



Irani Papel e Embalagem S.A.

Investor Presentation

RANI3

B3 LISTED NM

Porto Alegre, october 2024





— We are the only Brazilian pure player in the packaging segment listed on B3's *Novo Mercado*

More than **8** decades
Of experience

More than **60** environmental awards
at regional and national levels

More than **2,400** employees

BRL 1.6 billion
Net Revenue LTM 3Q24

More than **90** thousand
shareholders

BRL 11 mm
Daily Trading Volume
(average since Re-IPO)
base date 09/30/2024

315
thousand tons of paper for
sustainable packaging
Produced LTM 3Q24



Sustainable Packaging
(Corrugated boxes)



Sustainable Packaging Paper
(Paper)



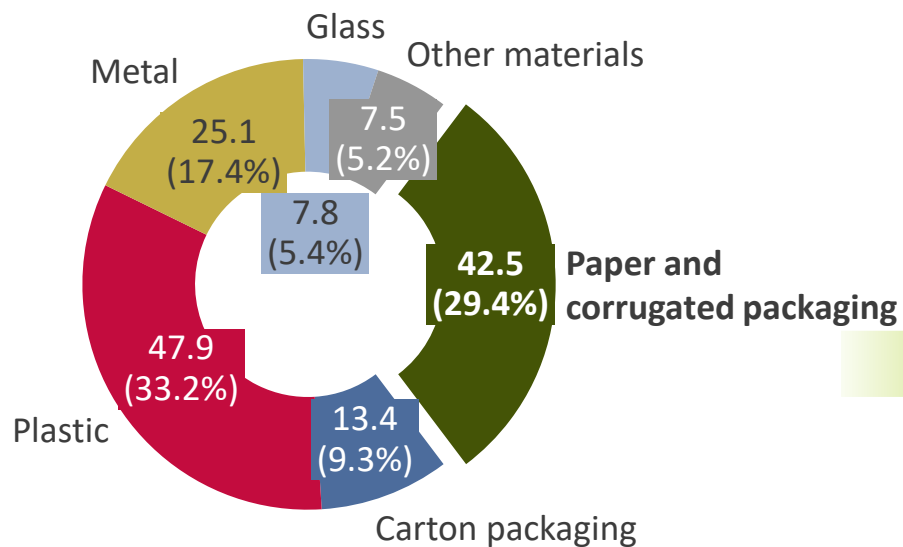
Sustainable Resins
(Gum Rosin and Turpentine)



— The packaging market in Brazil totaled BRL 144.4 billion in 2023 and BRL 42.5 billion in the segments where Irani operates

Brazilian packaging market - 2023

BRL billion **Total: BRL 144.4 billion**

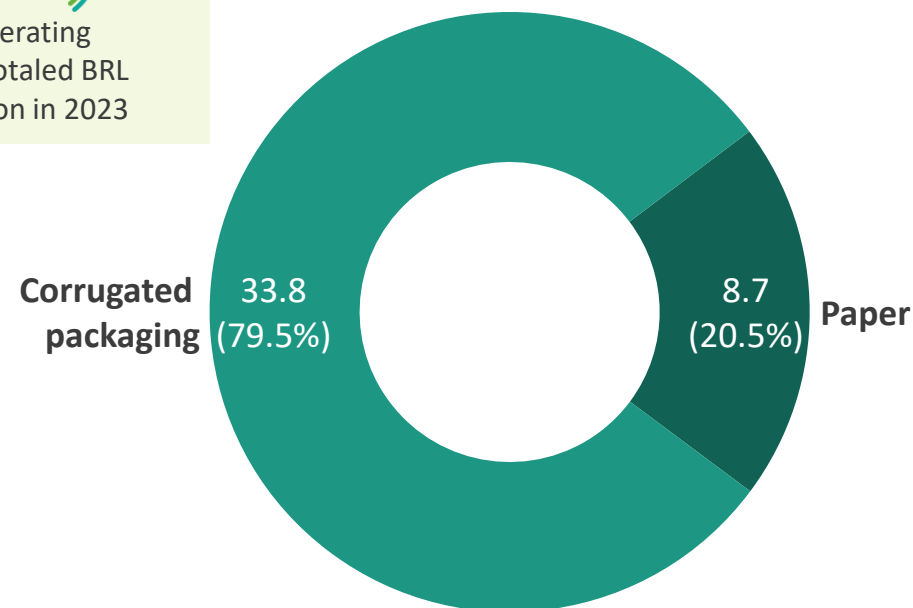


Irani's operating market - 2023

BRL billion



Irani's operating market totaled BRL 42.5 billion in 2023



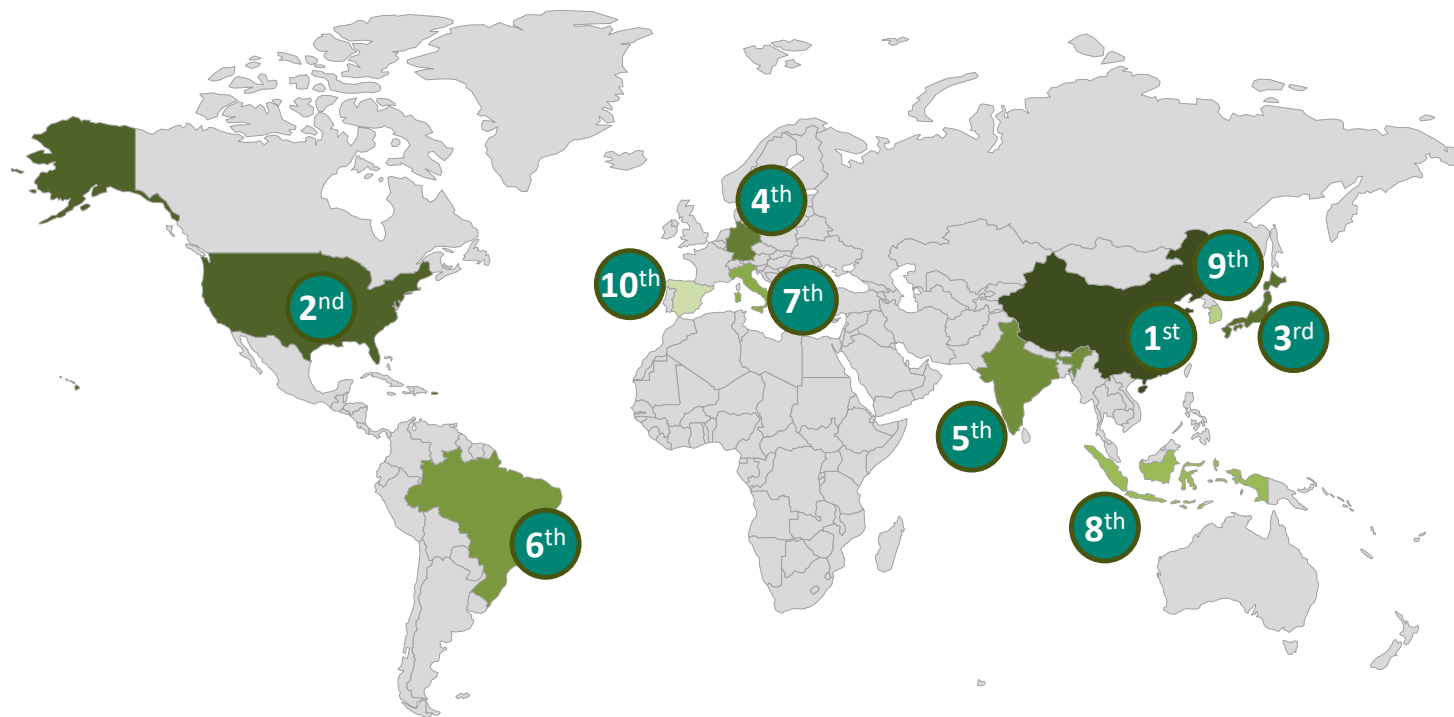
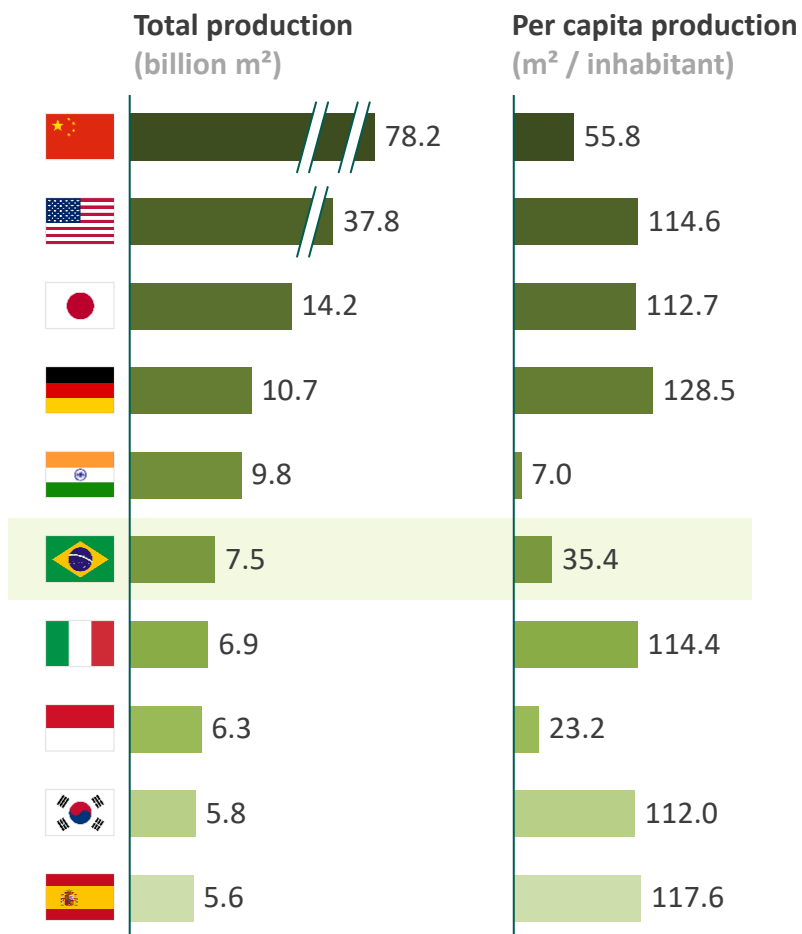
“ The ABRE study confirms the perception that consumer industries are replacing plastic with more sustainable materials. From 2020 to now, the share of plastics in the gross value of industry production fell from 39.6% to 33.2%. At the same time, corrugated packaging's share rose from 18.7% to 23.4% and paper from 4.2% to 6.0%.”

Valor Econômico, 03/27/2024.



— Brazil is the 6th largest producer of corrugated packaging in the world and still has great potential to increase per capita production

Infographic of the 10 largest countries that produce sustainable corrugated packaging – 2020



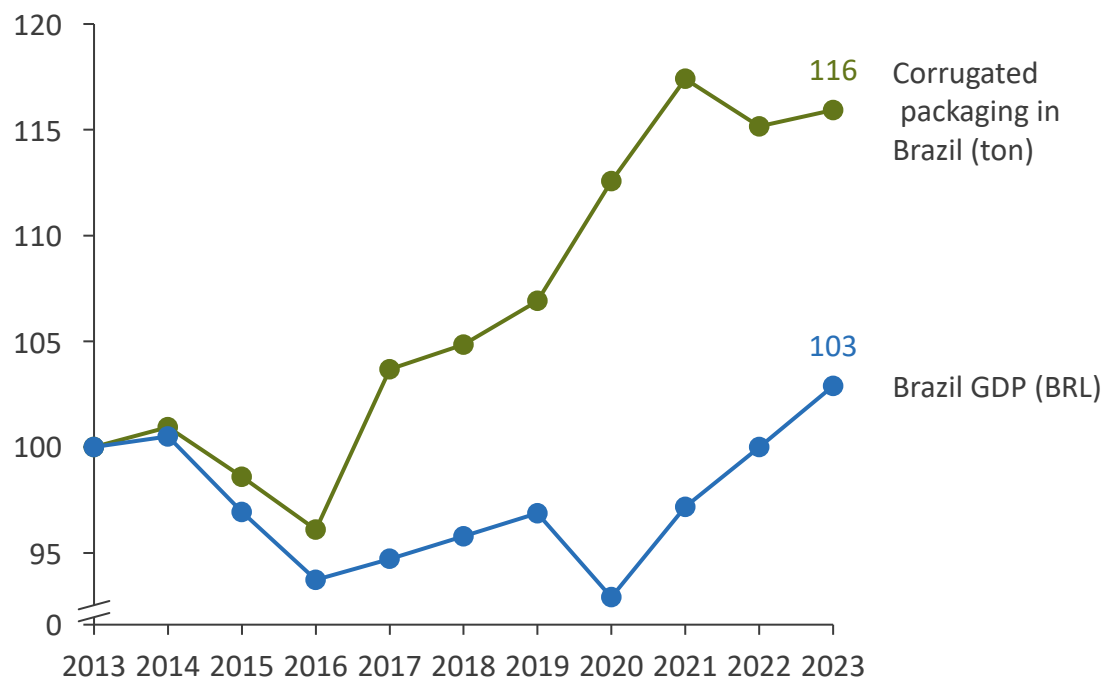
Note: corrugated packaging is a regional consumer product, typically within a radius of 300 km.
Source: International Corrugated Case Association ICCA.






The sustainable packaging market is driven by secular trends of sustainability and e-commerce growth

Comparison between sustainable packaging vs GDP

Evolution in base 100

































Sustainable packaging market drivers

- I** Paper-based are the best solutions for packaging 
- II** Demand for sustainability: substitution of plastic for paper 
- III** Growth of e-commerce and delivery 

Fiber packaging is superior to alternatives

- ✓ Fiber packaging is renewable and easily recyclable, as well as it does not produce harmful gases during the recycling process.
- ✓ It is biodegradable and results in less environmental risk when discarded.
- ✓ It is economical, resistant and hygienic that protects the consumer's health.

	 Paper Fiber	 Plastic	 Styrofoam	 Metal	 Glass
Cost effectiveness					
Protection quality					
Recycling rate	 86% ¹	 18% ²			
Biodegradability					
CO2 emission					

Note: internal assessment.



Growing demand for sustainability and substitution of plastics

- ✓ Consumers want more than just quality, often looking for products and brands that align with their personal values.
- ✓ People strongly believe that companies should help improve the environment.



Example: Heinz announced that it is developing paper-based packaging for its products, including the ketchup bottle.



Example: Amazon has replaced 95% of plastic air bags in North American delivery packaging with paper padding.



Example: Less plastic and decarbonization are sustainable commitments of Natura&Co.



Example: Louis Vuitton has committed to replacing 100% of single-use plastic consumption with sustainable packaging by 2030.



The rise of e-commerce and delivery are an important driver of sustainable packaging growth

80%

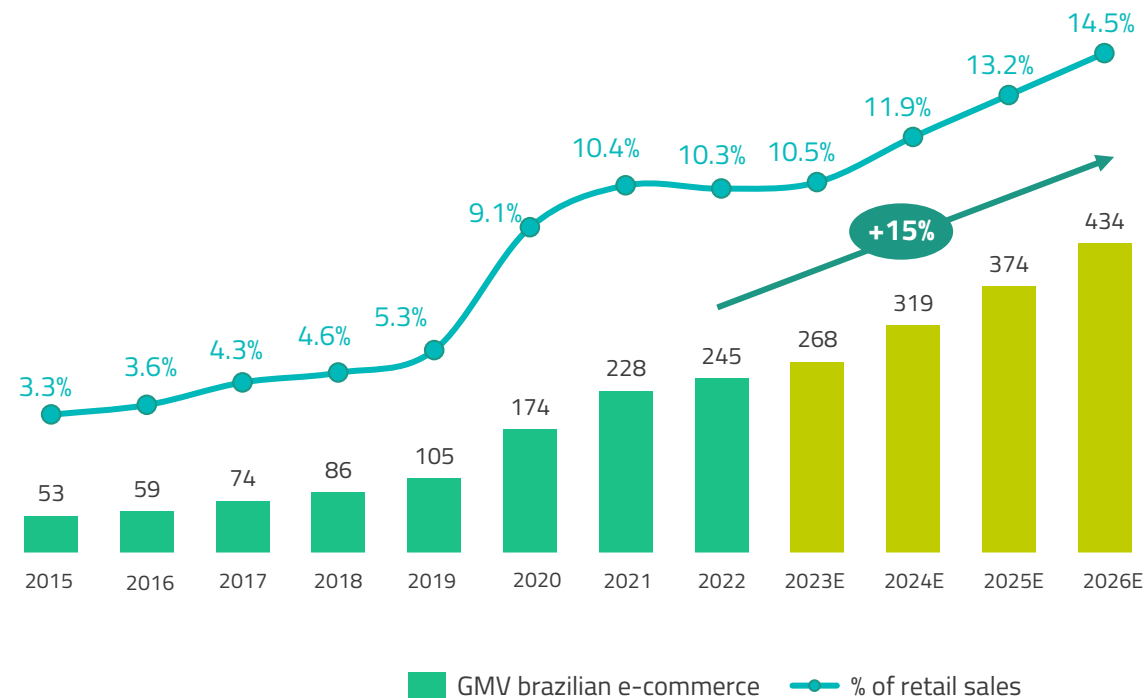
Sustainable corrugated packaging represents 80% of packaging used in e-commerce.

+15.0% p.y.

Brazilian e-commerce is forecast to grow at a CAGR of 15% in the period from 2022 to 2026.


E-commerce sales in Brazil







BRL Billion

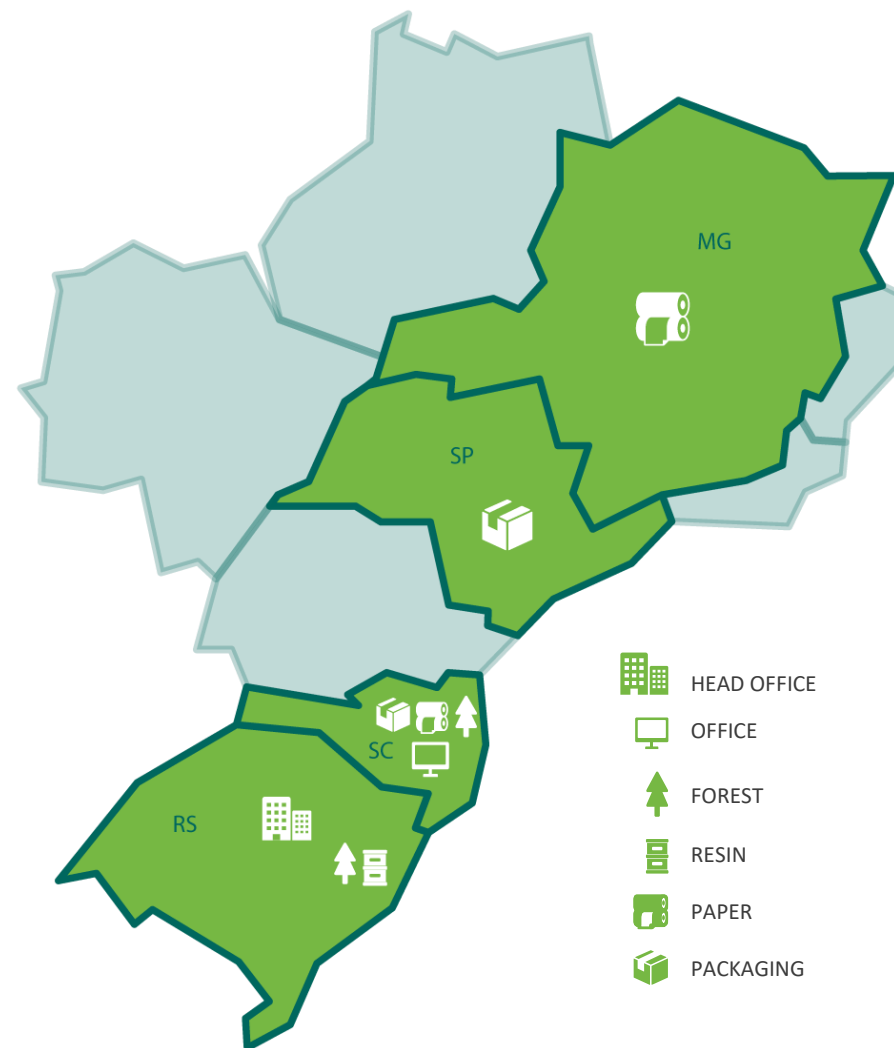










Mills and facilities are strategically located in the main regions of Brazil, in terms of GDP and forest base

 Forests	Land Area	Focus
SC Santa Catarina	27,894 ha	Pulp, market timber and energy generated from biomass
RS Rio Grande do Sul	5,928 ha	Resin and market timber
Total	33,822 ha	

	Total Production LTM 3Q24	Softwood Pulp	Sustainable Packaging Paper (Paper)	Sustainable Packaging (Corrugated Containerboard)	Sustainable Resin
 MG Santa Luzia	-	-	62k tons	-	-
 SP Indaiatuba	-	-	-	80k tons	-
 SC Vargem Bonita	97k tons	-	-	-	-
 SC Vargem Bonita	-	-	253k tons	-	-
 SC Vargem Bonita	-	-	-	94k tons	-
 RS Balneário Pinhal	-	-	-	-	11.2k tons
Total	97k tons	97k tons	315k tons	174k tons	11.2k tons



-  HEAD OFFICE
-  OFFICE
-  FOREST
-  RESIN
-  PAPER
-  PACKAGING



— Main competitive advantages

1

The only pure player in the packaging segment in the Brazilian stock market

The only Brazilian publicly held company focused on sustainable packaging, in addition to being listed on B3's *Novo Mercado*

2

Circular economy business model

Complete insertion in a circular economy.

3

Own production of electricity and own forestry base

Guarantee of supply and stability in costs, resulting from our own production of electricity and our own forestry base.

4

Innovation at the heart of strategy

Pioneering in several innovation initiatives, reflecting in competitive differentials.

5

Excellence in the environmental, social and governance dimensions

Pursuit of excellence in all ESG spheres.



1a

Irani is the only Brazilian publicly held company focused on the sustainable packaging market

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The company does not sell pulp and is not subject to commodity pricing cycles.

The company has all its operations integrated with the production of sustainable packaging.

It is positioned in the value chain of the Brazilian market, meeting the growth of e-commerce, delivery services and retail activities, consumer goods and food.

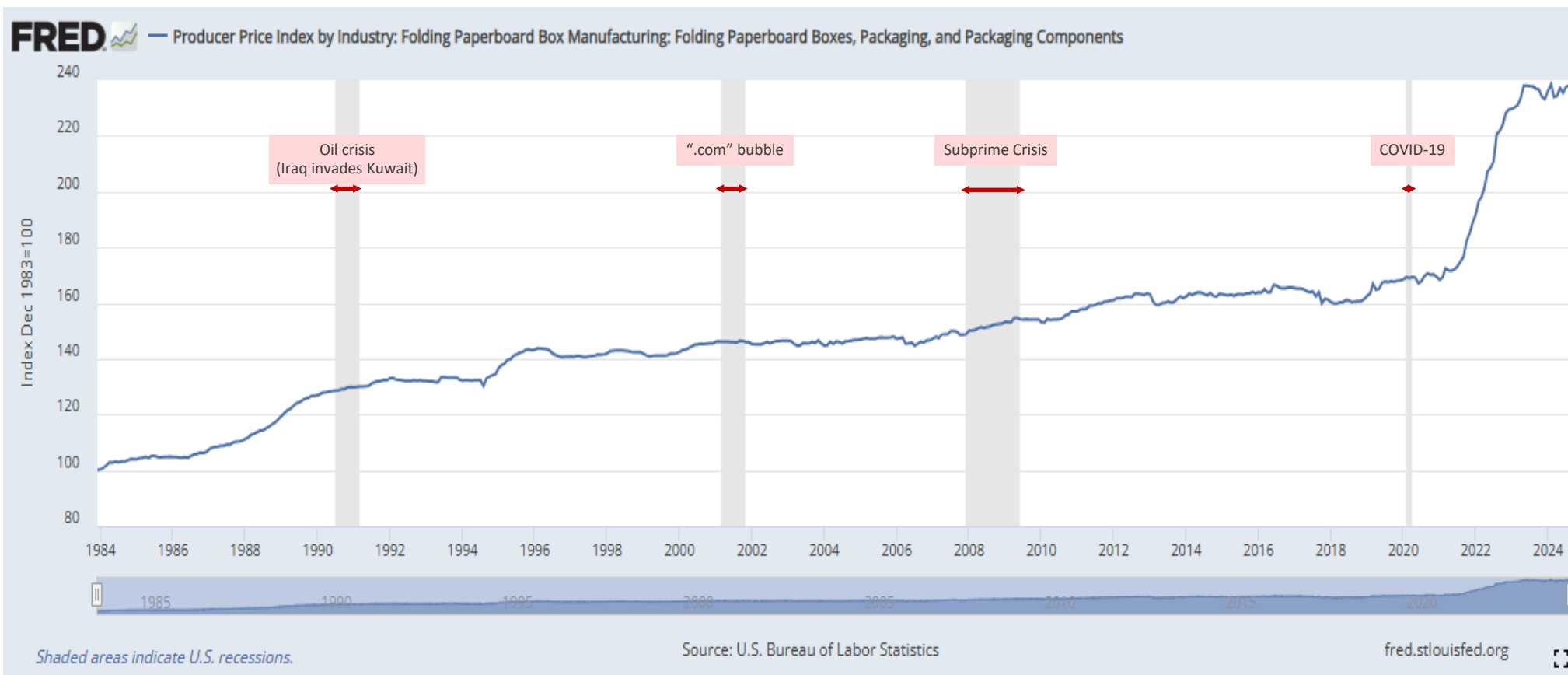
Markets that drive the company





1b

The sustainable packaging pricing is not cyclical, and it is very resilient to turbulent economic times

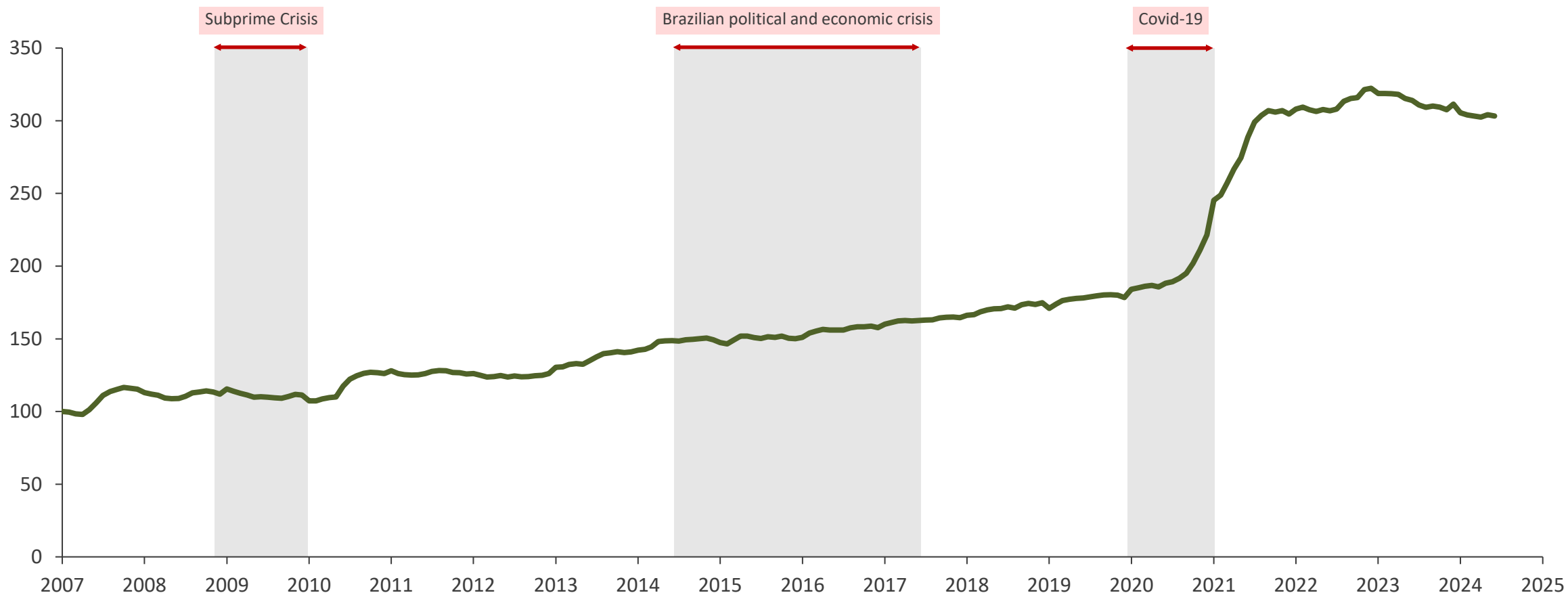




1c

The sustainable packaging pricing is not cyclical, and it is very resilient to turbulent economic times

— Corrugated paper boxes average prices in Brazil (BRL/ton) – jan/2007 base 100



Note: In Brazil, average prices only started to be measured and published from Jan/2007, by the sector association (Empapel).



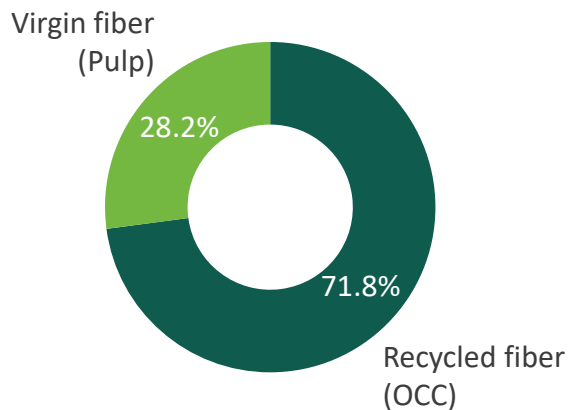
2

The company's business is fully immersed in the secular trend of circular economy

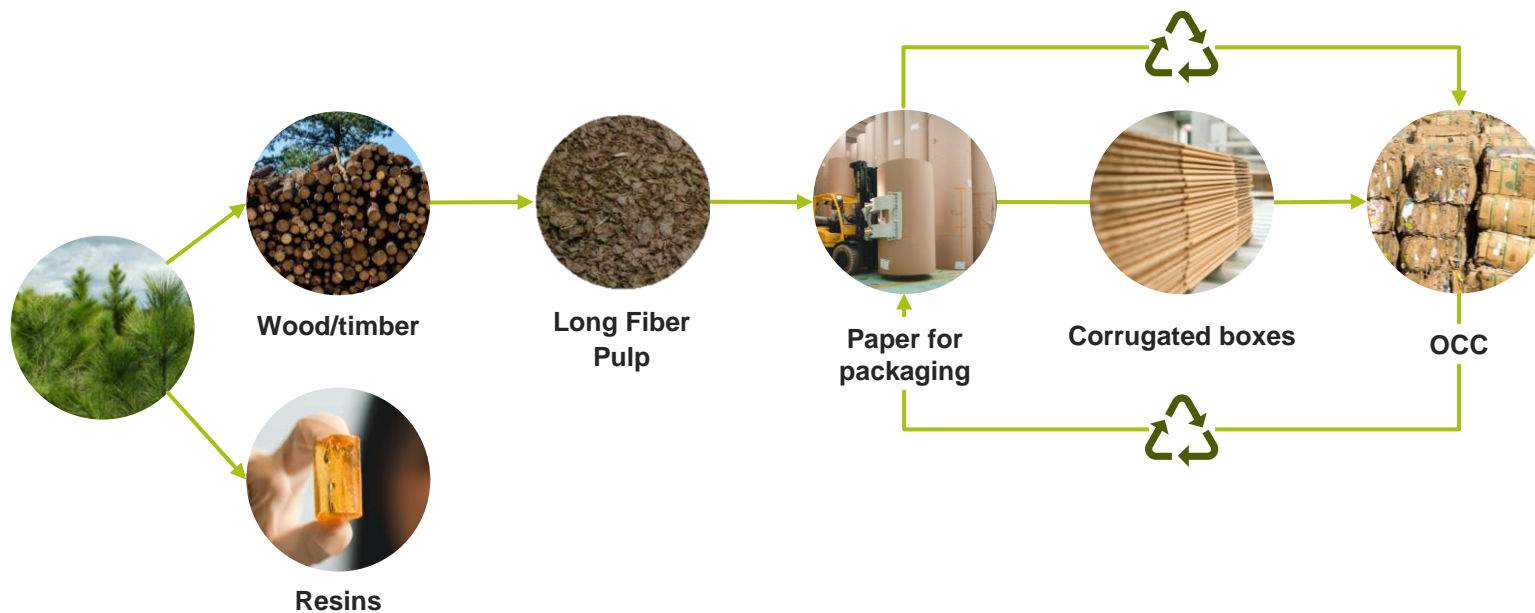
Raw material composition (LTM 3Q24)

% of volume consumed (tons)

71.8% of the raw material is recycled fibers



Productive cycle of the company's operations





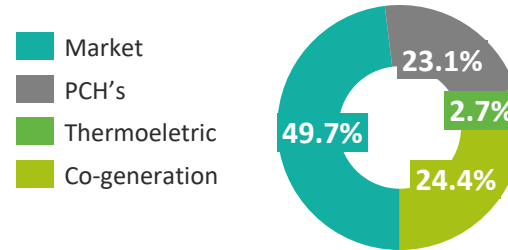
3

The company has its own production of renewable energy and its own land base

We will have 100% of our own production of renewable electricity after the Gaias.

In addition to not being exposed to the risks of energy supply in the country, we have become more cost efficient, with clean and renewable energy.

Electrical Energy Sources 2023



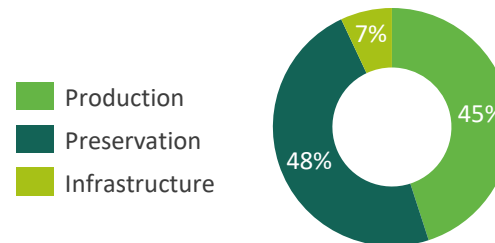
Electrical Energy Sources After the Gaias

After Gaia we will have **100% own renewable energy generation**



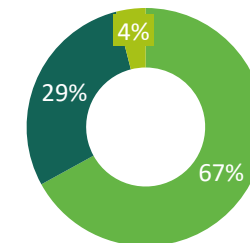
Our own forestry base gives us stability in the price of this raw material and guarantee of supply.

Own Land Base Santa Catarina



27,894 ha

Own Land Base Rio Grande do Sul



5,928 ha



4

Innovation is at the heart of Irani's strategy

In-house Innovation

INOVA IDEIAS PROGRAM

+7,014 Ideas generated since the beginning of the program

+ BRL 15 million

of operating return potential

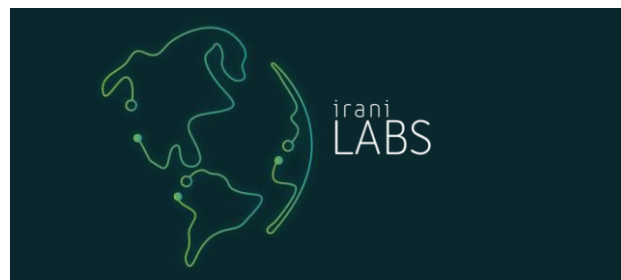
TECHNOLOGICAL PLATFORMS

18 Main RD&I themes

39 Projects in progress

Technological platforms:
Cellulose and paper;
Corrugated Cardboard;
Forest and Resin;
Environmental and Energy;

Connection with startups



04 Editions

+400 Connected startups **07** Selected businesses

Winning themes:

Waste Management;
Sustainable packaging;
Climate changes;
Diversity;
Surrounding community;

Disruptive investments



BRL 10 million

approved for investments in disruptive startups with high growth potential

04 Rounds held **160** Registered Startups

04 Startups in acceleration



5

Irani is an ESG excellence Company by nature

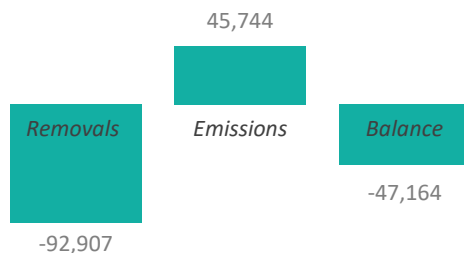
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Environmental



BALANCE - EMISSIONS (E1 and E2) x REMOVALS AND BALANCE (In thousands of tons of CO2e)



1,509,261 CERs approved by the UN (2005-2022)
Carbon credits traded up to 2024 generated revenue of BRL 24 million.



249 kt
of recycled paper (OCC)
LTM 3Q24

Social



We are
Great Place To Work
For the second time in the
Brazil ranking!



Top Human Being
Recognized for the seventh
time!



More than
BRL 1.9 million
invested in education and
training annually

Governance



IGCX B3
IGC-NM B3
ITAG B3
IBrA B3
IMAT B3
IDIV B3

SMLL B3
IGCT B3
IGPTW B3
IAGRO B3
ISEB3

Distribution of Dividends Policy: Up to 50% of the adjusted net profit.

Board of Directors: Six members, of which 3 are independent.

Fiscal Board: Three members.

Executive Board: There are no overlapping responsibilities between the Executive Board and the Board of Directors.

Financial Policy: indebtedness, average debt term, cash balance and credit rating policies.

Board Committees

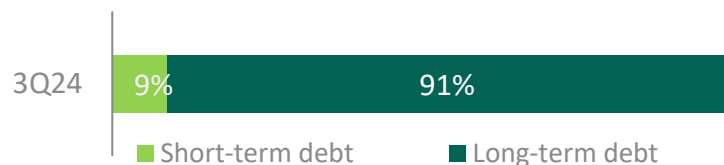
- Audit Committee
- People Committee
- Strategy Committee
- Ethics Committee

Financial statements audited by pWc.



Our competitive advantages, combined with an optimized capital structure, support a return (ROIC) above the cost of capital

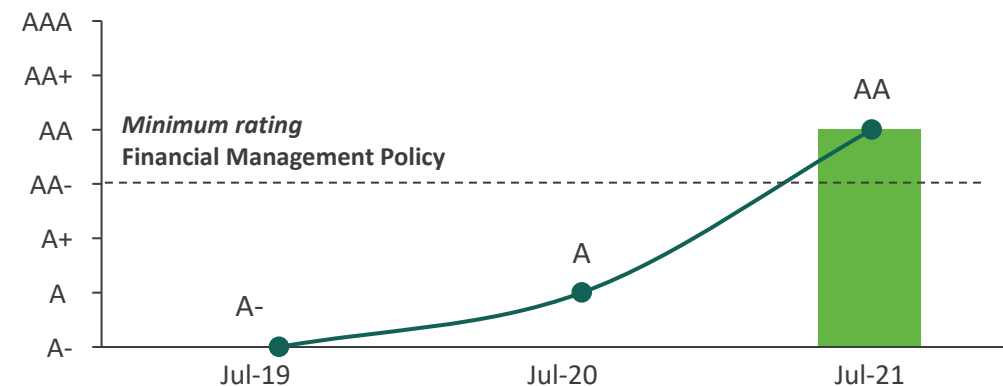
Debt Structure



- ✓ 98% national currency
- ✓ Cost of debt in 11.3% p.y. After taxes 7.4% p.y.
- ✓ Net Debt/Adjusted EBITDA in 2.26x

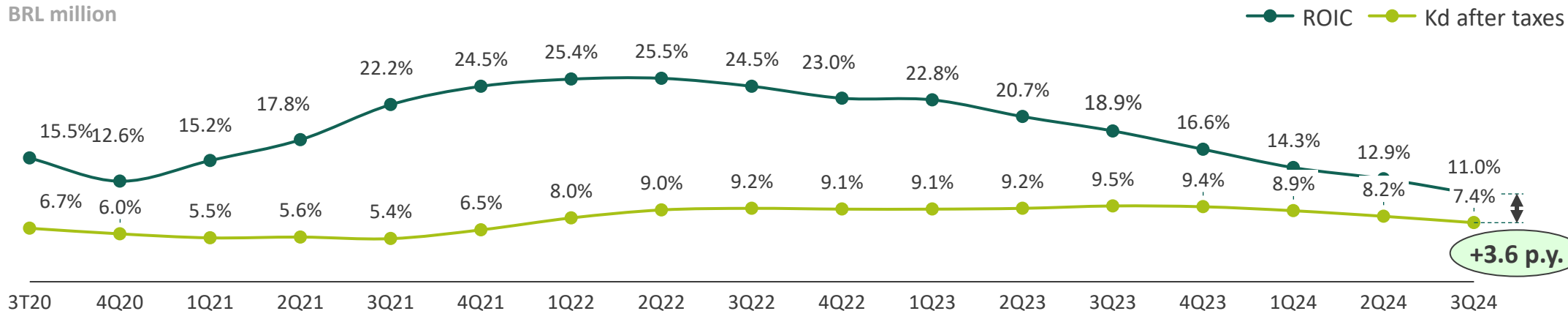
National Scale Issuer Credit Rating

S&P Global



ROIC and Kd after taxes

BRL million



We are in our 3rd Share Buyback Program, which aims to maximize shareholder value generation in the long term

Buyback programs since 2021

✓ 1st program (announced in sep-2021)

- 7.98 million shares repurchased
- BRL 6.68 average share price
- BRL 53.36 millions
- Full cancellation of treasury shares

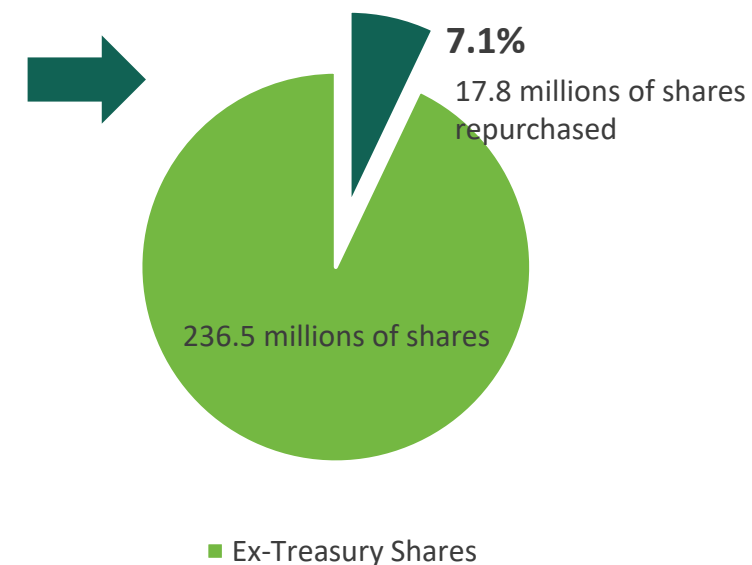
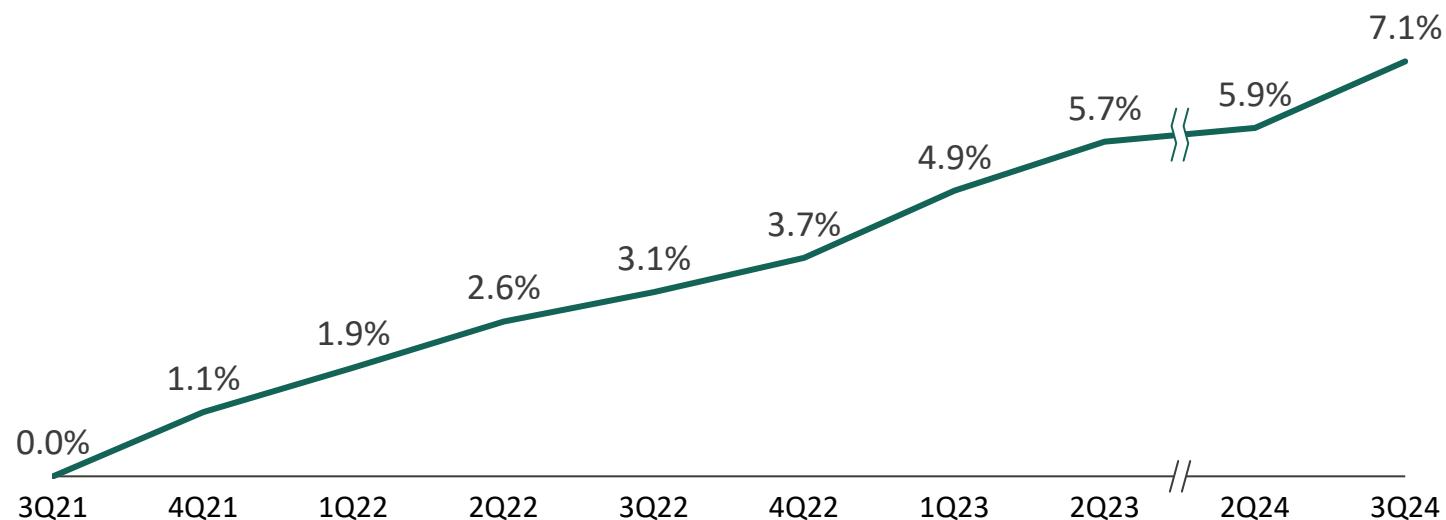
✓ 2nd program (announced in aug-2022)

- 6.53 million shares repurchased
- BRL 8.21 average share price
- BRL 53.59 millions
- Full cancellation of treasury shares

⌚ 3rd program (announced in mar-2024)

- 3.9 million shares repurchased
- BRL 8.09 average share price
- BRL 31.54 millions
- Until Sep-2024

— Accumulated share buyback Irani (RANI3) - % of shareholder structure

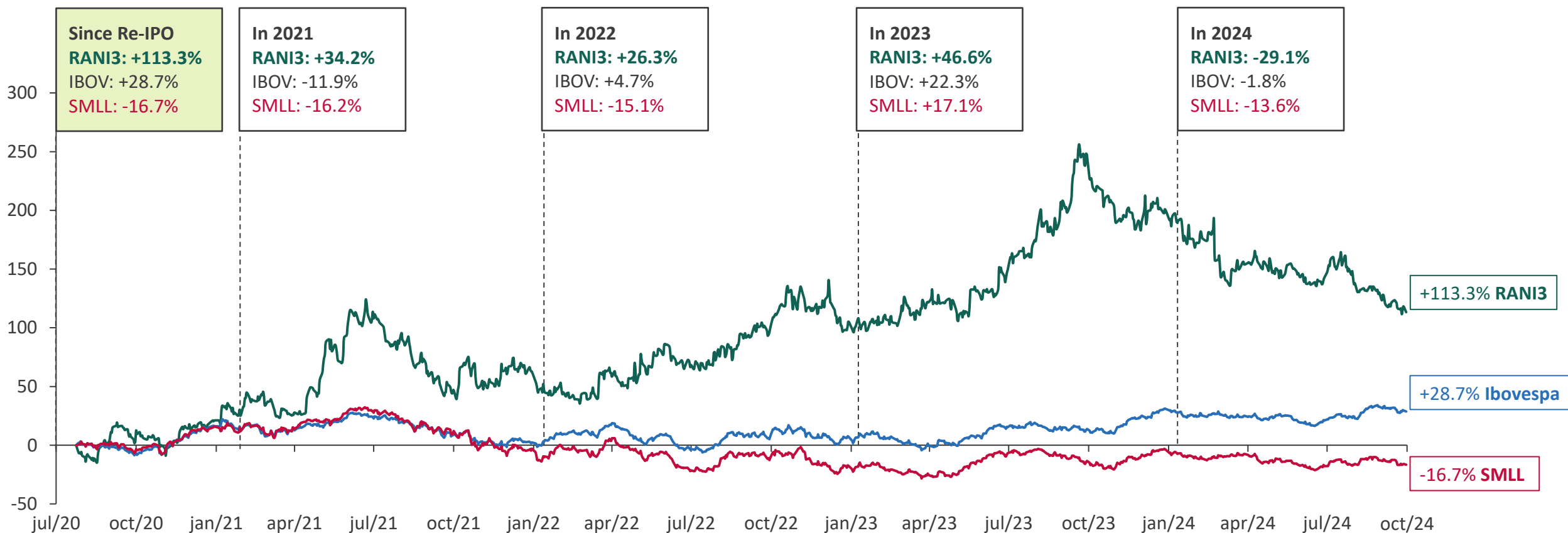




The company has been delivering very strong returns to our shareholders since our Re-IPO

Total Shareholder Return (stock price + dividends) since the Re-IPO

Percentage change





The Gaia Platform has been providing significant improvements in the production mix, in addition to several operational efficiency gains

BRL 1.2 billion of investments

- Own production of renewable electricity
- Reduction of maintenance costs
- Reduction of chemical consumption
- Greater stability and performance of factories
- Downtime reduction
- Gains in forest management
- Increased printer productivity
- Scrap reduction

Energy self-sufficiency

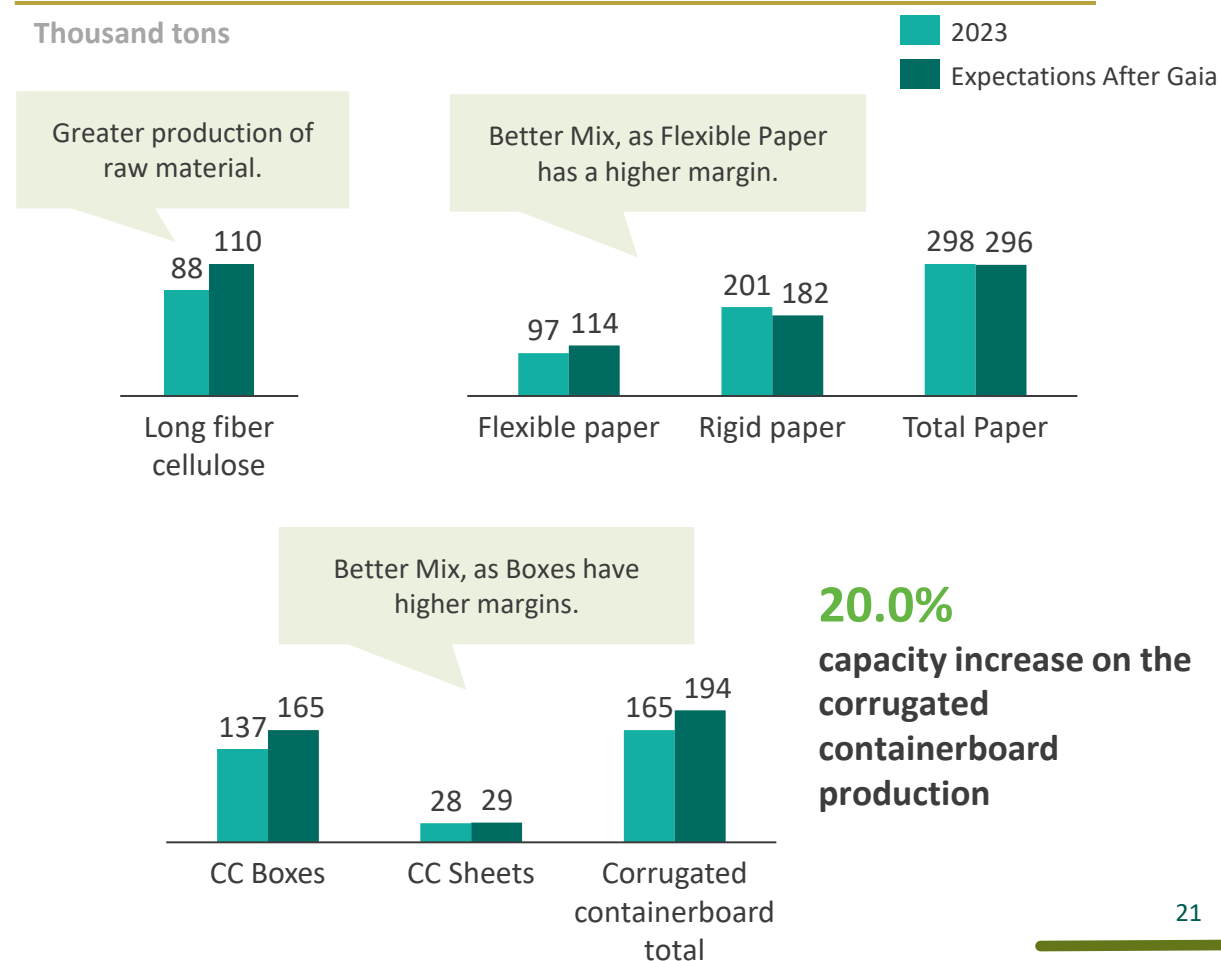
(in the total balance of energy production versus consumption)



[Click here to see more details](#)







Annual production

Thousand tons





Irani has ambitious ESG targets for 2030, in line with its strategy

1	OCCUPATIONAL SAFETY	Zero work accidents with leave	3 SAÚDE E BEM-ESTAR 
2	DIVERSITY	Having 40% of women in the company Having 50% of women in leadership positions	5 IGUALDADE DE GÊNERO 
3	WATER	Reduce water consumption by 30% per ton produced	6 ÁGUA POTÁVEL E SANEAMENTO 
4	ENERGY	Being self-sufficient in renewable energy generation	7 ENERGIA LIMPA E ACESSÍVEL 
5	WASTE	Stop waste shipment to landfill	12 CONSUMO E PRODUÇÃO RESPONSÁVEIS 
6	CLIMATE CHANGES	Increase the positive balance between emissions and removals of Greenhouse Gases (GHG) by 20%	13 AÇÃO CONTRA A MUDANÇA GLOBAL DO CLIMA 





Links to more information

Websites:

 [Investors Relations Website](#)

 [Gaia Platform](#)

Other documents:

 [Integrated Report](#)

 [Financial Statements](#)

 [Reference Form](#)

 [Historical operating data](#)

Presentations:

 [Institutional Presentation](#)

 [Results Presentation](#)

 [Earnings Release](#)

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