



Klabin

4Q22

Institutional Presentation



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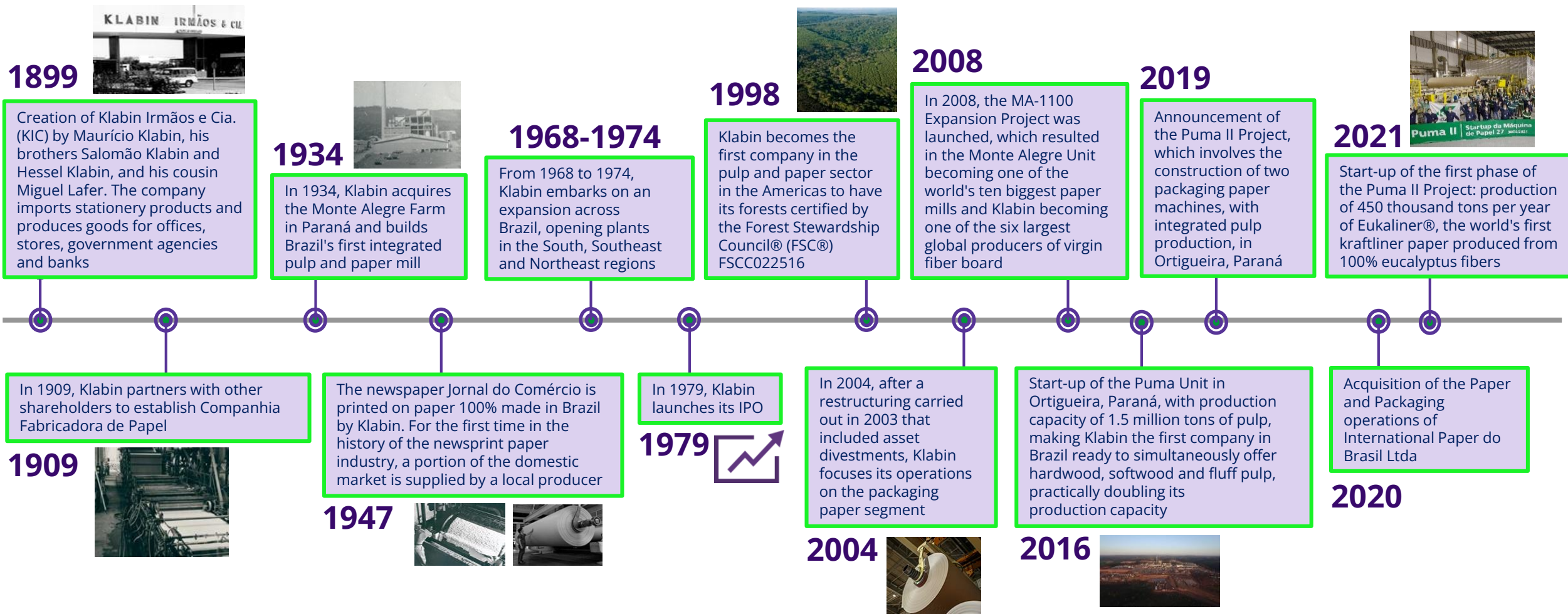
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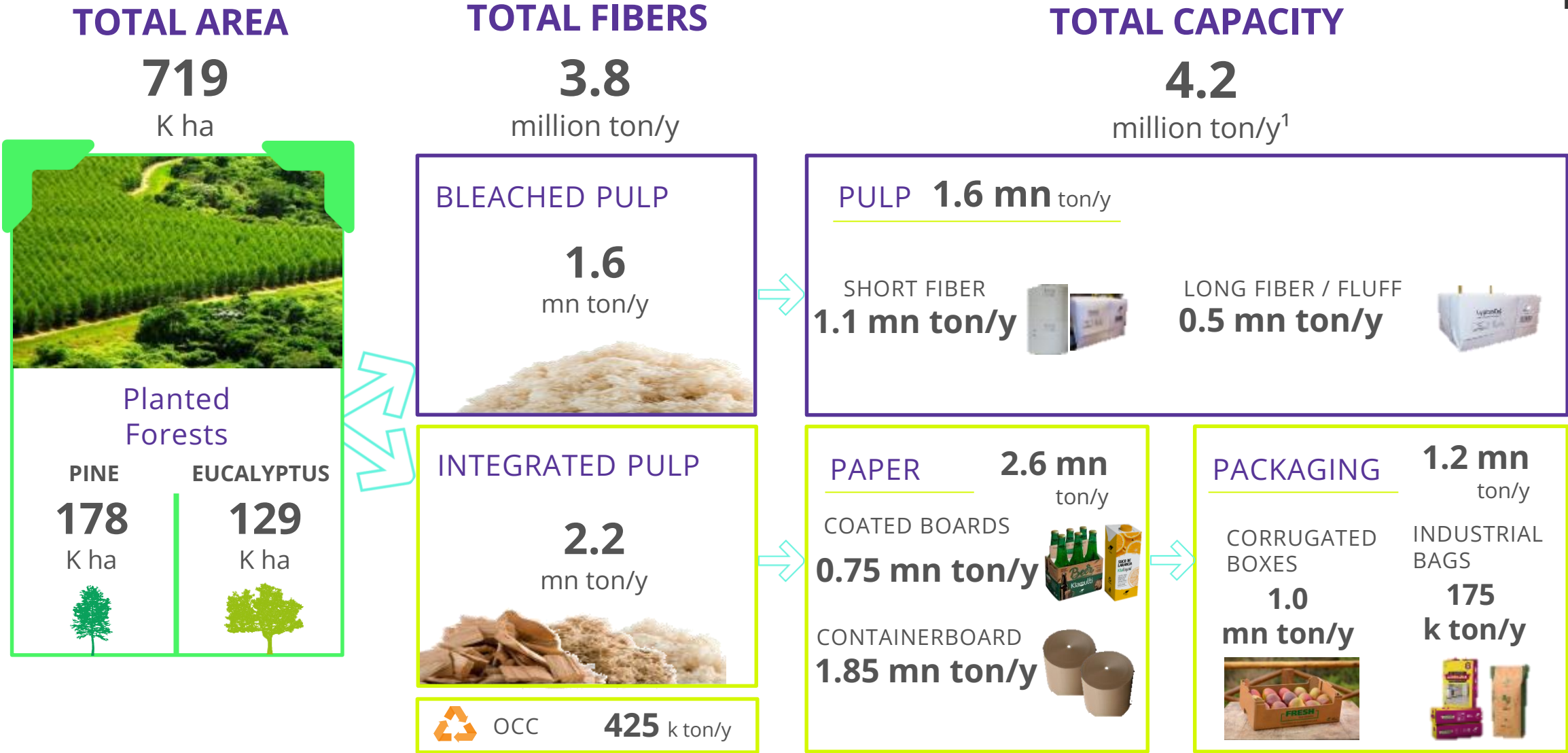
Introduction

TIMELINE

Klabin's 123 Years of History



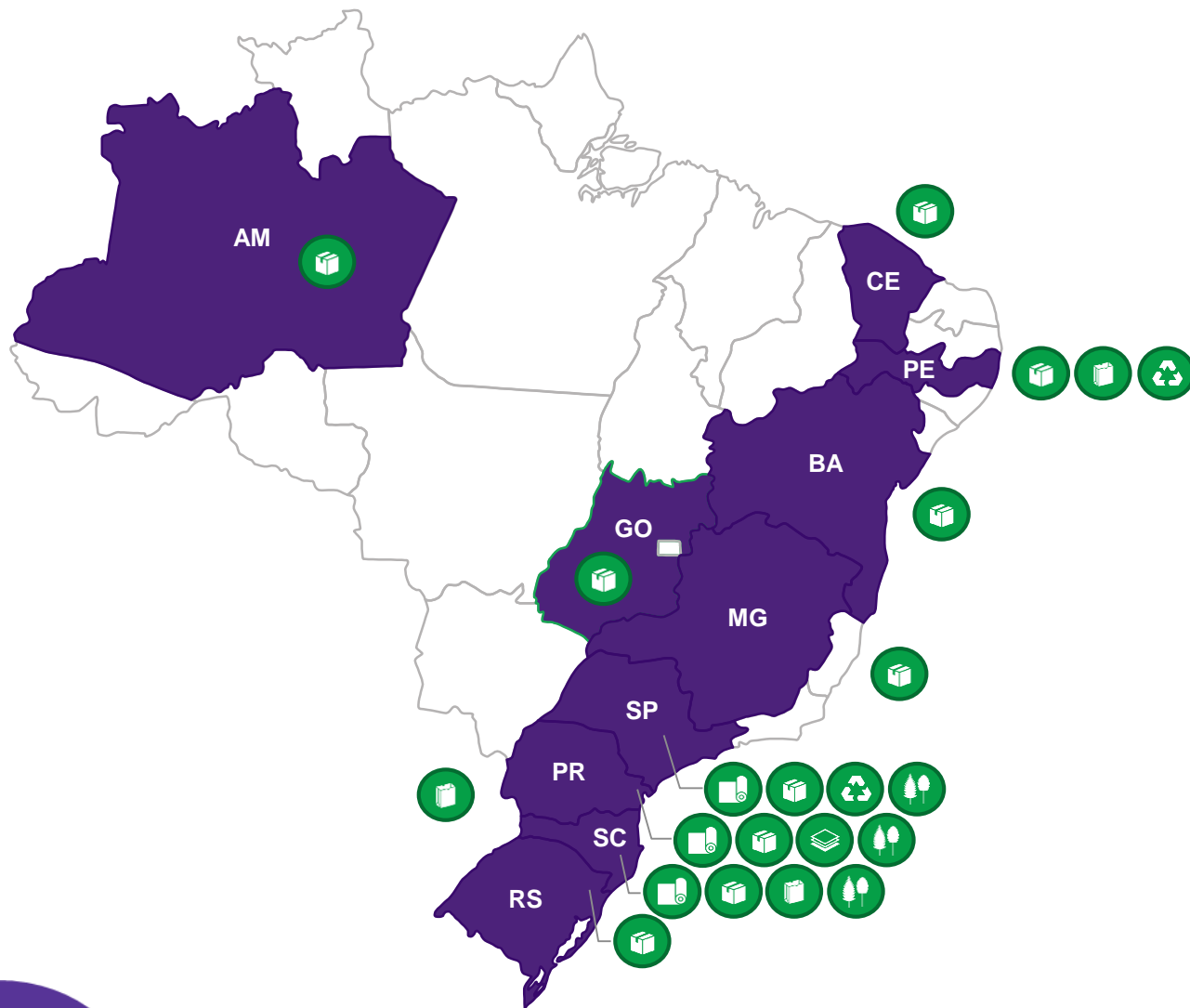
INTEGRATED, DIVERSIFIED AND FLEXIBLE BUSINESS MODEL



1 - The total capacity of 4.2 million tons per year considers 1.6 million tons of pulp and 2.6 million tons of paper, with all paper production sold to the market. With an integrated model, Klabin uses part of this paper for conversion into packaging. In addition, paper production includes MP27 capacity of 450 k ton/y which started up in August 2021 and is still ramping up production. To see the post Puma II production capacity, go to the ["Klabin after Puma II" slide](#)

OPERATIONS MAP

Klabin has 22 industrial units distributed across 10 states in Brazil and 1 in Argentina



Pulp

PR Ortigueira



Recycled Paper

PE Goiana
SP Piracicaba
SP Paulínia
SP Franco da Rocha



Packaging Paper

PR Monte Alegre
PR Ortigueira
SC Correia Pinto
SC Otacílio Costa
SP Angatuba



Industrial Bags

PE Goiana
SC Lages
ARG Pilar



Corrugates Boxes Packaging

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



Forestry

PR Planalto Guarapuava
PR Campos Gerais
PR Vale do Corisco
SC Alto Vale do Itajaí
SP Alto do Paranapanem

FORESTRY COMPETITIVENESS

High Productivity in Fibers



Total Land

719 K ha

- Own: 507 K hectares
- Leased: 212 K hectares

Planted Area

307 K ha

- Pine: 178 K hectares
- Eucalyptus: 129 K hectares

Average Hauling Distance of Klabin Forests¹

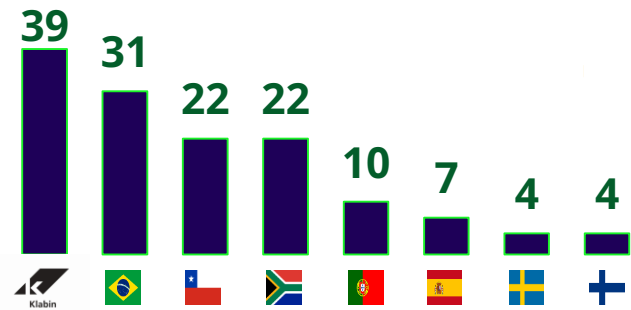
85 km

- Paraná: 84 km
- Santa Catarina : 87 km

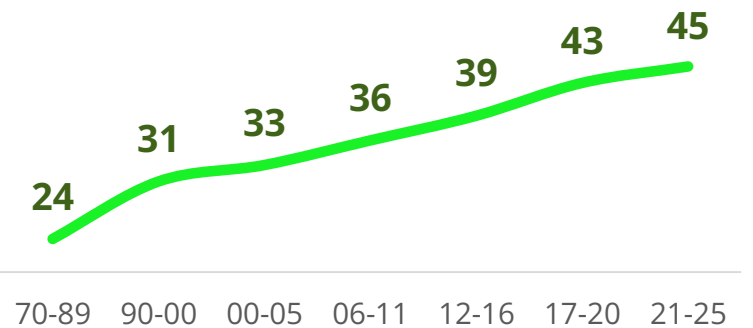


PINE

Forest Productivity³ m³/ha/year²

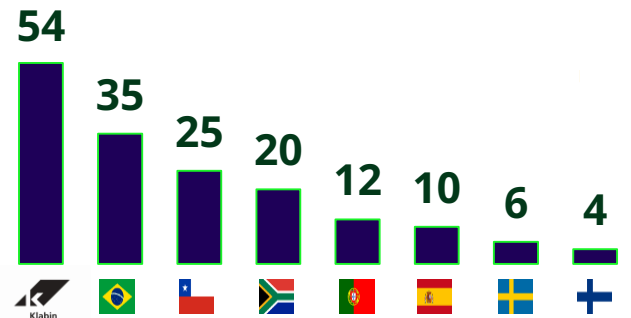


Mean Annual Increment (MAI) - Klabin

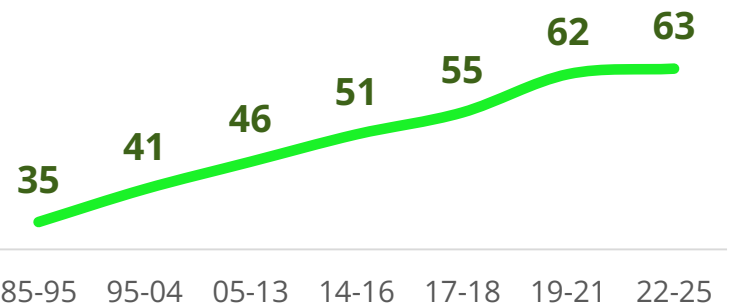


EUCALYPTUS

Forest Productivity³ m³/ha/year²



Mean Annual Increment (MAI) - Klabin

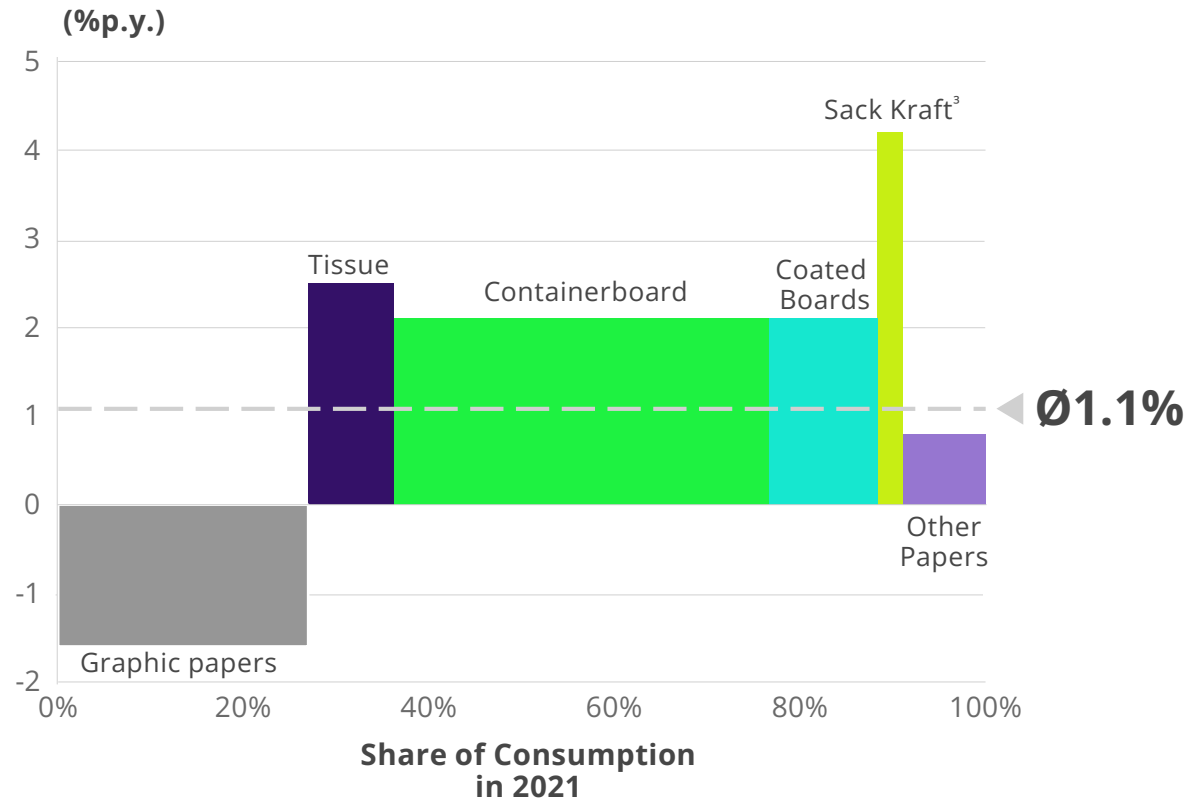


1 - Average hauling distance refers to own wood. Reference Date: December 2022
2 - Reference Date: December 2022
3 - Productivities other than Klabin and Brazil are reference 2018
Source: Ibá and Klabin

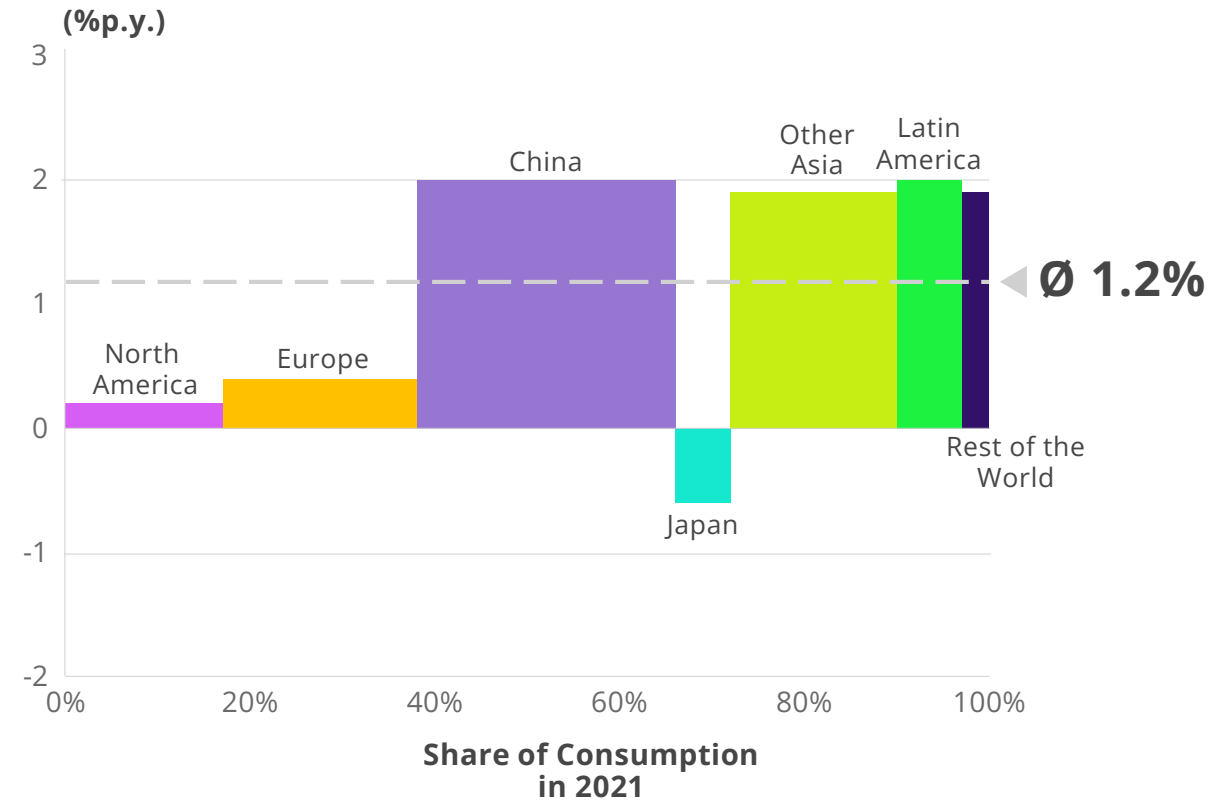
PULP AND PAPER MARKETS

Focus on representative and consistent growing markets

Long-term demand growth¹ 2021-2035



Growth of containerboard demand by region² 2021-2035



1 - The graph-colored elements represent the businesses that have growth expectations in relation to the market size, which are the businesses that Klabin operates, and the gray elements represent the businesses that are expected to decline during the period

2 - Represents the expected growth of the containerboard market in each region in relation to the market size

3 - Considering substitution of solutions in other materials

Source: ÄFRY and Fisher

PAPER AND PACKAGING

Leadership position in the domestic market



Kraftliner



Coated Board



Industrial Bags



Corrugated Boxes

Market Share in Brazil¹

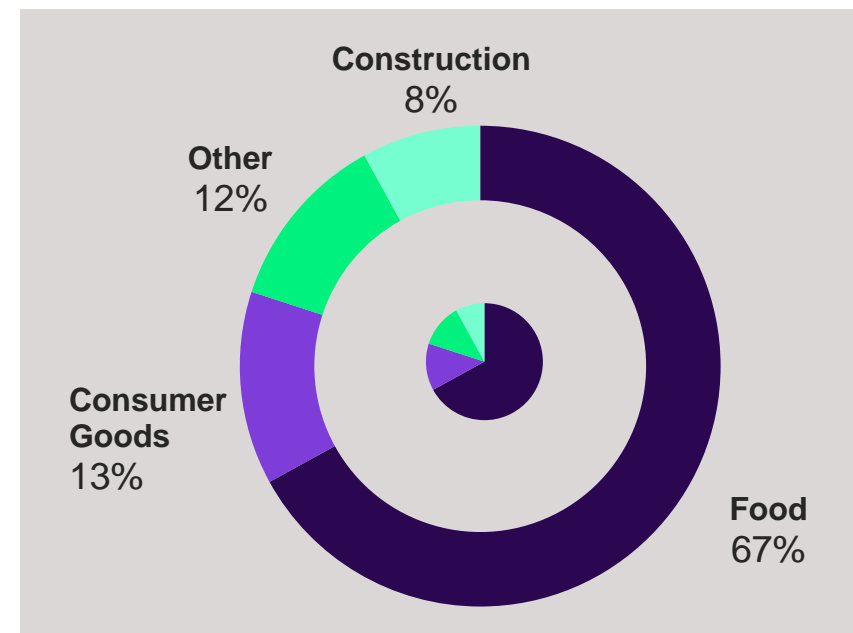
56%²

33%³

50%

23%

Sales Destination (%)

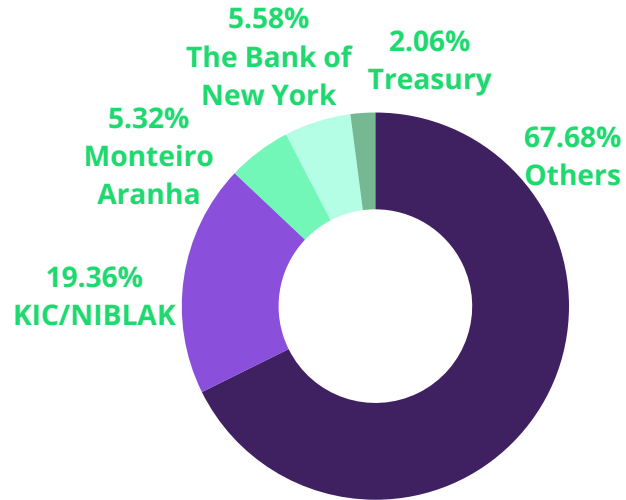


SHAREHOLDER'S STRUCTURE

KLBN3 (Common Shares), KLBN4 (Preferred Shares) e KLBN11 (Unit)

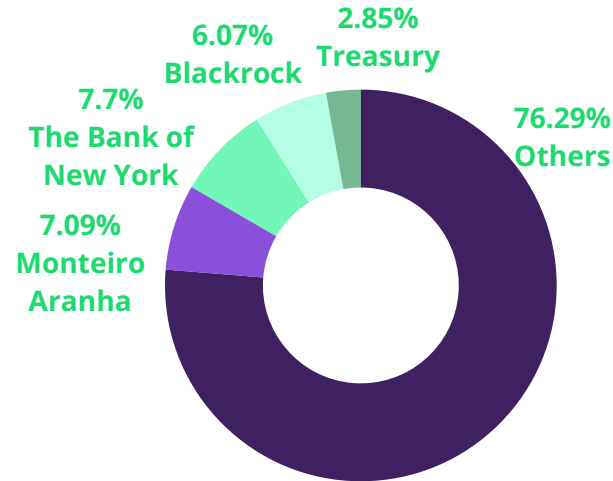
TOTAL¹

5,618 MM Shares



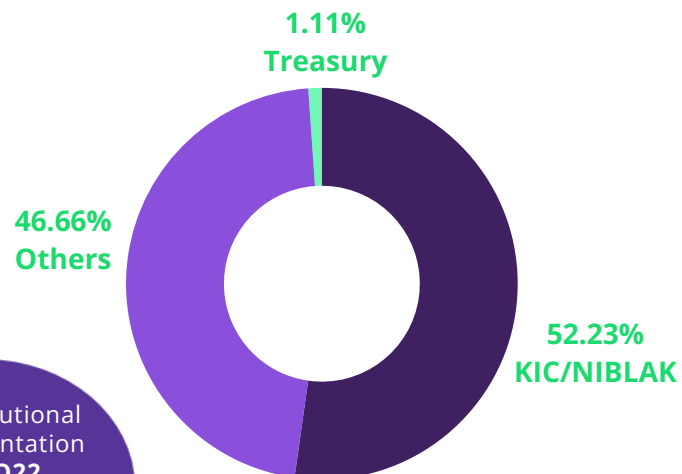
KLBN11¹

822 MM Shares



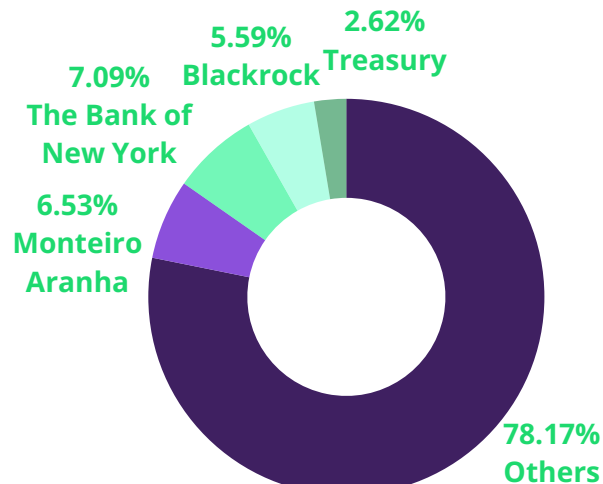
KLBN3¹

2,082 MM Shares



KLBN4¹

3,536 MM Shares



Highlights



Units – KLBN11

Stock composed of 1 Common and 4 Preferred shares to grant more liquidity to the paper



Level 2 of B3

Greater transparency and higher diligence to shareholders as a whole



Equal Economic Rights

100% tag along and equivalent dividend distribution between common and preferred shares



Parity

No premium paid on eventual migration to a single-share class company



Sustainability

CONSCIOUS DEVELOPMENT

Sustainability is in the forefront of Klabin's strategy

RECOGNITIONS

Member of

**Dow Jones
Sustainability Indices**

Powered by the S&P Global CSA

Sustainability World Index

Klabin S.A.

CTR Containers & Packaging

Top 1%

S&P Global ESG Score 2022

S&P Global



Maximum performance (Triple A) in the programs:

- Climate changes
- Forests
- Water security



SLB of Klabin wins in the "ESG Deal of the Year" category that highlights innovative and sustainable operations

ISE B3 **10th consecutive year**
One of the most sustainable companies in Brazil

ICO2 B3 **Participant** of Carbon Efficient Index of B3

vigeo eiris **Participant**
Best Emerging Markets Performers

COMMITMENTS



Developed by the United Nations (UN), Klabin has been a **signatory to the Global Compact since 2003**



Klabin implements the recommendations of the **Task Force on Climate Related Financial Disclosures** and has been a **TCFD Supporter** since August 2020



Committed to monitoring and evaluating the performance and socio-environmental risks of its suppliers, **Klabin is the first Brazilian company to bring the Ecovadis methodology to the country**



Klabin has been a **signatory to the Business Pact for Integrity and Against Corruption since 2013**. The Pact has the objective of combating corruption and promoting more honest and ethical markets



In 2013, Klabin became a **signatory to the National Pact for the Eradication of Slave Labor**, making a commitment not to negotiate with those who exploit slave labor

BIODIVERSITY

Conservation and Growth

FAUNA

851 SPECIES

Identified¹

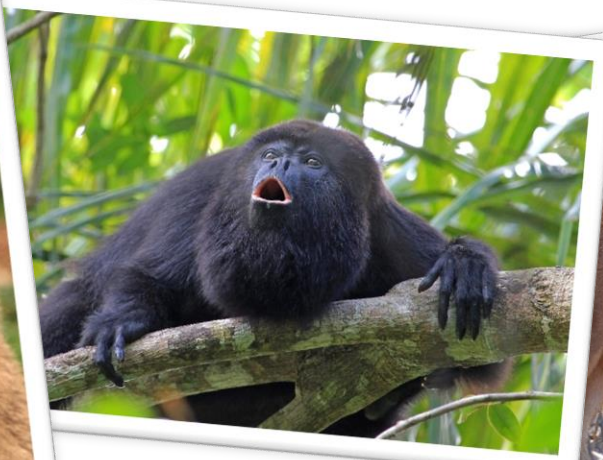
FLORA

1,920 SPECIES

Identified¹



Puma, pygmy brocket and howler monkey are some of the endangered species, **protected in areas owned by Klabin**



42%

of native forests
conserved

Private Natural Heritage
Reserve
(RPPN) from Klabin

**PARANÁ + SANTA
CATARINA**

8,839 HECTARES

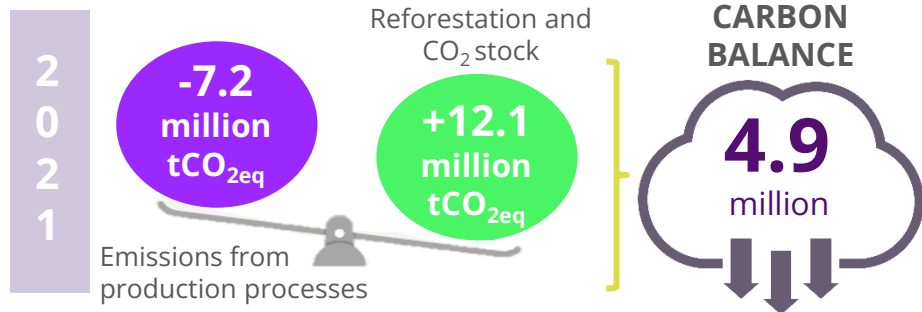
holding a **High Conservation
Value**

Area (HCVA) and a newly
inaugurated
Nature Interpretation Center

IMPACTS

Low environmental impact with renewable and clean energy sources

ATMOSPHERIC EMISSIONS

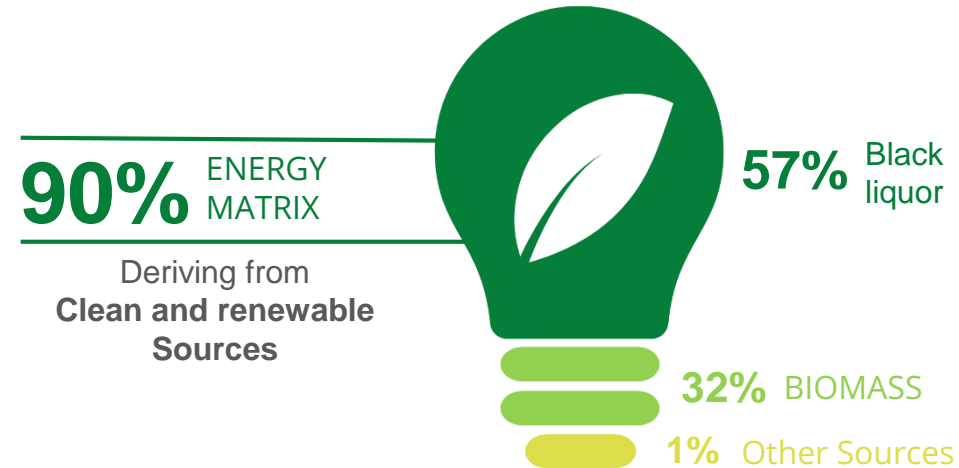


FROM **2019**

the financial impacts associated with climate change are calculated in the company, based on the valuation of ecosystem services and the calculation of the carbon footprint

In kton CO ₂ eq	2021	2020
Emissions (Scope 1+2+3)	-7,225.14	-6,615.42
Scope 1	-6,669.59	-6,199.76
Scope 2	-270.93	-202.19
Scope 3	-284.62	-213.47

ENERGY

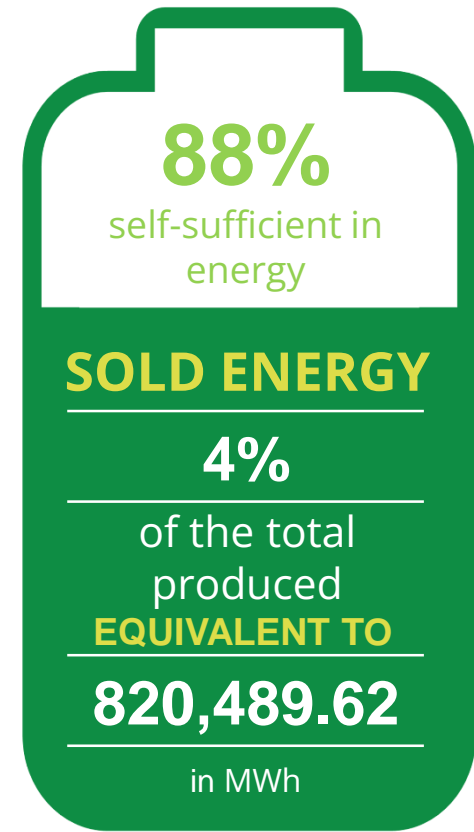


Total energy consumed, in MWh

2018	19,647,031.99
2019	21,071,096.02
2020	18,963,975.38
2021	20,629,006.25

ISO 50001

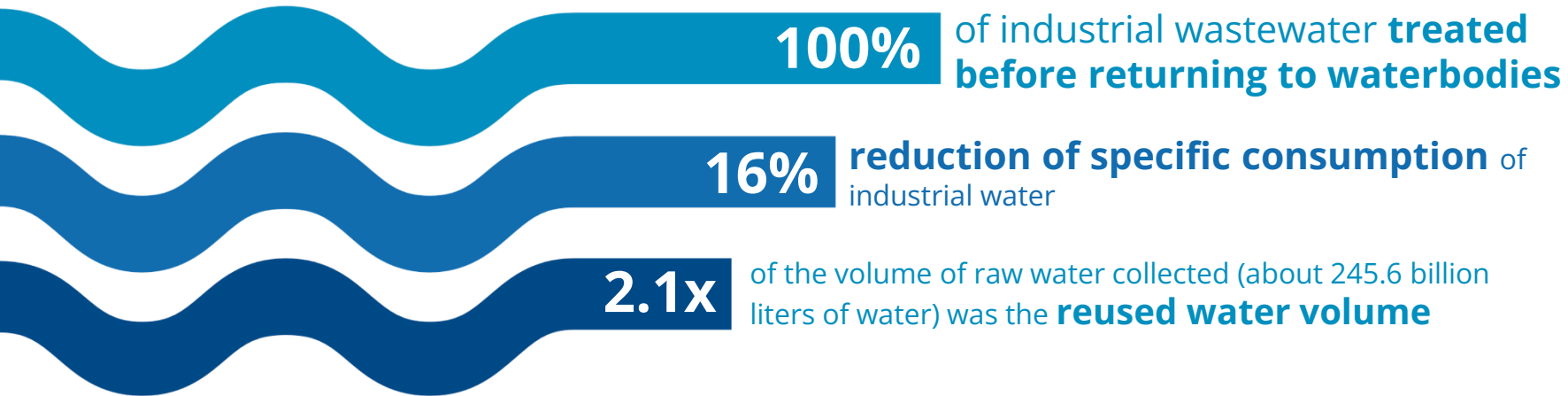
Puma Unit certification, demonstrating good practices in energy management



WATER RESOURCES

Conscious Use

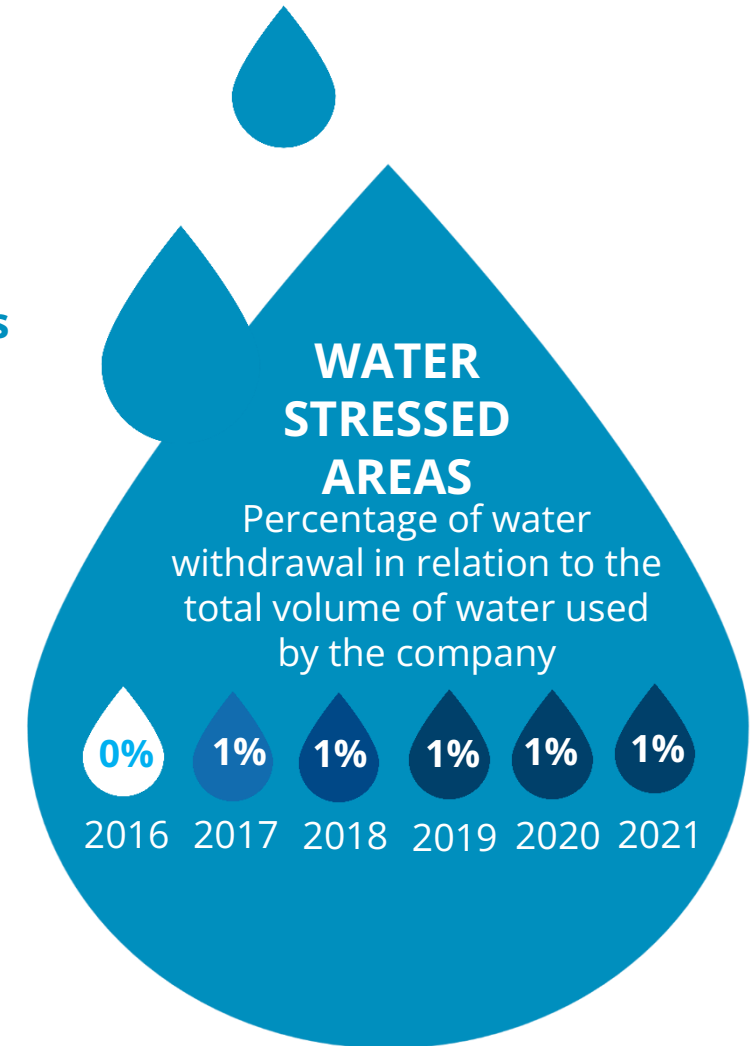
WATER RESOURCES AND WASTEWATER



SOLID WASTE



98.1%
reuse and recycling
of **solid waste** in
2021



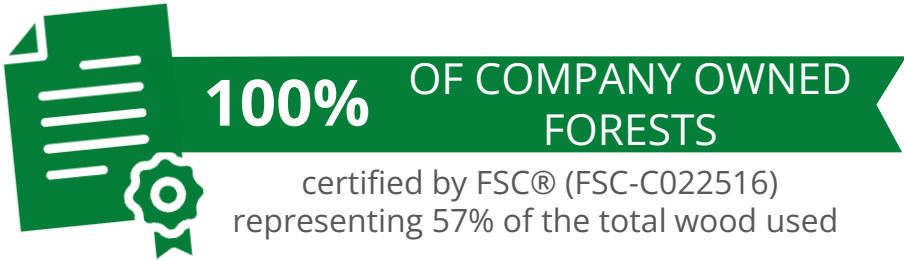
FOREST MANAGEMENT

Proper Care aligned with Preservation



MOSAIC PLANTING

It combines planted forests and native forest, forming ecological corridors for wildlife transit, and the conservation of water resources and biodiversity



purchased from third parties following Klabin's **Controlled Timber Program**,

which uses the FSC® chain of custody certification methodology

Klabin's objectives for a sustainable development (KODS) are in line with the complete UN' SDGs 2030 agenda, prioritizing 14 SDGs and indirectly impacting the other 3



KODS are divided into 4 pillars and 23 goals

CONSTRUCTION OF A RENEWABLE FUTURE

- Energy Use
- Water Use
- Waste Management
- Climate Change

CONTRIBUTION TO A SUSTAINABLE ECONOMY

- Local Development
- Social and Environmental Development of Suppliers
- Clients and Products
- Biodiversity

TECHNOLOGY AND INNOVATION

- Information Security

PROSPERITY TO THE PEOPLE AND COMMUNITY

- Diversity
- Occupational Health and Safety



ESG PANEL

Indicators can be accessed on Klabin's **ESG platform**

Access: <https://esg.klabin.com.br/en>



GREEN BONDS

Klabin was the first Brazilian company to issue a 30 years green bond

US\$ 500 MILLION 2027

Issuer: Klabin Austria GmbH
Interest: 4.875%
Term: 10 years
Maturity: October 19th, 2027

US\$ 700 MILLION 2049

Issuer: Klabin Austria GmbH
Interest: 7.000%
Term: 30 years
Maturity: April 3rd, 2049

THE PROJECTS FUNDED PERTAIN TO 7 CATEGORIES:



FOREST
MANAGEMENT



RESTORATION OF
NATIVE FORESTS



RENEWABLE
ENERGY



CLEAN
TRANSPORT



ENERGY
EFFICIENCY



WASTE
MANAGEMENT



ECO-EFFICIENT
PRODUCTS

[Click here to access
the Green Bonds Report](#)

SUSTAINABILITY LINKED BOND

Issue associated to sustainable performance indicators

2025 TARGETS



WATER
CONSUMPTION

Consumption intensity equal or less than **3.68 m³ per tonne** of production



WASTE
MANAGEMENT

Minimum of **97.5% reuse/recycling** of solid waste



SPECIES
REINTRODUCTION

Reintroduction of at least **two extinct¹ or threatened native species** in the ecosystem

US\$ 500 MILLION

2031

Issuer: Klabin Austria GmbH
Interest: 3.200% p.y.
Term: 10 years
Maturity: January 6th, 2031



To follow the goals evolution visit the [Sustainable Finance page on the ESG Panel](#)



Klabin had its **targets for reducing greenhouse gas (GHG) emissions** approved by the Science Based Targets initiative (SBTi)



Reduction of more than **67%** of specific scope 1 and 2 emissions in Klabin's operations



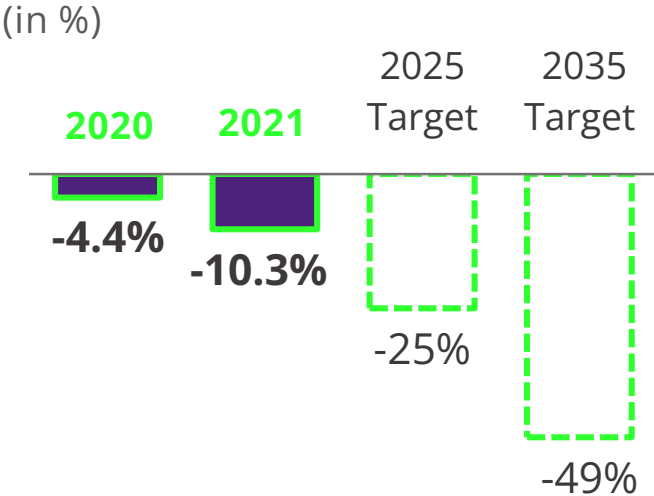
GHG EMISSIONS
Goals approved in 2021 by the SBTi



Reduce GHG emissions
(scopes 1 – own emissions e 2 – emissions in purchased energy) per ton **of pulp, paper and packaging** by **25% by 2025** and by **49% by 2035**, taking 2019 as the base year



EMISSIONS REDUCTION



NETZERO2050

A movement by Klabin and The UN Global Compact Network Brazil



 Commitment to **engage companies to zero net greenhouse gas emissions by 2050**

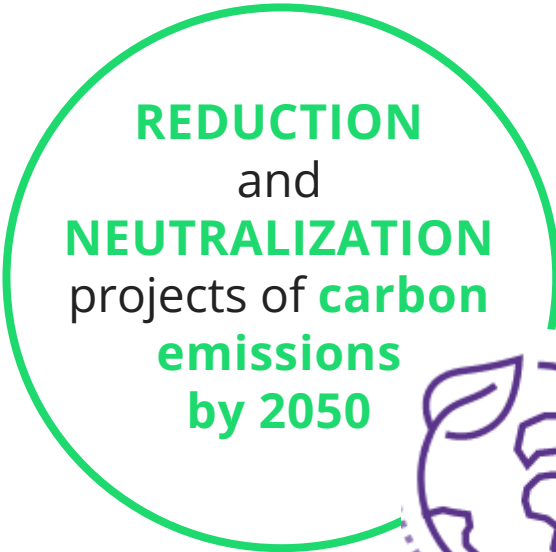
ImPACT 
NETZERO



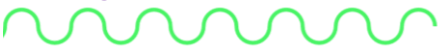
Pacto Global
Rede Brasil

GOAL

mobilize companies and society and make them aware of **the need to reduce greenhouse gas emissions** to stop global warming



limit the increase in **global temperature to 2°C**, looking to **stay below 1.5°C**



The background of the slide is a close-up photograph of a textured, fibrous material, likely paper pulp, showing a complex network of fibers in shades of beige and light brown. A solid purple horizontal band is positioned across the middle of the image, serving as a background for the title text.

Market Pulp

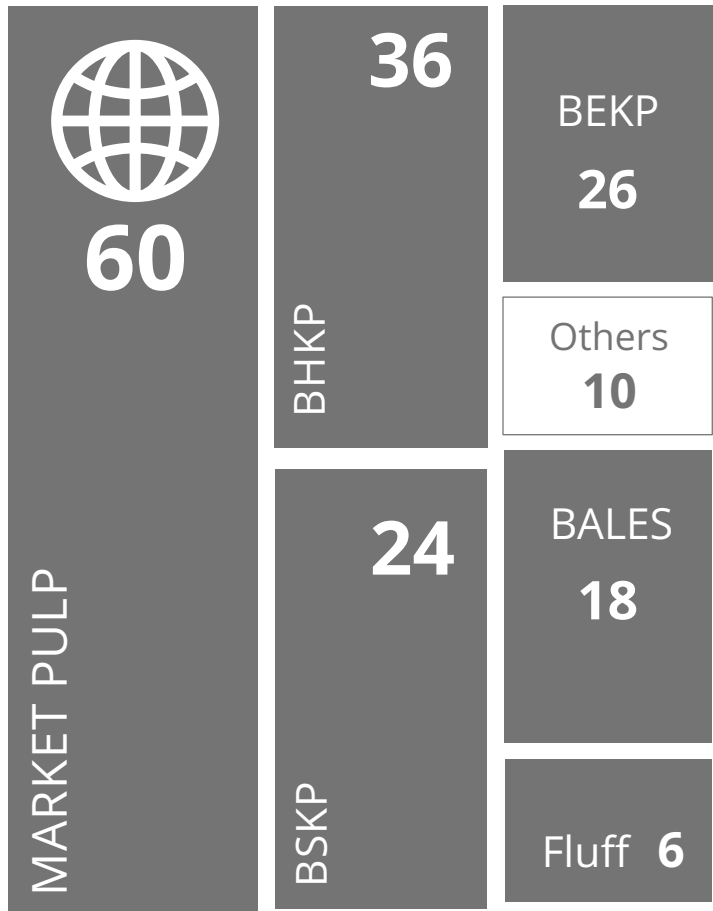
GLOBAL MARKET OF PULP

Growing markets



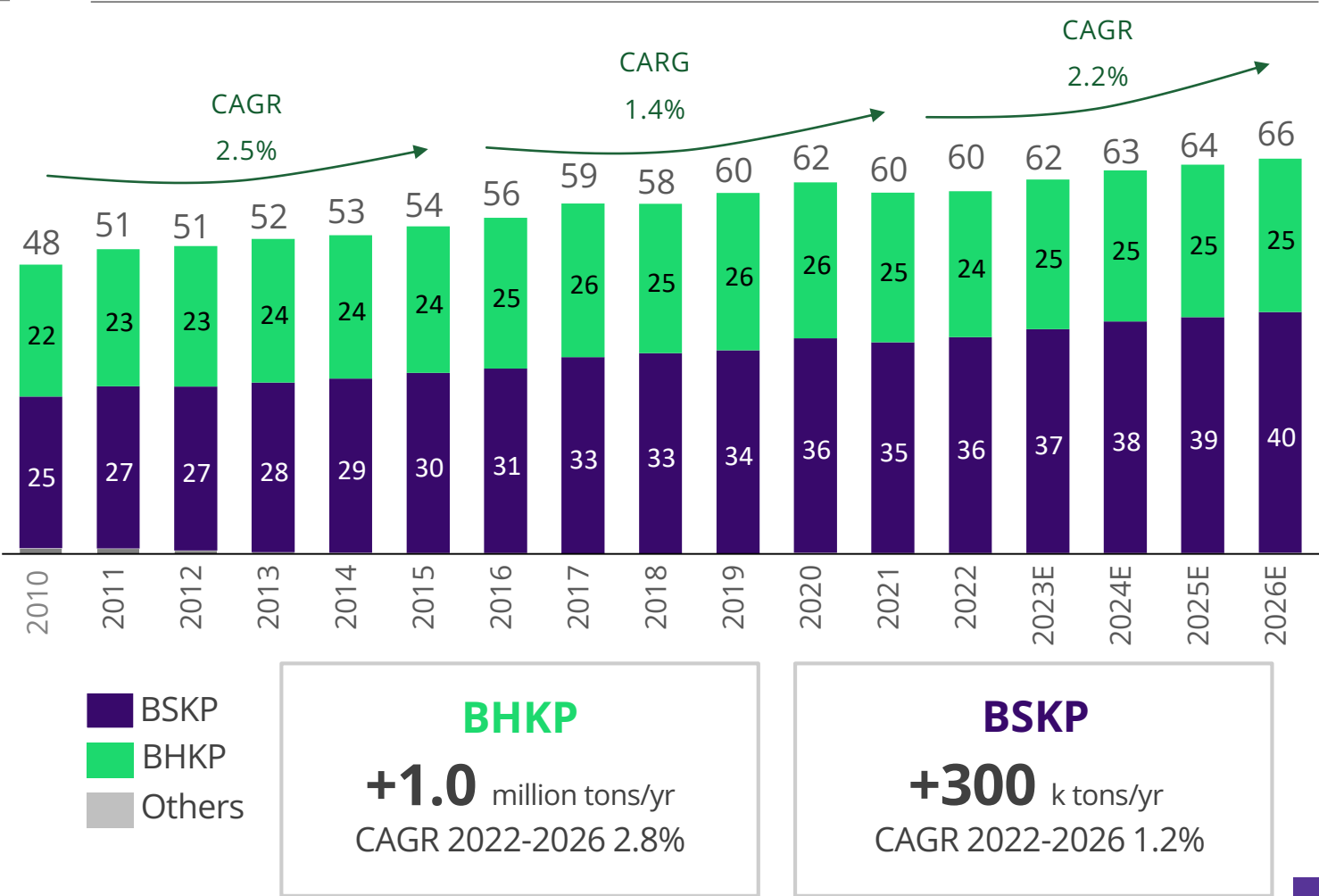
Paper and Fibers Breakdown

Million tonnes (2022)

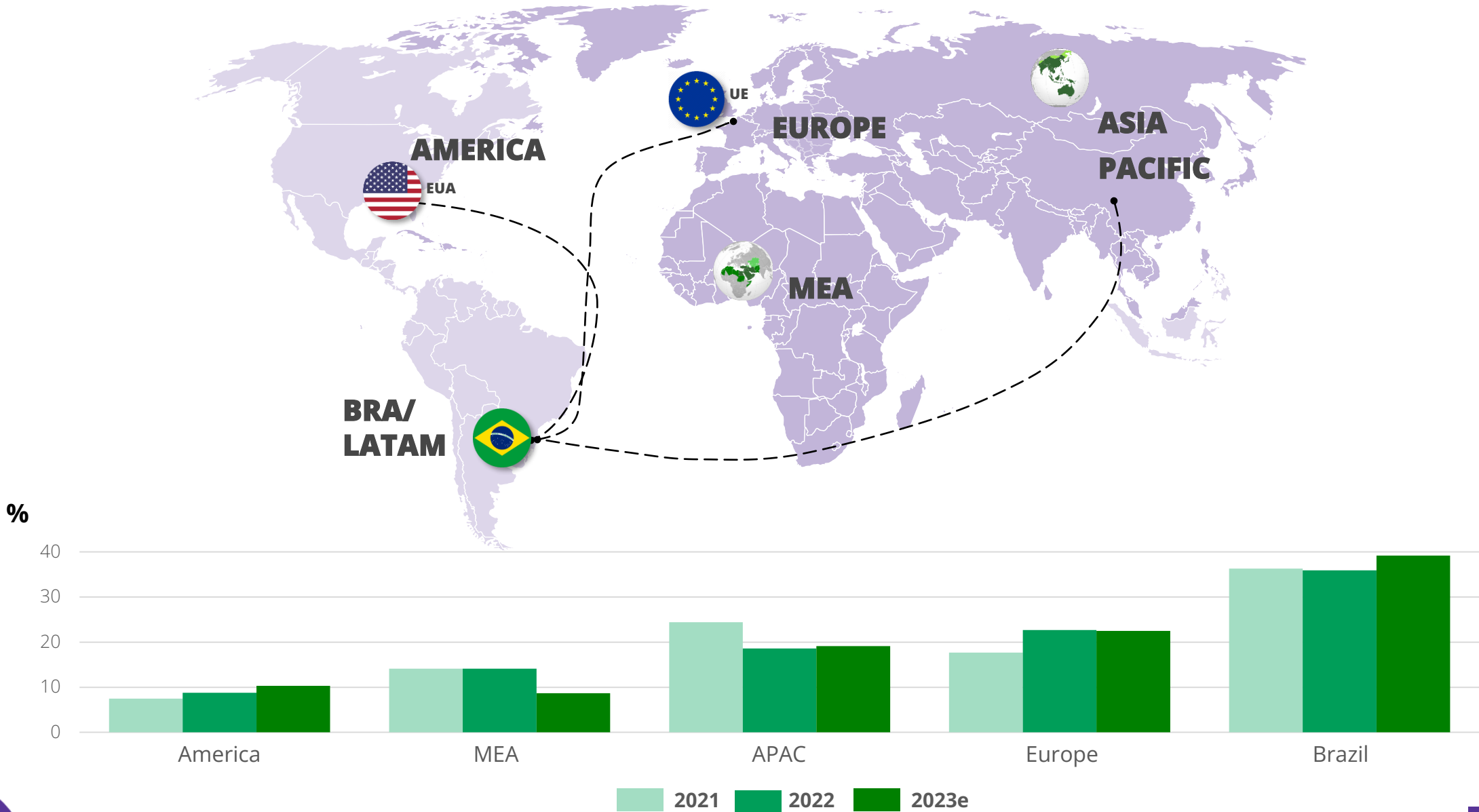


Growth Projection

Million tonnes



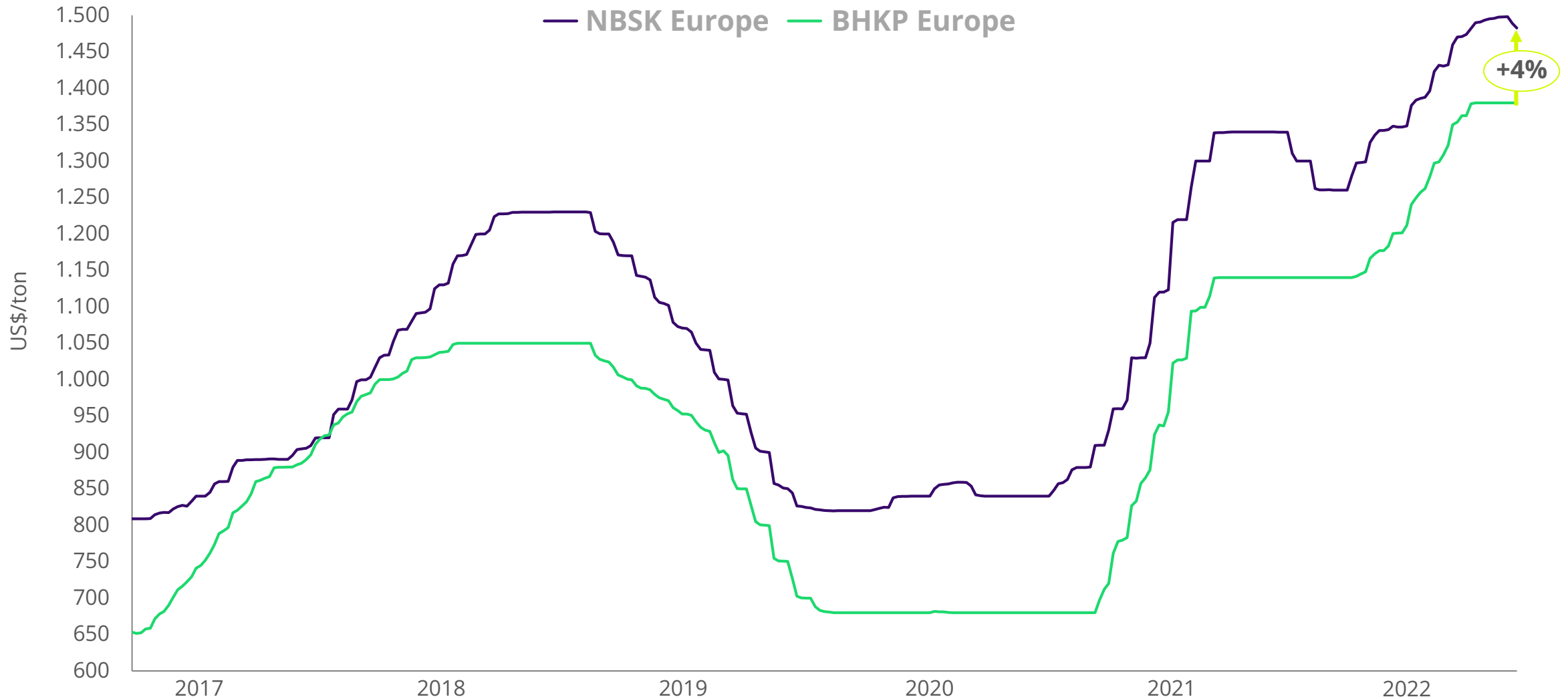
KLABIN HAS A SOLID AND DIVERSIFIED GEOGRAPHIC POSITION



Source: Klabin database 2021, 2022 and 2023 (estimated)

EUROPE PULP INDICES PRICES

Northern Bleached Softwood Kraft (NBSK) and Bleached Hardwood Kraft Pulp (BHKP)

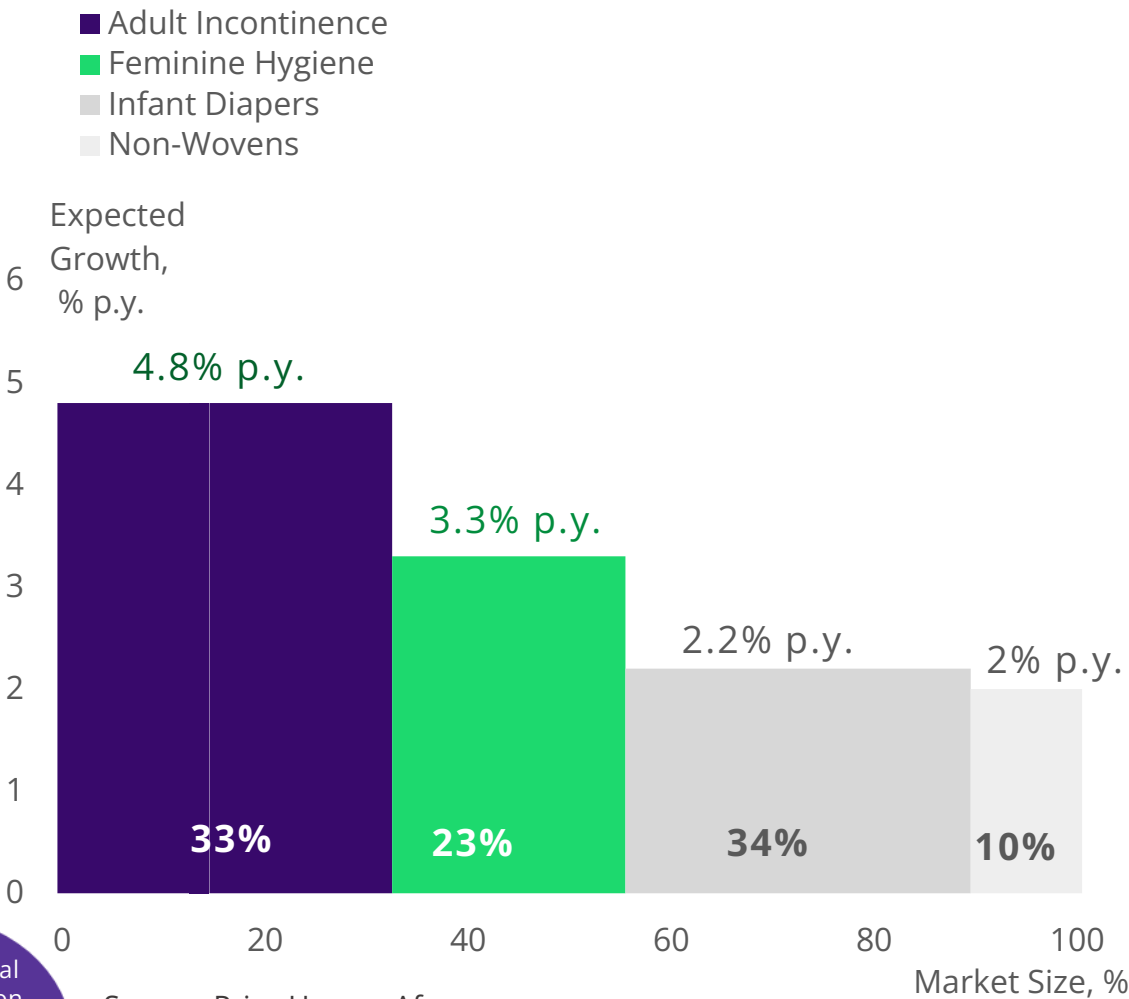


FLUFF MARKET

With population aging, adult incontinence diapers market offers great opportunities

Market Size and Growth

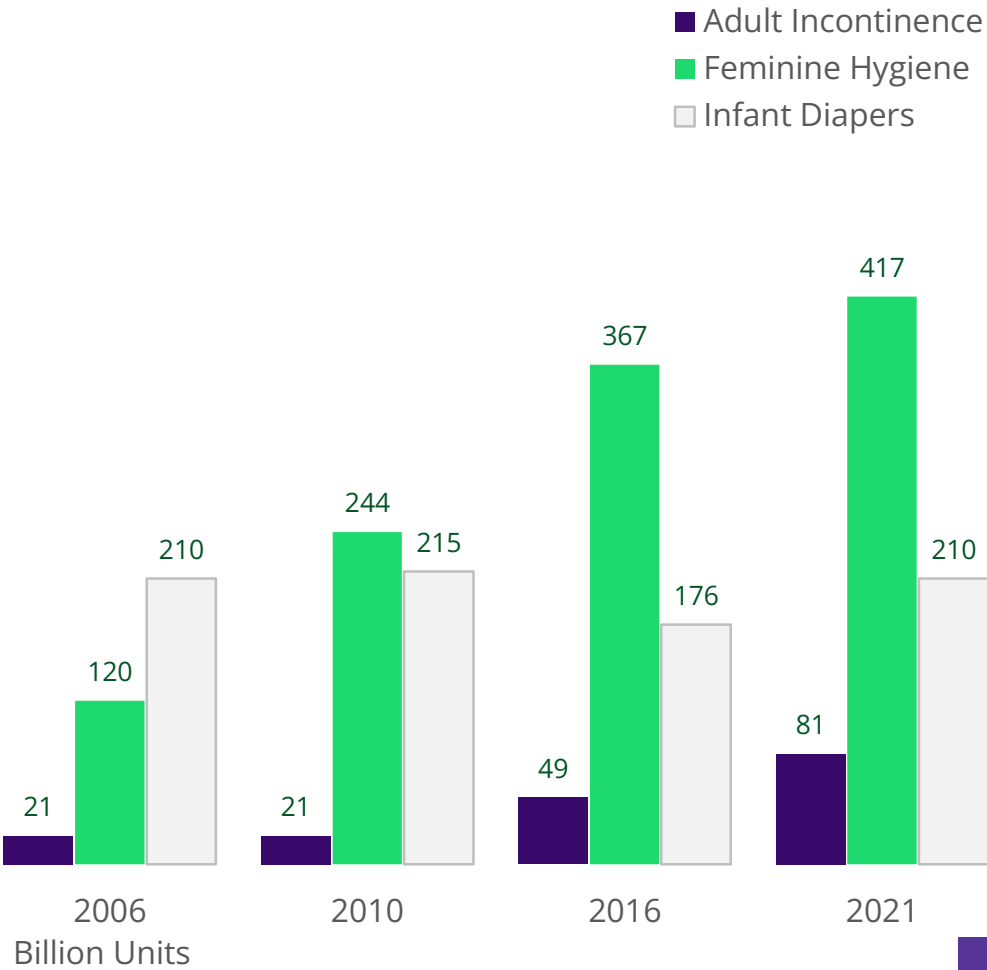
(Until 2030)



Source: Price Hanna, Afry

Sales

(In billion units)

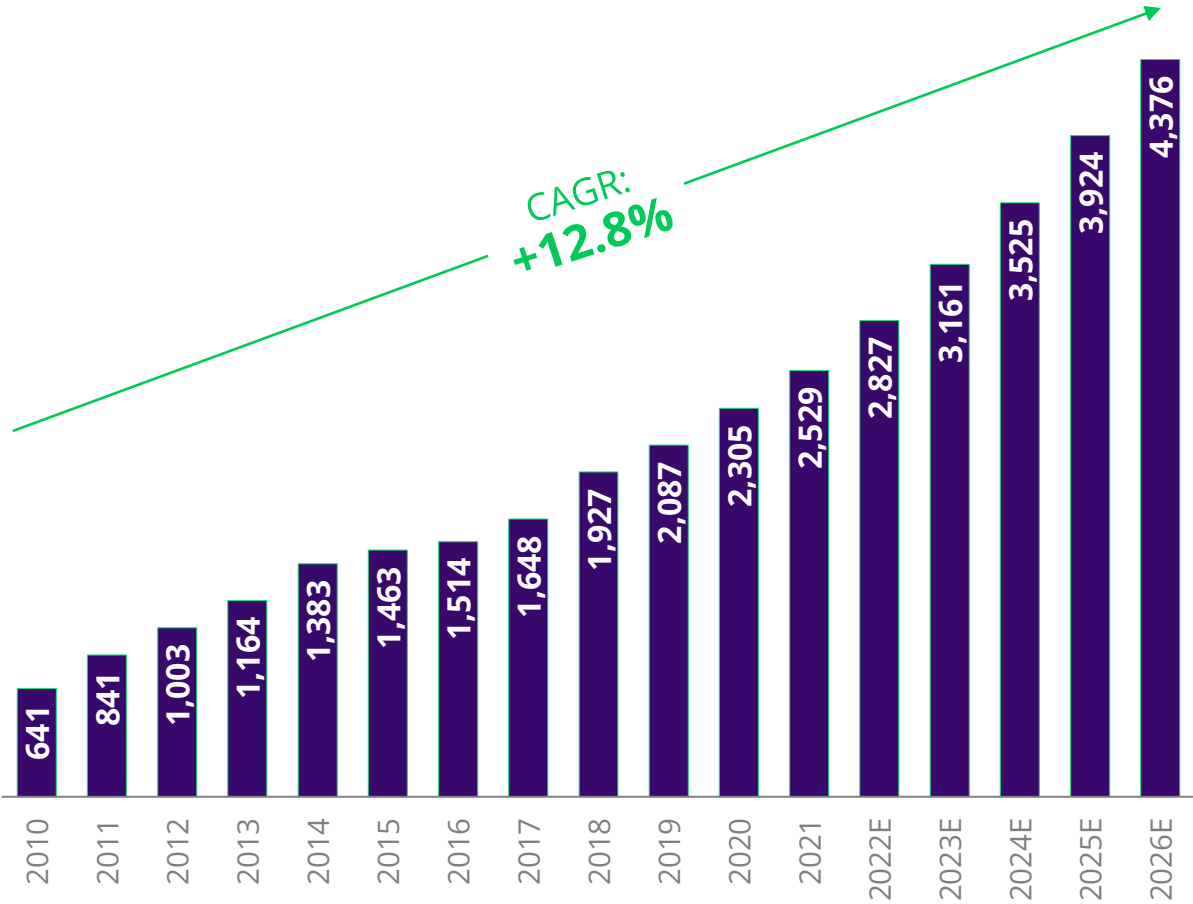


FLUFF MARKET IN BRAZIL

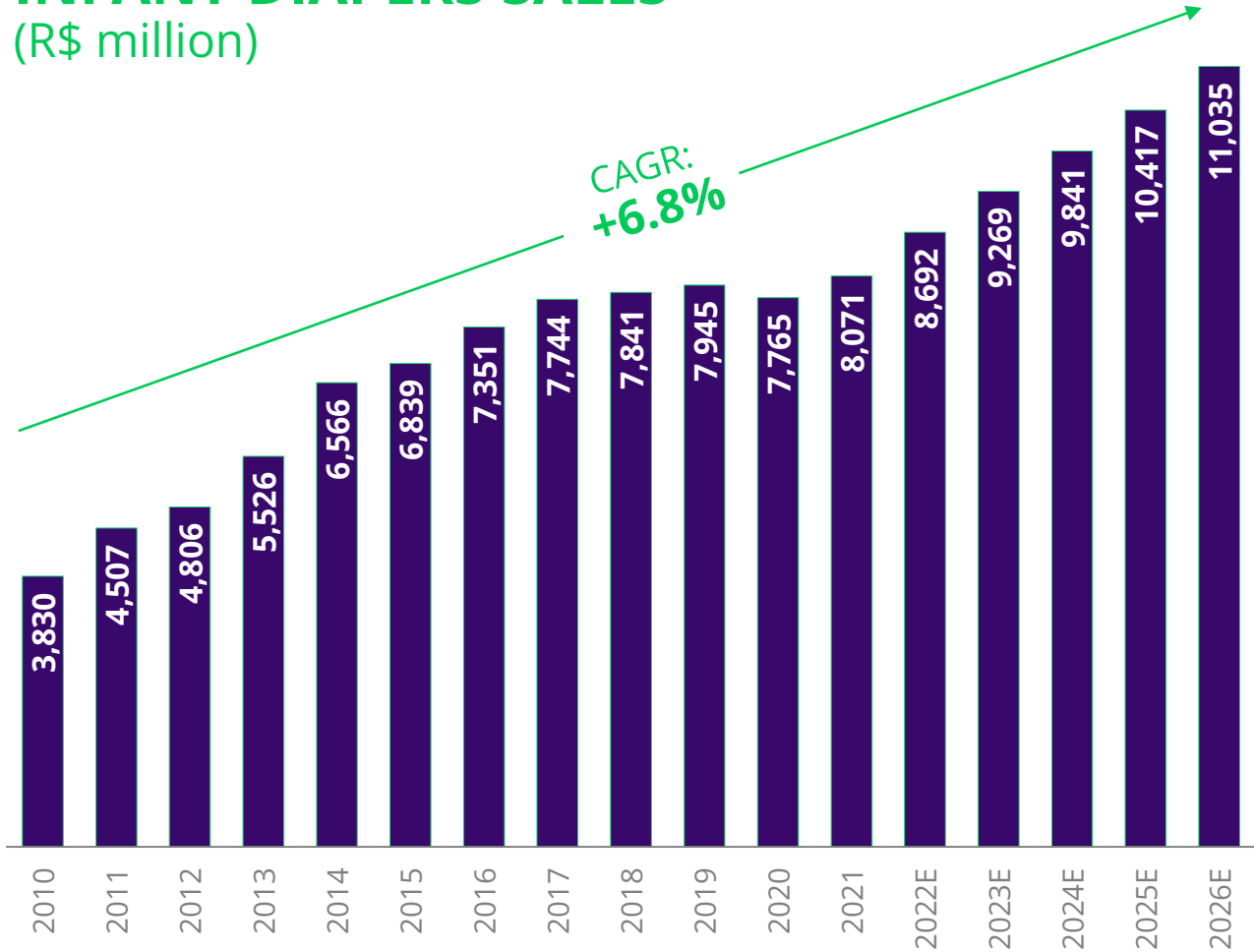
Brazil is the 3rd largest disposable diaper market in the world



ADULT DIAPERS SALES (R\$ million)



INFANT DIAPERS SALES (R\$ million)





Containerboard



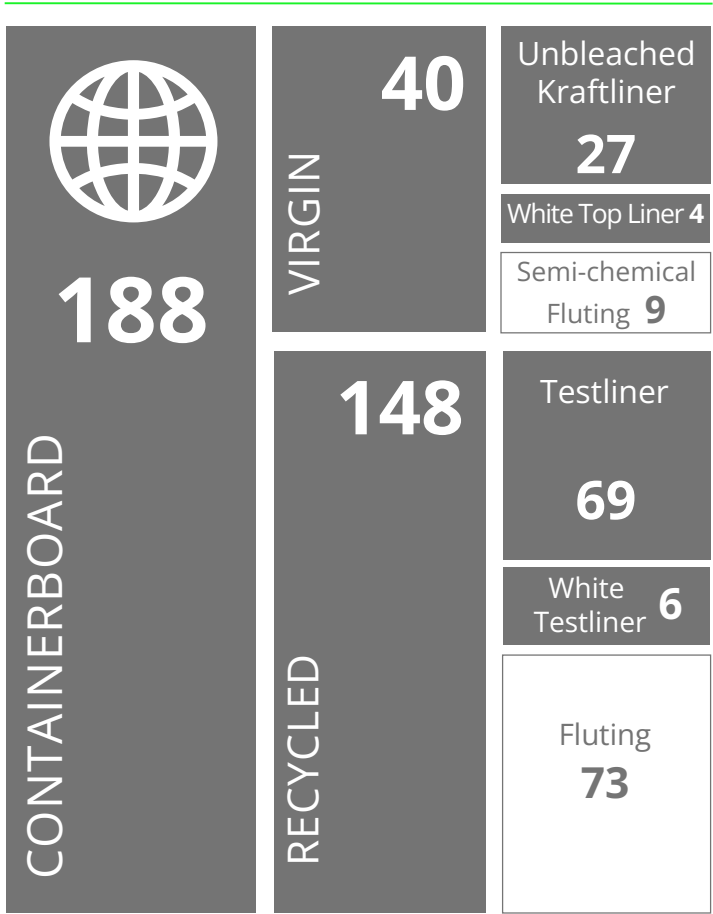
GLOBAL MARKET OF CONTAINERBOARD

Growth Expectations



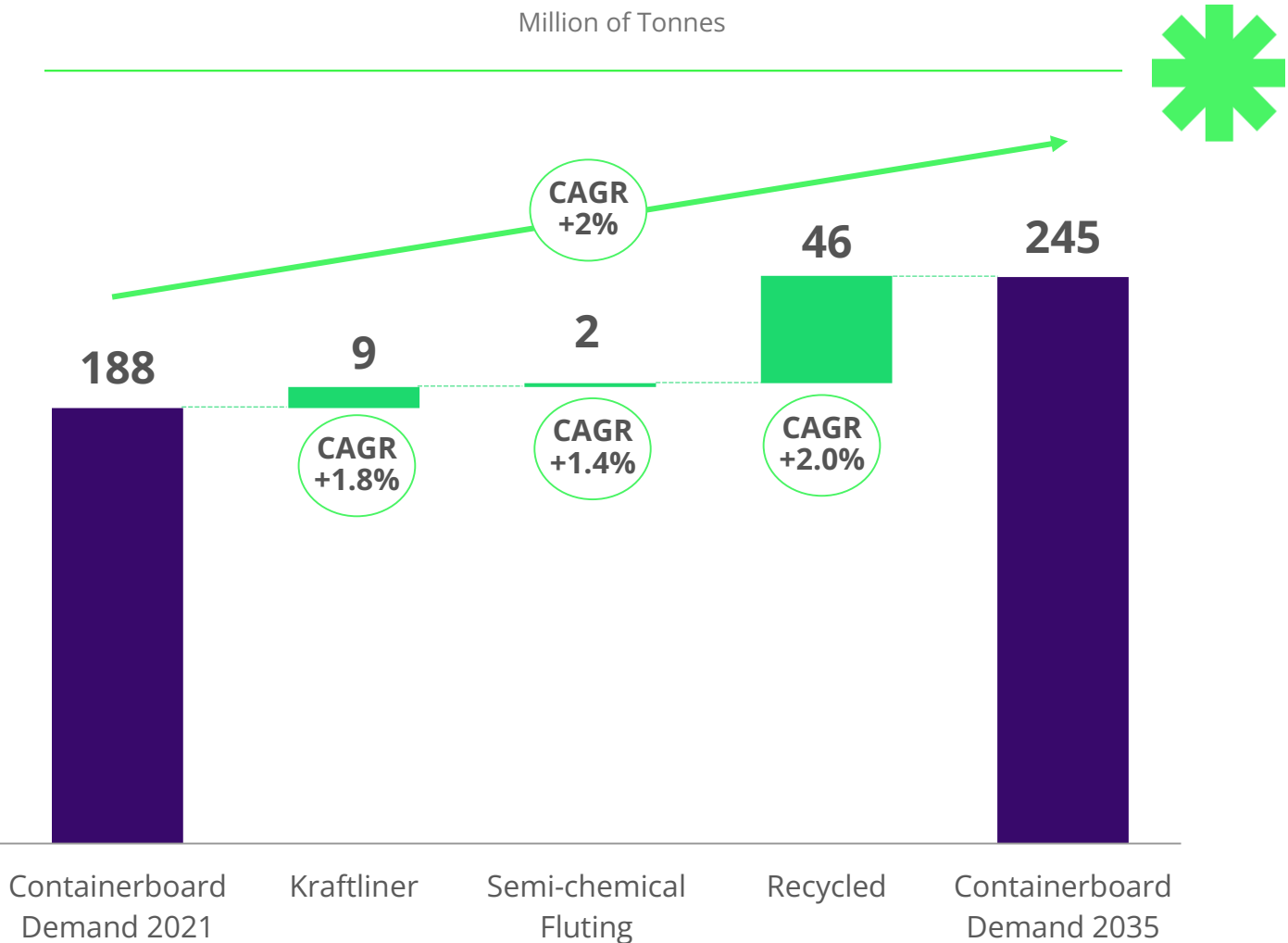
Paper and Fibers Breakdown¹

Million of Tonnes (2021)



Demand Growth Projection

Million of Tonnes



1 - Much of the capacity refers to integrated producers
Source: ÄFRY, Jay Partners and Numera

CONTAINERBOARD EXPECTED MARKET GROWTH

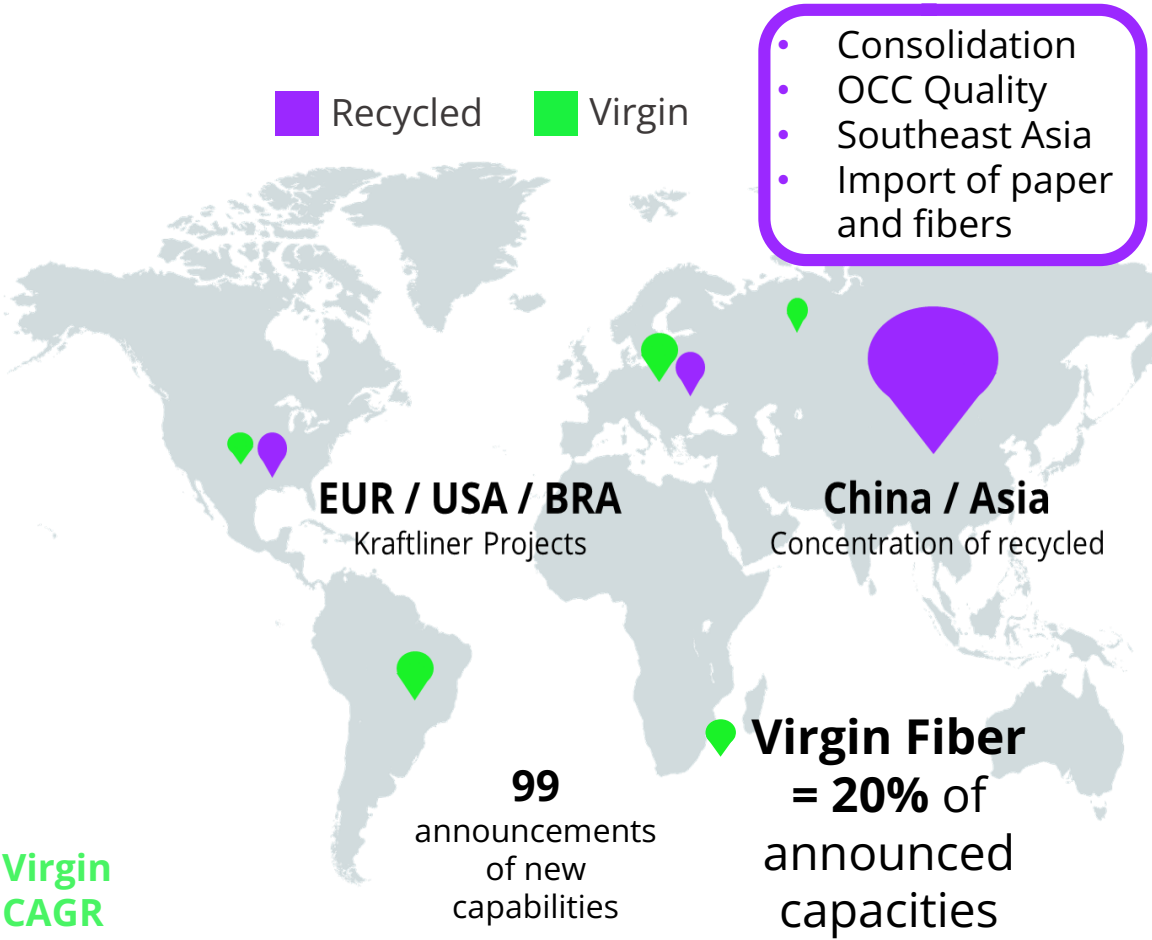
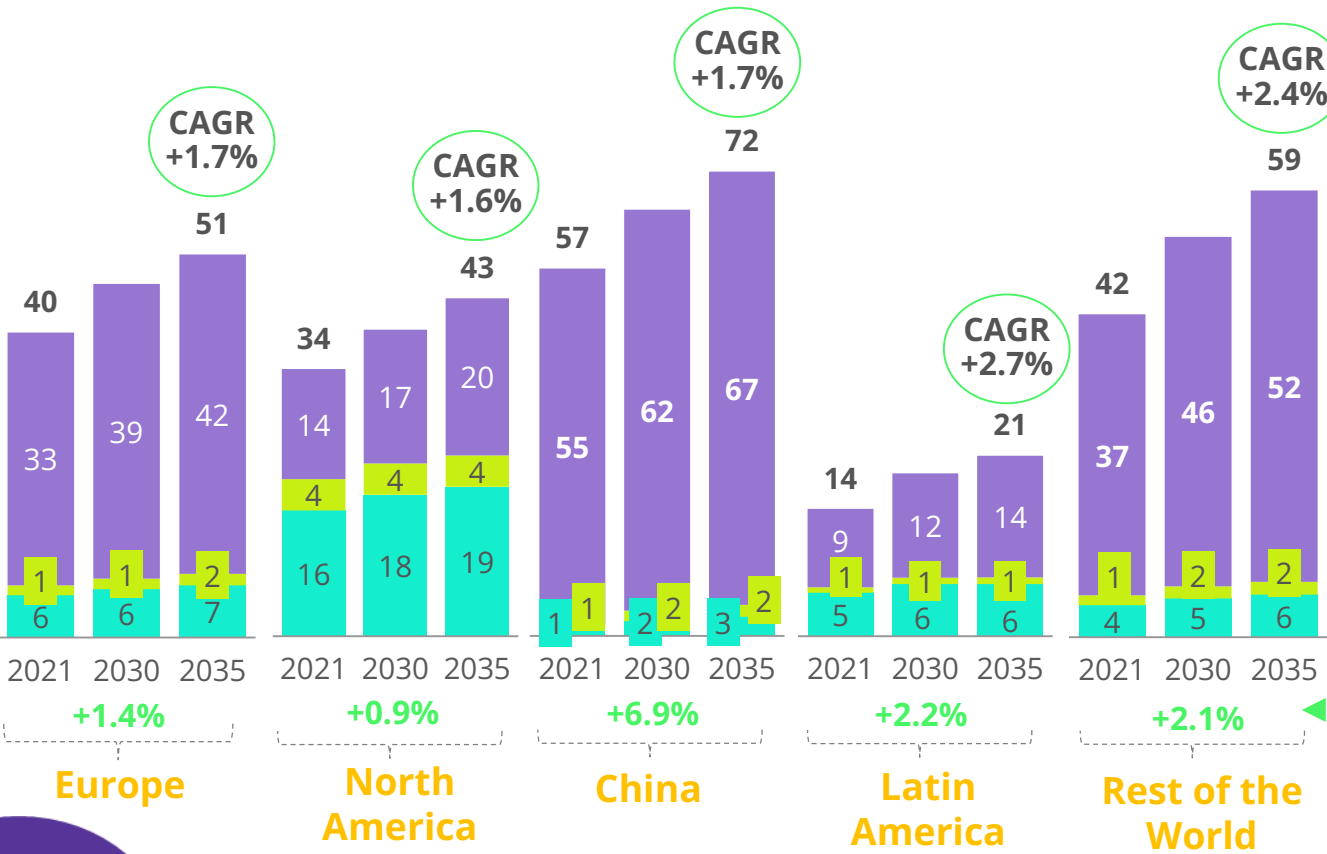
Demand by region



Growth by Region

Million tonnes

Recycled Semi-chemical Fluting Kraftliner



GROWTH DRIVERS

Urbanization, Sustainable Alternatives and New Technologies



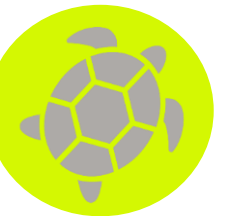
Restrictive Regulation

Holding back access to OCC and surging up prices.



E-Commerce

Consistent growth within the retail business.



Sustainable Packaging Alternatives

Use of biodegradable, renewable, recyclable and compostable materials.



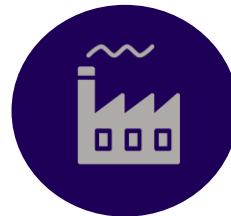
Privileged Site

Higher forestry productivity



Higher forestry productivity

Resilient demand increase alongside population growth.

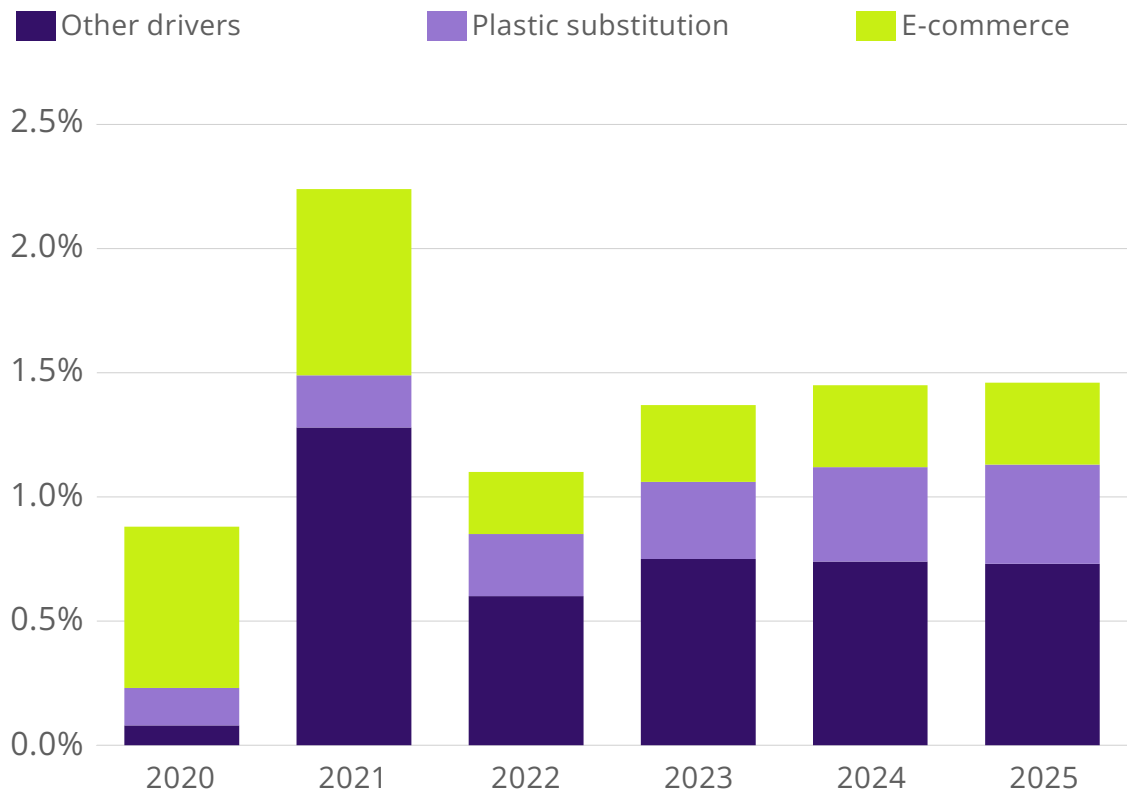


Industrial Park Renewal

New plants with significantly better technology than the previous ones.

PLASTIC SUBSTITUTION

Plastic substitution growth will surpass e-Commerce in the European containerboard market





Coated Boards

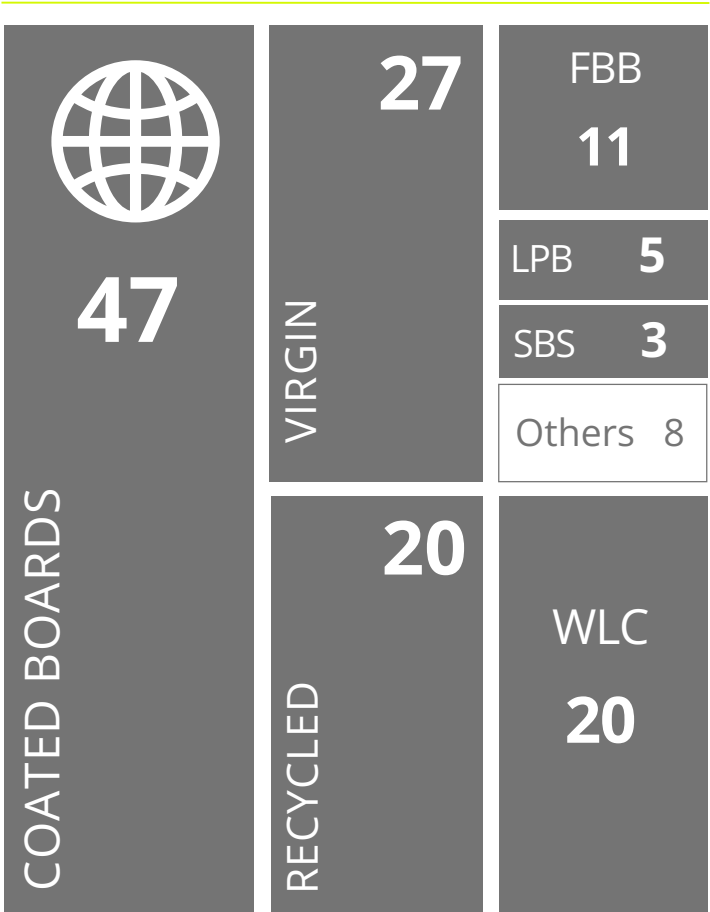
COATED BOARD MARKET WORLDWIDE

Strong growth expected in the main markets served by PM 28



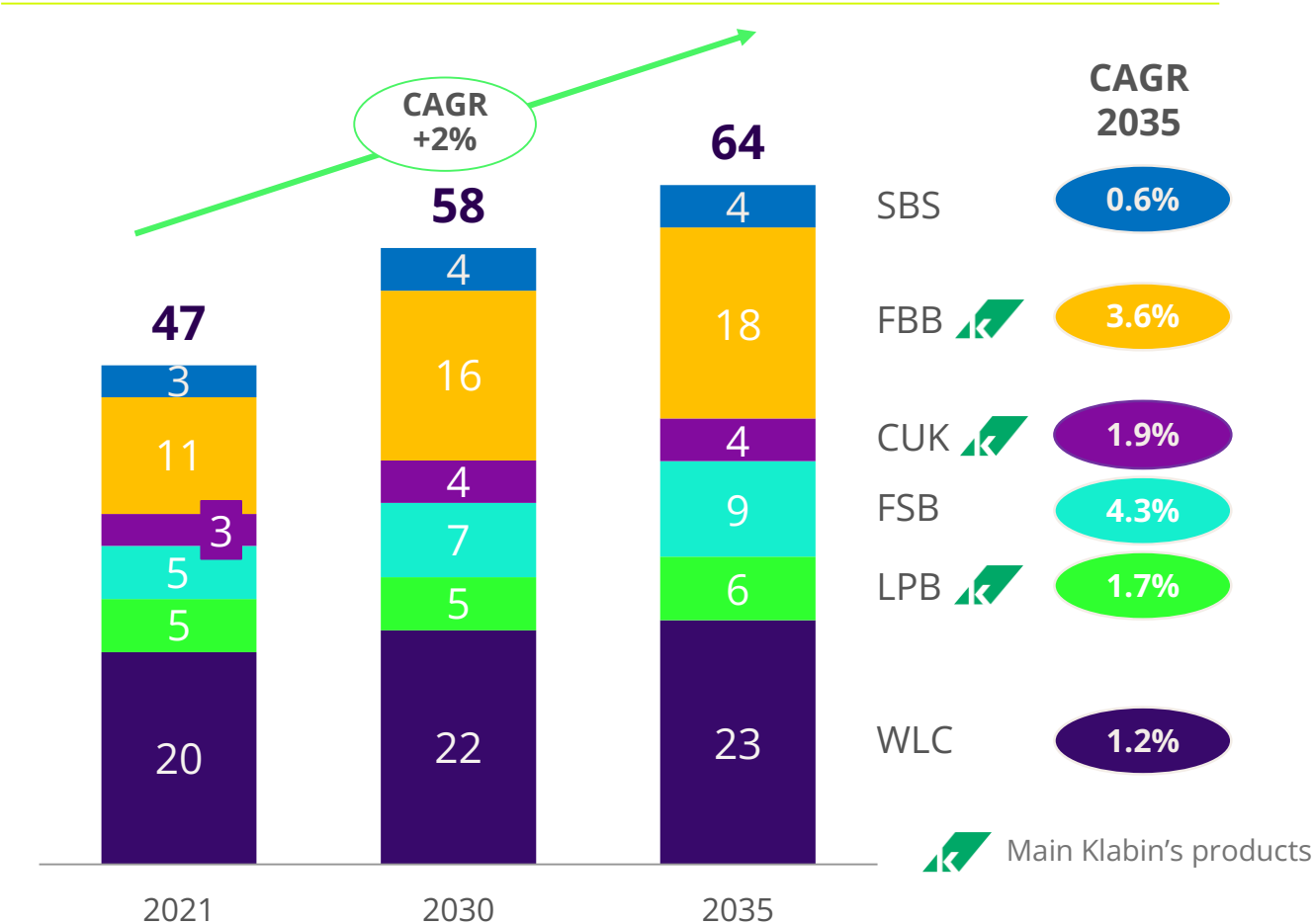
Fiber and Paper Breakdown

Millions Ton (2021)



Growth Projection

Million Ton



Source: ÄFRY e Jay Partners

SBS: Solid Bleached Sulphate | FBB: Folding Box Board; CUK | Coated Unbleached Kraft | FSB: Food Service Board | LPB: Liquid Packaging Board
WLC: White-Lined Chipboard

COATED BOARD MARKET GROWTH DRIVERS

Several drivers support the strong growth expected for the Coated Board demand



Income increase



Renewable and premium packaging

Growing concern with the consumption of sustainable products



Urbanization, speed and praticity

Trend of increased consumption through delivery and to go food



Packaging as a marketing tool

First contact point between the client and the brand



Substitution of single-use plastic

Coated Board as the main beneficiary of the movement to replace the use of plastic



Legislation

Recycled paper banned for use in food boxes

**Coated Board market
requires more technology,
processes and technical
approval**



LPB (Liquid Packaging Board):
used in liquid packaging



FBB (Folding Boxboard):
used in food packaging

HIGH QUALITY VIRGIN FIBER COATED BOARD GAINING SPACE

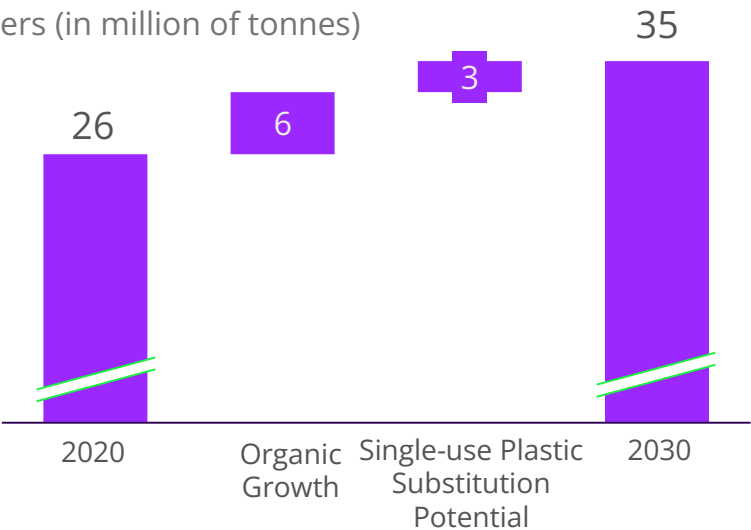
High potential for single-use plastic substitution

Several single-use plastic alternative ads



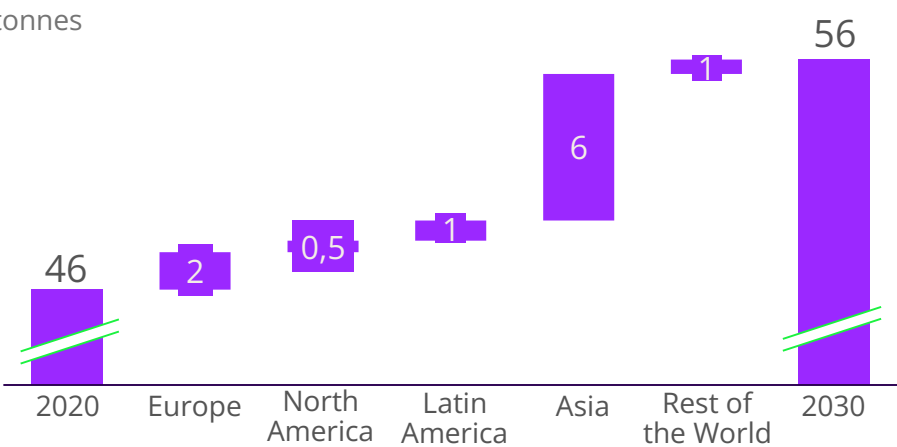
Single-use Plastic substitution potential for global paperboard demand

Only Virgin Fibers (in million of tonnes)



Coated Boards expected Market growth by region

Million tonnes



Source: ÄFRY, Jay Partners, Klabin's analysis



Packaging

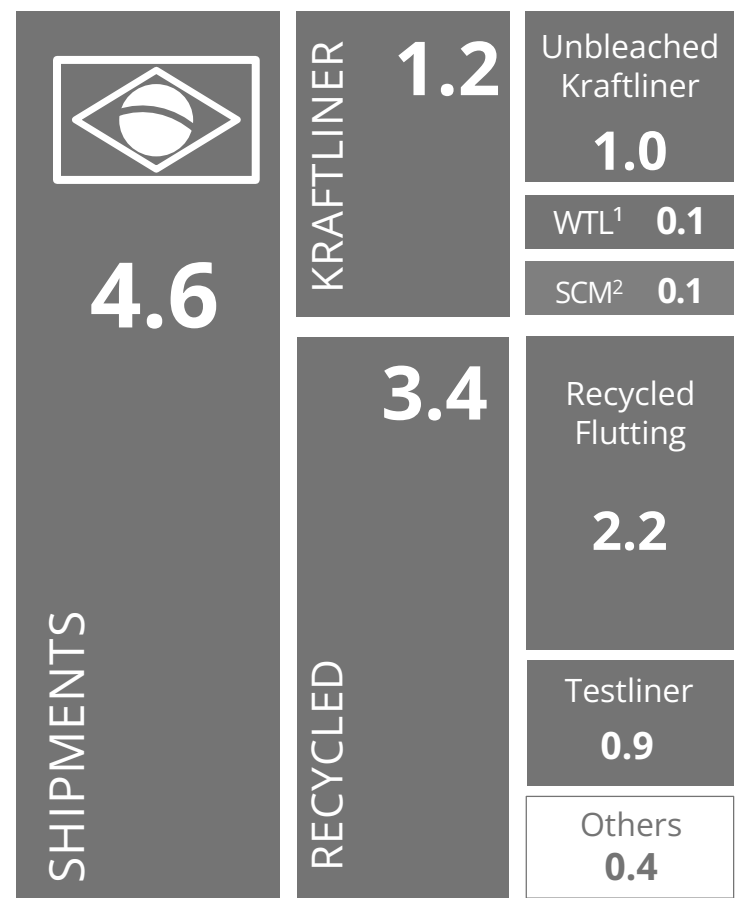
CORRUGATED BOXES MARKET

In Brazil



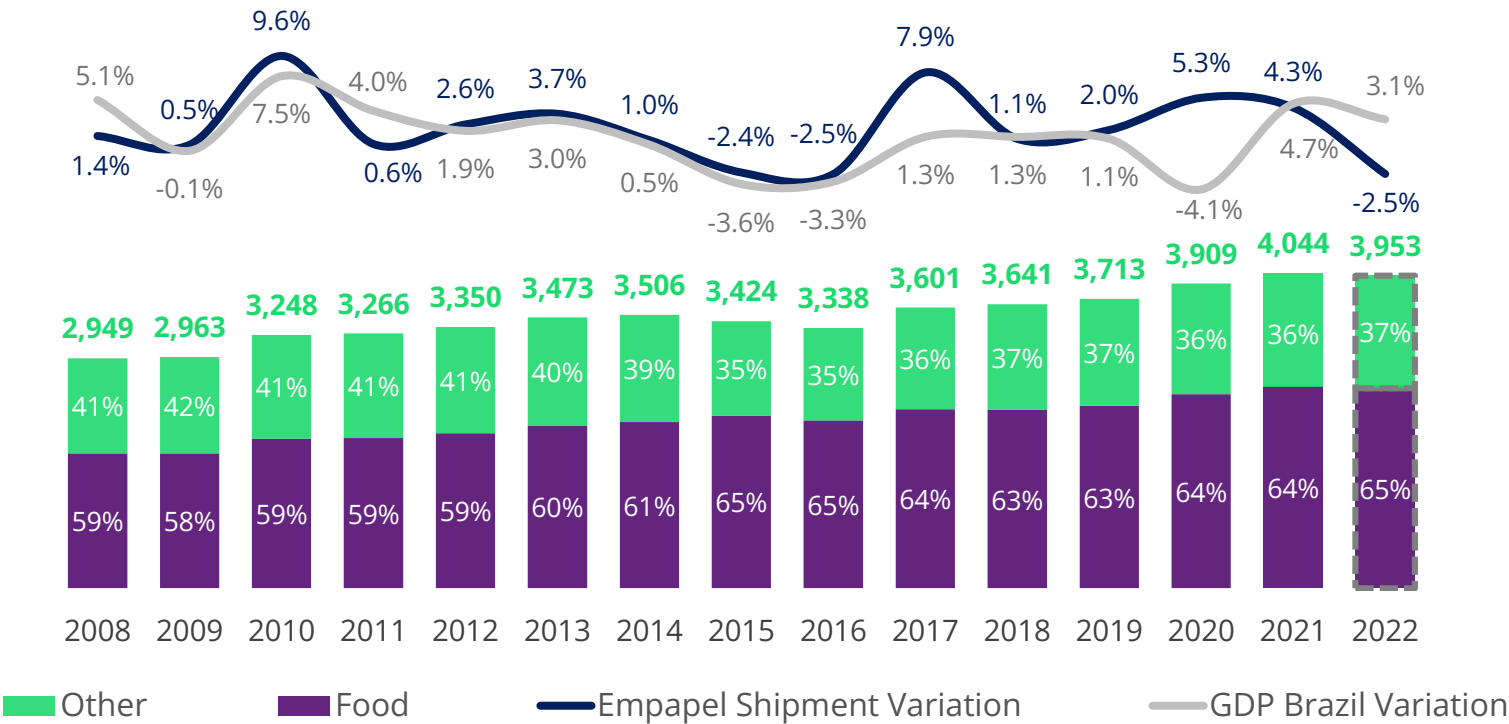
Paper and Fibers Breakdown

Million tonnes (2021)



Corrugated Boxes Shipments and Growth

Thousand tonnes and Var. %



1- WTL: White Top Liner
2 - SCM: Semi-Chemical Fluting

Source: Empapel and Focus

PACKAGING: FAR BEYOND THE FORM OF TRANSPORT, CONNECTS THE CUSTOMER WITH THE BRAND

Unboxing experience gains even more importance with increasing e-commerce penetration



CORRUGATED BOXES PACKAGING AS A SUSTAINABLE ALTERNATIVE TO SINGLE-USE PLASTIC

Klabin is the largest paper recycler and corrugated boxes producer in Brazil and is recognized for its performance in sustainability

The UN Environment Assembly in March 2022 approved a resolution establishing an international agreement to end plastic pollution by 2024

Plastic production has increased exponentially in recent decades and now amounts to **460 million** tons per year

Single-use plastics make up about **half** of global plastic waste generation



Landfill in Nairobi, Kenya, where much of the waste in the landfill is plastic
© UNEP

"Today marks a triumph by planet earth over **single-use plastics**. This is the **most significant environmental multilateral deal** since the **Paris accord**."

INNOVATIONS IN SUSTAINABLE PACKAGING

Corrugated boxes: raw material is biodegradable, recyclable and comes from renewable sources

E-commerce

Fan-fold:

Supply of corrugated sheets for box on demand manufacturing



e-Klabin:

Multi-client solutions



Delivery

Drone packaging:

Cover + bottom packaging concept to be transported via drone



Design and Aesthetics



Digital Print:

entering high-end markets

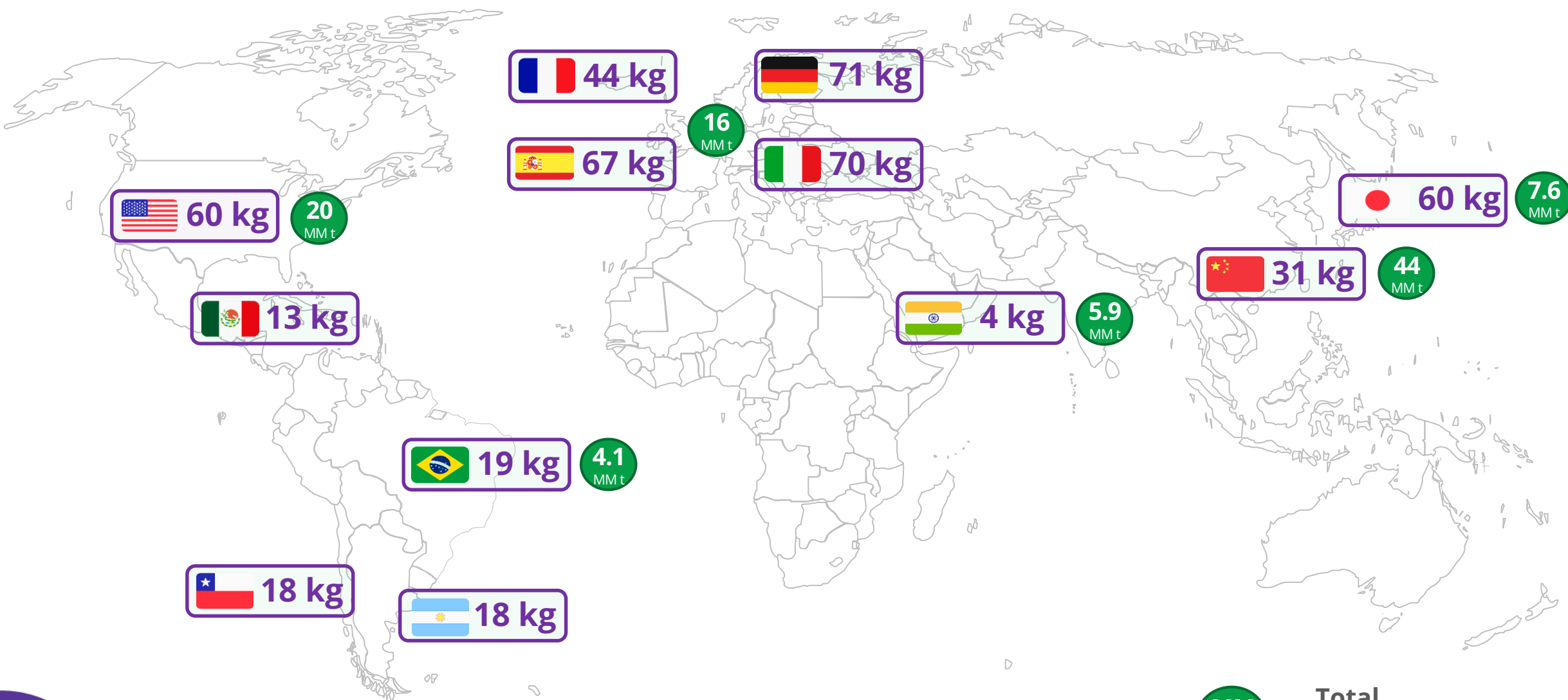
Accessibility:

application of Braille in animal feed packaging



PER CAPITA CONSUMPTION

Brazil shows potential for growth compared to other more developed



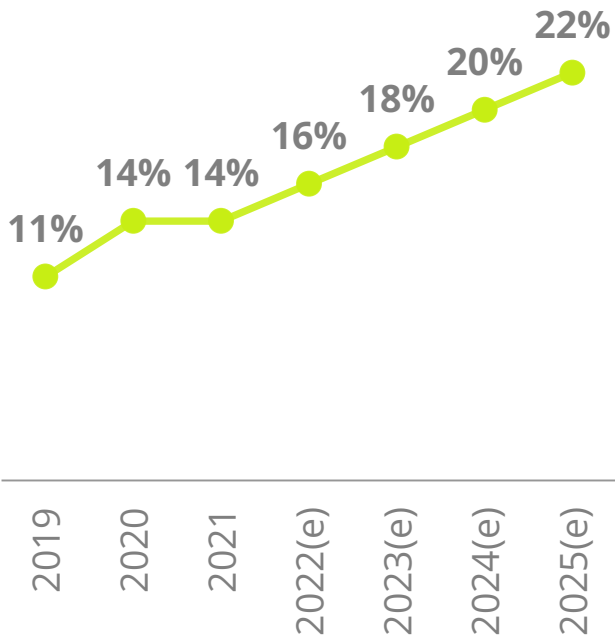
MM t Total Production

E-COMMERCE WORLDWIDE AND SHARE OF TOTAL RETAIL

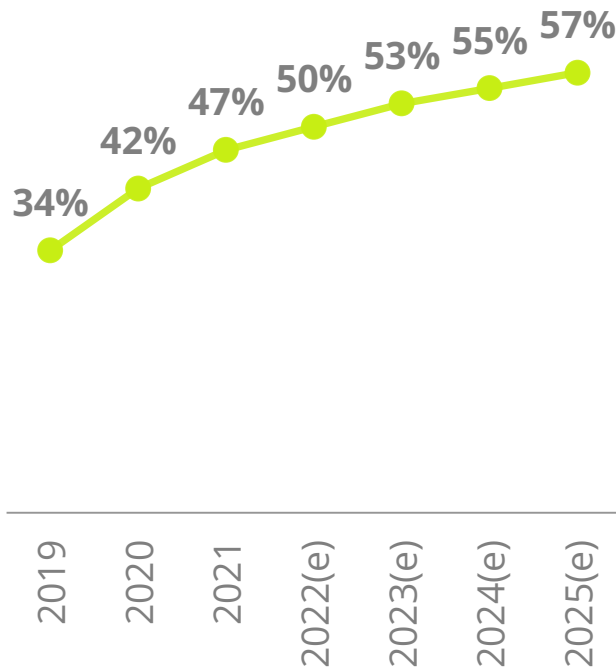
It shows steady growth in all regions of the world



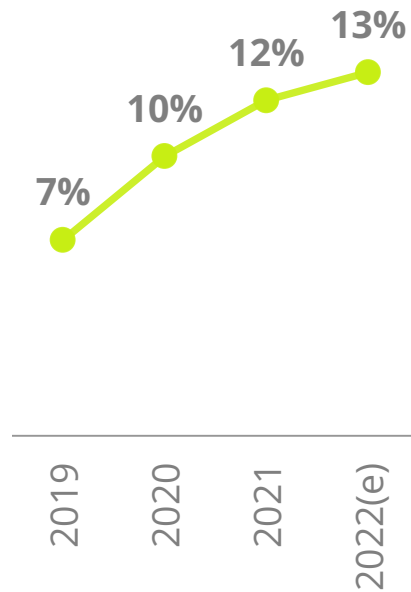
 **USA CAGR 17.9%**
(2019-2025)



 **China CAGR 13.2%**
(2018-2022)



 **Brazil CAGR 22.1%**
(2019-2021)



 Retail share

E-commerce growth

Brazil's position in the world ranking

2021
2nd

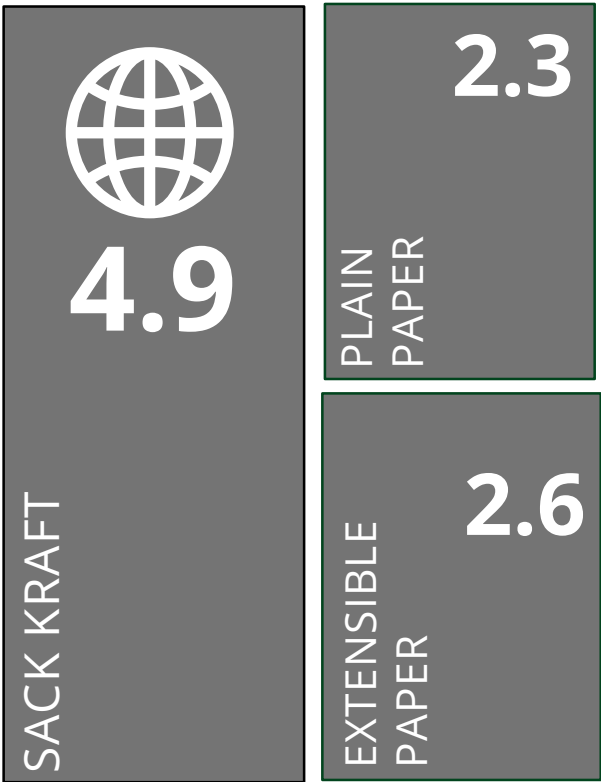
INDUSTRIAL BAGS MARKET

Growing Markets



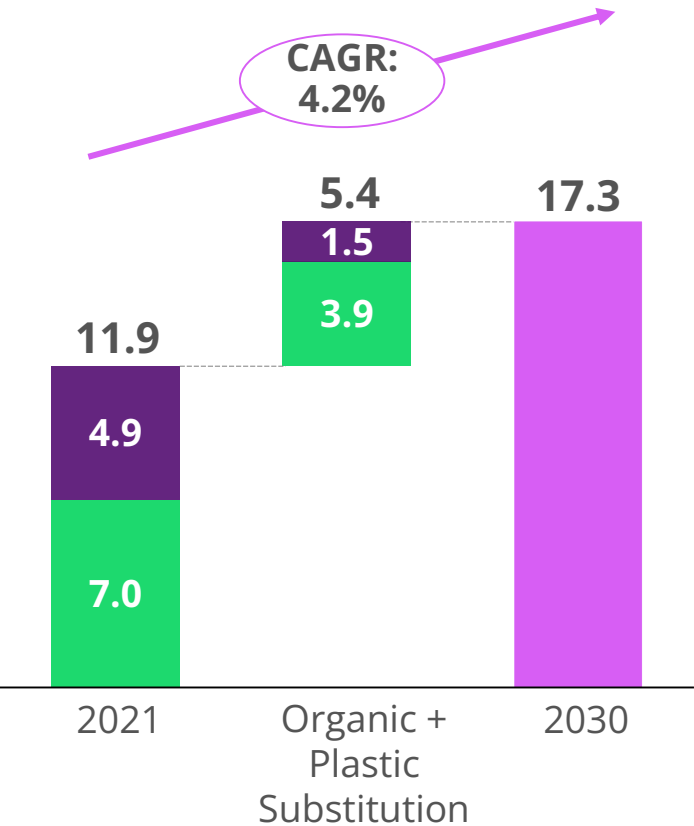
Paper and Fibers Breakdown

Million tonnes (2021)



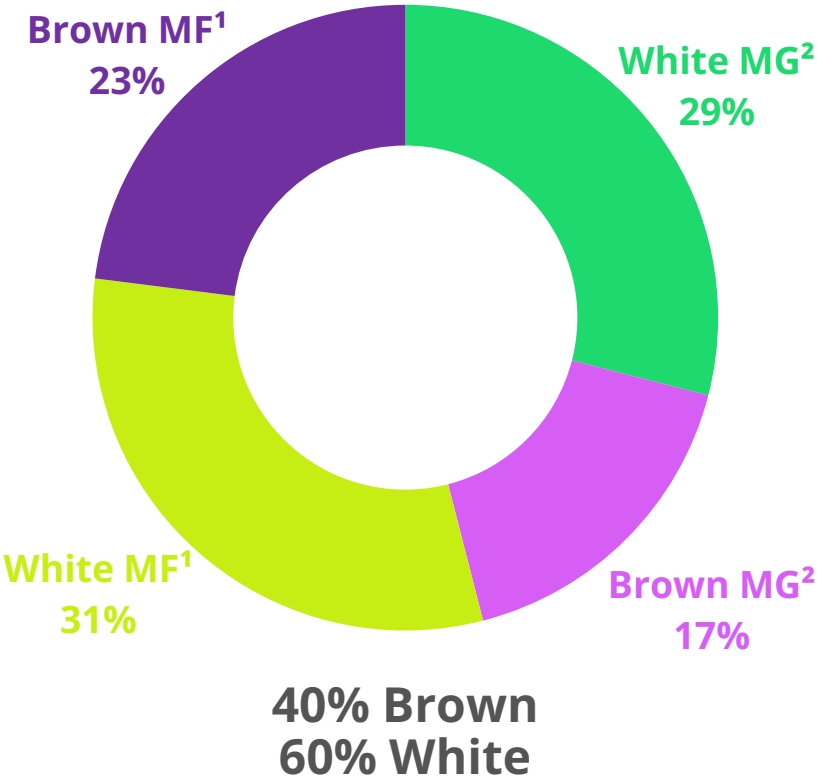
Sack Kraft Worldwide Demand

Million tonnes per year



Demand for Light Grade Sack Kraft by Type

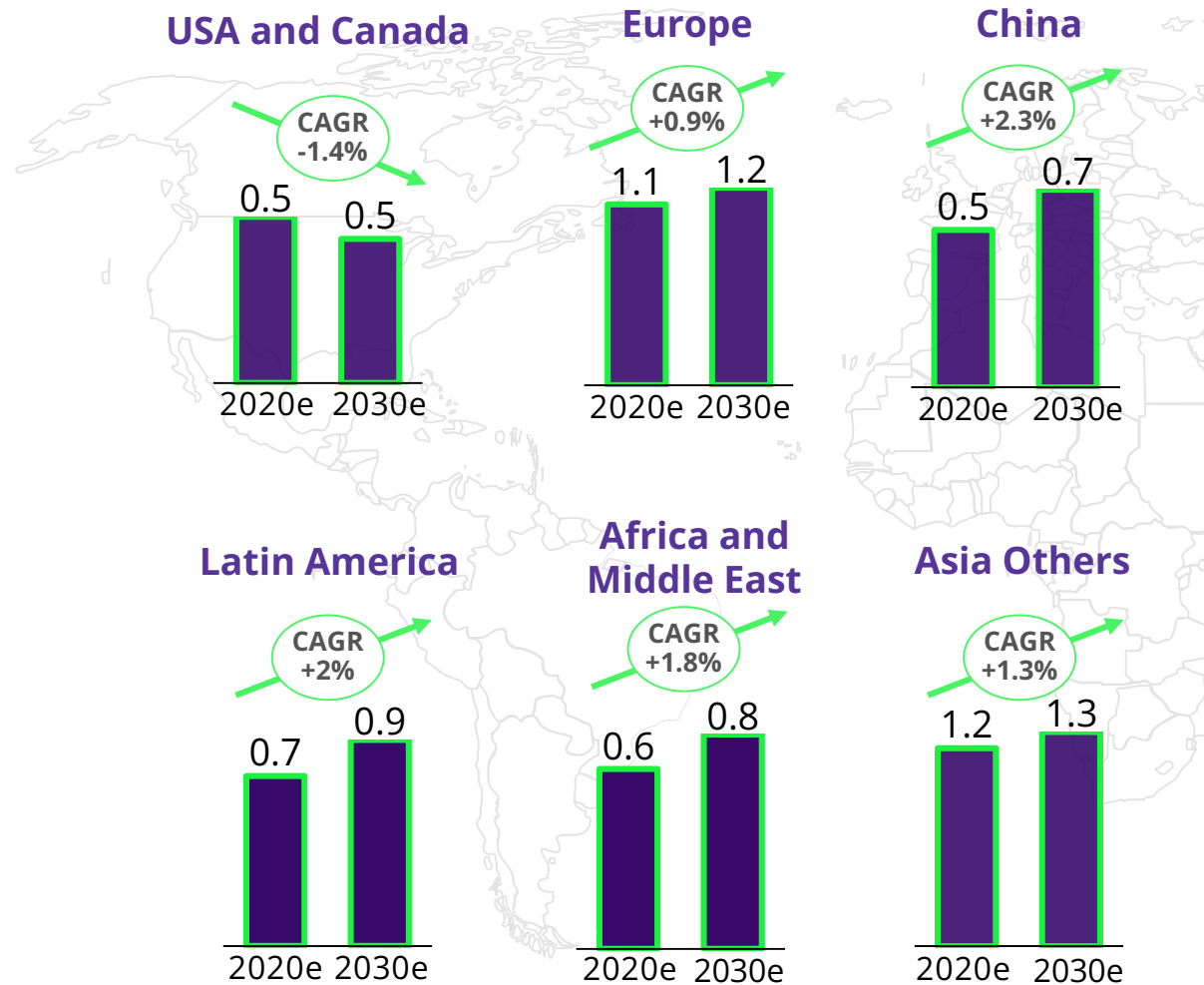
2021



1 - Machine Finished
2 - Machine Glazed

SACK KRAFT EXPECTED MARKET GROWTH

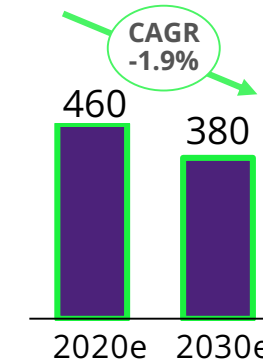
Estimated demand for Sack Kraft by region - In million tonnes



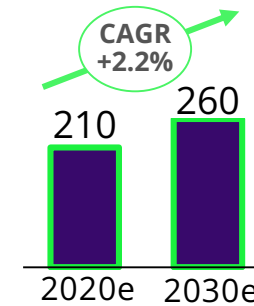
Klabin's main markets

In Million tonnes

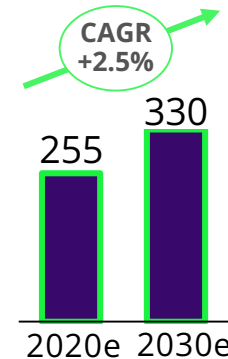
United States



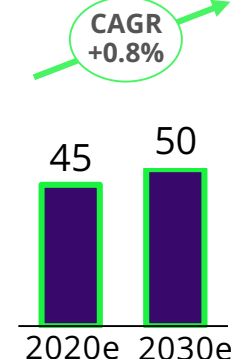
Mexico



Brazil

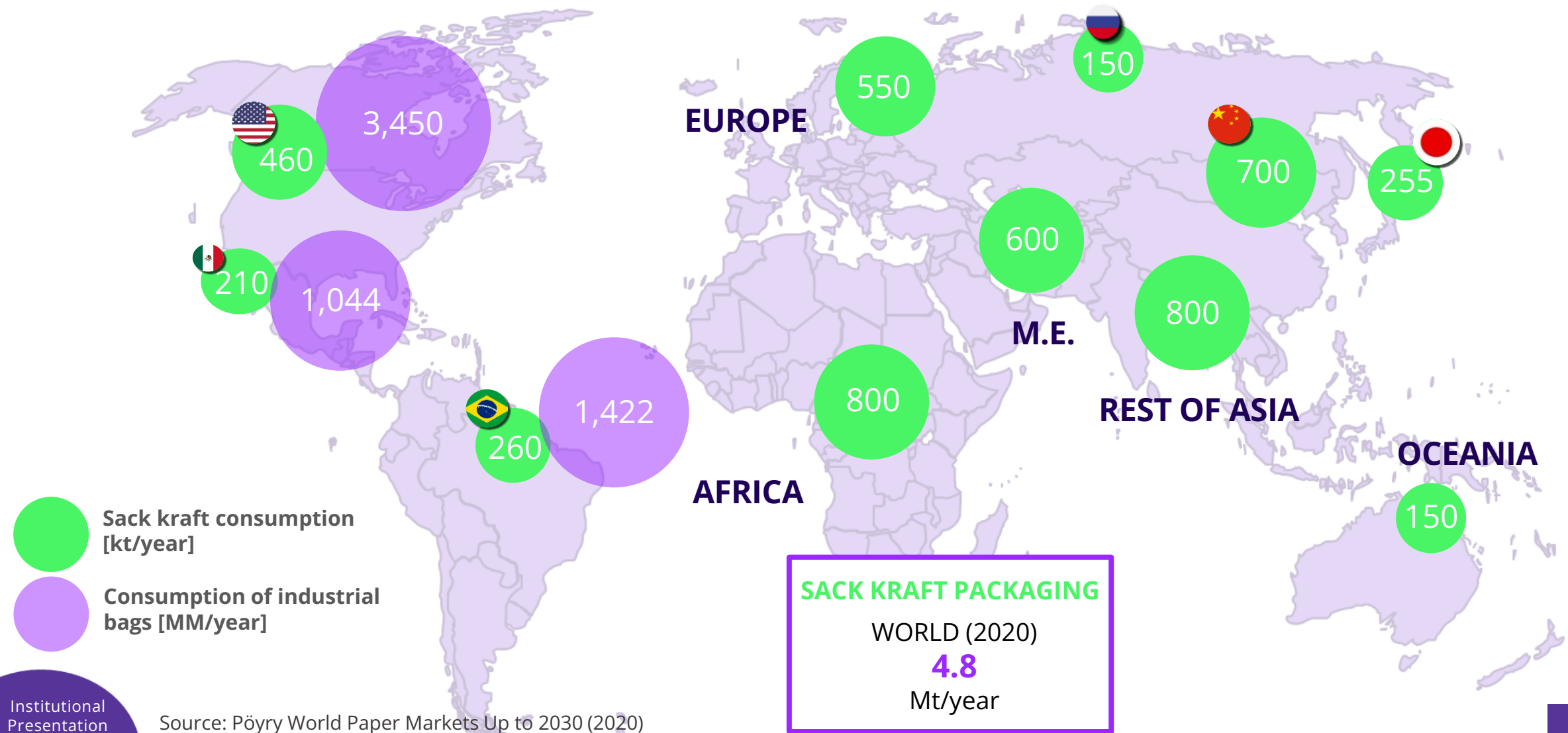


Argentina



CONSUMPTION OF SACK KRAFT AND INDUSTRIAL BAGS

2020: USA, Mexico, Argentina and Brazil among the largest estimated markets



Source: Pöyry World Paper Markets Up to 2030 (2020)

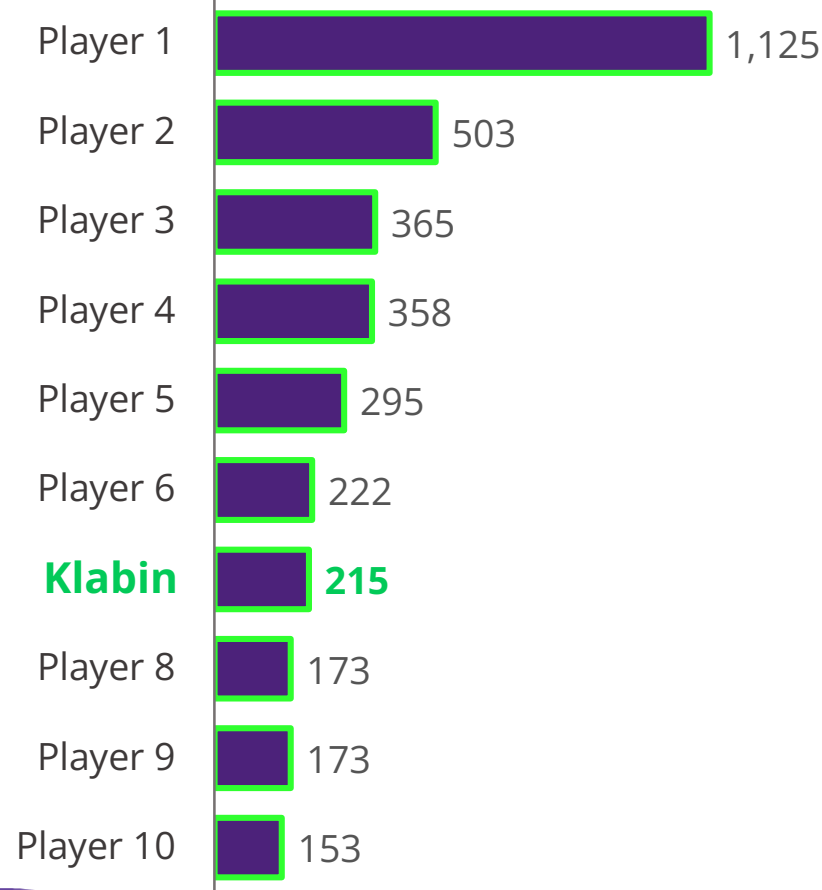
INDUSTRIAL BAGS MARKET

Market Breakdown



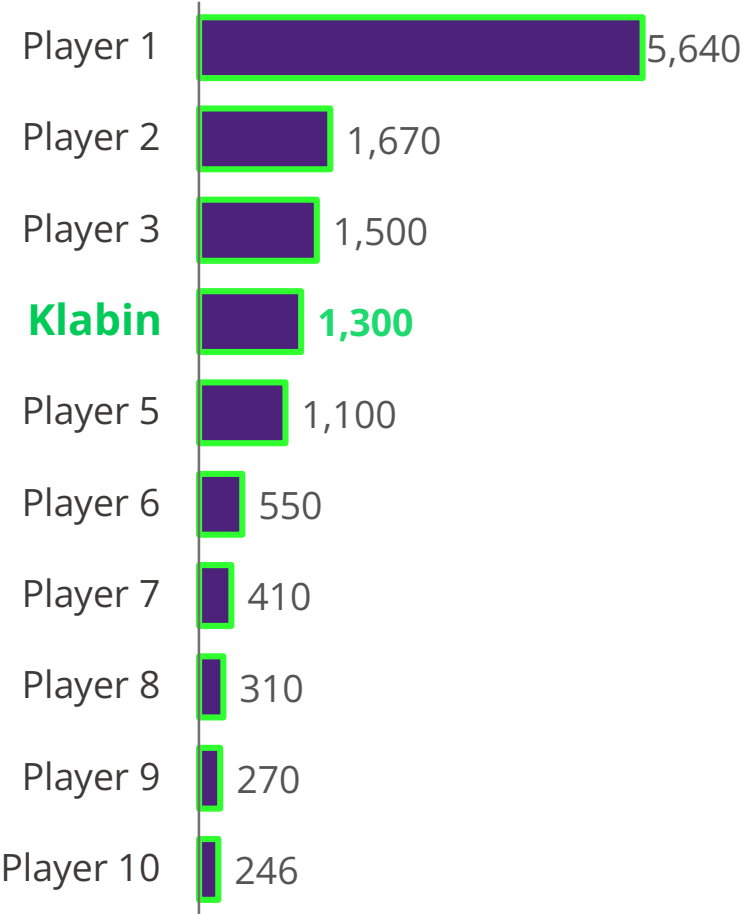
Global Sack Kraft Producers

kt/year



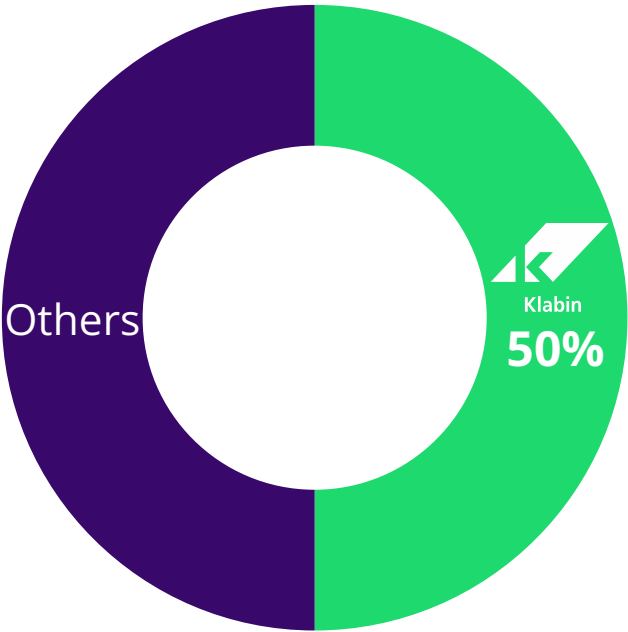
Industrial Bags converters in world

2017 – Million bags per year



Industrial Bags

Market Share in Brazil





Puma II Project





Project Highlights

1

White Top Liner

White Kraftliner
Production taking
advantage of bleached
fiber availability on site

2

Fixed Cost

Lower cash cost
compared to Klabin's
current cost

3

Productivity

Biological Assets, Industrial
and Logistic synergies will
allow for greater efficiency

4

Operational Efficiency

Fiber production line
debottlenecking allowing
for additional bleached
pulp production for Puma I
operations

5

Additional Capacity

Expected production to
reach above nominal
capacity levels due to
historical performance
records trend

PROJECT HIGHLIGHTS

Distinct products for growing distinct markets

White Top Liner

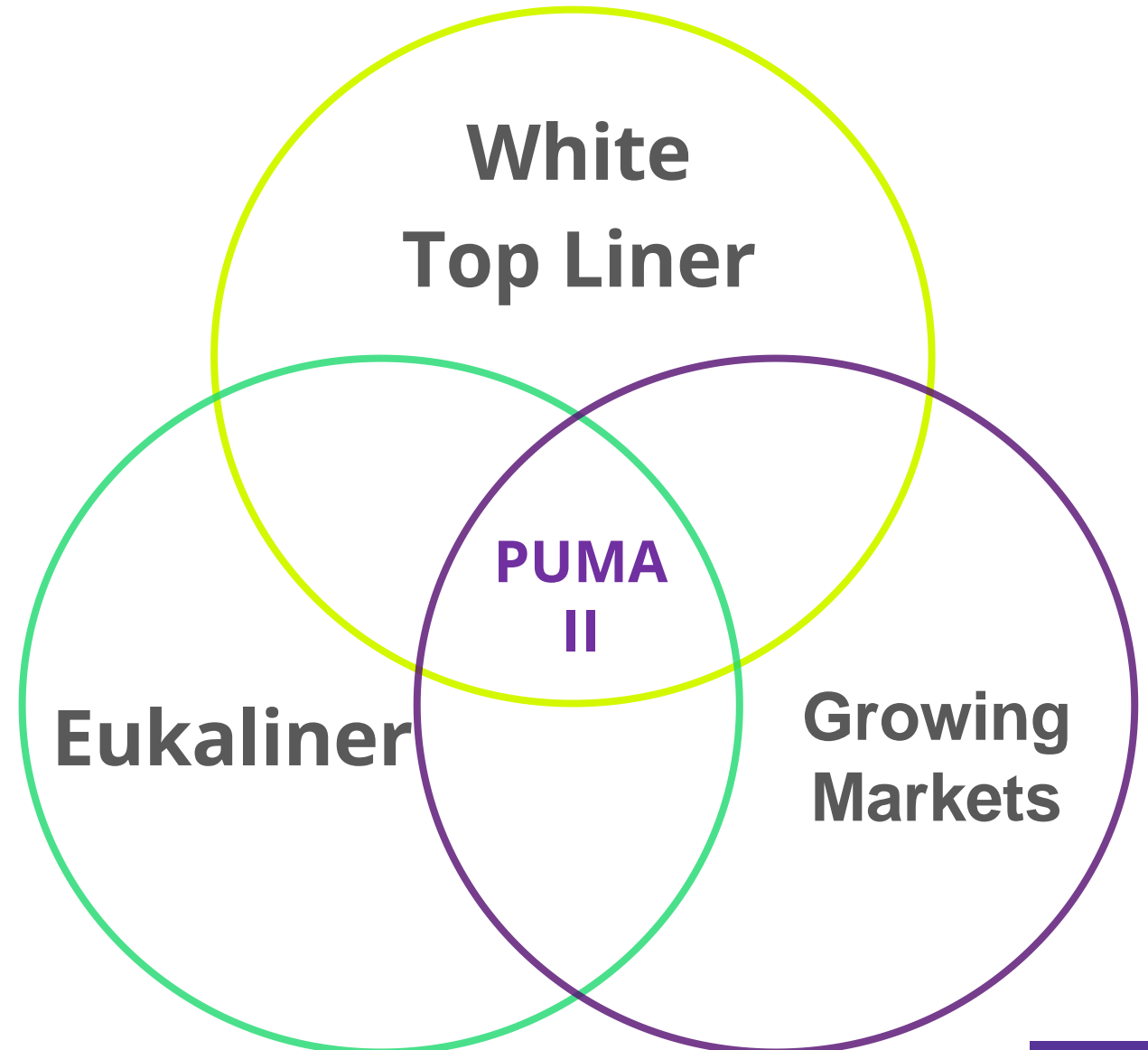
- Demand for approx, 6 Million t/y
- Demand grows 3% to 4% p.y.
- Low integration market
- New product on the most demanded grammage range

Eukaliner

- Klabin's Patent - essentially eucalyptus
- 100% Virgin Fiber
- 10% gain on physical properties

Growing Markets

- E-commerce market
- Food market
- Shelf-Ready Packaging



Planted area & Years to harvest

(for 450 kt of Kraftliner)



Area (k ha)



Sustainability

- Planted area reduction
- Smaller loss after recycling



Quality

- Better printability
- Endurance on low grammages



Efficiency

- Weight Reduction
- Lesser water retention
- Better performance on corrugator (productivity)

10x smaller area

10x faster to grow

1st MACHINE

Hot market and most of the production allocated in contracts

PM 27

STARTUP

August 30,
2021

Production
Ramp-up:

2021

99
k ton

2022

354
k ton

2023

420
k ton

2024

onward

450
k ton

Capacity: **450** thousand ton/year¹

Fibers: **100%** Short Fiber

Type: Eukaliner® + Eukaliner White®² (20% of the capacity)

Low/Medium Grammage (90 to 200 g/m³)



Image of the 1st Paper Machine (PM27) of the Puma II Project in Ortigueira-PR

EUKALINER® DIFFERENTIALS

Innovative product tested and approved by customers worldwide

**First
kraftliner made
from 100%
eucalyptus fiber**


**>10% of
grammage
reduction¹**



**Better
printability**

 **Eukaliner®**
**awarded in Packaging
Innovation by the PPI
Awards, Fastmarkets RISI**


**More
sustainable**


**Stronger
structure²**


**Higher
performance
and energy and
vapor savings³**

Tested and Approved

**for customers worldwide -
structure, performance
and grammage reduction**

1 – Keeping the same final structure of corrugated boxes packaging
2 - Due to the characteristics of eucalyptus fiber, the paper thickness is maintained
3 - Eukaliner®'s fibrous composition promotes more efficient heat exchange

2nd MACHINE

Flexibility to produce Coated Board and/or Kraftliner with higher value creation



PM 28

Capacity: **460** thousand ton/year¹

Medium/High Grammage (150 to 350 g/m²)

✱ **STARTUP**
(2nd quarter of 2023)

Production
Ramp-up²:

2023

190
k ton

2024

350
k ton

2025

400
k ton

2026

440
k ton

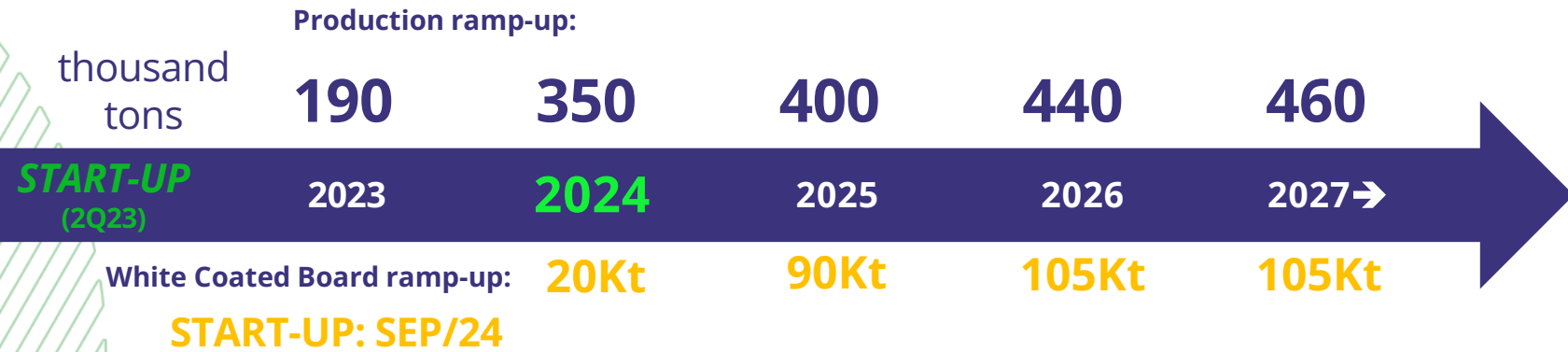
2027
onward

460
k ton



PM28

NEW COATED BOARD MACHINE



Production of PM28 – in orange: new products from the Project

LPB
Liquid Packaging Board
(brown + **white**)

CUK
Coated unbleached kraft

FSB
Food Service Board
(brown + **white**)

FBB
Folding Boxboard
(brown + **white**)

SBS
Solid Bleached Board

PM28:

Go-to-market Strategy

Productive capacity
460kt/year

Expectation to produce 100%
coated board in 2024

Expectation for 2023
Production: 190kt

The new coated board machine will
serve resilient and growing markets

High predictability and
stability of results

Contracted volume/in
contract finalization

60% of the total
(forecast: 70% until start-up)

30% spot: efficiency
between product mix and
geographies

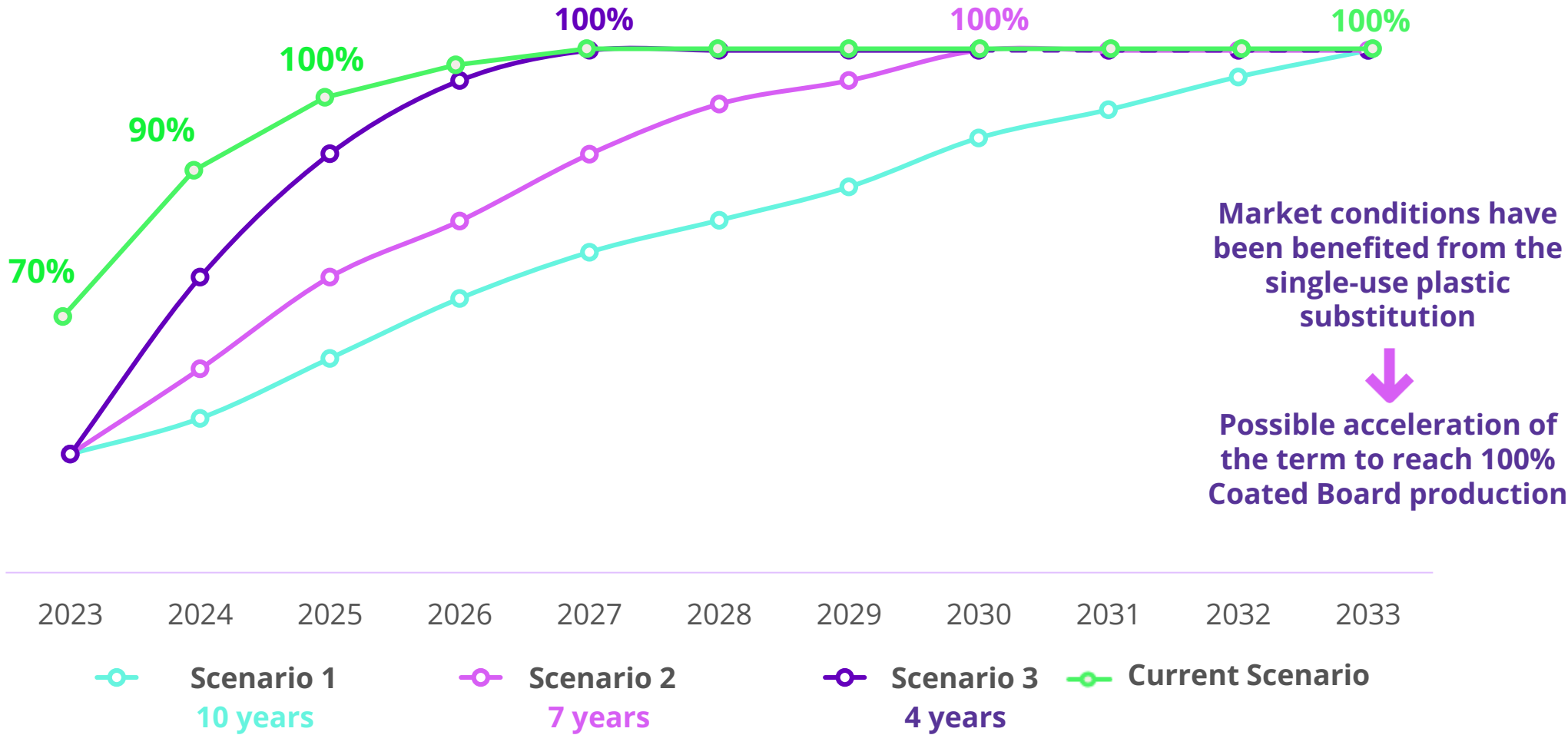


Incremental Coated Board Production Scenarios



Coated Board flexibility production ramp-up depending on market conditions

Annual production (thousand ton)



Market conditions have been benefited from the single-use plastic substitution



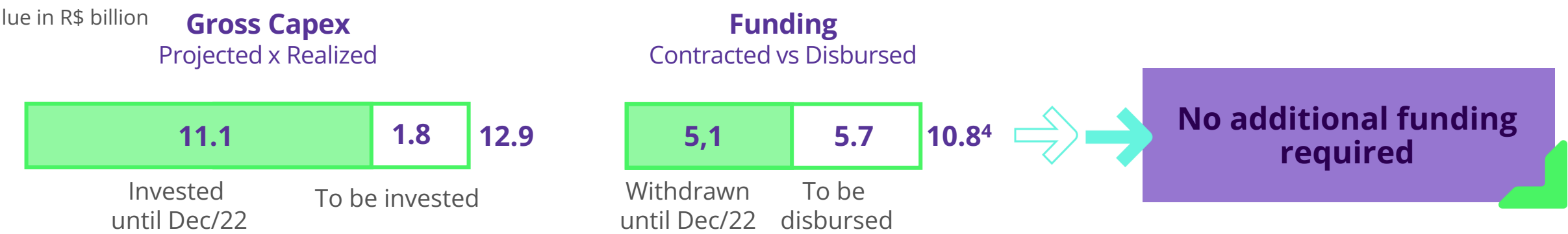
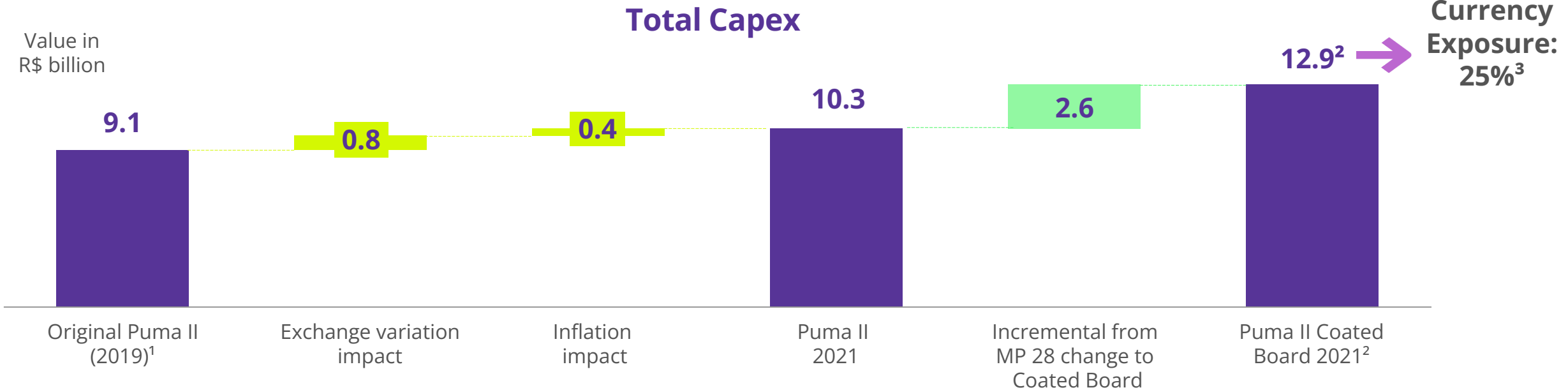
Possible acceleration of the term to reach 100% Coated Board production

(Term to reach total Coated Board production capacity)

INVESTMENTS & RESOURCE SOURCES

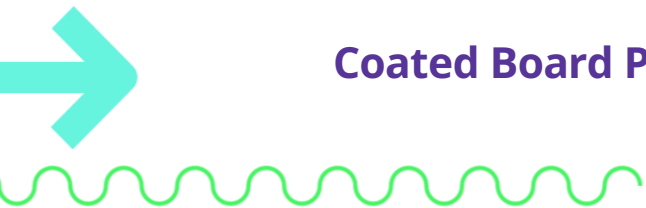
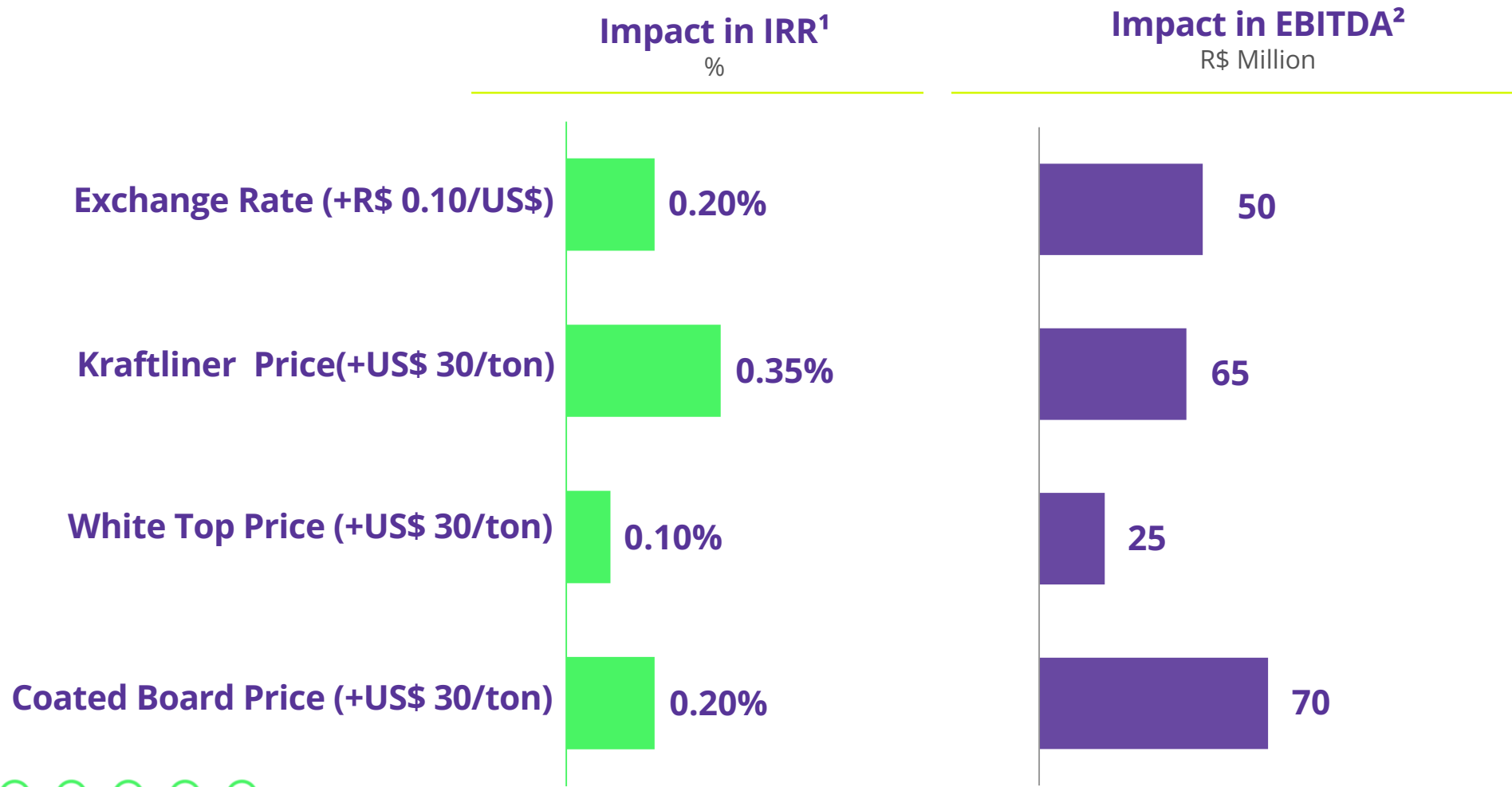


Current cash position and cash generation from current business will be the main sources of funds



1 - Original Capex in real terms base 2019 at R\$/US\$ 3.66 readjusted to 2021 basis at R\$/US\$ 4.90
2 - Of this amount around R\$ 1.2 billion refers to tax credits
3 - Referring to the complete project
4 - Financing from BNDES (R\$ 3.0 bn), FINNVERA (R\$ 3.8 bn) and IDB INVEST/IFC/JICA (R\$ 4.3 bn) considering the US\$/R\$ rate at the end of the period

SENSITIVITY ANALYSIS (PM 27 + PM 28)



1 - IRR refers to the whole project
2 - Considering total capacity of the two machines without creep capacity, 1st machine producing 80% kraftliner and 20% White Top Liner and the 2nd machine with 100% of the Coated Board production volume and exchange rate of R\$ 4.93/US\$

PUMA II PROJECT

Project reinforces the Company's unique attributes

Value Creation

2nd Machine with Coated Board production ensures **growth** with greater **value creation** to shareholders

Innovation

Advances in **biobarriers** application for new uses of Coated Board and **Eukaliner®**, the world's first kraftliner produced with 100% eucalyptus fiber

Sustainability

Less land needed, **substitute products for single-use plastic**, reduced water consumption and energy from **renewable** sources

Resilience

Diversified product portfolio and integration ensures **flexibility** and less volatility of results

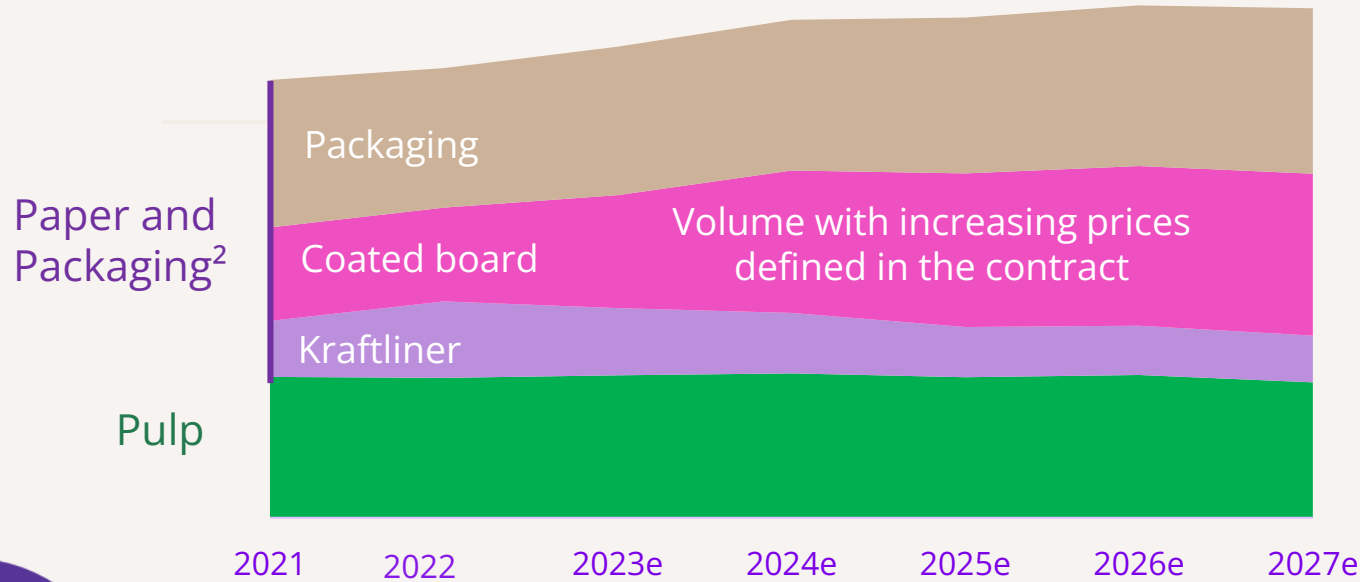
PORTFOLIO AND PUMA II RAMP-UP

Growth in sales volume until 2027 and greater share of non-commoditized products ensured by Puma II



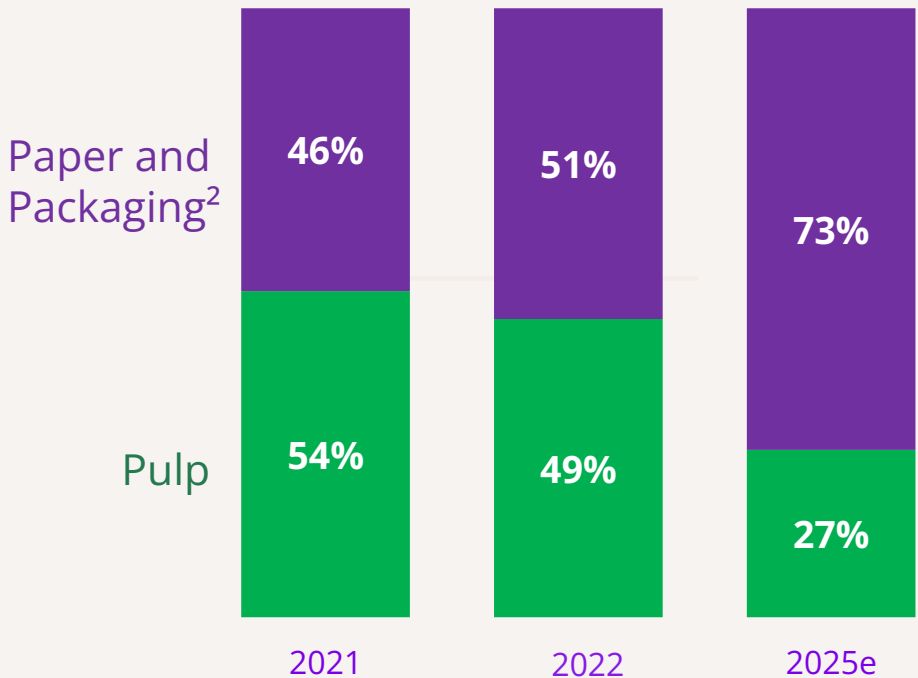
Sales Volume¹

(ramp-up of production; thousand tonnes)



Share of Segments in EBITDA

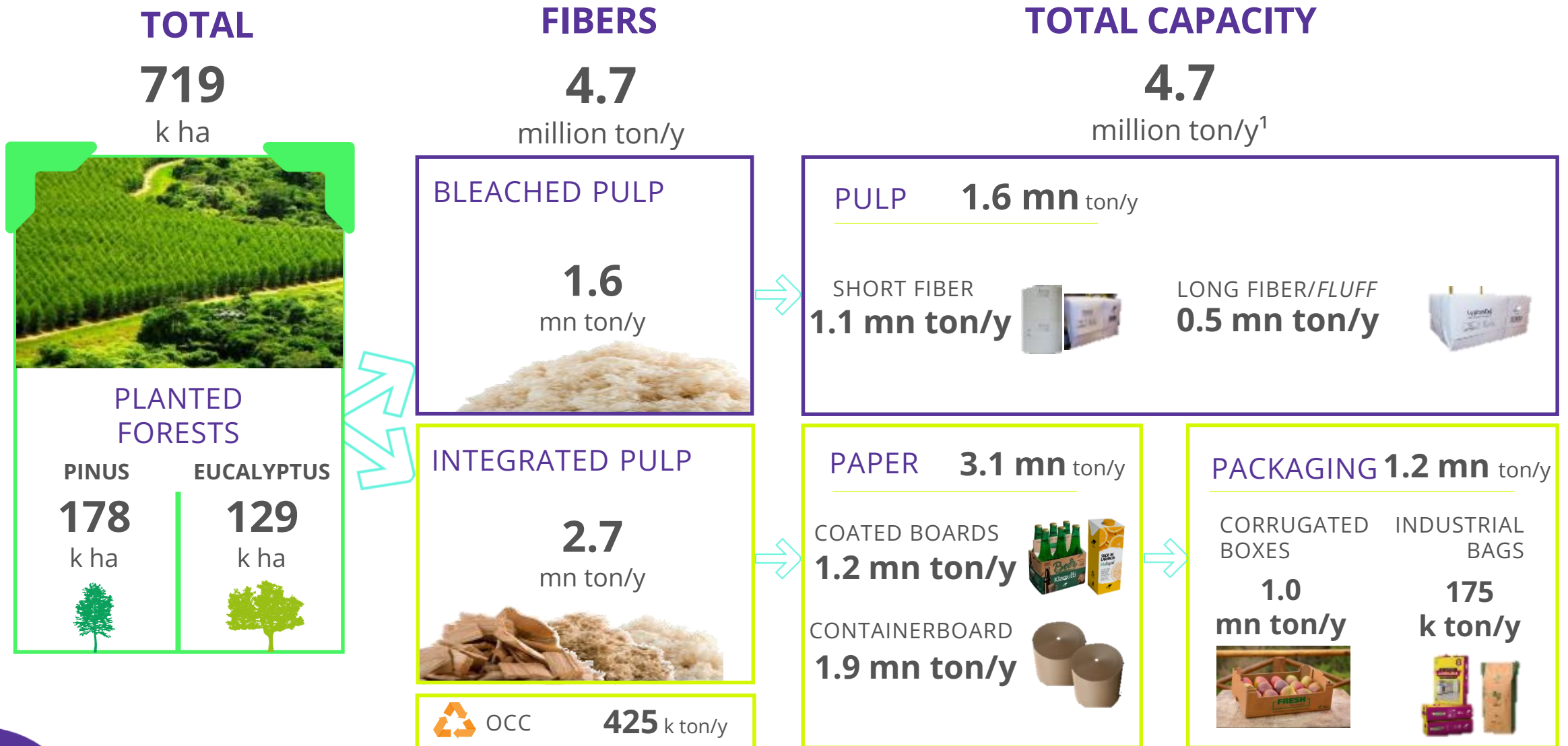
(R\$ million)



1 –Does not consider wood. Managerial view; 2 - Paper and packaging data also consider forestry, corporate, disposals and other products; 3 - 100% of card production by the end of 2024

KLABIN AFTER PUMA II

Growth with the maintenance of the integrated, diversified and flexible business model



1 - The total capacity of 4.7 million tons per year considers 1.6 million tons of pulp and 3.1 million ton of paper, with all paper production sold to the market. With an integrated model, Klabin uses part of this paper for conversion into packaging



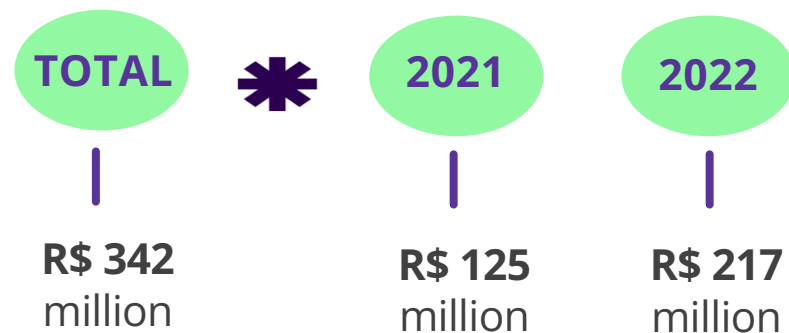
Special Projects and Growth

SPECIAL PROJECTS AND GROWTH

23 Special Projects and Growth

Approved in June, 2021

Investments



Conversion capacity increase after ramp-up:

~30 k ton/year of Corrugated Boxes

~9 k ton/year of Industrial Bags

R\$ 251 million

Directed towards increasing the capacity for converting paper into packaging

Other projects

Targeted at all Klabin's operating segments and substantially focused on cost optimization

Project in Horizonte

→ Expansion of corrugated boxes converting unit located in Horizonte - Ceará

Approved in February 2022¹

Start-up: forecast for 1st quarter of 2023

Investments



↑ Increase of conversion capacity:
80 k ton/year of Corrugated Boxes

FIGUEIRA PROJECT

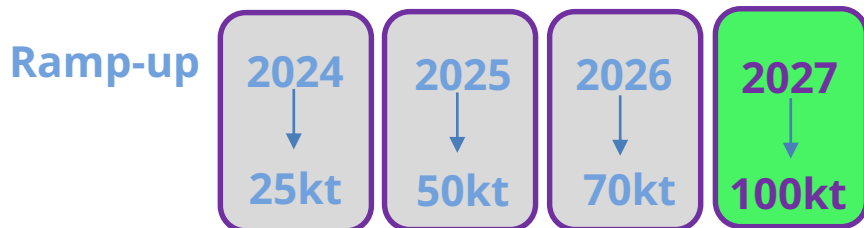
Project reinforces Klabin's belief in the integrated, diversified and flexible business model

New corrugated boxes unit in Piracicaba (SP)

Start-up: 2nd quarter of 2024

Production capacity : **240kt per year**

Incremental net production capacity of corrugated boxes after optimization of current assets: **100kt/year**



Site with physical conditions to receive future investment for the production of recycled paper and additional corrugated boxes capacity

Klabin's total corrugated boxes converting capacity after Figueira Project: **1.3 million tons per year**

Total land: 950 thousand m²

Corrugated boxes site: 65 thousand m²

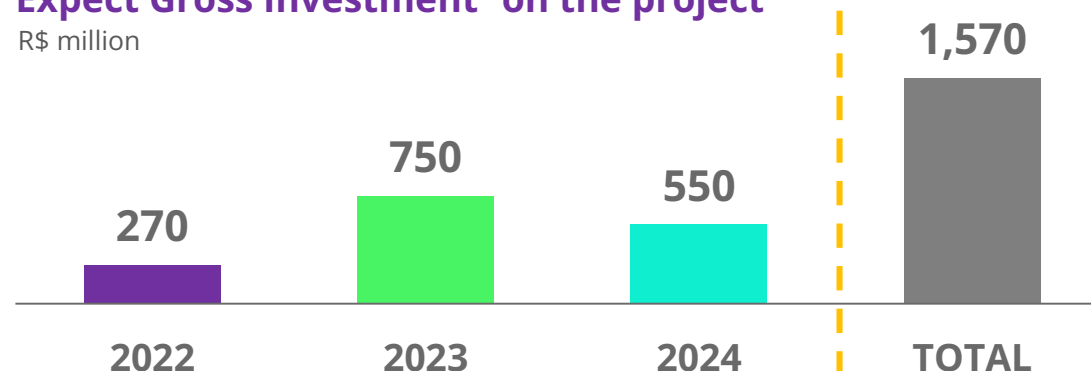
~40% of energy from solar source

Project Scope:

- **2 corrugators** State of the Art: industry 4.0 with optimization features and monitoring of performance and quality
- **9 printers:** 4 colors and cutting and creasing unit
- Construction of the entire infrastructure and support areas

Expect Gross Investment¹ on the project

R\$ million



1 - Of the total amount approximately R\$ 200 million refers to recoverable taxes. Includes R\$ 90 MM referring to the anticipation of the civil works of the Figueira Project

WHITE COATED BOARD



INVESTMENT FOR THE PRODUCTION OF WHITE COATED BOARD ALLOWS ENTRY INTO THE LARGEST SEGMENT OF THE COATED BOARD MARKET

PM28

Production of
white coated
board¹

2nd phase of
Puma II Project

Start-up: 2Q23
Total capacity: 460
thousand tons

Entry into the
largest coated
board market
(**>US\$ 20 bi**)

Access to
premium
segment with
higher margin

Start of
white coated
board production:
sep/2024

Volume of white
coated board:
105 thousand tons
(2024: 20kt; 2025: 90kt;
2026 onward: 105kt)

Gross investment²
R\$ 183 million
between 2023 and
2024

Immaterial impact
on financial leverage
and funding with cash
position

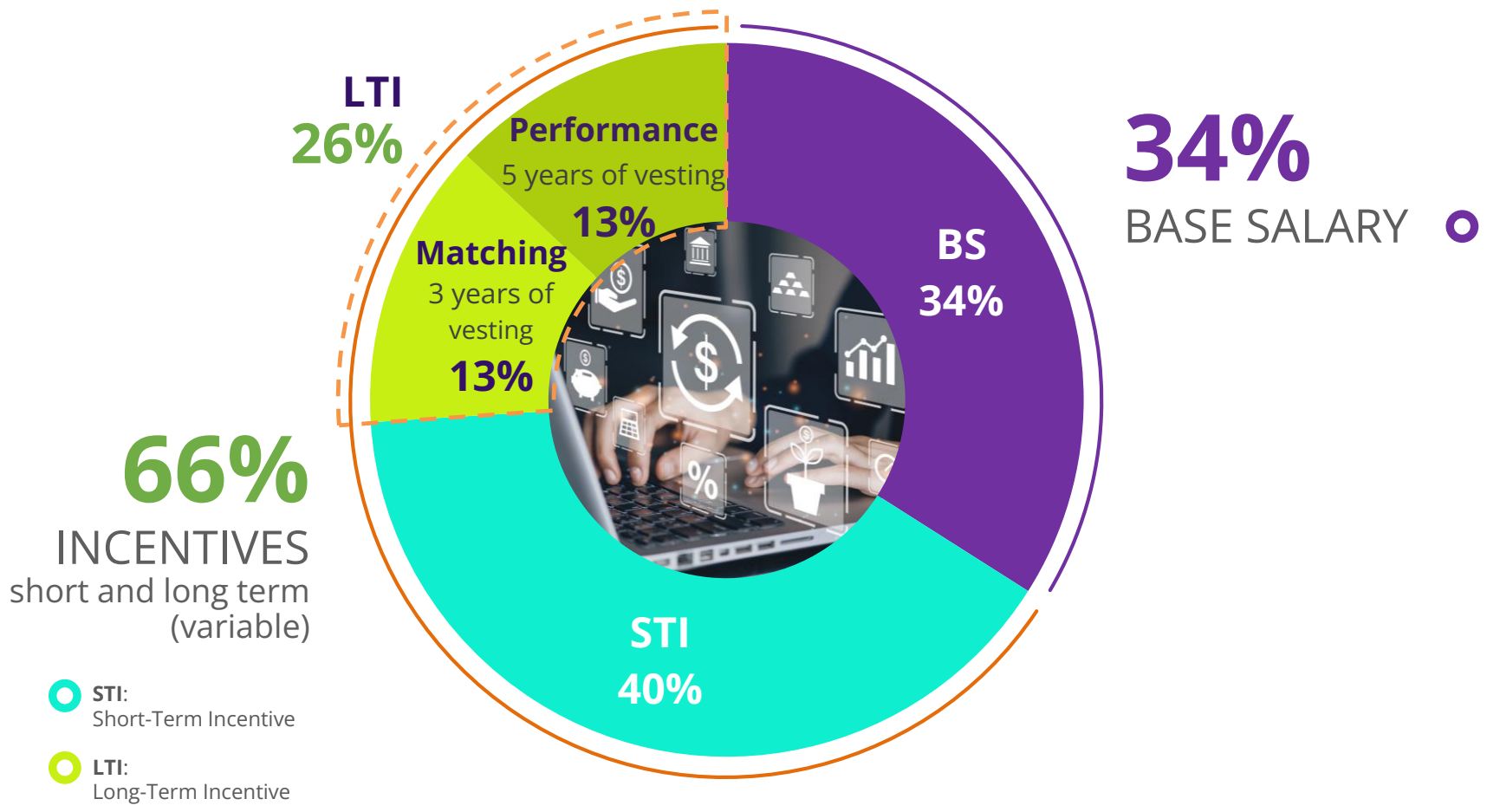
1 – Ability to produce white coated board in place of brown coated board. Does not imply additional productive capacity of PM28; 2 – Of this amount approximately R\$ 23 million refers to recoverable taxes



Compensation

EXECUTIVE COMPENSATION MIX

Remuneration aligned with best market practices and with high participation of variable incentives



VARIABLE COMPENSATION

Compensation targets include long-term performance:

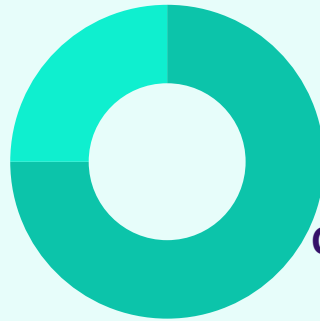
TSR (total shareholder return) X **Ke** (cost of equity)



STI

(Short-term incentive)

Individual goals
25%



Corporate goals
75%



Financial, operational, market and ESG indicators



From 2022, the individual goals of the executives include a Sustainability Index/ESG¹



LTI

(Long-term incentive)



Matching
3 years (vesting)




Performance
5 years (vesting)

Alignment with shareholders 

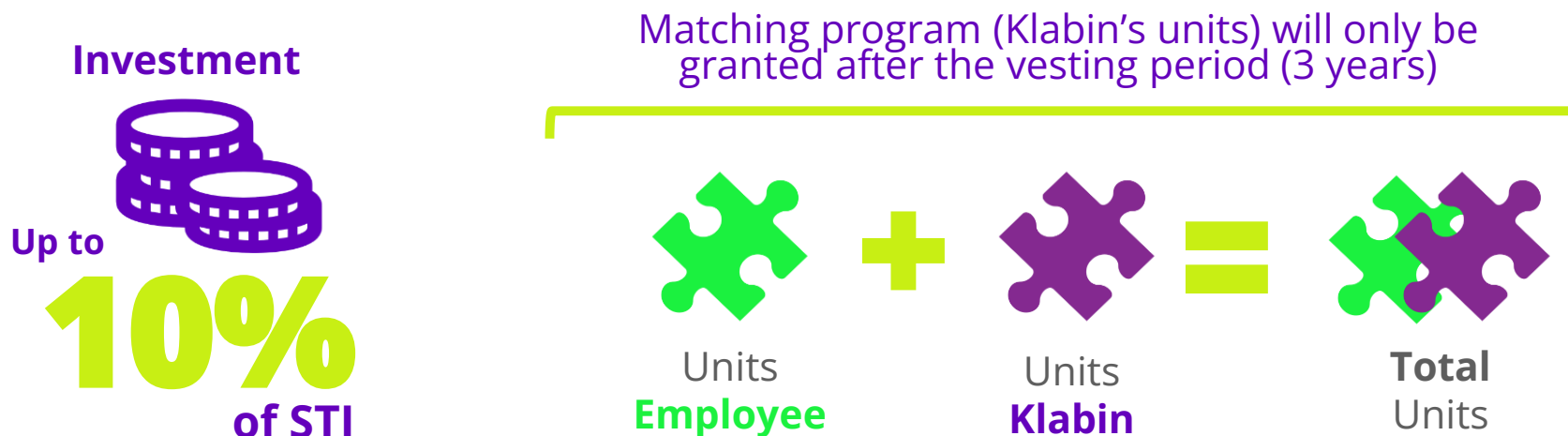


Retention

Long-term performance: 
TSR (total shareholder return)
X
Ke (cost of equity)

LTI FOR ALL EMPLOYEES¹

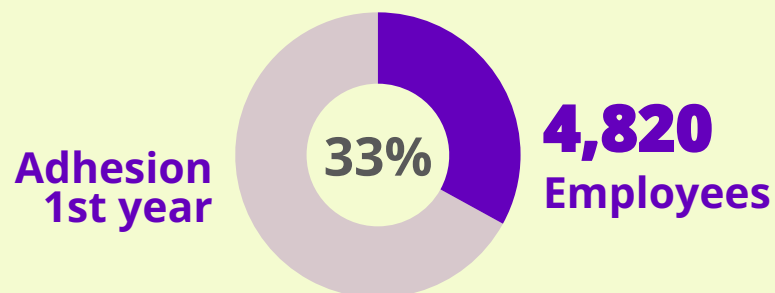
The program allows the participation of all Klabin's employees, generating greater alignment and engagement in the future value generation for the Company



Maximum² investment in case of 100% adhesion:

R\$ 13 million

Huge potential return in terms of engagement for the sustainable growth of the Company



94% Engagement
in the 2022 Climate Survey

"I would recommend Klabin to my friends as a good company to work for."

4Q22

Results



RESILIENT GROWTH

13 years of consecutive EBITDA growth combined with low volatility in various scenarios

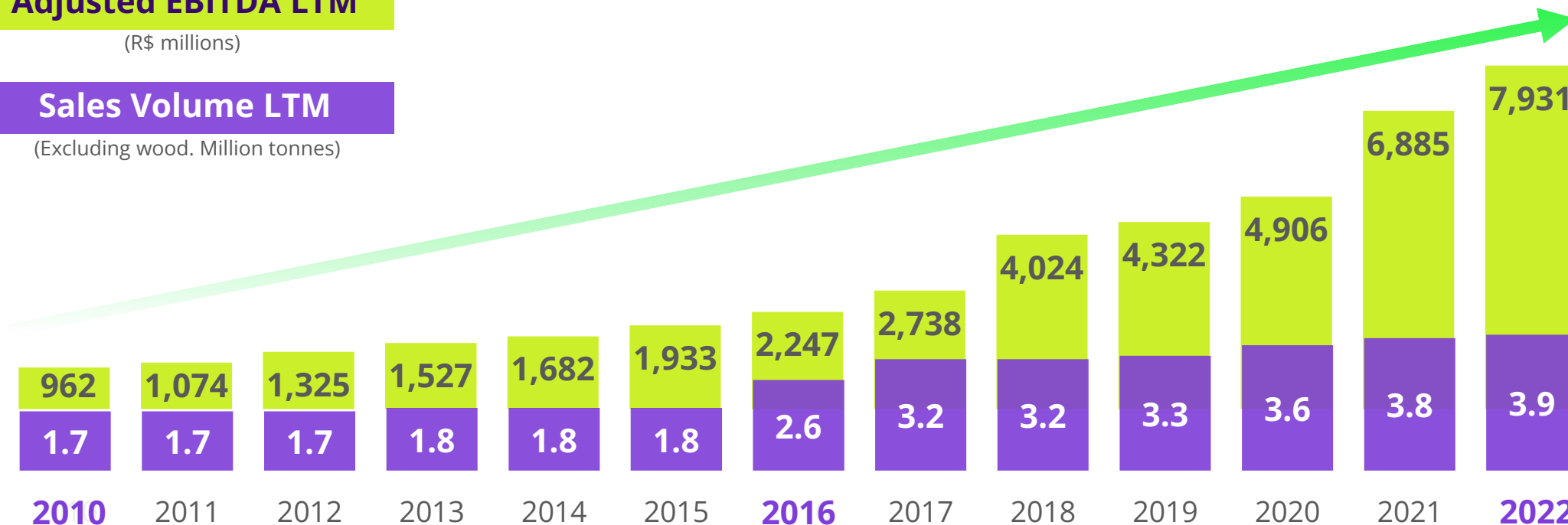
	2010	2016	2022
IPCA:	6%	6%	6%
GDP:	8%	-3%	3%
Exchange rate (R\$/US\$):	1.8	3.5	5.2
Short Fiber Pulp:		Europe: US\$697/t	Europe: US\$1,286/t

Adjusted EBITDA LTM

(R\$ millions)

Sales Volume LTM

(Excluding wood. Million tonnes)



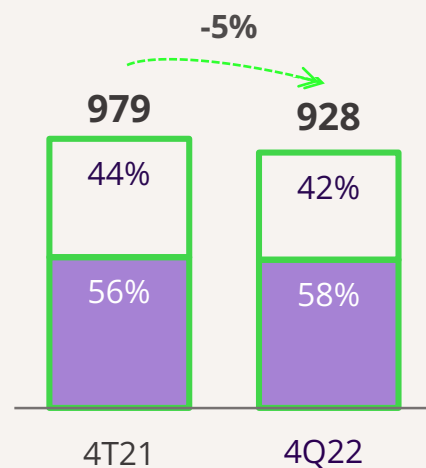
4Q22 RESULTS

Net revenue benefited from price adjustments carried out throughout 2022, offsetting the lower volume sold and the appreciation of the real against the dollar

Sales Volume¹

Thousand tones

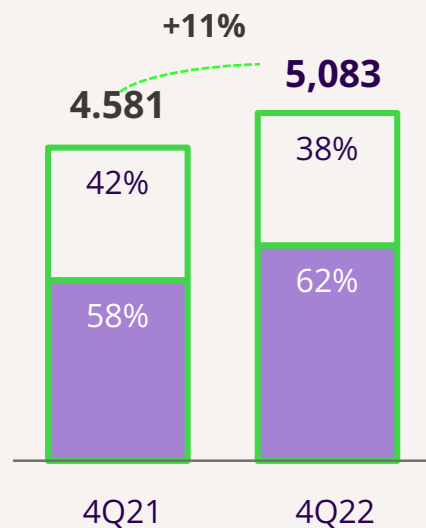
1 - Excludes wood sales



Net Revenue²

R\$ million

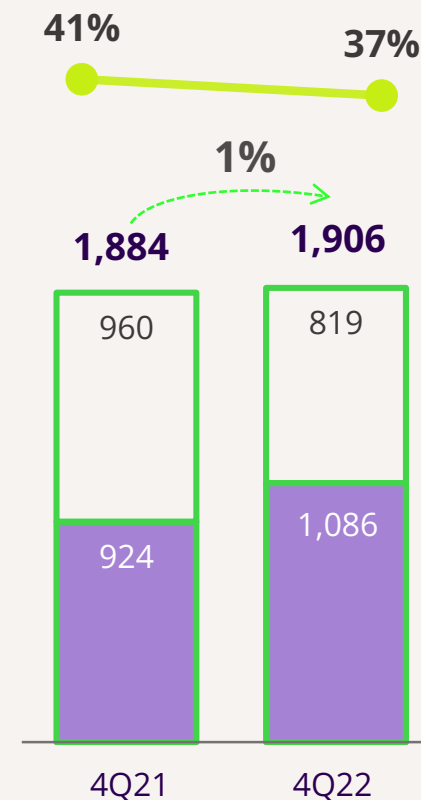
2 - Includes wood and other revenues



Foreign Market
Domestic Market

Adjusted EBITDA by segment³

R\$ million



3 - Excluding non-recurring effects. Income from 'others' allocated to the respective businesses

EBITDA Margin
Paper & Packaging
Pulp

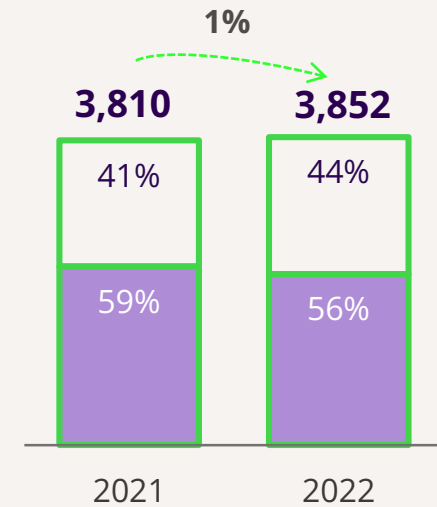
2022 RESULTS

Increase in sales volume and prices led to record EBITDA of R\$ 7.8 billion³

Sales Volume¹

Thousand tones

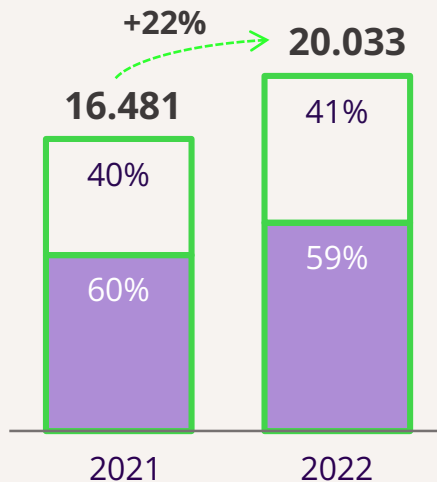
1 – Excludes wood sales



Net Revenue²

R\$ million

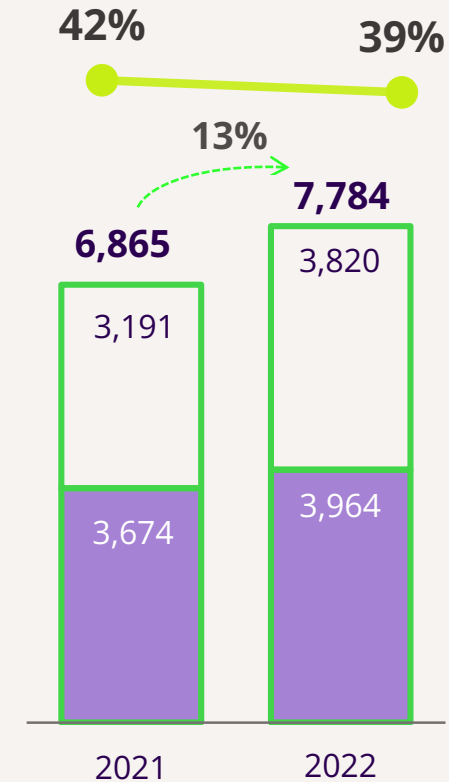
2 - Includes wood and other revenues



Foreign Market
Domestic Market

Adjusted EBITDA by segment³

R\$ million



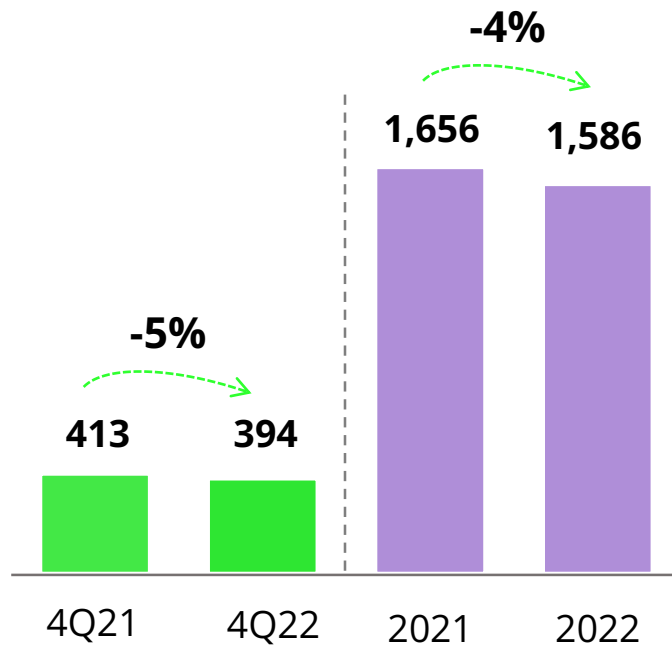
3 - Excluding non-recurring effects. Income from 'others' allocated to the respective businesses

EBITDA Margin
Paper & Packaging
Pulp

Strong EBITDA driven by high price levels, fiber diversification and better sales mix across geographies

Production Volume

Thousand tons



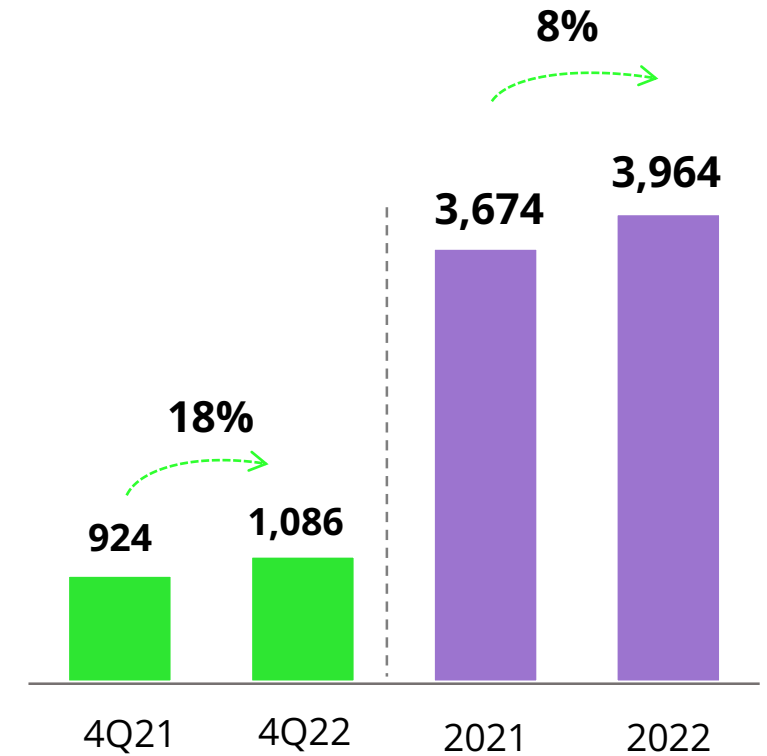
Production Cash Cost¹

R\$ per ton



Adjusted EBITDA

R\$ million

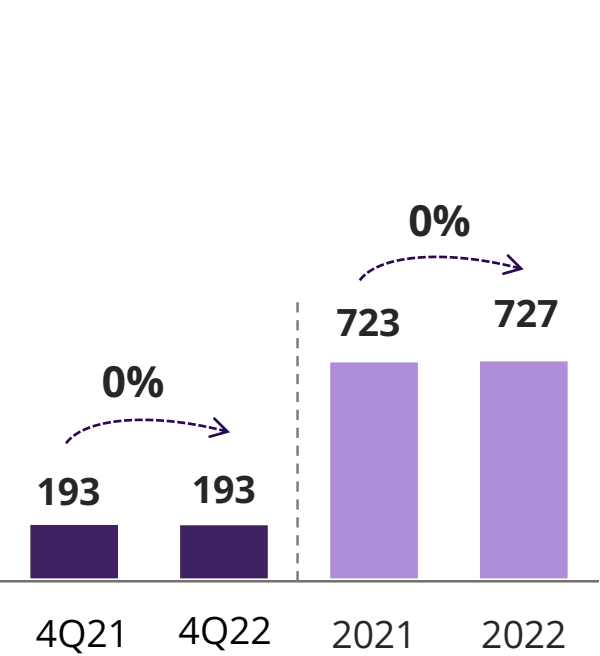


PAPER AND PACKAGING RESULTS

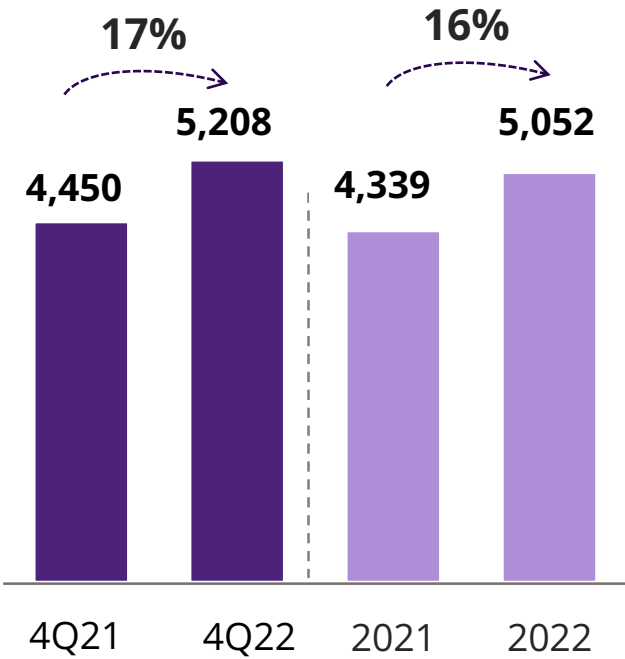


Result for 2022 was leveraged by price adjustments Resilient market creates good conditions for entry of new capacity at PM28

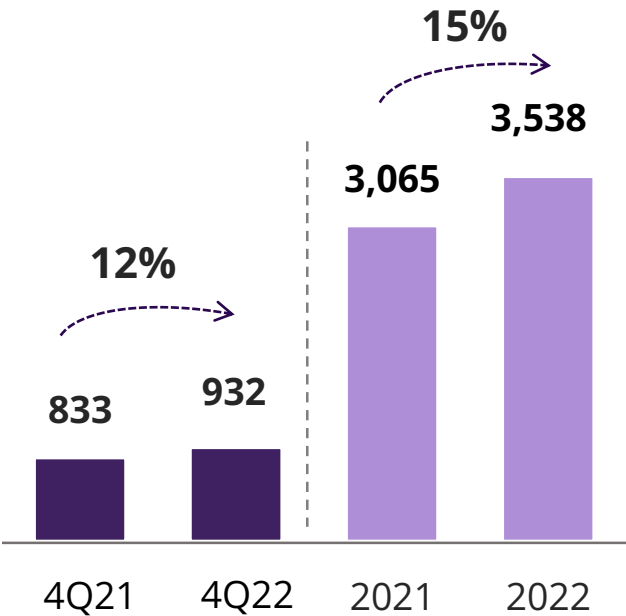
Sales Volume
Thousand tones



Price Evolution
R\$ per ton



Net Revenue
R\$ per ton

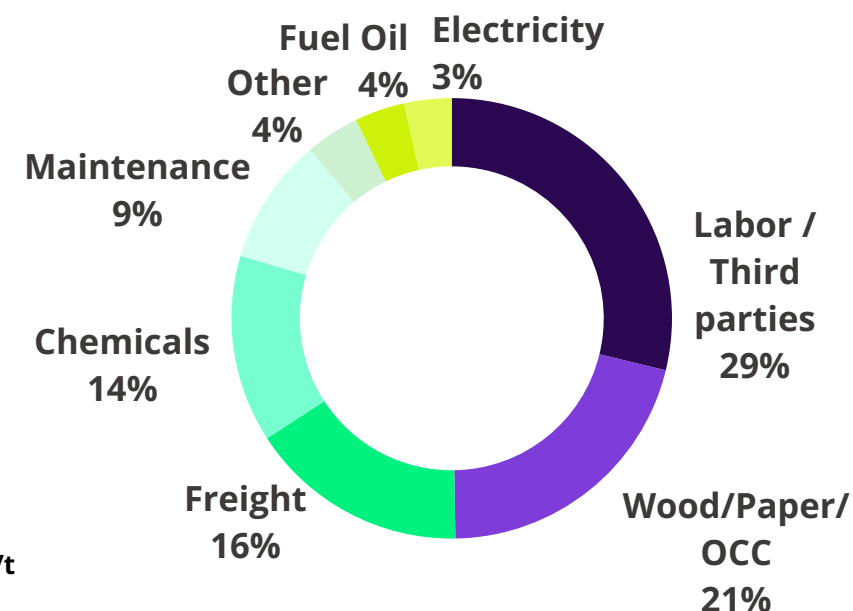
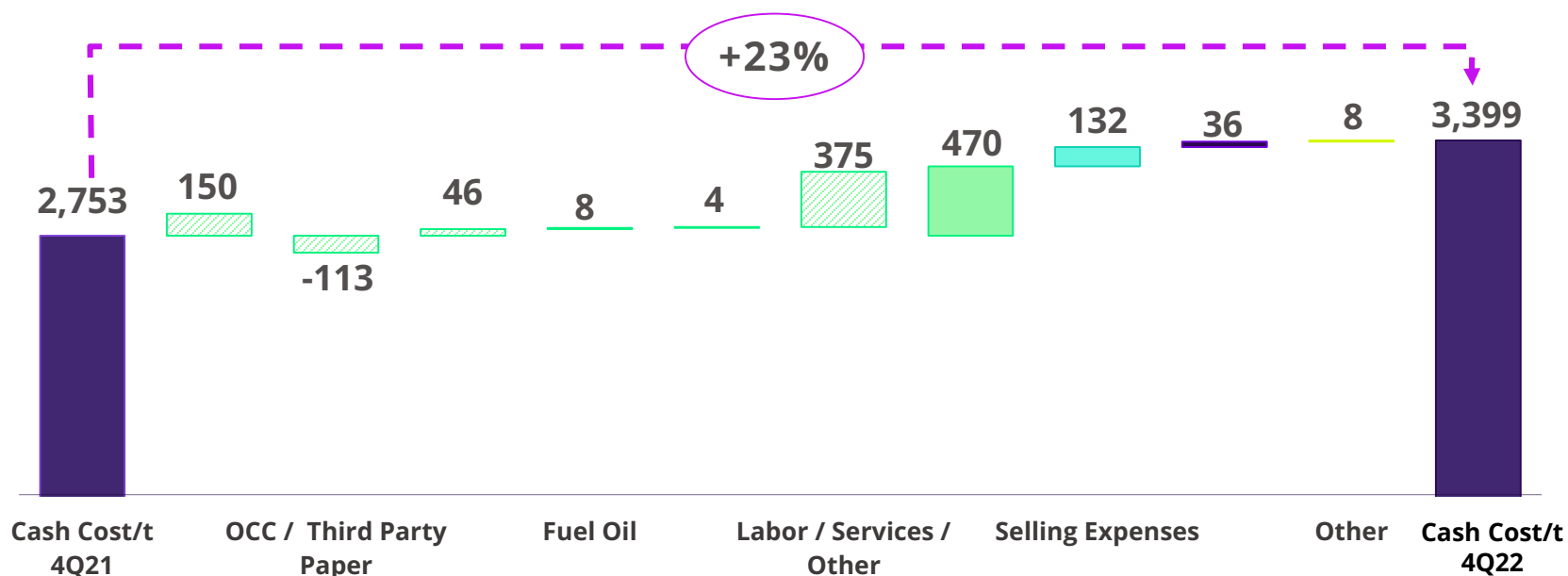


CASH COST 4Q22

Total Cash Cost Evolution¹ and Breakdown

(R\$/ton)

Total Cash Cost Evolution¹ R\$/ton



1 - Cost of goods sold and operating expenses, excluding depreciation, amortization and exhaustion, as well as extemporaneous credit and the impact of maintenance stoppages

2 - COGS represents the sum of the categories detailed in the graph: Forestry / Paper / OCC + Chemicals + Fuel Oil + Energy + Labor / Services / Others

FREE CASH FLOW (FCF)

Adjusted Free Cash Flow reached BRL 4.1 billion in 2022, representing Adjusted FC Yield³ of 17.0%

R\$ million	4Q22	3Q22	4Q21	2022	2021
Adjusted EBITDA¹	1,905	2,311	1,884	7,931	6,885
(-) Capex ²	(1,582)	(1,691)	(1,159)	(5,817)	(3,878)
(-) Lease contracts - IFRS 16	(66)	(65)	(48)	(233)	(171)
(-) Interest Paid/Received	(21)	(334)	(286)	(960)	(1,033)
(-) Income Tax	(145)	(81)	(193)	(534)	(507)
(+/-) Working Capital Variation	388	(164)	(43)	(525)	(393)
(-) Dividends & IOC	(502)	(399)	(402)	(1,624)	(402)
(+/-) Others	190	8	30	144	(10)
Free Cash Flow	167	(415)	(216)	(1,618)	492
Dividends & IOC	502	399	402	1,624	402
Puma II Project	793	934	759	3,204	2,579
Special Projects and Growth	290	267	119	904	335
Adjusted Free Cash Flow³	1,753	1,186	1,065	4,114	3,808
Adjusted FCF Yield⁴				17.0%	13.2%

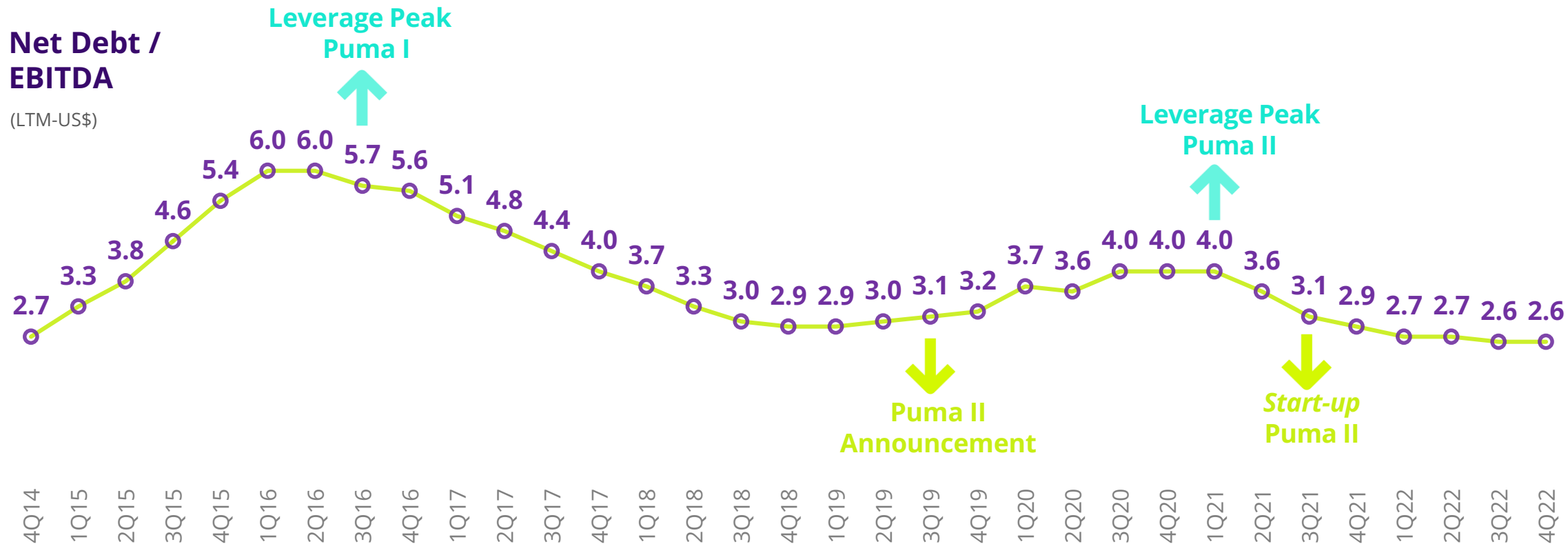
1 - Capex cash view

2 - Excluding dividends and special and expansion projects

3 - Yield - FCL adjusted per unit (excluding treasury shares) divided by the average closing value of shares in the UDM (last twelve months)

FINANCIAL STRENGTH AND PREVISIBILITY

Increasing investment capacity



**FINANCIAL
INDEBTEDNESS
POLICY**

LEVERAGE TARGET
(Net Debt/EBITDA):

2.5x to 3.5x

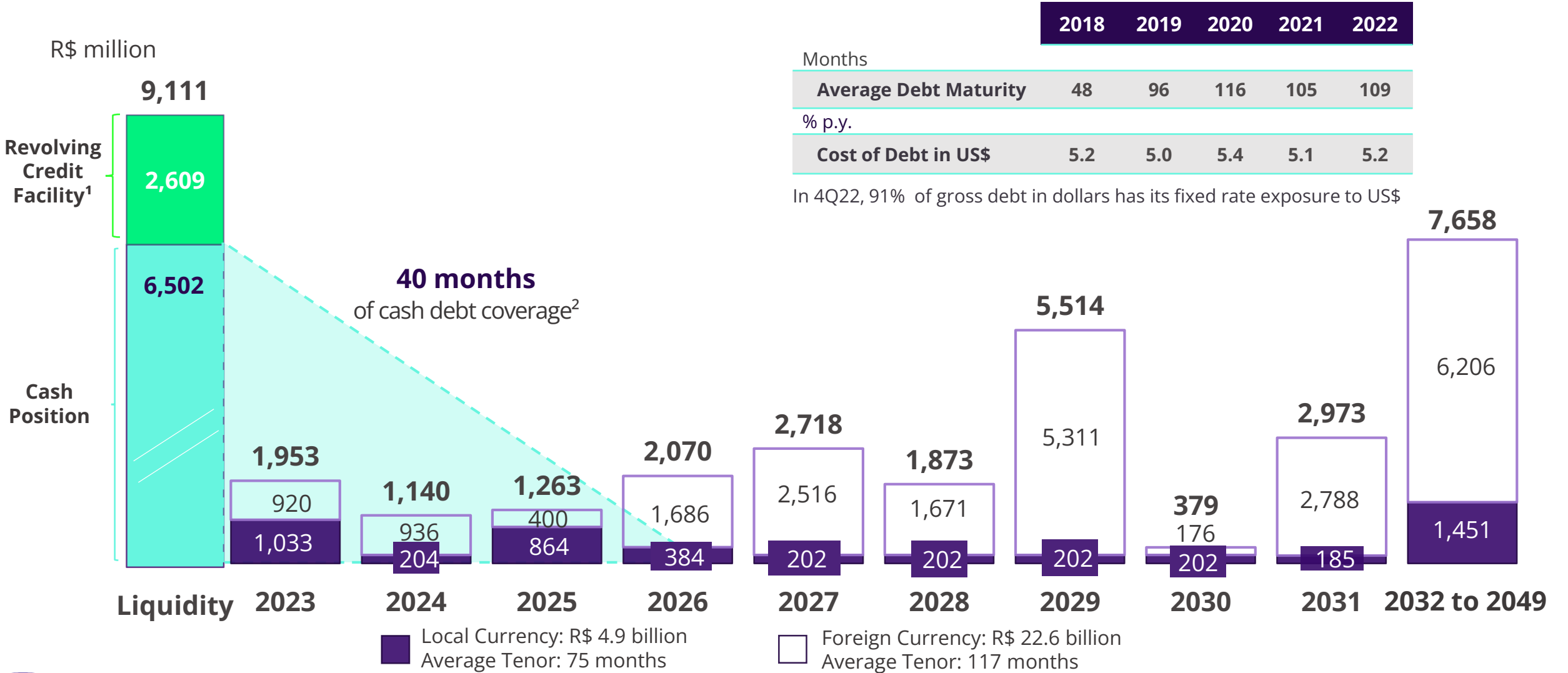
Out of investment
cycles¹

3.5x to 4.5x

In investment
cycles¹

AMORTIZATION SCHEDULE

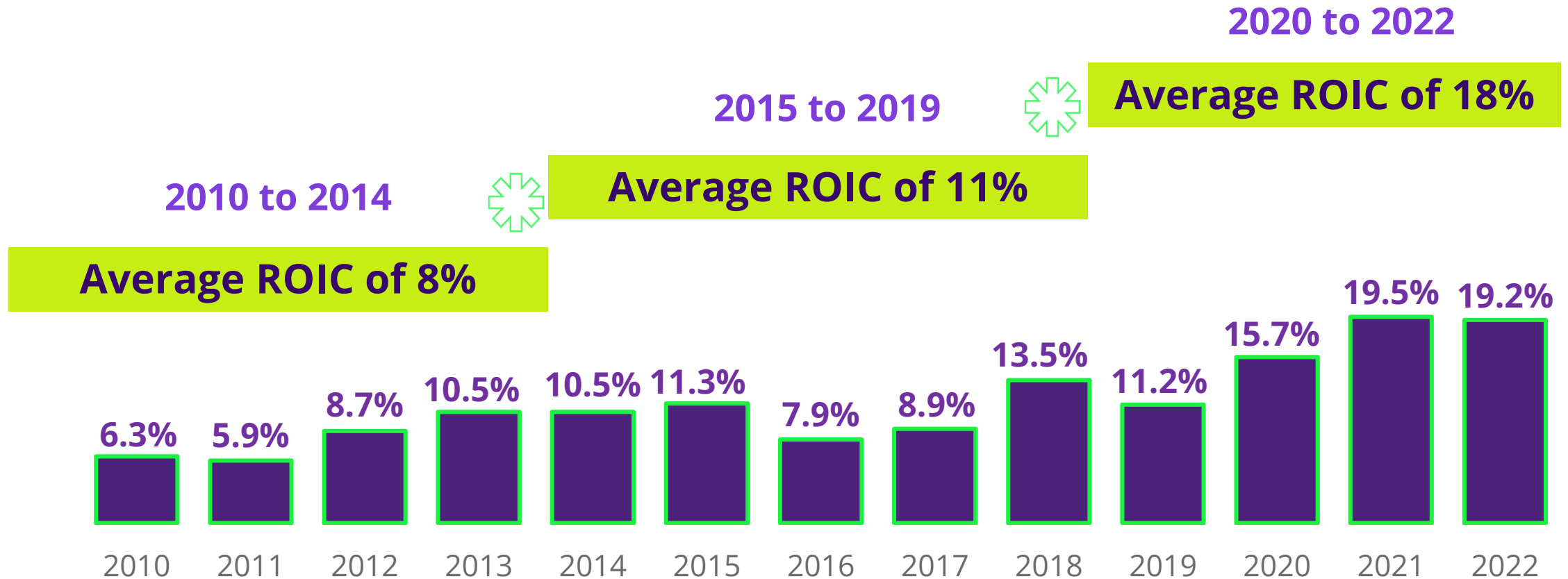
Average debt maturity of ~9.1 years and 40 months of cash debt coverage



1 - Revolving Credit Facility (RCF) of US\$ 500 million due on Oct/26
2 - Excludes RCF of US\$ 500 million availability

ROIC (RETURN ON INVESTED CAPITAL)¹

Discipline in capital allocation and integrated, diversified and flexible business model lead to consistent ROIC growth



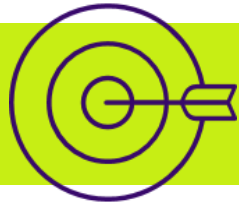
CAPITAL ALLOCATION

Growth combined with solid and predictable return to shareholders via dividend payment

Dividend and IoC¹ Policy

Target payment

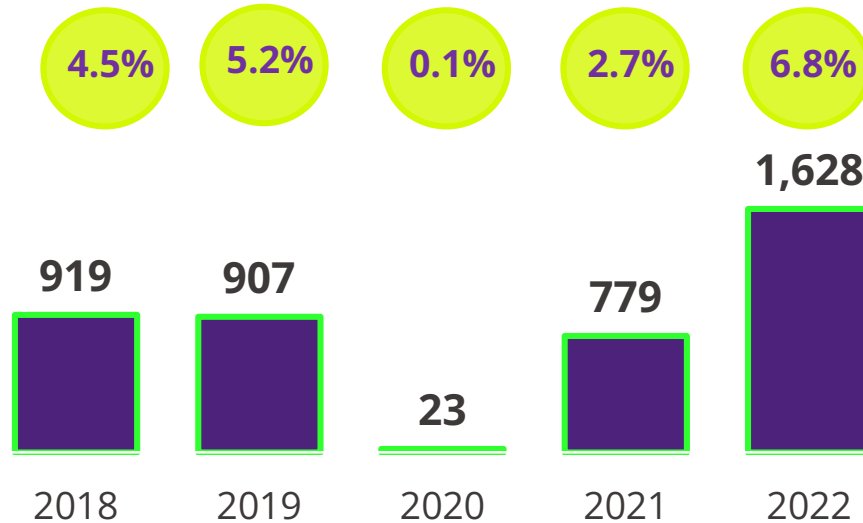
15% to 25%
of Adjusted EBITDA



Shareholder Remuneration²

Dividends + IoC (R\$ million)

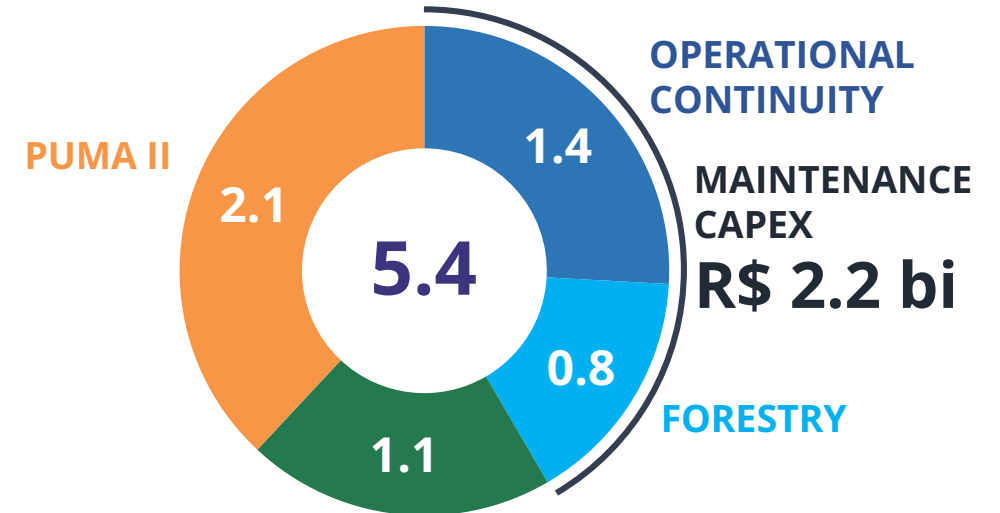
Dividend Yield³



■ Dividends + IoC (R\$ million)

Capex expected for 2023

(R\$ billion)



SPECIAL PROJECTS

R\$ 840 mn Figueira Project
R\$ 90 mn Horizonte Project



Studies in progress for modernization or replacement of the recovery boiler 1 in Monte Alegre (PR) in 2025

INCOME STATEMENT

(R\$ thousands)	4Q22	3Q22	4Q21	Δ 4Q22/3Q22	Δ 4Q22/4Q21	2022	2021	Δ 2022/2021
Gross Revenue	5,893,001	6,307,273	5,260,020	-7%	12%	23,010,161	19,011,678	21%
Discounts and Rebates	(808,588)	(812,759)	(678,963)	-1%	19%	(2,979,094)	(2,514,202)	18%
Cash Flow Hedge Realization	(1,027)	(6,286)	-	-84%	n/a	1,632	(16,088)	n/a
Net Revenue	5,083,386	5,488,228	4,581,057	-7%	11%	20,032,699	16,481,388	22%
Variation in the Fair Value of Biological Assets	(35,751)	960,782	664,154	n/a	n/a	1,883,087	1,308,791	44%
Cost of Products Sold	(3,173,172)	(3,169,203)	(2,790,089)	0%	14%	(12,400,931)	(10,247,334)	21%
Gross Profit	1,874,463	3,279,807	2,455,122	-43%	-24%	9,514,855	7,542,845	26%
Selling Expenses	(479,593)	(551,540)	(376,052)	-13%	28%	(1,901,242)	(1,249,359)	52%
General & Administrative Expenses	(314,009)	(256,789)	(265,986)	22%	18%	(1,051,201)	(886,244)	19%
Other Revenues (Expenses)	(3,695)	2,416	3,183	n/a	n/a	84,615	74,020	14%
Total Operating Expenses	(797,297)	(805,913)	(638,855)	-1%	25%	(2,867,828)	(2,061,583)	39%
Operating Income (Before Fin. Results)	1,077,166	2,473,894	1,816,267	-56%	-41%	6,647,027	5,481,262	21%
Equity Pickup	30,049	3,328	14,206	n/a	112%	43,566	25,612	70%
Financial Expenses	(207,928)	(231,558)	(483,797)	-10%	-57%	(1,250,970)	(1,642,969)	-24%
Liabilities Foreign Exchange Result	57,736	348,868	(123,641)	-83%	n/a	548,611	73,265	n/a
Total Financial Expenses	(150,192)	117,310	(607,438)	n/a	-75%	(702,359)	(1,569,704)	-55%
Financial Revenues	154,071	169,122	195,087	-9%	-21%	752,791	379,493	98%
Assets Foreign Exchange Result	(34,523)	32,888	22,739	n/a	n/a	(141,871)	99,748	n/a
Total Financial Revenues	119,548	202,010	217,826	-41%	-45%	610,920	479,241	27%
Financial Result	(30,644)	319,320	(389,612)	n/a	-92%	(91,439)	(1,090,463)	-92%
Net Income Before Taxes	1,076,571	2,796,542	1,440,861	-62%	-25%	6,599,154	4,416,411	49%
Income Tax and Soc. Contrib.	(286,948)	(743,787)	(390,755)	-61%	-27%	(1,910,252)	(1,011,537)	89%
Net Income (Loss)	789,623	2,052,755	1,050,106	-62%	-25%	4,688,902	3,404,874	38%
Net income (Loss) Attributable to Noncontrolling Interests	(15,814)	132,907	154,883	n/a	n/a	227,652	385,004	-41%
Net Income Attributable to Klabin's Stockholders	805,437	1,919,848	895,223	-58%	-10%	4,461,250	3,019,870	48%
Depreciation/Amortization/Exhaustion	790,769	791,509	732,339	0%	8%	3,169,155	2,696,342	18%
Change in Fair Value of Biological Assets	(35,751)	(960,782)	(664,154)	-96%	-95%	(1,883,087)	(1,308,791)	44%
Net Realization of Cash Flow Hedge	1,027	6,286	-	-84%	n/a	(1,632)	16,088	n/a
Adjusted EBITDA	1,904,714	2,310,907	1,884,452	-18%	1%	7,931,463	6,884,901	15%
Non-Recurring Effects ¹	-	-	-	n/a	n/a	(147,480)	(20,231)	n/a
Adjusted EBITDA Excl. Non-Recurring Effects¹	1,904,714	2,310,907	1,884,452	-18%	1%	7,783,983	6,864,670	13%

¹Refers to the non-recurring effect of R\$ 147 million in 2Q22 related to the extemporaneous PIS/COFINS credit on OCC purchases and of R\$ 20 million in 1Q21 related to the net gain from the sale of Nova Campina

CASH FLOW STATEMENT

R\$ thousand	4Q22	3Q22	4Q21	2022	2021
Net Cash from Operating Activities	3,384,440	2,307,746	1,415,056	8,420,814	4,891,249
Cash Generated from Operations	2,165,232	1,962,159	1,695,956	8,060,211	6,687,489
Net Profit/Loss From Ongoing Operations	789,623	2,052,755	1,050,106	4,688,902	3,402,658
Net Profit/Loss From Discontinued Operations	-	-	-	-	2,216
Depreciation and Amortization	329,170	360,696	280,439	1,326,404	1,003,515
Change in Fair Value of Biological Assets	35,751	(960,782)	(664,154)	(1,883,087)	(1,308,791)
Exhaustion of Biological Assets	461,599	430,813	451,898	1,842,751	1,692,826
Deferred Income Tax and Social Contribution	121,771	652,745	144,319	1,321,328	515,168
Interest and Currency Variations on Loans, Financing and Debentures	266,127	(690,378)	533,480	340,390	1,414,447
Interest present value - Trade payables (Forfeiting)	22,050	-	-	22,050	-
Interest on Leases	23,908	19,113	20,551	77,414	60,184
Realization of Cash Flow Hedge Reserve	1,027	6,286	-	(1,632)	16,088
Foreign Exchange Variations on Trade Receivables and Related Parties	76,915	(42,356)	(99,589)	270,313	(42,356)
Allowance for Expected Credit Losses	11,366	9,143	(2,512)	18,452	(15,921)
Estimated Inventory Loss/Composition	8,460	7,382	4,434	37,884	9,064
Result of Disposal of Assets	(1,919)	802	(15)	(12,633)	(9,864)
Equity Pickup	(30,049)	(3,328)	(14,206)	(43,566)	(25,612)
Other	49,431	119,267	(8,795)	55,241	(26,133)
Changes in Assets and Liabilities	1,219,209	345,588	(280,900)	360,603	(1,796,240)
Trade Receivables and Related Parties	200,451	(5,419)	(49,775)	(155,150)	(943,319)
Inventories	(99,759)	(212,944)	(218,448)	(476,495)	(633,327)
Taxes Recoverable	407,277	151,860	273,193	761,940	997,864
Marketable Securities	722,752	(20,760)	(22,448)	198,867	(669,338)
Other Assets	(261,049)	(615,698)	43,635	(288,892)	(35,903)
Suppliers	297,333	(213,059)	(334,357)	(170,826)	(526,264)
Taxes Obligations	(45,754)	49,774	51,131	120,253	187,939
Social Security and Labor Obligations	(46,641)	117,348	(43,492)	53,677	53,553
Other Liabilities	189,906	1,175,892	212,439	851,687	279,161
Income Tax and Social Contribution Paid	(145,307)	(81,406)	(192,779)	(534,458)	(506,606)
Net Cash Used in Investing Activities	(1,800,946)	(3,102,956)	(1,135,359)	(7,876,677)	(3,675,855)
Purchases of Property, Plant and Equipment	(1,363,689)	(2,206,682)	(970,015)	(5,909,050)	(2,904,093)
Planting and Purchases of Standing Wood	(629,742)	(614,205)	(188,709)	(2,215,801)	(973,599)
Acquisition of Investments and Payment in Subsidiaries (Cash)	10,200	(285,560)	-	10,200	-
Proceeds from Disposal of Assets	168,261	3,490	13,165	217,680	181,298
Dividends Received from Subsidiaries	14,025	-	10,200	20,294	20,539
Net Cash Provided Used in Financing Activities	(611,018)	(369,218)	(832,929)	(2,265,392)	(19,024)
New Borrowings	273,201	2,408,003	20,505	5,429,328	2,718,480
Amortization of Loans and Debentures	(106,963)	(2,154,980)	(57,087)	(4,558,013)	(1,096,665)
Payment of Interests on Loans, Financing and Debentures	(179,775)	(543,155)	(363,442)	(1,555,034)	(1,203,477)
Payment of Lease Liabilities	(98,469)	(93,106)	(66,098)	(337,211)	(243,179)
Disposal of Treasury Shares	(28)	14,109	-	37,588	18,946
Acquisition of Investments and Payment in Subsidiaries (Cash)	50,075	414,551	135,000	464,626	422,000
Termination of J V's	-	-	(54,200)	-	(54,200)
Outflow of J V's Investors	-	-	-	-	-
Dividends Paid/Received J Vs and SPVs	(11,059)	(15,640)	(45,607)	(86,676)	(178,929)
Dividends Paid & IOC Paid	(538,000)	(399,000)	(402,000)	(1,660,000)	(402,000)
Increase (Decrease) in Cash and Cash Equivalents	972,477	(1,164,428)	(553,232)	(1,721,255)	1,196,370
Cash and Cash Equivalents at Beginning of Period	3,711,468	4,875,896	6,958,432	6,405,200	5,208,830
Cash and Cash Equivalents at End of Period	4,683,945	3,711,468	6,405,200	4,683,945	6,405,200

BALANCE SHEET

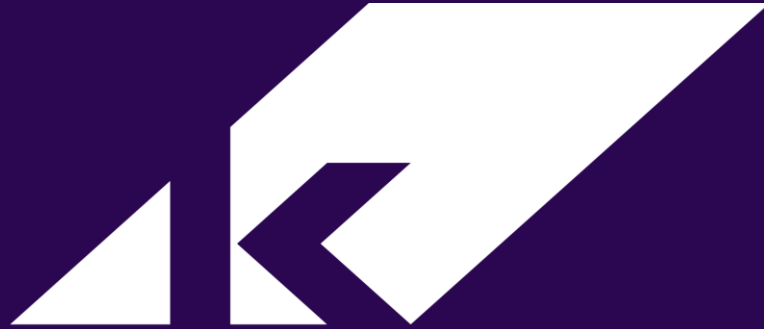
Assets (R\$ thousands)	Dec-22	Sep-22	Dec-21
Current Assets	12,504,005	12,510,469	13,892,141
Cash and Cash-Equivalents	4,683,945	3,711,468	6,405,200
Securities	1,818,368	2,541,120	2,017,235
Receivables	2,674,899	2,963,631	2,808,514
Inventories	2,442,005	2,350,706	2,003,394
Recoverable taxes and contributions	505,351	666,748	401,001
Other receivables	379,437	276,796	256,797
Goods assets for sale	11,675	12,503	9,599
Noncurrent Assets	35,061,679	33,602,285	28,173,967
Deferred income tax and social contribution	-	-	629,601
Taxes to compensate	369,772	470,345	701,604
Judicial Deposits	118,179	116,315	113,729
Other receivables	120,093	130,981	178,046
Investments	288,995	280,982	273,436
Property, plant & equipment, net	24,159,980	23,086,876	19,549,018
Biological assets	8,108,959	7,842,496	5,528,050
Right of use asset	1,610,604	1,527,310	1,058,099
Intangible assets	285,097	146,980	142,384
Total Asset	47,577,359	46,125,257	42,075,707

Liabilities and Equity (R\$ thousands)	Dec-22	Sep-22	Dec-21
Current Liabilities	6,461,750	5,330,134	5,570,841
Loans and financing	1,910,289	1,065,611	1,804,995
Debentures	42,691	5,748	54,305
Suppliers	2,383,700	2,157,442	1,874,004
Trade payables (Forfaiting)	531,646	508,717	513,724
Forestry Trade payables (Forfaiting)	21,330	9,438	117,099
Taxes payable	480,020	512,794	282,381
Salaries and payroll charges	485,046	531,687	431,369
Dividends/IOC payable	36,000	-	-
Liability use benefit	262,923	258,093	185,667
Other accounts payable	308,105	280,604	307,297
Noncurrent Liabilities	29,547,343	29,812,236	29,418,639
Suppliers	131,695	31,421	2,154
Forestry Trade payables (Forfaiting)	414,041	78,190	87,628
Loans and financing	24,239,278	25,219,661	25,783,921
Debentures	1,348,354	1,396,226	1,695,198
Other accounts payable - Investors SCPs	199,387	195,924	208,246
Lease liability	1,381,966	1,301,145	901,034
Taxes payable	1,305,659	1,045,266	184,996
Other accounts payable	526,963	544,403	555,462
Shareholders' Equity	9,559,484	9,002,800	5,739,568
Capital	4,475,625	4,475,625	4,475,625
Capital and revaluation reserves	(270,399)	(270,399)	(294,758)
Profit reserve	4,425,294	1,247,044	1,624,044
Valuation adjustments to shareholders' equity	1,084,324	795,049	103,246
Retained earnings	-	2,910,813	-
Treasury stock	(155,360)	(155,332)	(168,589)
Equity Attrib. to Noncont. Interests	2,008,782	1,980,087	1,346,659
Total Liability + Equity	47,577,359	46,125,257	42,075,707

This presentation may contain forward-looking projections or statements. Such statements are exposed to known and unknown risks and uncertainties that may cause these expectations not to materialize or to differ materially from those anticipated.


These risks include, among others, changes in the future demand for the Company's products, changes in the aspects that impact the domestic and international prices of products, changes in cost structures, changes in the seasonality of markets, changes in the prices charged by competitors, exchange variations, changes in the political-economic scenario in Brazil, in emerging and international markets.

Klabin cannot give any certainty as to the fulfillment of the expectations presented.



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