of most relevant topics, considering internal and external stakeholders, which were filtered by the recurrence of the theme in the materials evaluated. Finally, the Executive Board validated, in an ordinary meeting, a series of material topics, pointing out situations and areas in which we are agents that cause impacts or contribute to their occurrence.

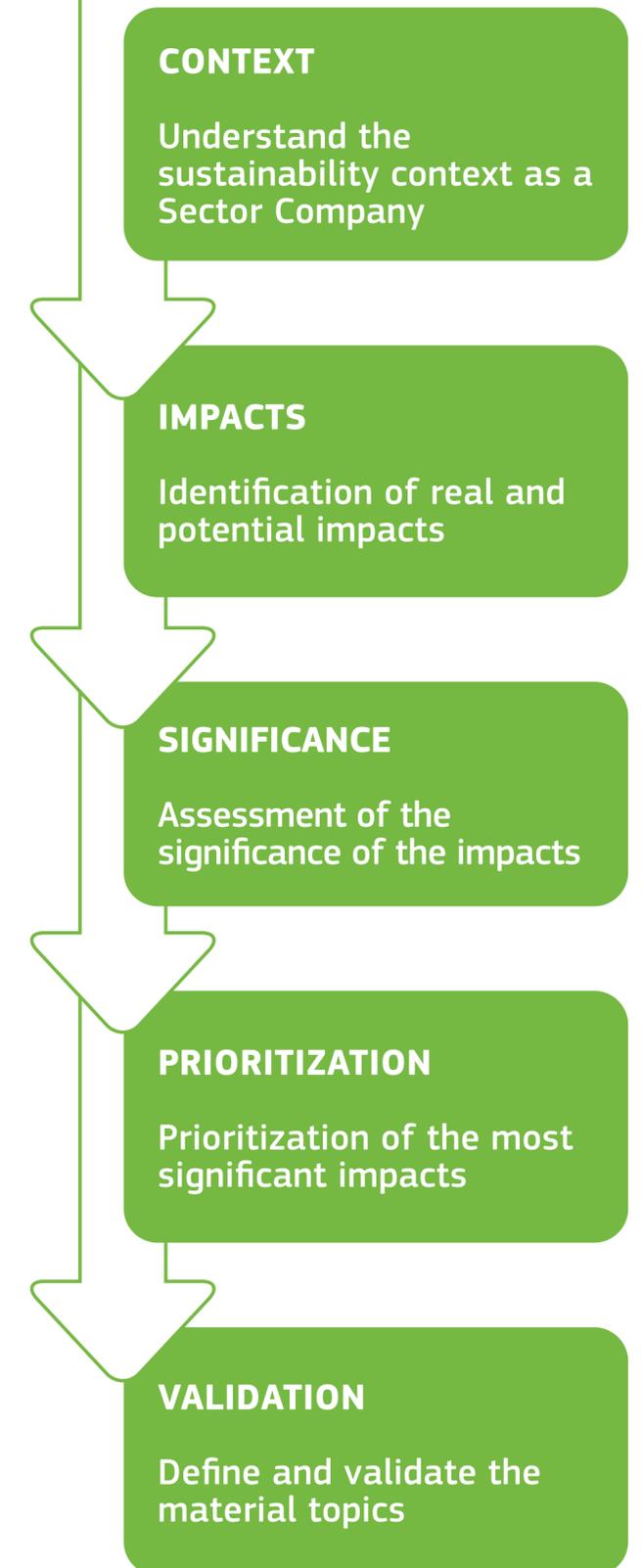
The following are the material topics:

Prioritization



Legend

- 1 Water and effluents
- 5 stakeholder relations
- 9 Economic Performance
- 10 Personnel Development
- 12 Diversity and Inclusion
- 13 Energy
- 18 Product Management
- 19 Waste Management
- 24 Governance
- 26 Innovation
- 27 Integrity
- 29 Climate Change
- 37 Health and Safety
- 2 Biodiversity
- 16 Market Management
- 22 Forest Management
- 39 Data Safety



Analysis of adherence to international guidelines and standards:

Capital	Stakeholder	Material topic	SDG	GRI	SASB	ISE	CDP	MEG
Social and Relationship	All	Governance	✓	✓		✓	✓	✓
		Integrity	✓	✓		✓		✓
		Stakeholder Relations	✓	✓		✓	✓	✓
Financeiro	Investors	Economic Performance	✓	✓		✓	✓	
Humano	Employees and the Community	Diversity and Inclusion	✓	✓		✓		✓
		Personnel Development	✓	✓		✓		✓
		Health and Safety	✓	✓		✓		✓
Intellectual	Investors, Employees, Customers and Business Partners	Innovation	✓	✓				✓
		Data Safety				✓		✓
Manufacturing	Investors, Customers, Employees, Community, Suppliers, Governments, and Society	Forest Management	✓	✓				✓
		Product and Market Management	✓	✓	✓	✓		✓
		Energy	✓	✓	✓	✓	✓	✓
Natural	Investors, Employees, Community, Governments	Biodiversity	✓	✓	✓			✓
		Water and effluents	✓	✓	✓	✓		✓
		Waste Management	✓	✓	✓	✓	✓	✓
		Climate Change and Air Quality	✓	✓	✓	✓	✓	✓

(102-55) Summary of the GRI Standards content

General Disclosures

Organization profile

GRI	Disclosure	Page	Answer/Omission
102-1	Name of the organization	8	Irani Papel e Embalagem S.A.
102-2	Activities, brands, products and services	8, 9, 116, 120, 122, 124	Kraft paper, corrugated cartonboard sheets and boxes, and resins.
102-3	Location of the headquarters	9	Office RS – Porto Alegre Avenida Carlos Gomes , 157 5 th floor, Porto Alegre (RS) Zip Code 90010-030
102-4	Location of the operations	10	Exclusively Brazilian Operation with offices in Joaçaba (SC) and Porto Alegre (RS) and industrial units in Vargem Bonita (SC), Indaiatuba (SP), Santa Luzia (MG) and Balneário Pinhal (RS)
102-5	Ownership and legal form		Publicly-held corporation, since 1977
102-6	Markets served	47, 50	Domestic and international.
102-7	Size of the organization	62, 80, 84, 119, 120, 122, 124	
102-8	Information on employees and other workers	80, 81, 83, 86	102-8. d does not apply.
102-9	Supply chain	47	Critical suppliers make up the five purchasing groups presented in the Report. The details are treated separately, according to the description of each group on the pages.
102-10	Significant changes to the organization and its supply chain	47	
102-11	Precautionary principle or approach	47, 133	
102-12	External initiatives	55, 134, 148	
102-13	Participation in associations	35, 51, 134	

Strategy

GRI	Disclosure	Page	Answer/Omission
102-14	Statement of the Chief Executive Officer	3	
102-15	Key impacts, risks and opportunities	15, 44, 45, 46	

Ethics and Integrity

GRI	Disclosure	Page	Answer/Omission
102-16	Values, principles, norms and standards of conduct	13, 40	
102-17	Mechanisms for ethics guidance and concerns	40	

Governance

GRI	Disclosure	Page	Answer/Omission
102-18	Governance structure	28, 29, 30, 32, 34	
102-19	Delegating authority	28, 32, 34	
102-20	Responsibility at executive level for economic, environmental and social topics	28, 32, 34	
102-21	Stakeholders consulted on economic, environmental and social topics	28, 35	<p>We do not have a formalized consultation process between stakeholders and the highest governance body.</p> <p>The Board of Executive Officers is the only body that performs executive functions. There are representatives of shareholders and the controlling family group of Irani on the Board of Directors.</p> <p>Advisory committees are non-statutory bodies. Social minorities do not have representatives in the highest governance body</p> <p>Of the total number of chairs that make up the Board of Directors, Board of Officers and its committees:</p>
102-22	Composition of the highest governance body and its committees	28, 30, 32, 34	<p>87.5% men 12.5% women</p> <p>Age Bracket: 50% over 60 years old 50% under 60 years old</p> <p>Permanence of the members of the Board of Directors, the Board of Officers and its committees: 58.33% up to 5 years 41.67% more than 5 years</p>
102-23	Chairmanship of the highest governance body	28, 32	

102-24	Appointment and selection of the highest governance body	28, 30	The Company's Board of Directors will be composed of at least five (5) and at most nine (9) members, elected and removable by the General Meeting, with a unified term of office of two (2) years, reelection being permitted. Of these, at least two (2) members or twenty percent (20%), whichever is greater, must be Independent Members, as defined in the New Market Regulation. The characterization of the nominees to the Board of Directors as Independent Directors must be deliberated at the General Meeting that elects them, and the member(s) of the Board of Directors elected by means of the option provided for in Article 141, paragraphs 4 and 5 of Law 6,404/76 and in Article 17, paragraph 3 of the New Market Regulation, in the event there is a controlling shareholder, shall also be considered independent.
102-25	Conflicts of interest	28, 30, 40	Our definition of conflict of interest is set out in the glossary of the Integrity Program, available to all stakeholders on the Company's website, and the types of conflict of interest are listed in the guidelines of each policy: Relationship with Public Sector, Associations and Labor Unions - item 1.2 Relationship with Suppliers - item 2.3 and 2.7 Relationship with Clients - item 3.2 Donations and Sponsorships - item 4.3, 4.5, 4.6 Hospitality, Gifts and Gifts - item 5.2, 5.3 Accounting Records - item 6.2, 6.3 Mergers, Acquisitions and Corporate Restructuring - item 7.2
102-26	Role of the highest governance body in establishing purpose, values and strategy	13, 28	
102-27	Collective knowledge of the highest governance body	28, 35	
102-28	Performance evaluation of the highest governance body	28	The performance of the Board of Directors is evaluated annually internally by the chairman of the Board of Directors. With the aim of improving the effectiveness of the Board of Directors, its chairman forwards an evaluation questionnaire to the other members of the Board, who answer it individually and confidentially. After receiving the evaluation questionnaires, the chairman of the Board tabulates the evaluations and identifies opportunities for improvement for implementation
102-29	Identification and management of economic, environmental and social impacts	28, 32, 34, 45	The Executive Board is responsible for monitoring and validating the discussions and definitions related to risk management.
102-30	Effectiveness of the risk management processes	28, 32, 34, 45, 46	The Board of Officers is the body responsible for assessing the effectiveness of risk management.
102-31	Review of economic, environmental and social topics	28, 32, 34	The Sustainability Committee is responsible for reviewing the economic and socio-environmental topics linked to the business.
102-32	Role of the highest governance body in sustainability reporting	28	The Sustainability Committee is responsible for approving the content of this Report.

102-33	Communication of critical issues	28	Supported by the Executive Board, the Chief Executive Officer is responsible for reporting business-critical topics to the Board of Directors during monthly meetings.
102-34	Type and total number of critical issues	28	The reporting of critical concerns to the Board of Directors is inherent to the function of the Board of Officers and occurs, when necessary, at the monthly meeting.
102-35	Compensation policies	28, 36, 37	
102-36	Process for determining compensation	36, 37, 86	The Company seeks a competitive remuneration practice in the market in which it operates, paying fixed wages compatible with the market average and seeking differentiation through more aggressive variable compensation programs. Fixed salaries are established based on regularly updated surveys and corrected by collective bargaining indices. Fixed wage evolution is based on growth within the Company's structure; that is, by promotion, always based on the employee's current and potential performance. Variable compensation is partially based on the Company's results and partly on the individual performance of each employee, evaluated by a specific performance management program.
102-37	Involvement of stakeholders in compensation	28, 86	We do not consult stakeholders regarding the compensation strategy. We rely on outside consultants to conduct the process of evaluating positions and market salary research, who generate information to base the decision-making of the Board of Officers regarding the Company's compensation strategy.
102-38	Ratio of total annual compensation	28, 84	
102-39	Percentage increase in annual total compensation ratio	28, 84	

Stakeholder involvement

GRI	Disclosure	Page	Answer/Omission
102-40	Stakeholder groups list	47	
102-41	Collective bargaining agreements	81, 134	
102-42	Stakeholder identification and selection	47	
102-43	Approach to stakeholder engagement	49, 90, 133	The approach foreseen in this indicator is intrinsic throughout the description of our way of managing each material topic.
102-44	Key topics and concerns raised	40, 49, 90	Our leaders are responsible for managing the key topics and concerns of their direct stakeholder audiences.

Reporting practices

GRI	Disclosure	Page	Answer/Omission
102-45	Entities included in the consolidated financial statements	11	
102-46	Definition of report content and boundaries	160	
102-47	List of material topics	161	
102-48	Restatement of information		Indicated in the form of an explanatory note, when applicable.
102-49	Changes in reporting		There were none
102-50	Reporting period		January 1, 2022 to December 31, 2022.
102-51	Date of the most recent report		June 2022
102-52	Reporting cycle		Annual
102-53	Contact point for questions regarding the report	175	https://irani.com.br/en/action-ideas/contact/
102-54	Claims of reporting in accordance with the GRI Standards	159	
102-55	GRI Content Index	163	
102-56	External assurance	176	

Material Topics

Economic performance

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	61	
	103-2 The management approach and its components	61	
	103-3 Evaluation of the management approach	61	
GRI 201: Economic performance 2016	201-2 Financial implications and other risks and opportunities due to climate change		A study on the impact of climate change on our business is planned for the next strategic planning review 2021/2030.
	201-3 Defined benefit plan obligations and other retirement plans		Irani does not have pension plans for employees.
	201-4 Financial assistance received from government		None

Purchasing practices

GRI	Disclosure	Page	Answer/Omission
GRI 204:Purchasing practices 2016	103-1 Explanation of the material topic and its boundary	54	
	103-2 The management approach and its components	54	The Company also studies the improvement of practices to meet this indicator.
	103-3 Evaluation of the management approach	54	
GRI 204: Purchasing practices 2016	103-1 Explanation of the material topic and its boundary	56	

Materials

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	122	
	103-2 Management approach and its components	122	
	103-3 Evaluation of the management approach	122	
GRI 301: Materials 2016	301-1 Materials used by weight or volume	122, 145, 146	
	301-2 Recycled input materials used	122, 146	
	301-3 Reclaimed products and their packaging materials	122, 146	

Energy

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	127	
	103-2 Management approach and its components	127	
	103-3 Evaluation of the management approach	127	
GRI 302: Energy 2016	302-1 Organization's internal energy consumption	127, 128, 129, 130	We do not sell electricity, heating, cooling or steam.
	302-2 Energy consumption outside the organization	127, 128, 130	
	302-3 Energy intensity	127, 128	
	302-4 Reducing power consumption	122	
	302-5 Reduction in energy requirements of products and services		Not applicable to our businesses

Water and effluents

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	141	
	103-2 Management approach and its components	141	
	103-3 Evaluation of the management approach	141	
GRI 303: Water and effluents 2018	303-1 Interactions with water as a shared resource	141	
	303-2 Impact management related to water discharge	141, 143	
	303-3 Water withdrawal	141, 142, 143	
	303-4 Water discharge	141, 143, 144	
	303-5: Water consumption	141, 143	

Biodiversity

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	113, 134	
	103-2 Management approach and its components	113, 134	
	103-3 Evaluation of the management approach	133, 134, 139	
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	113, 138, 139	
	304-2 Significant impacts of activities, products and services on biodiversity	113, 116, 138, 139	
	304-3 Habitats protected or restored	113, 134, 137, 138, 139	
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	113, 139	

Emissions

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	150	
	103-2 Management approach and its components	150	
	103-3 Evaluation of the management approach	150	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	150, 151, 153	
	305-2 Indirect (Scope 2) GHG emissions	150, 151, 153	
	305-3 Other indirect (Scope 3) GHG emissions	150, 152, 153	
	305-4 GHG emissions intensity	150, 152	
	305-5 Reduction of GHG emissions	150, 153, 154	
	305-6 Emissions of substances that destroy the ozone layer	150, 155	
	305-7 Nitrogen oxides (NOX), sulfur oxides (SOX) and other significant air emissions	150, 157	

Effluents and waste

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	141, 145	
	103-2 Management approach and its components	141, 145	
	103-3 Evaluation of the management approach	141, 145	
GRI 306: Effluents and waste 2016	306-1 Total water discharge by quality and destination	144	
	306-2 Waste by type and disposal method	145, 147, 148	
	306-3 Significant spills	133, 145	
	306-4 Transport of hazardous waste	145, 147, 148	
	306-5 Water bodies affected by water discharges and/or runoff	144, 145	

Supplier environmental assessment

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	54	
	103-2 Management approach and its components	54	
	103-3 Evaluation of the management approach	54	
GRI 308: Evaluation Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria		The monitoring performed does not include the percentage of total new suppliers. We evaluated the possibility of presenting this information in the next reporting cycles.
	308-2 Negative environmental impacts in the supply chain and actions taken	57	The Company evaluates the possibility of making the information available in the next reports.

Employment

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	76, 86, 94	
	103-2 Management approach and its components	76, 86, 94	
	103-3 Evaluation of the management approach	76, 86, 94	
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	82, 83	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	84	All Irani industrial units and offices are considered important operating units. We don't have a retirement fund. In case of disability, the life insurance carrier analyzes cases of workplace accidents and may indemnify the employee if the complete documentation is properly presented and approved.
	401-3 Parental leave	85	

Occupational health and safety

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	94	
	103-2 Management approach and its components	94	
	103-3 Evaluation of the management approach	94	
GRI 403: Occupational health and safety 2018	403-1 Occupational health and safety management system	94, 95, 98	
	403-2 Hazard identification, risk assessment and incident investigation	94, 95, 98	
	403-3 Occupational health services	94, 95, 99	
	403-4 Worker participation, consultation and communication on occupational health and safety	94, 97, 99	
	403-5 Training of workers in occupational safety and health	94, 99	
	403-6: Promotion of worker health	94, 96	
	403-7 Prevention and mitigation of occupational health and safety and impacts directly linked by commercial relations	94	The Company assesses the possibility of improving management practices and reporting this indicator in the next reporting cycle.
	403-8 Workers covered by an occupational health and safety management system	94, 95, 98, 99	
	403-9 Work-related Injuries	94, 98	
	403-10 Work-related health problems	94	

Training and education

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	86	
	103-2 Management approach and its components	76, 86	
	103-3 Evaluation of the management approach	86	
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee	86, 88	
	404-2 Programs for updating employee skills and career transition assistance programs		We do not have end-of-career management programs.
	404-3 Percentage of employees receiving regular performance and career development reviews	86, 93	

Diversity and equal opportunity

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	76, 86	
	103-2 Management approach and its components	76, 86	
	103-3 Evaluation of the management approach	76, 86	
GRI 404: Training and education 2016	405-1 Diversity of governance bodies and employees	76, 80, 81	The Board of Directors is composed of 5 men over the age of 50. Of these, 40% belong to the family group of the Company's founders and 60% are specialists without family connections.
	405-2 Proportion of basic salary and remuneration for women and men	76, 84	

Local communities

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	52	
	103-2 Management approach and its components	52	
	103-3 Evaluation of the management approach	52	
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	52, 53, 134	
	413-2 Operations with significant actual and potential negative impacts on local communities	52, 53, 134	

Supplier Social Evaluation

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	54	
	103-2 Management approach and its components	54	
	103-3 Evaluation of the management approach	54	
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria		Information on actual and potential significant social impacts as well as the percentage of suppliers assessed is not available for reporting. The Company is evaluating making the disclosure in the next reporting cycle.
	414-2 Negative social impacts in the supply chain and actions taken		Information on actual and potential significant social impacts as well as the percentage of new suppliers assessed is not available for reporting purposes.
	414-3 Operations with significant actual and potential negative impacts on local communities		Information on actual and potential significant social impacts as well as the percentage of new suppliers assessed is not available for reporting purposes.

Consumer Health and Safety

GRI	Disclosure	Page	Answer/Omission
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	47, 122	
	103-2 Management approach and its components	47, 122	
	103-3 Evaluation of the management approach	47, 122	
GRI 416: Consumer Health and Safety 2016	416-1 Assessment of health and safety impacts of products and services.	47, 122, 125, 133	
	416-2 Incidents of non-compliance related to health and safety impacts of products and services.	47, 122	There were none.



Bruno Hickel, Aline Merola e Anete Zacher, Porto Alegre office

Credits

Chairman of the Board of Directors

Péricles Pereira Druck

Chief Executive Officer

Sérgio Luiz Cotrim Ribas

Administration, Finance and Investor Relations Officer

Odivan Carlos Cargnin

People, Strategy and Administration Officer

Fabiano Alves Oliveira

Packaging Business and Forestry Division

Lindomar Lima de Souza

Paper and Forestry Business Division

Henrique Zugman

General Coordination, Consolidation and Content Review

Health, Safety, Quality and Sustainability Department

(102-53) If you have any questions about the content of this report, please contact us through the contact channel available on our website, at here



Independent verification

KPMG Assessores Ltda.

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Independent auditors' limited assurance report on non-financial information included in the Integrated Reporting

(A free translation of the original report in Portuguese, containing the Assurance Report).

To the Board of Directors and Shareholders
Irani Papel e Embalagem S.A
São Paulo - SP

Introduction

We have been engaged by Irani Papel e Embalagem S.A ("Company") to present our limited assurance report on the non-financial information included in the "Integrated Reporting 2022" of Irani Papel e Embalagem S.A, for the year ended December 31, 2022.

Our limited assurance does not extend to prior period information or to any other information disclosed in conjunction with the Integrated Report, including any embedded images, audio files or videos.

Responsibilities of Irani Papel e Embalagem S.A's management

The management of Irani Papel e Embalagem S.A is responsible for:

- select and establish appropriate criteria for the elaboration of the information contained in the Integrated Report;
- prepare the information in accordance with the CPC 09 Guidance - Integrated Reporting, correlated with the Basic Conceptual Framework of Integrated Reporting, prepared by the International Integrated Reporting Council (IIRC);
- design, implement, and maintain internal control over information relevant to the preparation of Integrated Reporting that is free from material misstatement, whether due to fraud or error.



Responsibility of the independent auditors

Our responsibility is to express a conclusion on the non-financial information included in the Integrated Reporting 2022, based on the limited assurance engagement conducted in accordance with Technical Communication CTO 07/2022 issued by the CFC, and based on NBC TO 3000 - Assurance Engagements other than Audits and Reviews, also issued by the CFC, which is equivalent to international standard ISAE 3000 - Assurance engagements other than audits or reviews of historical financial information, issued by the International Auditing and Assurance Standards Board (IAASB). These standards require compliance by the auditor with ethical requirements, independence, and other responsibilities relating to it, including the application of the Brazilian Quality Control Standard (NBC PA 01) and, therefore, the maintenance of a comprehensive quality control system, including documented policies and procedures on compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

Additionally, the standards require that the work be planned and performed with the objective of obtaining limited assurance that the non-financial information in the Integrated Reporting 2022, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with NBC TO 3000 (ISAE 3000) mainly consists of inquiries to Irani Papel e Embalagem S.A's management and other Irani Papel e Embalagem S.A's professionals who are involved in the preparation of information, as well as the application of analytical procedures to obtain evidence that enables us to conclude, in a limited assurance manner, on the information taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that lead him to believe that the information disclosed in the Integrated Report, taken as a whole, may present material misstatements.

The procedures selected were based on our understanding of the aspects relating to the compilation, materiality and presentation of the information contained in the Integrated Reporting 2022, other circumstances of the engagement and our consideration of areas and the processes associated with the material information disclosed in the Integrated Reporting 2022 where material misstatements could exist. The procedures comprised, among others:

- a. planning the work, considering the materiality of the aspects for Irani Papel e Embalagem S.A's activities, the relevance of the information disclosed, the volume of quantitative and qualitative information and the operating and internal control systems that served as a basis for the preparation of the information contained in the Integrated Reporting 2022.
- b. the understanding of the calculation methodology and the procedures for the compilation of the indicators through inquiries with the managers responsible for the preparation of the information;
- c. the application of analytical procedures on the quantitative information and inquiries on the qualitative information and its correlation with the indicators disclosed in the information contained in the Integrated Reporting 2022; and
- d. for the cases in which the non-financial data correlate with indicators of a financial nature, the confrontation of these indicators with the accounting statements and/or accounting records.



- e. analysis of the processes for preparing the Report and its structure and content, based on the CPC 09 Guidance - Integrated Reporting (which correlates to the Basic Conceptual Framework of Integrated Reporting, prepared by the International Integrated Reporting Council - IIRC);
- f. evaluation of the sampled non-financial indicators;
- g. understanding the calculation methodology and the procedures for the compilation of the indicators through interviews with the managers responsible for the preparation of the information;

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Scope and limitations

The procedures performed in limited assurance work vary in nature and timing, and are smaller in extent than in reasonable assurance work. Consequently, the level of assurance obtained in limited assurance work is substantially lower than that which would be obtained if reasonable assurance work had been performed. If we had performed reasonable assurance work, we could have identified other issues and possible distortions that may exist in the information contained in the Report. Therefore, we do not express an opinion on this information.

Non-financial data are subject to more inherent limitations than financial data, given the nature and diversity of the methods used to determine, calculate or estimate these data. Qualitative interpretations of materiality, relevance, and accuracy of the data are subject to individual assumptions and judgments. Additionally, we did not perform any work on data reported for prior periods, nor in relation to future projections and targets.

Conclusion

Based on the procedures performed, described in this report and the evidence obtained, nothing has come to our attention that causes us to believe that the non-financial information included in the Integrated Reporting for the year ended December 31, 2022 of Irani Papel e Embalagem S.A, have not been prepared, in all material respects, in accordance with the Guidance CPC 09 - Integrated Reporting (which correlates to the Integrated Reporting Framework prepared by the International Integrated Reporting Council - IIRC).

São Paulo, May 03th, 2023

KPMG Auditores Independentes Ltda.
CRC 2SP014428/O-6
Original report in portuguese signed by

Sebastian Yoshizato Soares
Accountant CRC 1SP257710/O-4



Sergio do Nascimento,
Joziel Marcelino e
Mardiones de Souza,
Santa Luzia unit

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