



storaenso

Stora Enso investor kit

THE RENEWABLE MATERIALS COMPANY

Disclaimer



It should be noted that Stora Enso and its business are exposed to various risks and uncertainties and certain statements herein which are not historical facts, including, without limitation those regarding expectations for market growth and developments; expectations for growth and profitability; and statements preceded by “believes”, “expects”, “anticipates”, “foresees”, or similar expressions, are forward-looking statements. Since these statements are based on current plans, estimates and projections, they involve risks and uncertainties which may cause actual results to materially differ from those expressed in such forward-looking statements. Such factors include, but are not limited to: (1) operating factors such as continued success of manufacturing activities and the achievement of efficiencies therein, continued success of product development, acceptance of new products or services by the group’s targeted customers, success of the existing and future collaboration arrangements, changes in business strategy or development plans or targets, changes in the degree of protection created by the group’s patents and other intellectual property rights, the availability of capital on acceptable terms; (2) industry conditions, such as strength of product demand, intensity of competition, prevailing and future global market prices for the group’s products and the pricing pressures thereto, price fluctuations in raw materials, financial condition of the customers and the competitors of the group, the potential introduction of competing products and technologies by competitors; and (3) general economic conditions, such as rates of economic growth in the group’s principal geographic markets or fluctuations in exchange and interest rates. All statements are based on management’s best assumptions and beliefs in light of the information currently available to it and Stora Enso assumes no obligation to publicly update or revise any forward-looking statement except to the extent legally required.



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Stora Enso in brief



Part of the global bioeconomy, Stora Enso is a leading provider of renewable products in packaging, biomaterials, and wooden construction, and one of the largest private forest owners in the world. We believe that everything that is made from fossil-based materials today can be made from a tree tomorrow. Sustainability is integral in Stora Enso's business strategy – it is at the core of what we do.



Stora Enso shares are listed on NASDAQ OMX Helsinki and Stockholm. In addition, the shares are traded in the USA as ADRs.

Sales
€11.7 billion
in 2022



Operational EBIT
€1,891 million
in 2022



~21,000
employees



We are creating the foundation for a renewable future



Our products replace and substitute fossil-based products

Foundation



Forest



Pulp



Traditional
wood
products

Key strategic growth areas



Renewable
packaging



Sustainable
building
solutions



Renewable
biomaterials
innovations

Exceeding all long-term Group level financial targets in 2022



Group long-term financial targets		Q4 21	Q4 22		2021	2022	
Dividend*	To distribute 50% of EPS excluding fair valuation over the cycle	-	-		0.55	0.60**	●
Growth YoY	> 5%	39%	5%	●	29%	17%	●
Net debt to operational EBITDA	< 2.0x	1.1	0.7	●	1.1	0.7	●
Net debt to equity	< 60%	22%	15%	●	22%	15%	●
Operational ROCE excl. Forest	> 13%	20.4%	13.2%	●	17.8%	20.9%	●

Divisional long-term financial targets		Q4 21	Q4 22		2021	2022	
Packaging Materials	Operational ROOC > 20%	16.8%	3.6%	●	18.0%	18.2%	●
Packaging Solutions	Operational ROOC > 15%	19.4%	-1.4%	●	10.8%	-0.7%	●
Biomaterials	Operational ROOC > 15%	27.1%	35.0%	●	20.8%	25.8%	●
Wood Products	Operational ROOC > 20%	53.1%	-7.5%	●	59.4%	44.2%	●
Forest	Operational ROCE > 3.5%	3.6%	4.4%	●	5.1%	3.7%	●
Paper	Cash flow after investing activities to sales > 7%	-2.9%	-0.7%	●	-4.5%	0.9%	●

*Annual dividend **Dividend proposal

Capacities by division



Division	Capacity 1,000 t
Packaging Materials	
Consumer Board	3,490
Containerboard*	2,315
Barrier coating	655
Paper	990
Packaging Solutions*	1,775 Mm2
Wood Products	
Sawing	5.4 Mm3
Further processing	2.5 Mm3
Building Solutions	495 m3**
Pellets	485

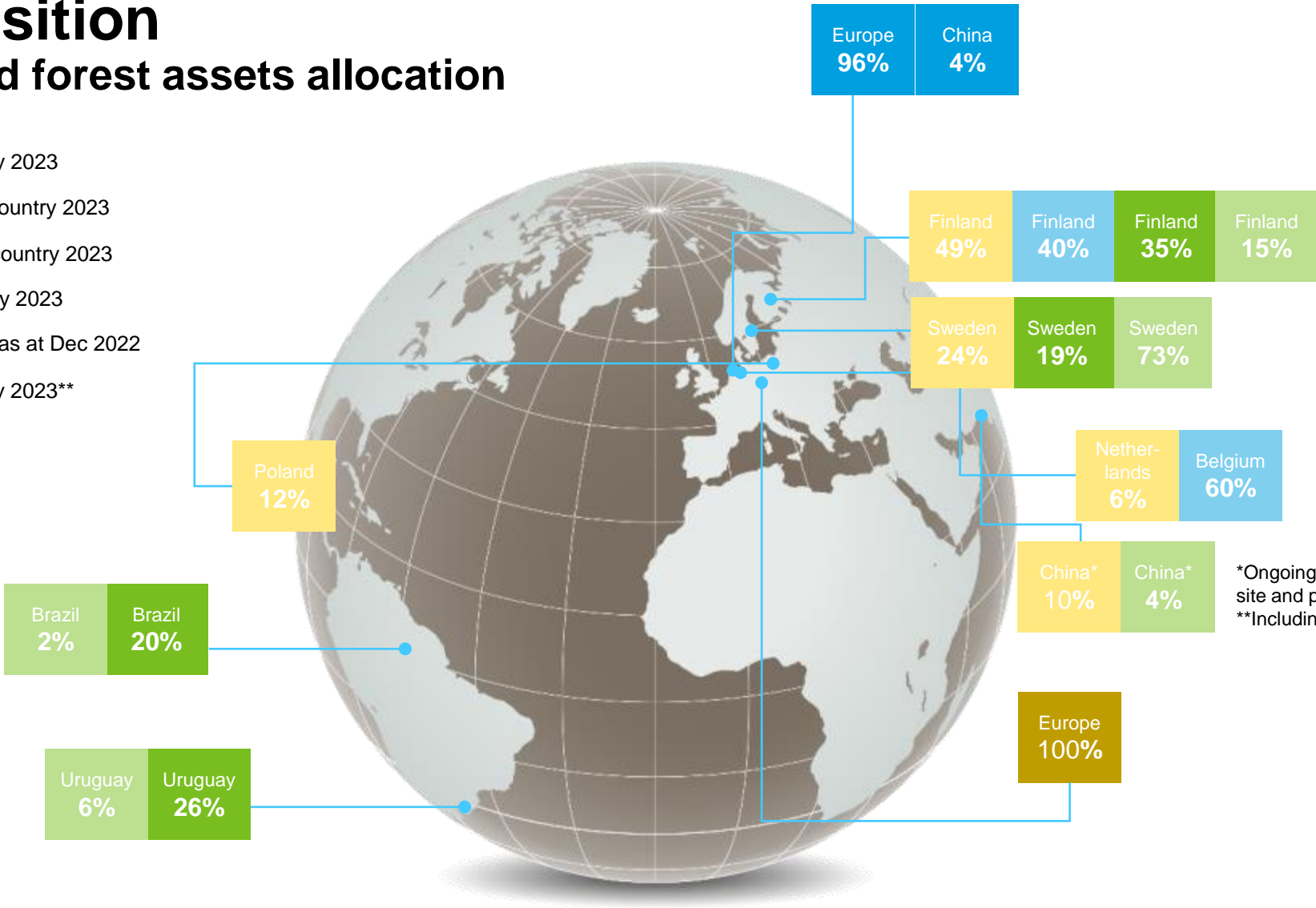
Division	Capacity 1,000 t
Biomaterials	
Softwood and fluff pulp	1,550
Hardwood pulp	1,325
Kraft lignin	50
Group forest assets	
Total area	2.0m ha
Productive area	1.6m ha

Global position

– capacity and forest assets allocation

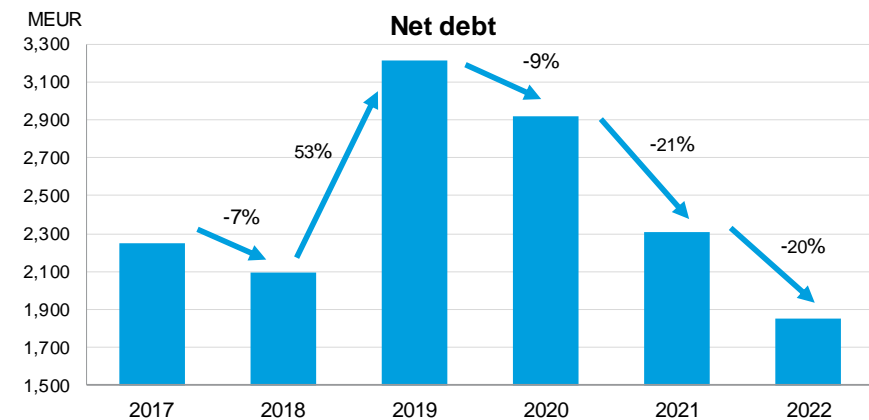
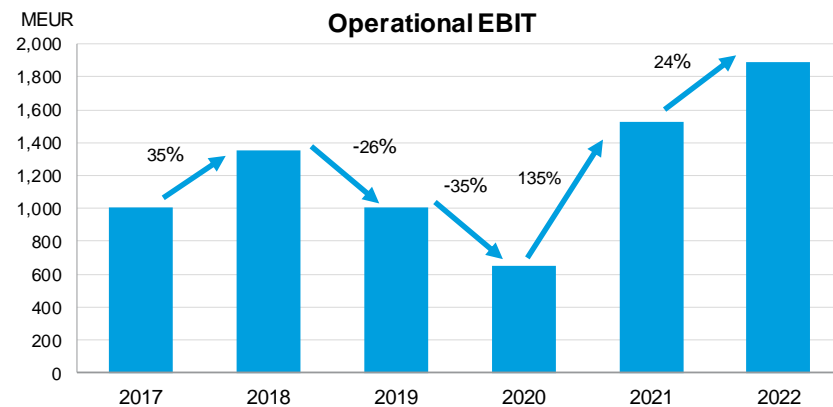
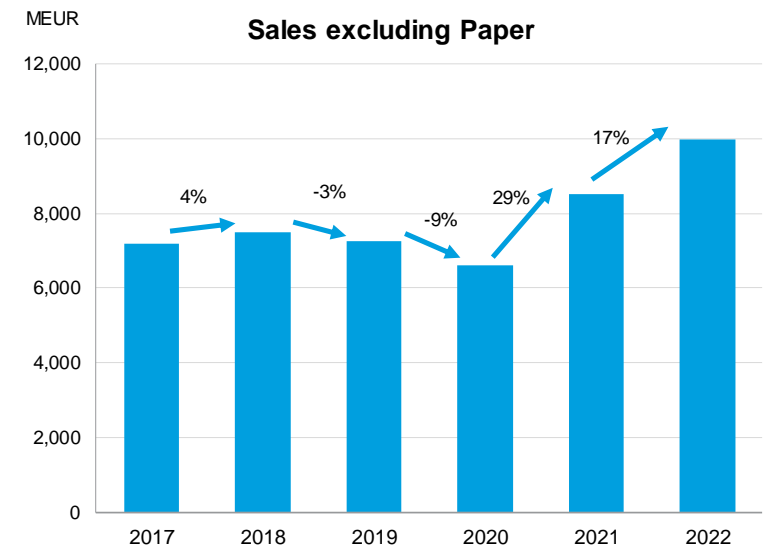
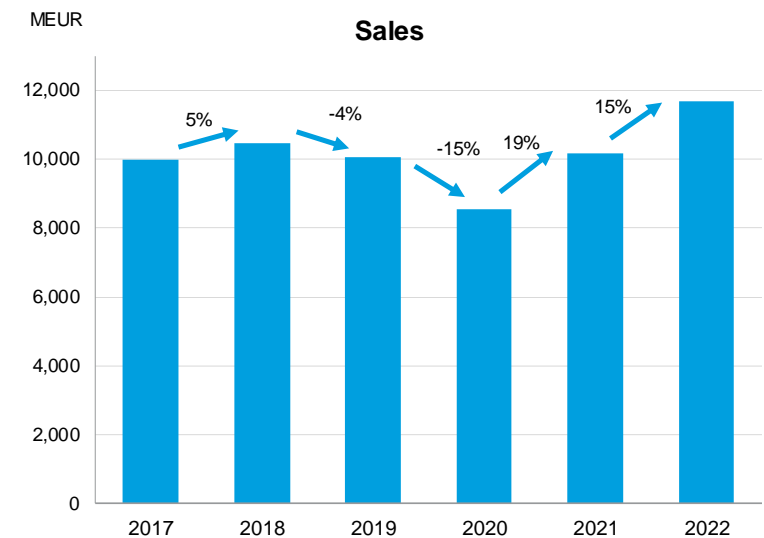


- Board capacity by country 2023
- Packaging Solutions by country 2023
- Market pulp capacity by country 2023
- Wood Products by country 2023
- Forest assets by country as at Dec 2022
- Paper capacity by country 2023**

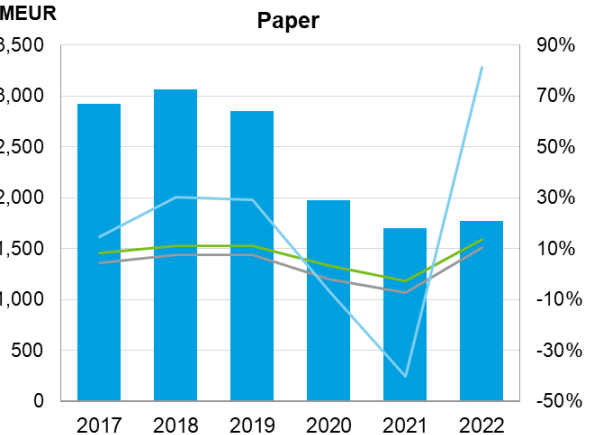
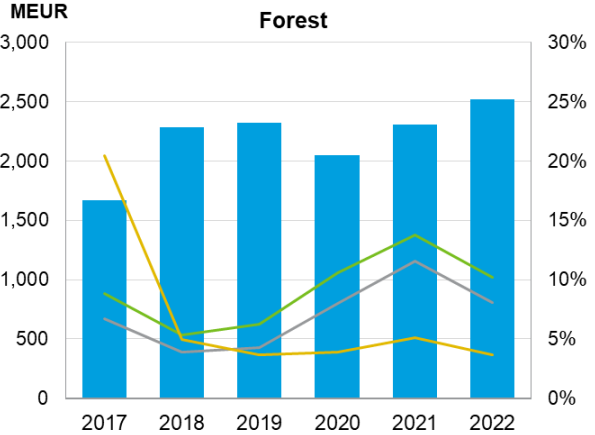
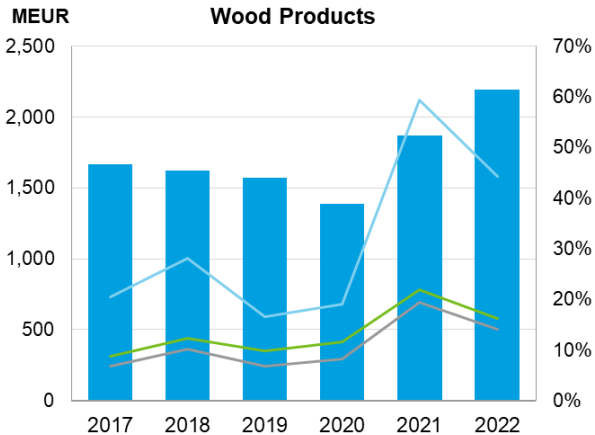
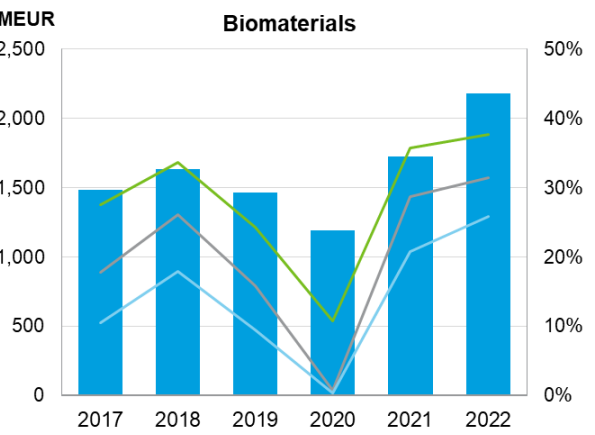
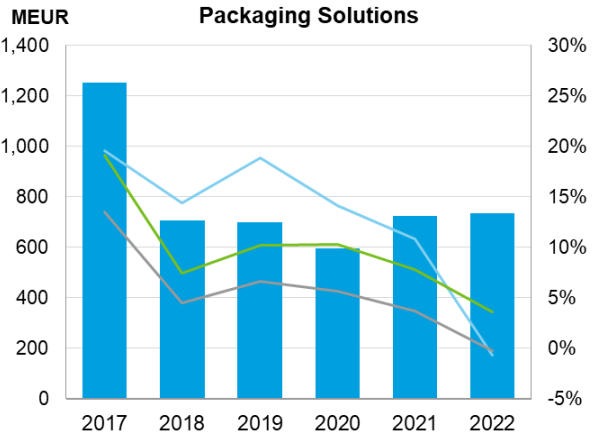
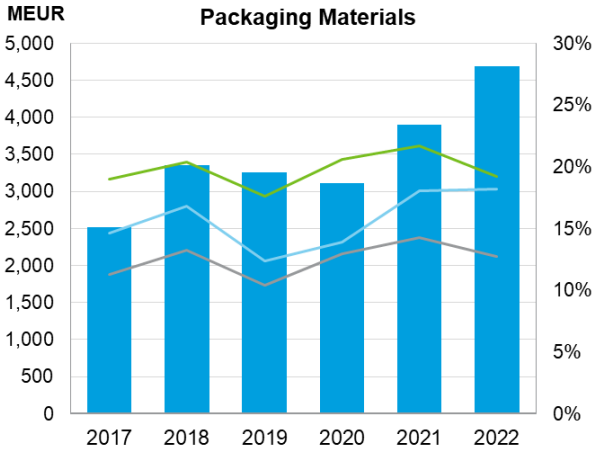


*Ongoing divestment process for Beihai site and plantations in China
 **Including Anjala and Langerbrugge

Group financial performance

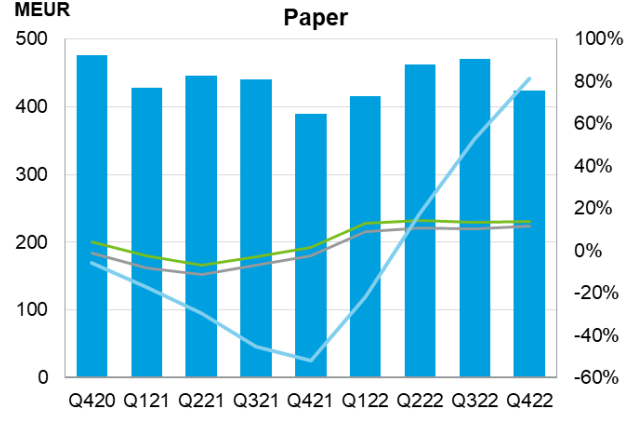
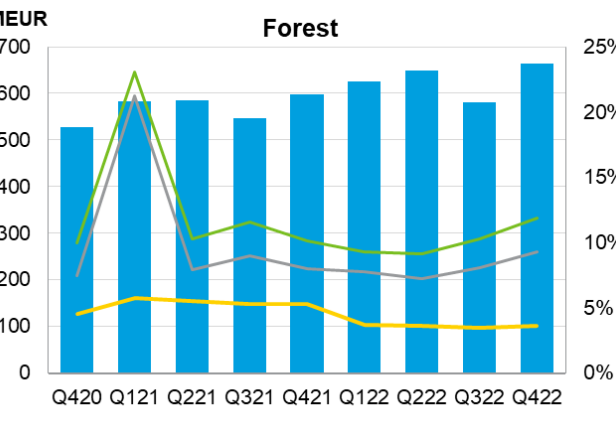
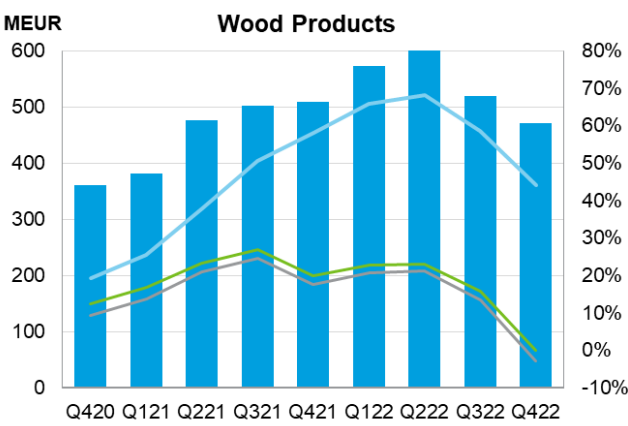
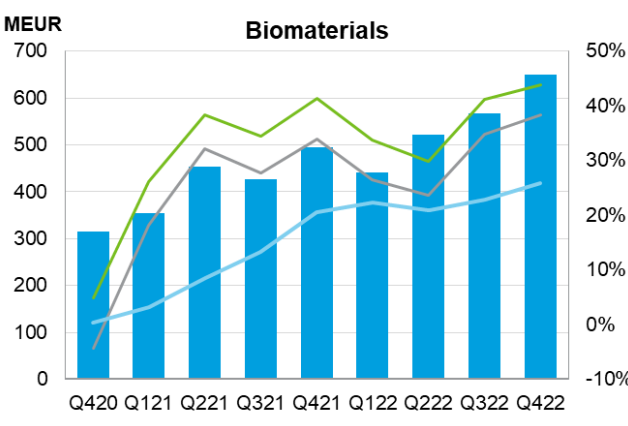
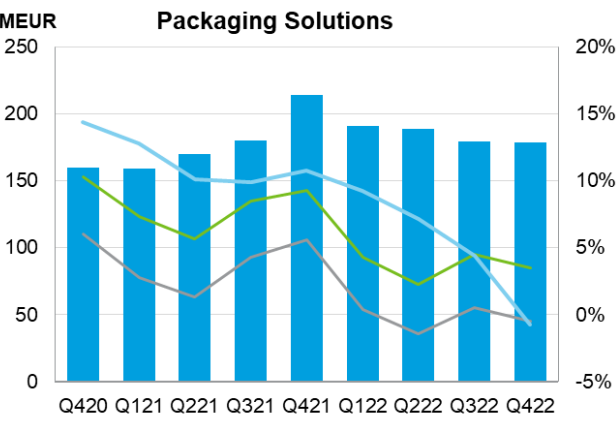


Annual financial performance - divisions



- Sales
- Operational EBIT margin
- Operational EBITDA margin
- Operational ROOC
- Operational ROCE

Quarterly financial performance - divisions

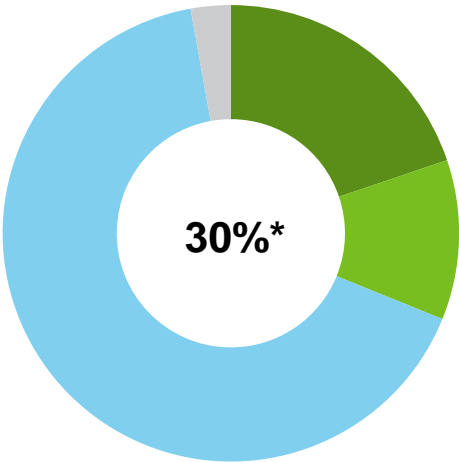


- Sales
- Operational EBIT margin
- Operational EBITDA margin
- Operational ROOC, 4Q rolling
- Operational ROCE, 4Q rolling

Strategic growth areas 60% of sales (pro forma 2022)

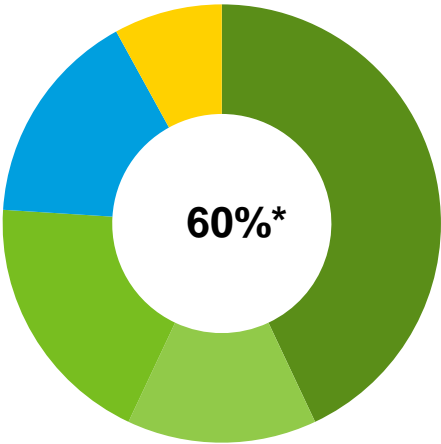


Sales 2006



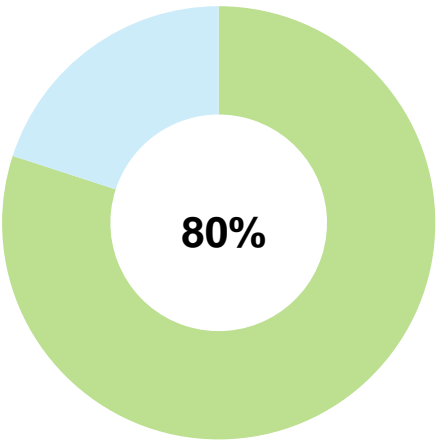
- Packaging
- Wood Products
- Paper

Sales 2022
Pro forma illustration**



- Packaging Materials
- Packaging Solutions
- Wood Products
- Biomaterials
- Forest
- Other and eliminations

Sales in ~2030



- Growth areas
- Other business

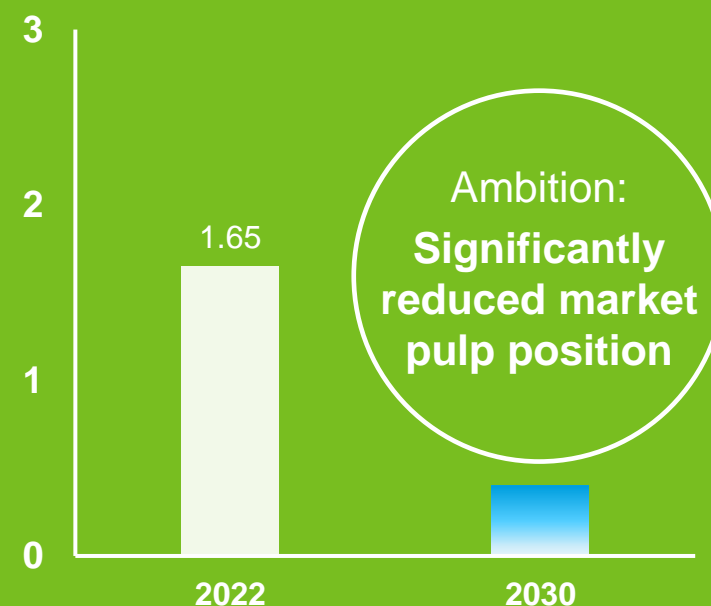
*Strategic growth areas include Packaging Materials, Packaging Solutions, Biomaterials Innovations (part of Biomaterials) and Building Solutions (part of Wood Products)
**2022 pro forma illustration excludes Paper and includes De Jong Packaging

Ambition to significantly reduce earnings cyclicity and long market pulp position



- Exiting paper business
- Growth in packaging with increased integration of eucalyptus pulp
- Developing a more value-add pulp product mix
- Growing the share of building solutions

Group net standard* pulp position for the next twelve months (million tonnes)



We make a positive climate impact



Our value
chain emissions

8.0

million tonnes of CO₂

Our forests
remove carbon

-1.5

million tonnes of CO₂

Our carbon
products store

-2.5

million tonnes of CO₂

Our products
substitute fossil-
based products save

-16.2

million tonnes of CO₂

Our sustainability performance



Targets



-50%

reduction in absolute emissions by 2030 (Scope 1,2,3)



100%

Recyclable products by 2030



Net positive

Impact on biodiversity by 2050

Status



Scope 1 + 2

-27%

(2022 compared to the base year 2019)

Scope 3

-27%

(2022 compared to the base year 2019)



94%

(2022)



Target to reach 100% compliance by indicator*

Stora Enso ~2030 ambition*



+30% sales

vs 2021
(excl. inflation)

**15% operational
EBIT margin**
over a cycle

Packaging >60%
of sales

Wood Products

>40%
of sales from Building
solutions

+75%
operational EBITDA over
a cycle**

**Earnings cyclicity
reduced by half****

No paper exposure

Significantly reduced
market pulp exposure

New revenue streams

1 BEUR sales
from Biomaterials
innovation

5-10 TWh
of wind power on own
forest land

Divisions

Packaging

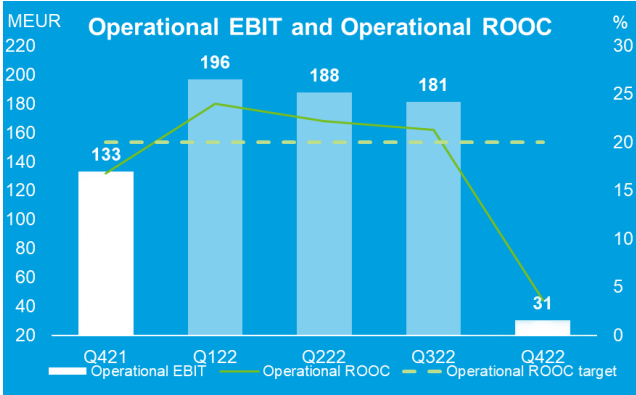
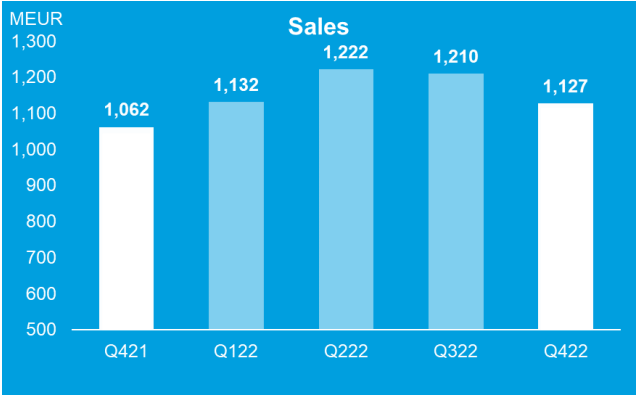
- Packaging Materials
- Packaging Solutions

Packaging Materials division in brief



- Aims to lead the development of circular packaging, providing premium packaging materials based on virgin and recycled fiber
- Helping customers to replace fossil-based materials with low-carbon, renewable and recyclable alternatives for their food and drink, pharmaceutical or transport packaging
- World-class cost-competitive integrated production sites close to raw material sources
- Main products: consumer board, containerboard and barrier coatings
- The customers are converters, brand owners and retailers

Packaging Materials key figures



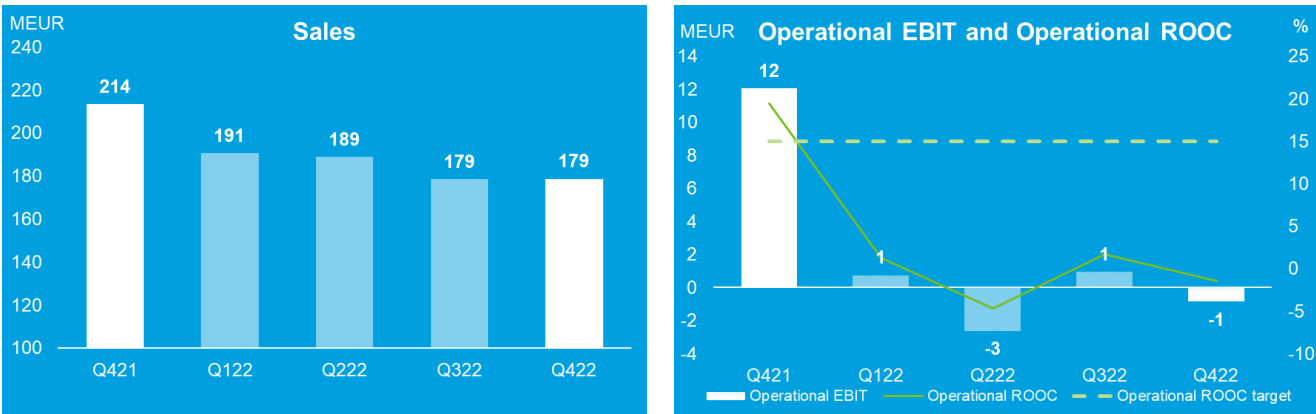
	Divisional strategic target	Q4/21	Q4/22	
Packaging Materials	Operational ROOC > 20%	16.8%	3.6%	●

Packaging Solutions in brief



- Develops and sells premium fiber-based packaging products and services
- Innovation collaboration throughout the whole value chain for developing renewable packaging materials
- High-end, eco-friendly packaging products which are used by leading brands across multiple market sectors, including the retail, e-commerce and industrial sectors
- The portfolio includes converting corrugated board and cartonboard

Packaging Solutions key figures

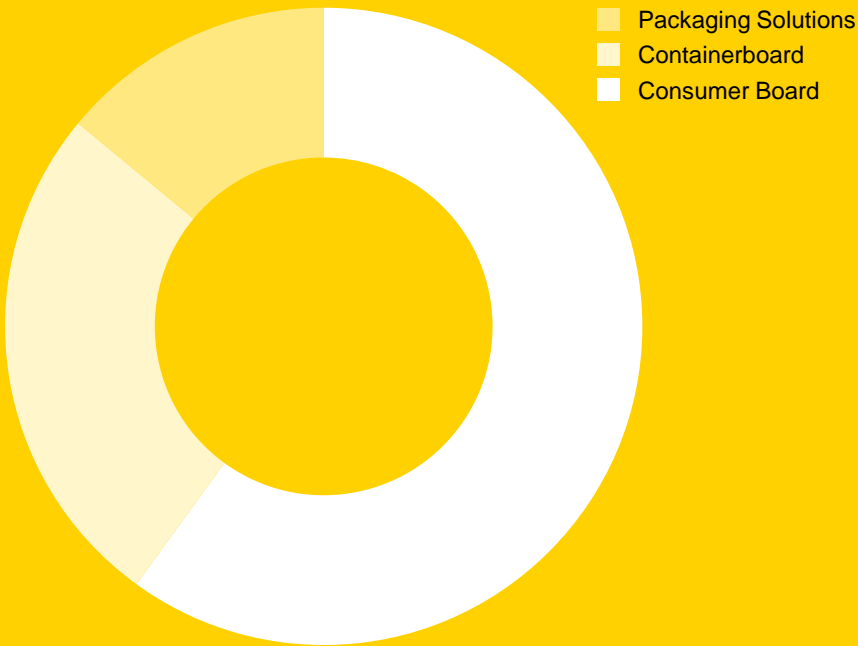


	Divisional strategic target	Q4/21	Q4/22	
Packaging Solutions	Operational ROOC > 15%	19.4%	-1.4%	●

We have the broadest portfolio in the industry



Sales mix Q4 2022



Consumer board



Containerboard



Packaging Solutions



Leading market positions in Europe and global reach



- **Top 10 largest** global supplier of packaging board
- **Premium products and services** for demanding end uses
- **Kraftliner and SC fluting** global premium niche
- **Corrugated packaging** market fragmented
- **Capacity increases** through organic and acquisitive growth

Consumer board

Stora Enso's market position

- **LPB** #1 Globally
- **FSB** #1 in Europe
- **FBB** #2 in Europe
- **CUK** #1 in Europe
- **SBS** #1 in Europe

Packaging solutions

- **Corrugated boxes** #1 in Nordics
- **Corrugated boxes** top three in Benelux

Containerboard

- **Kraftliner** #4 in Europe
- **SC fluting** #3 in Europe
- **Recycled containerboard*** #5 in Eastern Europe

*Including testliner and recycled fluting

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Integration benefits in core regions



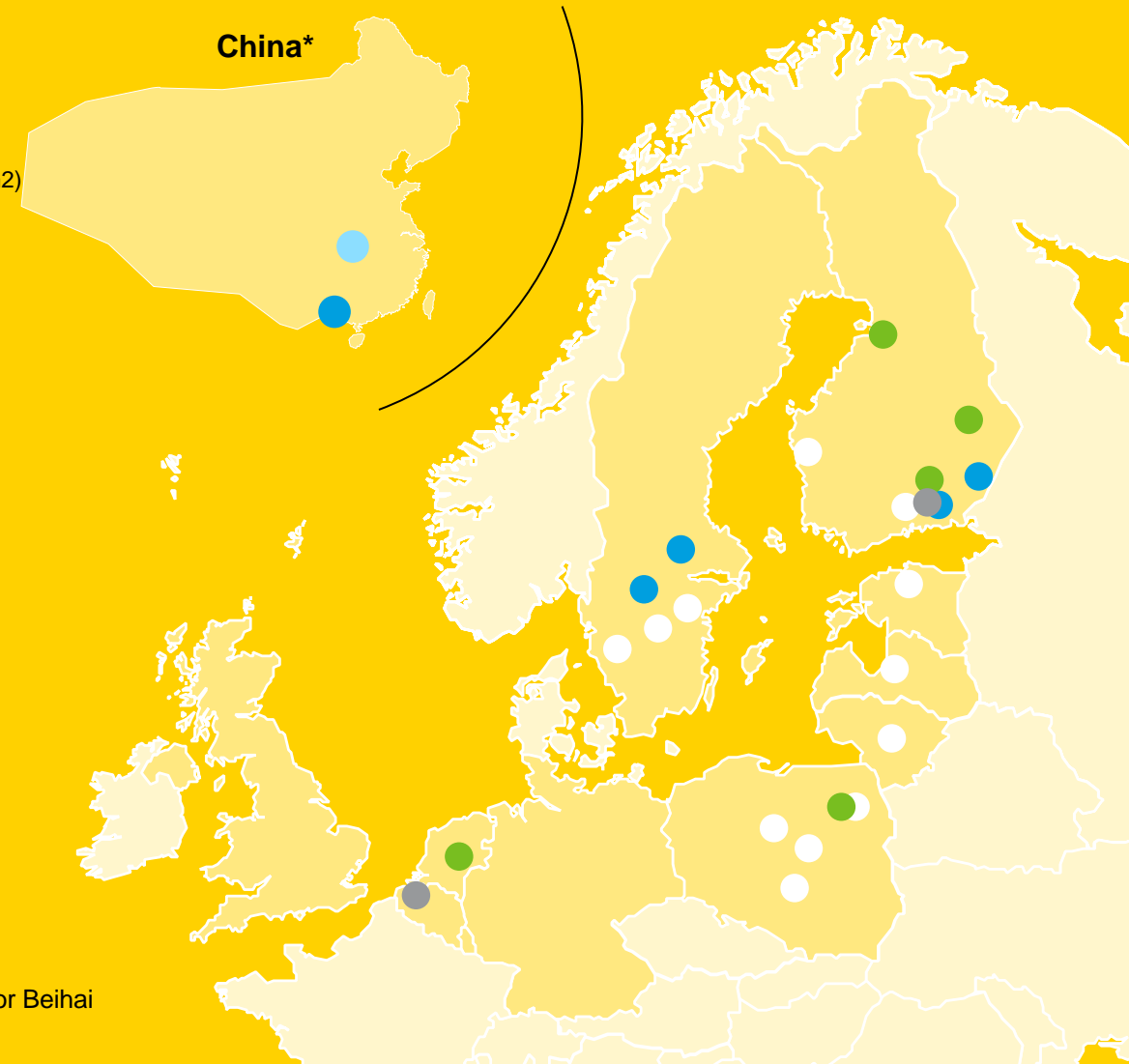
Nordics and Baltics

- Premium carton and liquid packaging board
- Virgin fiber containerboard and converting
- Megafactories for economies of scale and integration benefits
- Smaller production sites with niche product concepts
- Optimising product mix

Eastern and Western Europe

- Recycled containerboard and converting in Poland
- Beverage carton recycling in Poland
- De Jong Packaging acquisition combined with planned Langerbrugge conversion

- Consumer board production (3,490 kt)
- Containerboard production (2,315 kt)
- Corrugated packaging (935 Mm²)
- Folding carton packaging (70 Mm²)
- De Jong corrugated packaging (770 Mm²)
- Langerbrugge, Belgium (555kt)
- Anjala, Finland (435kt)



Accelerated revenue growth and strengthened European footprint through the acquisition of De Jong Packaging



Founded in 1996

€1* billion

Sales est 2022

€114* million

EBITDA est 2022

Capacity increase
by ~1,200 million
m2 to more than
2,000 million m2

€30 million



average annual
synergies over
the cycle after
three years

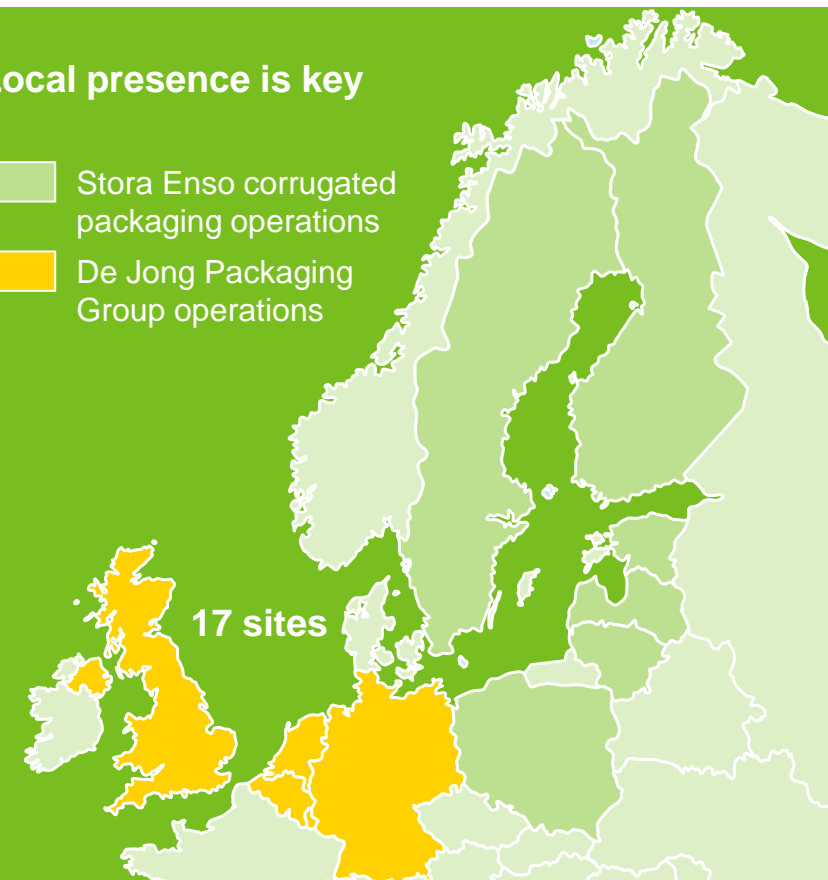
€40 million

additional annual
EBITDA impact by
2025 from ongoing
expansions

Excellent fit with possible conversion in the Langerbrugge site

Local presence is key

-  Stora Enso corrugated packaging operations
-  De Jong Packaging Group operations



De Jong Packaging excellent fit with a potential Langerbrugge conversion



- Ongoing feasibility study to convert the newsprint machine to 700,000 tonnes testliner and recycled fluting grades, decision H1 2023
- Possibility to combine
 - A converted Langerbrugge – the most cost-efficient containerboard site in Europe
 - De Lier production site – the largest and most modern corrugating site in Europe after ongoing expansion
- Proximity offers additional opportunities for commercial and cost integration benefits over the business cycle



Accelerating growth in renewable packaging by investing in cost-leading high quality consumer board



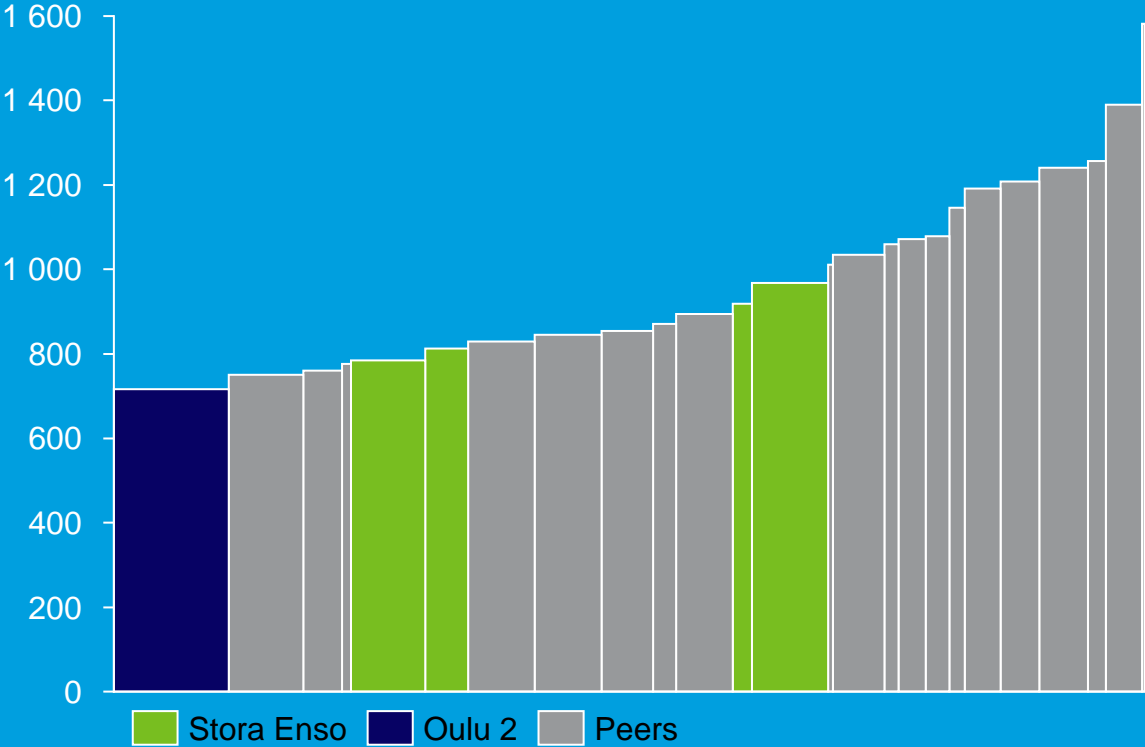
- Investing ~€1bn in 2022 – 2025 to convert the second idle paper machine at our Oulu site in Finland
- Production estimated to start early 2025
- Starting consumer board line for folding box board and coated unbleached kraft to a total capacity of 750,000 tonnes/y
- Expected annual sales ~€800m
- Reducing earnings volatility by lowering the Group's market pulp exposure by ~250,000 tonnes/y
- Target end-use segments: food and drink, frozen and chilled, mainly in Europe and North America



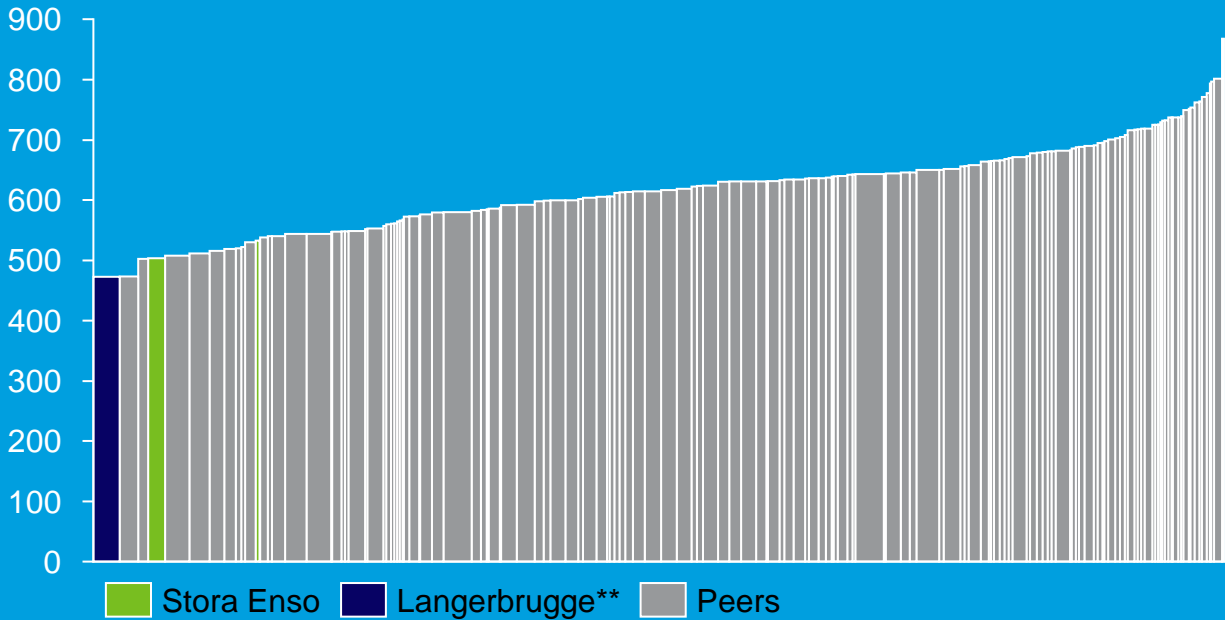
Stora Enso's assets well positioned in European cost curves



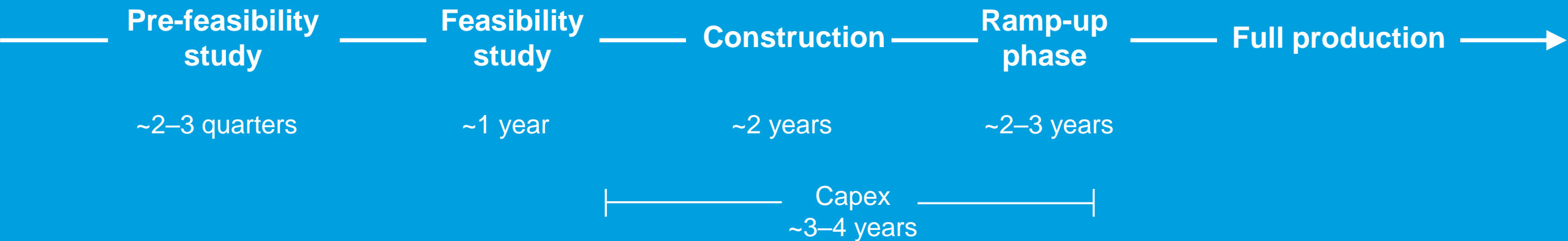
Estimated European* FBB reels, delivered Frankfurt
EUR/tons 2022
Cost based pricing for captive pulp



Estimated European* recycled containerboard, delivered Frankfurt
EUR/tons 2022



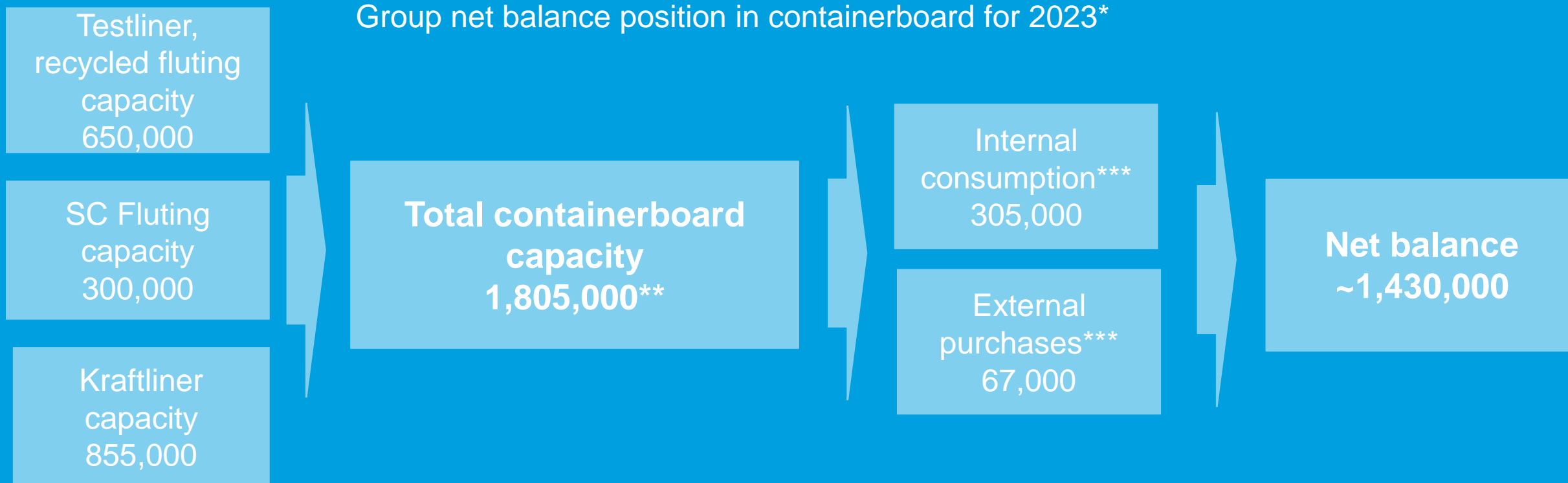
Planning and implementation of growth projects



Group annual containerboard net balance



Group net balance position in containerboard for 2023*

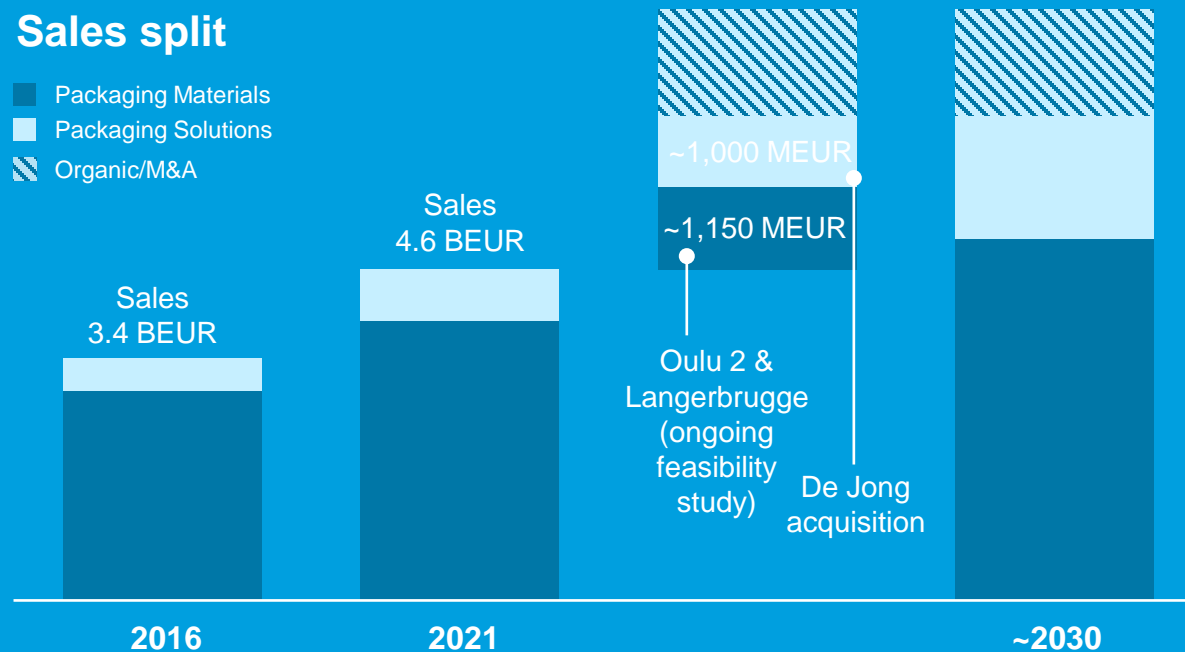


*Excluding De Jong, impact to be disclosed in Q1 2023

**Excluding Ostroleka sack and wrapping paper capacity of 130,000 tonnes

**Based on rolling 12 months figures and excluding Russian operations

2030 growth plan: focus on organic and acquisitive growth



Packaging ~2030 ambition



**>60% sales
increase**

vs 2021

**Highest industry
margins**

**Leader in
sustainable
packaging design
and innovation**

**100% recyclable
products (technically)**

EBIT >2x

vs 2021

**Fully integrated
board capacity with
internal pulp**

**50% carbon
footprint reduction**

**Full adoption of
Circular Design
Guidelines (2025)**

Biomaterials



storaenso



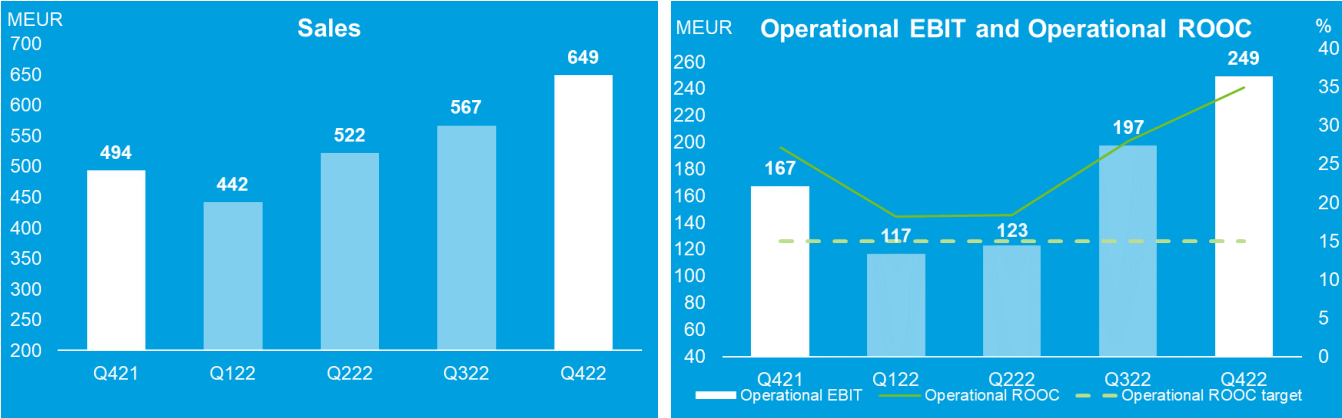
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Biomaterials division in brief



- Biomaterials division meets the growing demand for bio-based solutions to replace fossil-based and hazardous materials
- We use all fractions of biomass to develop new solutions
- Our pulp offering encompasses a wide variety of grades to meet the demands of board, paper, specialty paper, tissue and hygiene product producers, as well as materials from process side streams, such as tall oil and turpentine from biomass
- Our work to replace fossil-based materials includes novel applications such as Lignode and bio-based binders

Biomaterials key figures

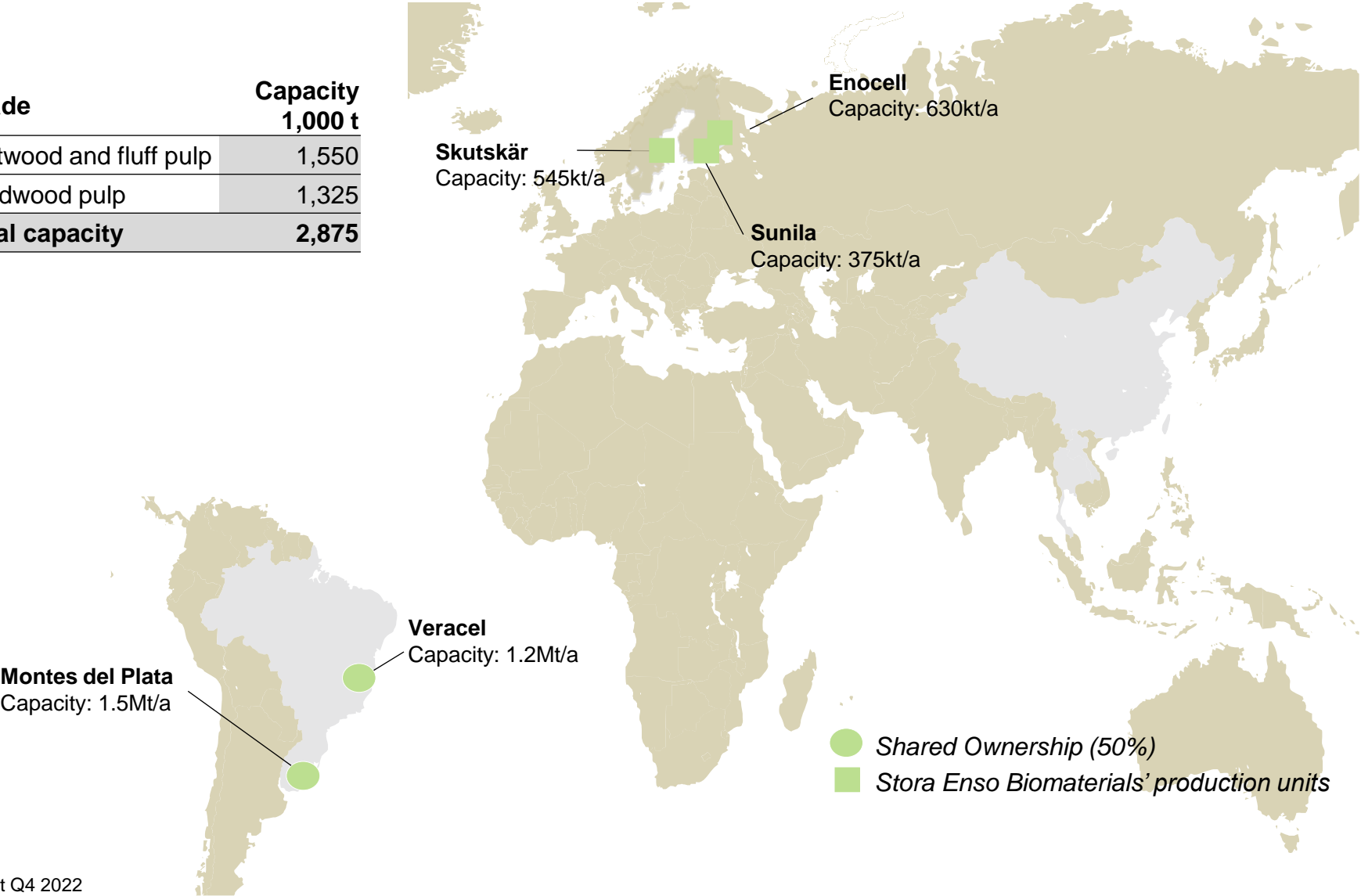


	Divisional strategic target	Q4/21	Q4/22	
Biomaterials	Operational ROOC > 15%	27.1%	35.0%	●

Biomaterials worldwide



Grade	Capacity 1,000 t
Softwood and fluff pulp	1,550
Hardwood pulp	1,325
Total capacity	2,875



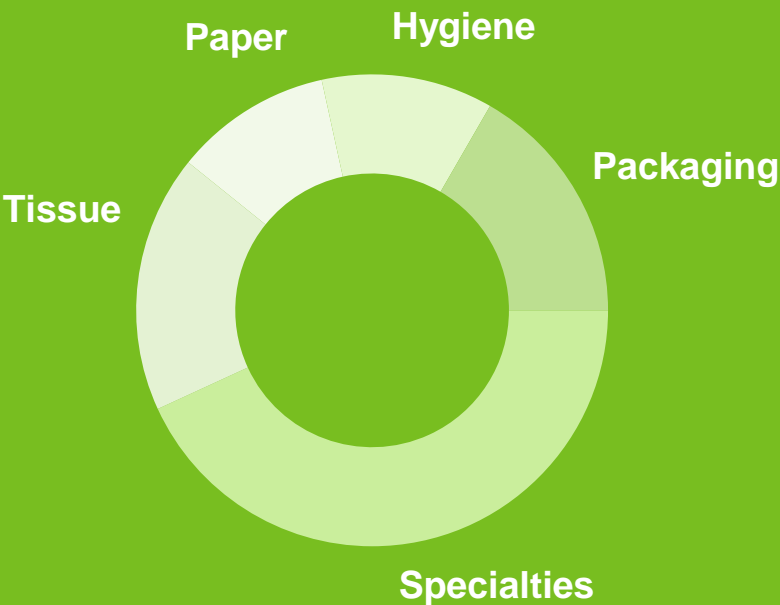
Our products and sales mix form the foundation for biomaterial innovation



Sales mix Q4 2022



Pulp sales by end use Q4 2022



Pulp Market size €45 billion, CAGR +2%



Innovative biomaterials



Significant growth opportunity in biomaterials innovation



Market size	€10 billion	€20 billion
Long-term EBITDA margin potential	50%	40%
CAGR	 Anode material +25-30% CAGR	 Bio-binders +3-4% CAGR

Reducing carbon footprint with bio-based binders



High bonding strength
and water resistance

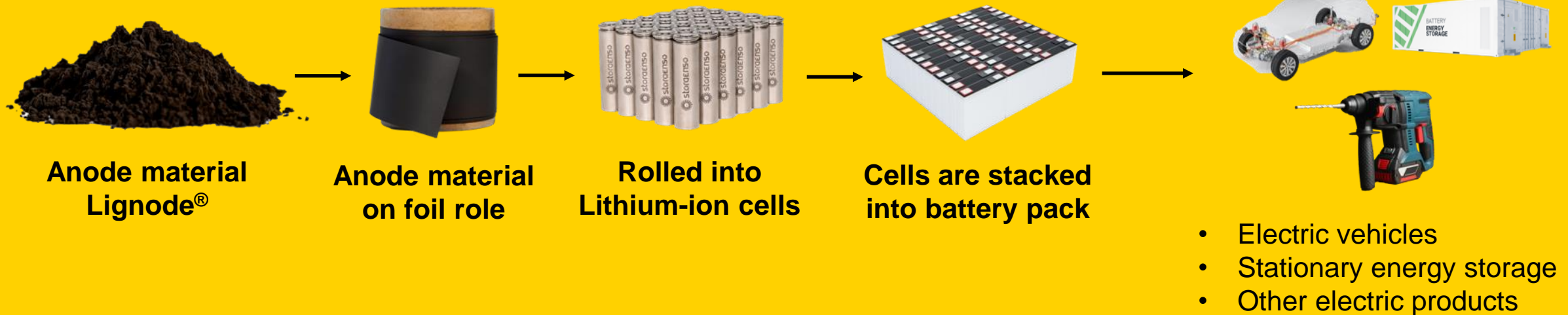
Replacing fossil-based
chemicals

Market €20 billion

Current share <1%













Lignode replaces non-renewable graphite in batteries



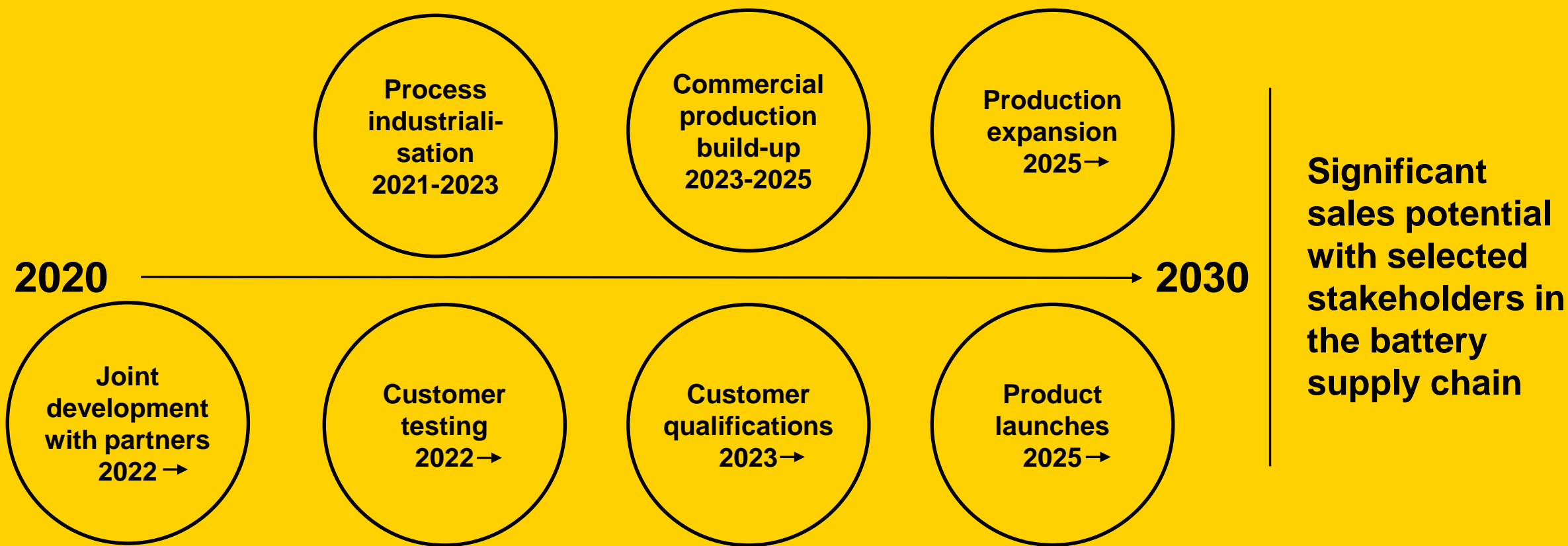
Higher performance and faster charging compared to pure graphite



Properties	100% Lignode	Lignode/graphite mixtures
Fast charging/ discharging		
Low temperature performance		
Cycling stability		
Energy density		
Sustainability		



Lignode: We are accelerating the development and scale-up with customers and partners



Biomaterials ~2030 ambition



**€1bn sales in
innovative
biomaterials**

**Reduced market
pulp position**

**Full scale-up
of Lignode**

**Leadership in
European fluff**

**50% carbon
footprint reduction**

**Maintaining strong
competitiveness**



Wood Products

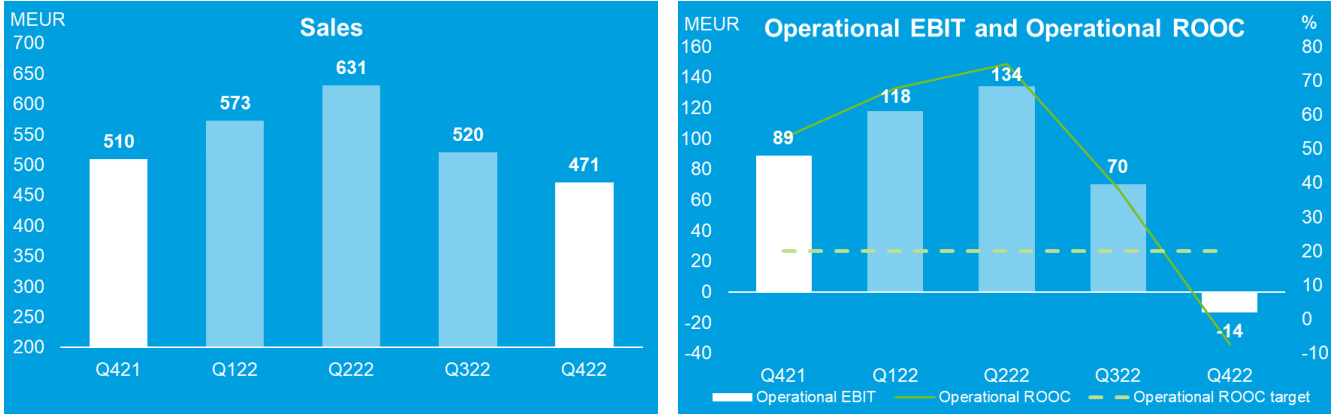
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Wood Products division in brief



- Largest sawn wood producer in Europe and a leading provider of sustainable wood-based solutions for the construction industry globally
- The growing Building Solutions business offers building concepts to support low-carbon construction and eco-friendly designs
- Developing digital tools to simplify the design and construction of building projects with wood
- High demands with regard to safety, quality, design and sustainability
- The customers are mainly merchants and retailers, industrial integrators and construction companies

Wood Products key figures



	Divisional strategic target	Q4/21	Q4/22	
Wood Products	Operational ROOC > 20%	53.1%	-7.5%	●

Climate change can be mitigated with wood construction



CO₂ savings for every m³ built with wood

-1 tonne CO₂

vs. concrete

-2.5 tonnes CO₂

vs. steel

We can **significantly cut emissions in the construction sector** by using renewable materials



Our two strategic pillars enable financial stability and resilience



Sales mix Q4 2022



Traditional wood products



3-4% annual market growth rate long-term
Market size: >€100 billion

Building Solutions



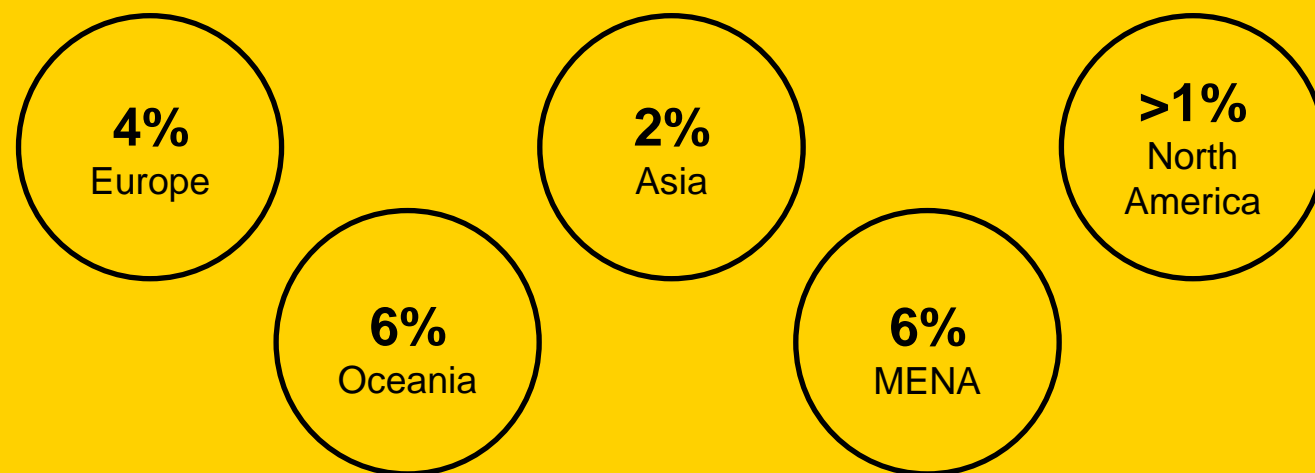
>10% annual market growth rate long-term
Market size: >€1 billion for wooden multi-storey buildings

Our market position and sustainability megatrends support our profitable growth ambitions



Traditional wood products markets

Stora Enso's market share (%)



Stora Enso's global CLT market share 2022



Traditional wood products

- Largest supplier of sawn wood in Europe
- Global reach with ~40% sales in overseas markets

Building Solutions

- The world's largest CLT producer
- One of the leaders in LVL in the European market

Leading provider of wood-based building solutions



- Close to strategic European markets
- Industrial infrastructure
- Local supply of raw material

Annual capacity

- Sawing 5.4 million m³
- Further processing 2.5 million m³
- CLT 410,000 m³*
- LVL 85,000 m³
- Pellets 485,000 t

*CLT site (120,000 m³) in Ždírec, Czech Republic, in the ramp-up phase

- Traditional sawing
- CLT production
- LVL production



Traditional wood products: we have improved our profitability and competitiveness for profitable growth

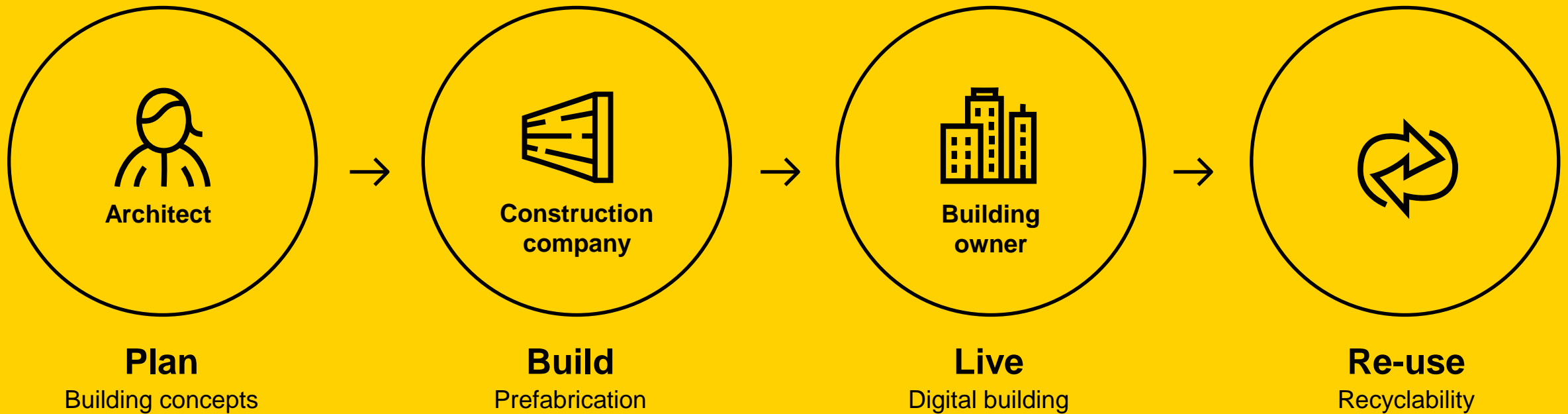


1. Demand growth: megatrend for wooden buildings continues
2. Wood supply: competitive sourcing in Nordics and Central Europe
3. Efficiency: largest operational process efficiency programme completed with main improvements in safety, productivity and raw material efficiency
4. Integration benefits: fiber supply for building solutions and packaging materials

Opportunity for profitable growth: capacity increase



Building Solutions: accelerated profitable growth with solutions across the building lifecycle



Prefabrication example: Fully-finished building elements to reduce manual, costly workload on the construction site



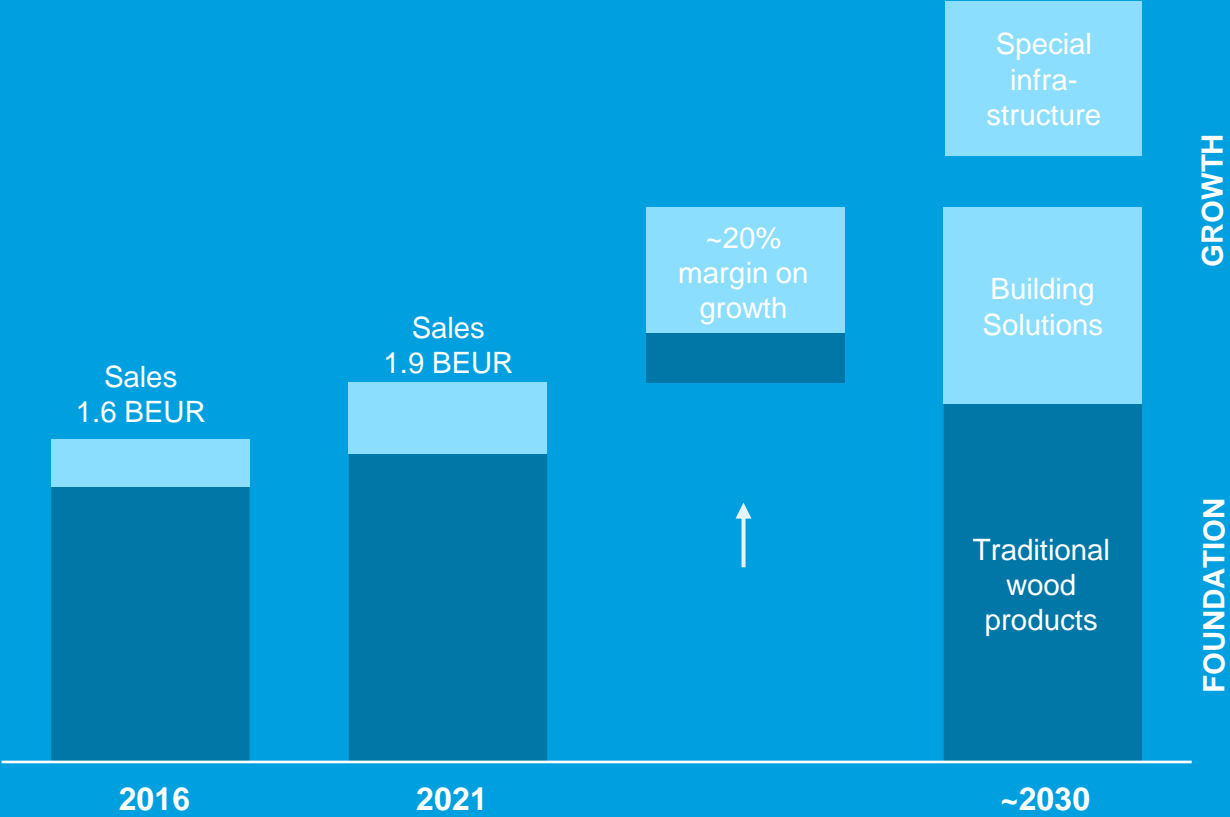
———— **Commodity, off-the-self** ————— **Bespoke, delivered just in time** —————>

We will triple sales in Building Solutions



Sales mix

- Traditional wood products
- Building Solutions



New growth opportunity with wooden wind turbine towers
>20% margin on growth

Wood Products ~2030 ambition



>40% sales increase*

40% share of Building Solutions

50% scope 3 carbon footprint reduction

+75% operational EBITDA over the cycle*

~25 wind turbine towers delivered

Efficient asset footprint



storaenso

Forest

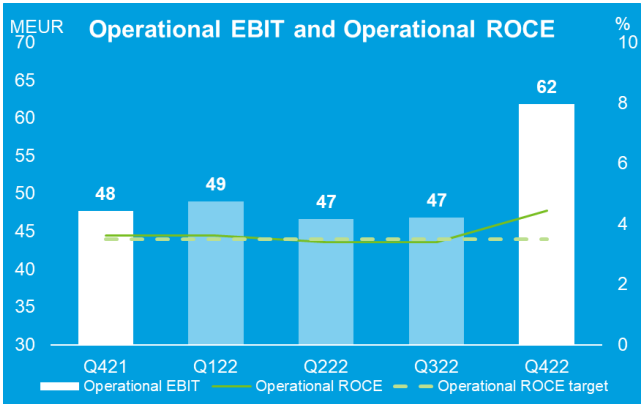
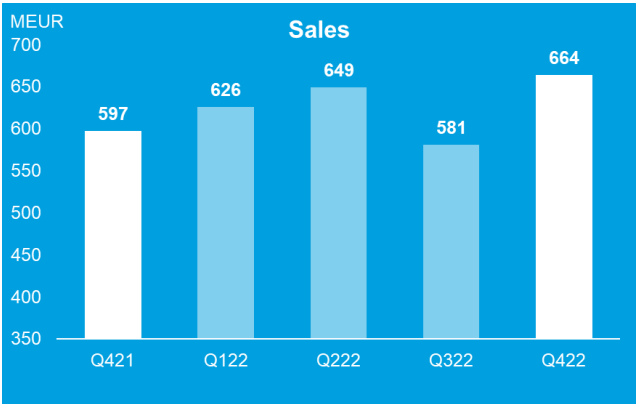
THE RENEWABLE MATERIALS COMPANY

Forest division in brief



- The division creates value with sustainable forest management, competitive wood supply to Stora Enso's production units, and innovation
- Our forests are the foundation for Stora Enso's renewable offerings
- The division includes our Swedish forest assets and the 41% share of Tornator as well as wood supply operations in Finland, Sweden and the Baltics
- Stora Enso is one of the biggest private forest owners in the world

Forest key figures



	Divisional strategic target	Q4/21	Q4/22	
Forest	Operational ROCE > 3.5%	3.6%	4.4%	●

We create value through our forest assets



~30% self-sufficiency of wood supply from own forest assets and long-term agreements

Secure tactical flexibility through wood sourcing

Operate the largest wood sourcing organisation in the Baltic Sea region

Increased harvesting to secure wood flows to Stora Enso sites

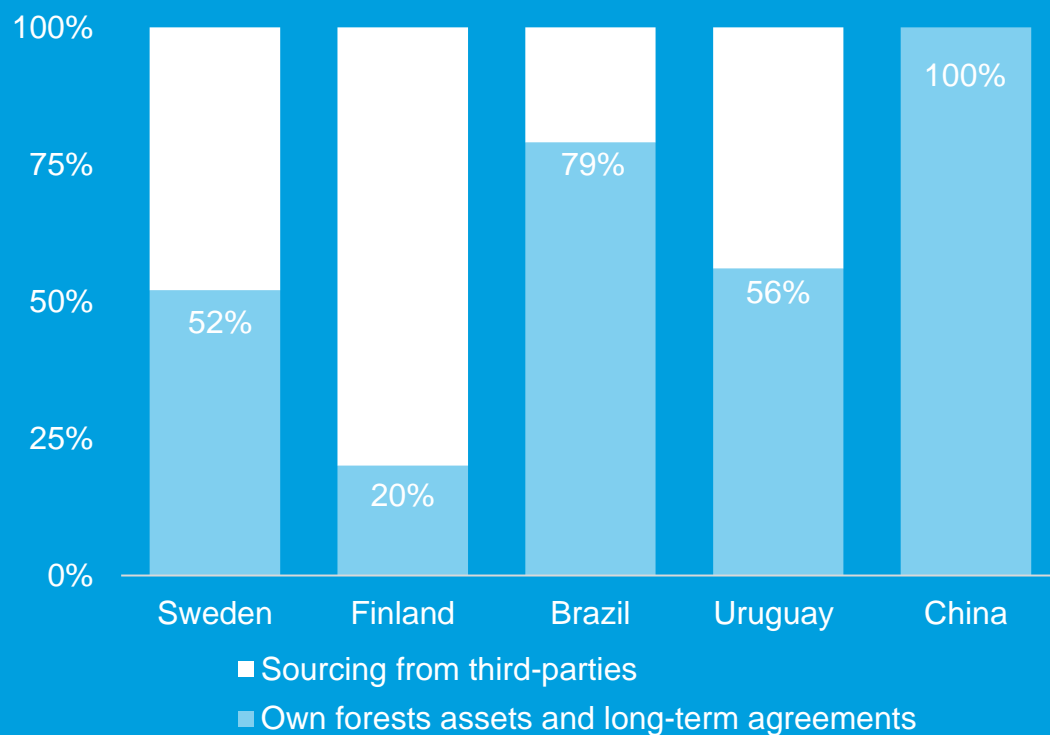
Fiber* 33% of total Group costs



~30% self-sufficiency of wood supply from own forest assets and long-term agreements



Wood self-sufficiency by country in 2022



The forest presents an endless source of value

- Supports a strong balance sheet with increasing value
- Lowers financial and strategic risks
- Foundation for development of sustainable forest management
- Supports our growth strategy through cost efficient wood flows and resource efficiency
- Advances our innovation and R&D work
- Potential for additional revenue streams in renewable energy production (solar and wind)



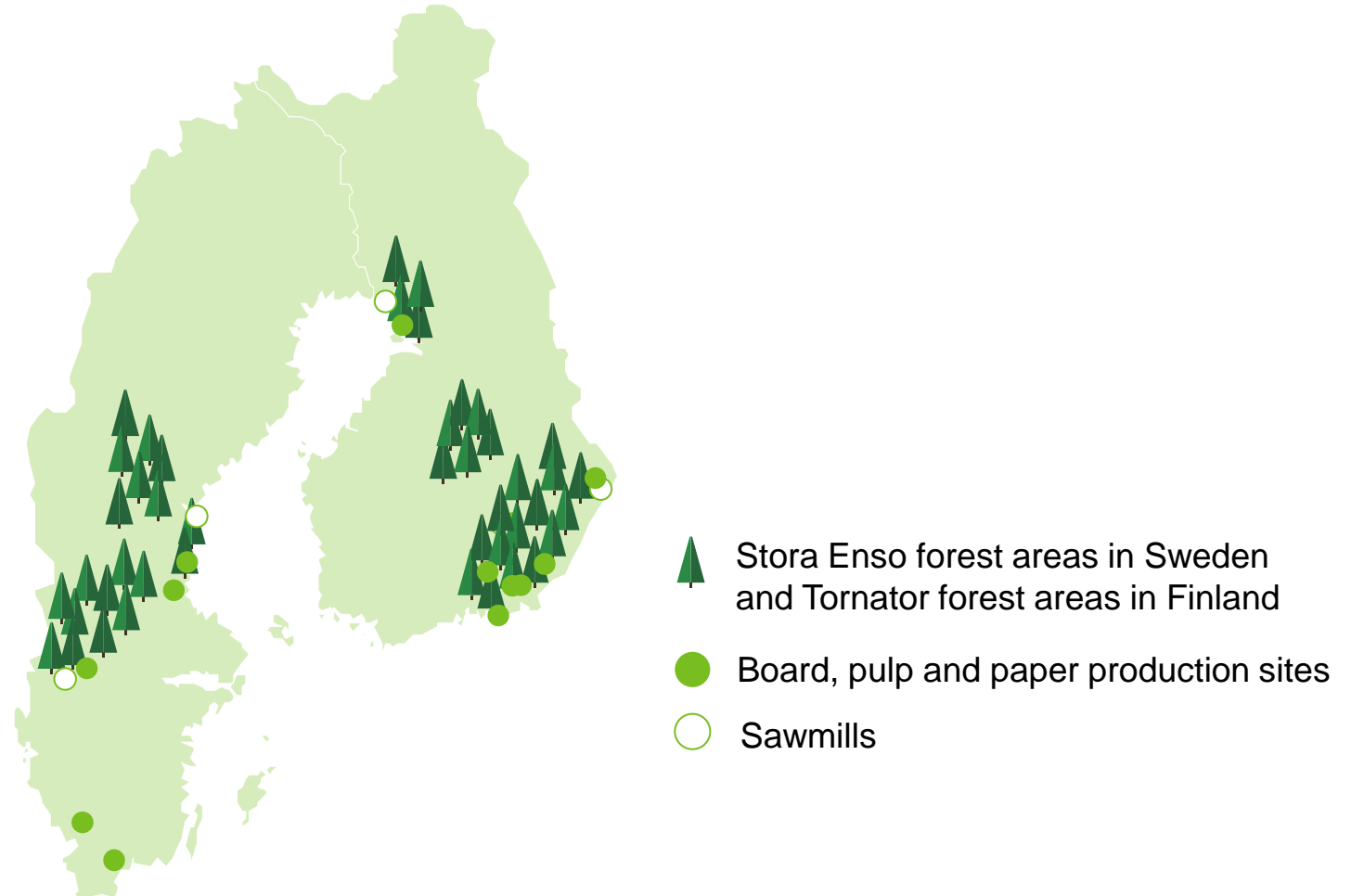
storaenso

Up to
+15%
increased harvesting
potential in Sweden

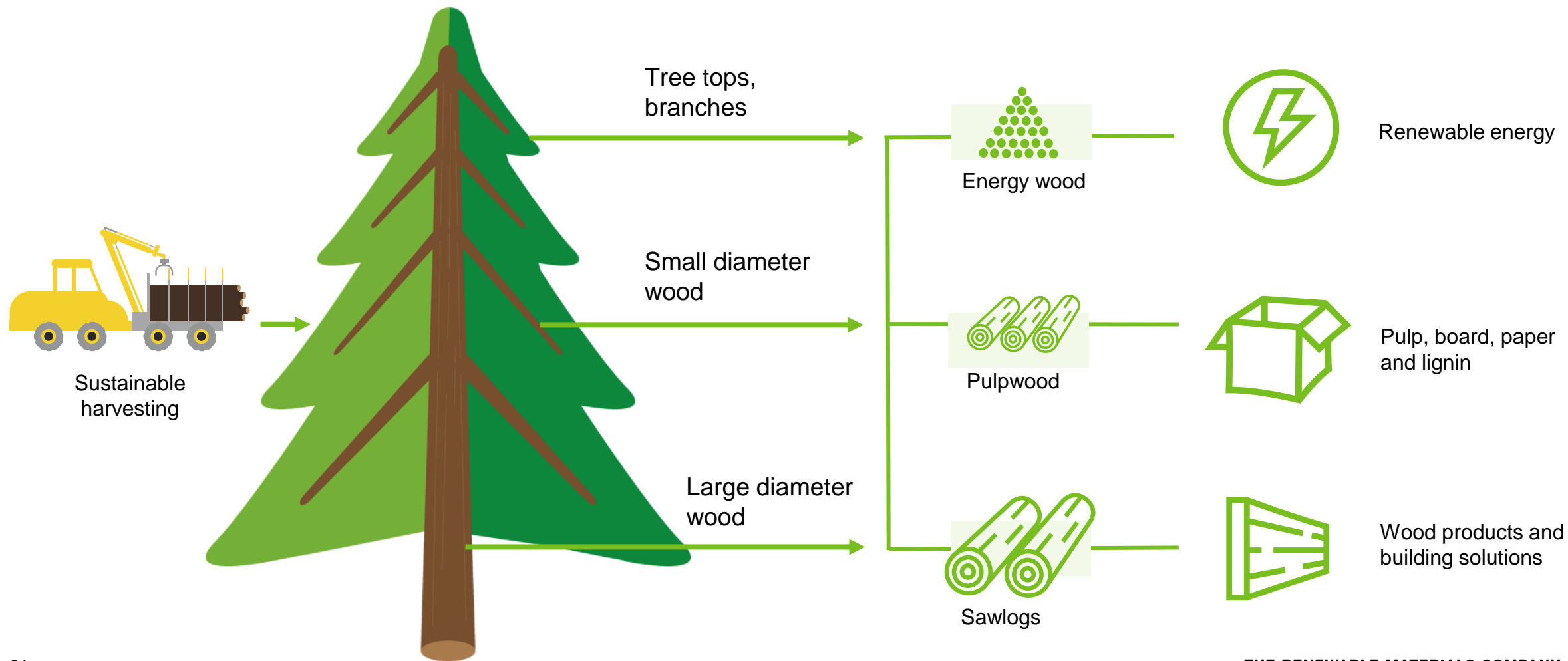
We hold our forest assets close to our production to ensure flexibility and a low carbon footprint



- **Enables further control** of our wood supply
- **Establishes a resilience** to changes in the market environment
- **Secures availability** and lowers wood costs for the Group
- **Provides tactical flexibility** in wood supply
- **Minimises** the logistical **carbon footprint** and **lowers transportation cost**



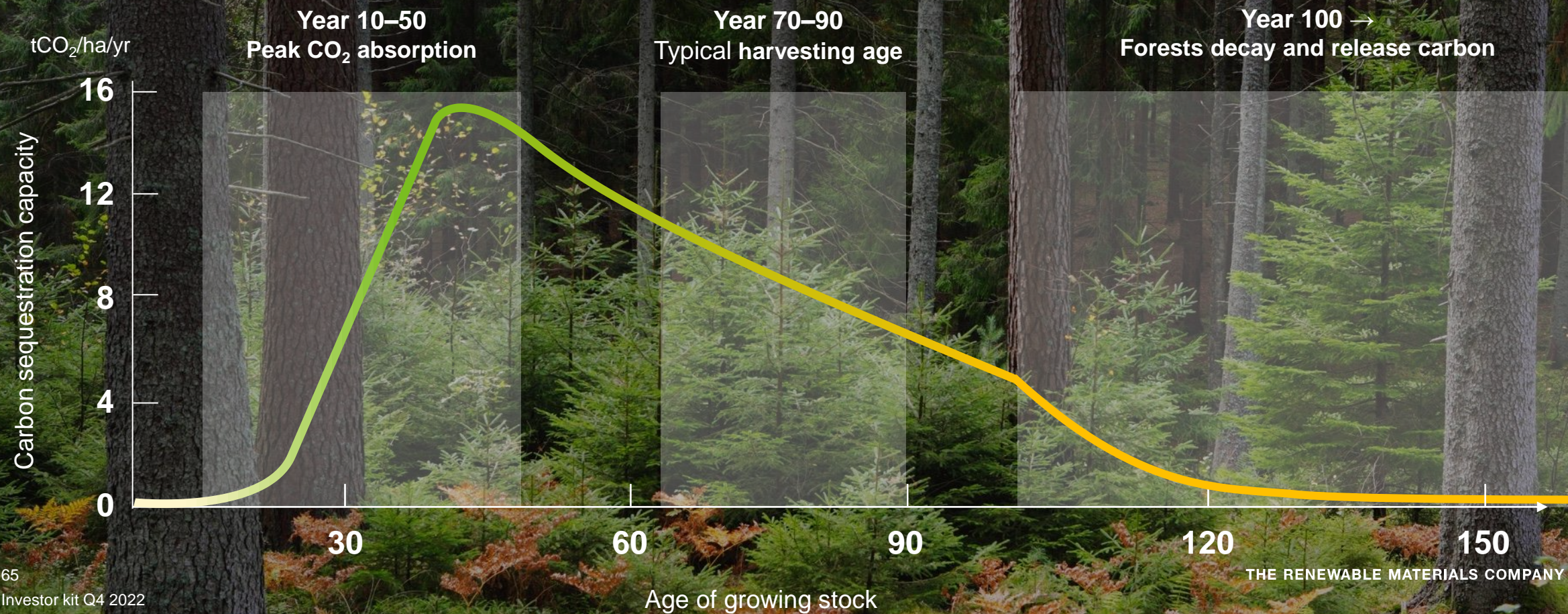
We use all parts of each harvested tree ensuring optimal use



Only growing forests remove CO₂



Carbon sequestration capacity of growing stock



Biodiversity actions for 2030 – own forests as a development platform



New biodiversity programme
for our own forests

Modelling, research
and knowledge sharing



Science-based indicators
to track progress

Attractive services
for forest owners



Precision forestry
for granular data

Online reporting
started in 2022

Our ambition for 2050

Net positive impact
on biodiversity within
our own forests and
plantations through
active biodiversity
management

Precision forestry enables a more and efficient forest management



Active land management provides new revenue streams



Active landowner

Selected land sales
Land swaps to optimise the land holdings

Wind power

Land leasing
Expansion potential

Other revenue streams

Hunting licences and fishing rights
Gravel sales

Future potential

Carbon credits
Solar power

Wind power opportunities are emerging



Our ambition is to **develop and significantly increase** our involvement in wind energy

The **total potential for wind power production** on Stora Enso's land in Sweden is estimated to **75 TWh**

~30% of this potential **can be realised long term**

Our ambition is to have **5-10 TWh of wind power production in place by 2030** (~5% of Sweden's total electricity demand)

Paper

Discontinued as of 1 January 2023

Exiting the paper business enables investments in key strategic segments

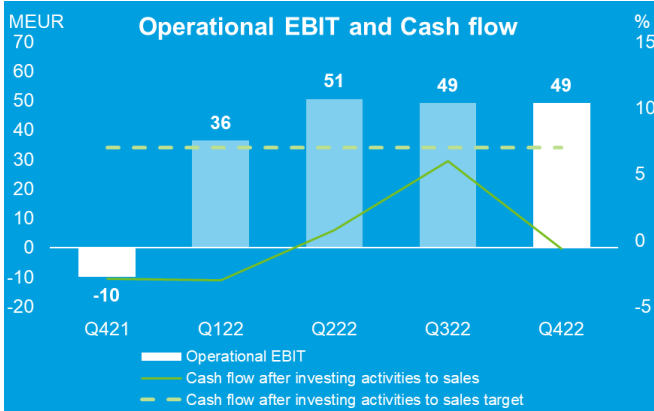
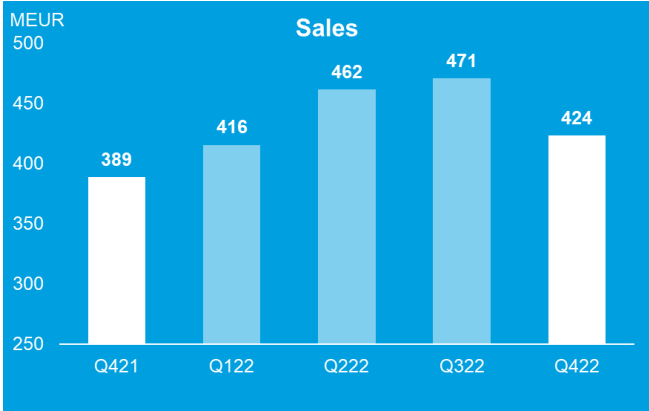


Divestments

- Hylte site to Sweden Timber for an EV of ~€18m, completion expected in H1/2023
- Maxau site to Schwarz Group for an EV of ~€210m, completion expected in H1/2023
- Nymölla site to Sylvamo for an EV of ~€150m, completed on 2 January 2023
- The divestment process for the Anjala site was discontinued, the site is retained in the Packaging Materials division and continues with paper production
- Ongoing feasibility study for a potential conversion at the retained Langerbrugge site
- Anjala and Langerbrugge will be reported part of Packaging Materials as of 1 January 2023
- Maxau and Hylte paper sites are reported in Segment Other until the completion of the divestments



Paper key figures



	Divisional strategic target	Q4/21	Q4/22	
Paper	Cash flow after investing activities to sales >7%	-2.9%	-0.7%	●

Paper capacity



Grade	Capacity 1,000 t
Newsprint and book paper	835
Uncoated Magazine (SC)	155
Paper total	990

Anjala and Langerbrugge (990kt capacity in total) will be reported part of Packaging Materials as of 1 January 2023



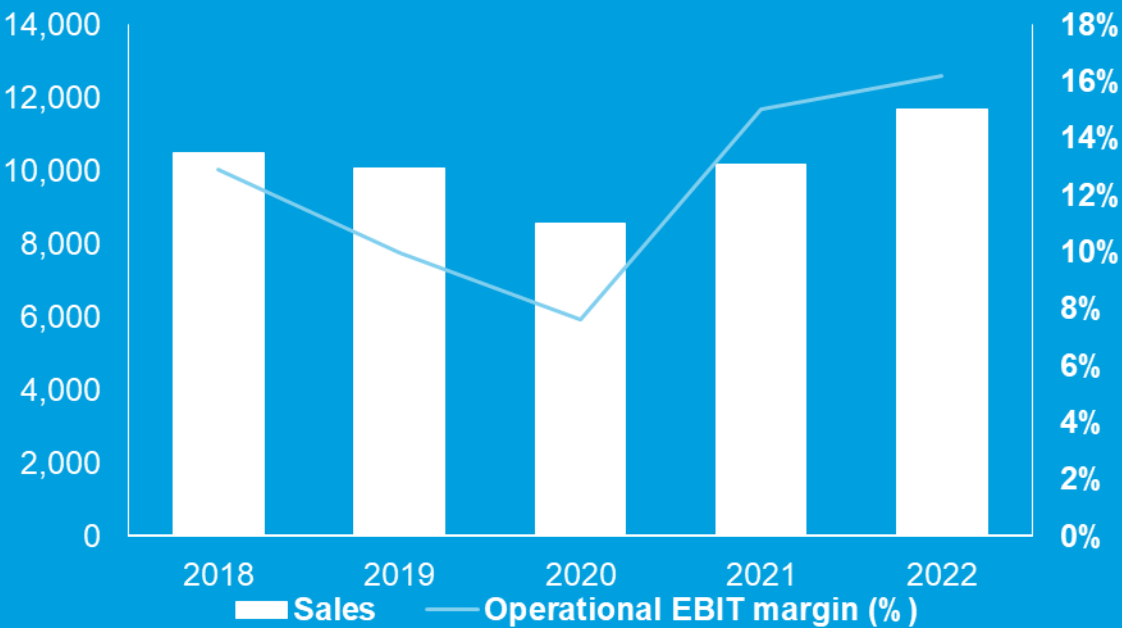
*Divested to Sweden Timber for an EV of ~€18m, completion expected in H1/2023
**Divested to Schwarz Group for an EV of ~€210m, completion expected in H1/2023
***Divested to Sylvamo for an EV of ~€150m, completed on 2 January 2023

Group's financial performance, dividend policy, ownership and top management

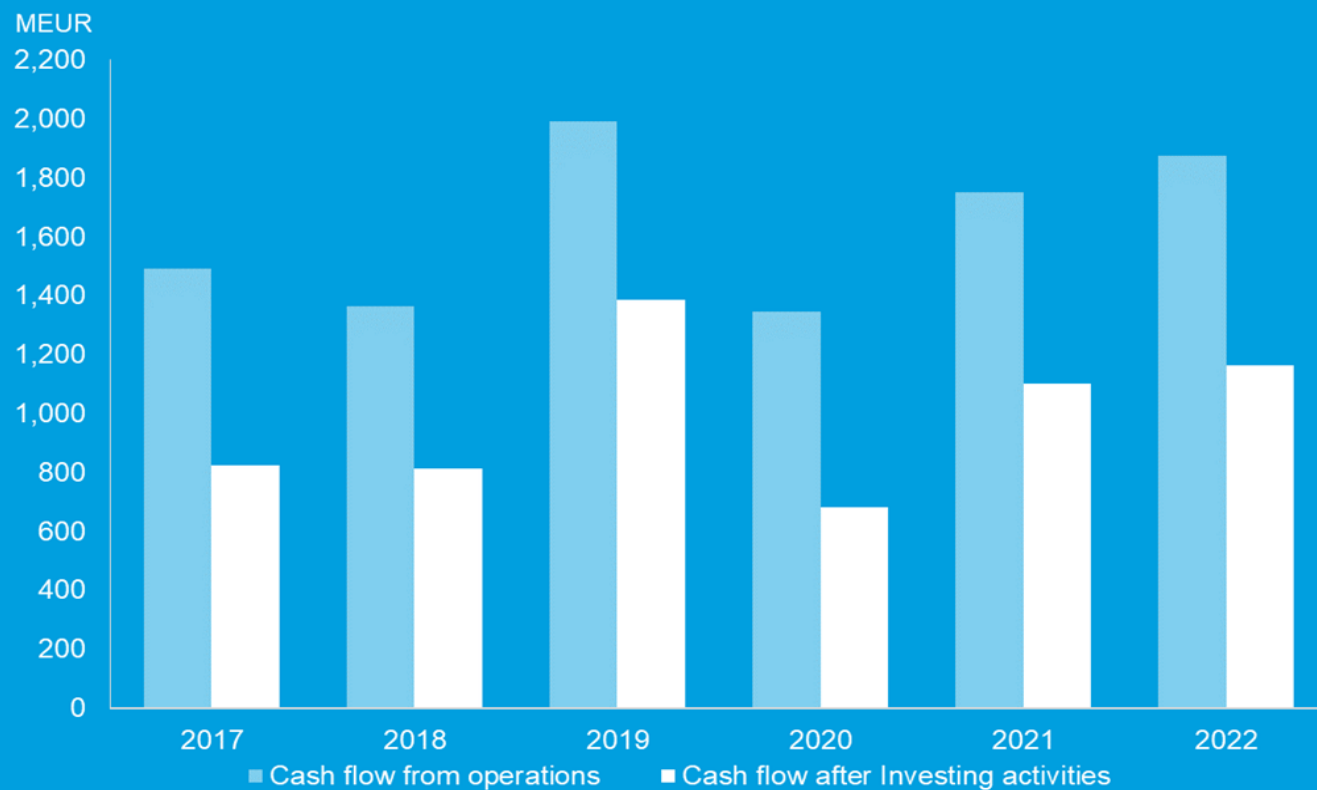
We are protecting our margins by building a less cyclical business



- Growing in three focus areas in renewable materials
- High self-sufficiency of wood and energy
- Reduce our market pulp position significantly
- Divesting Paper
- Developing new revenue streams

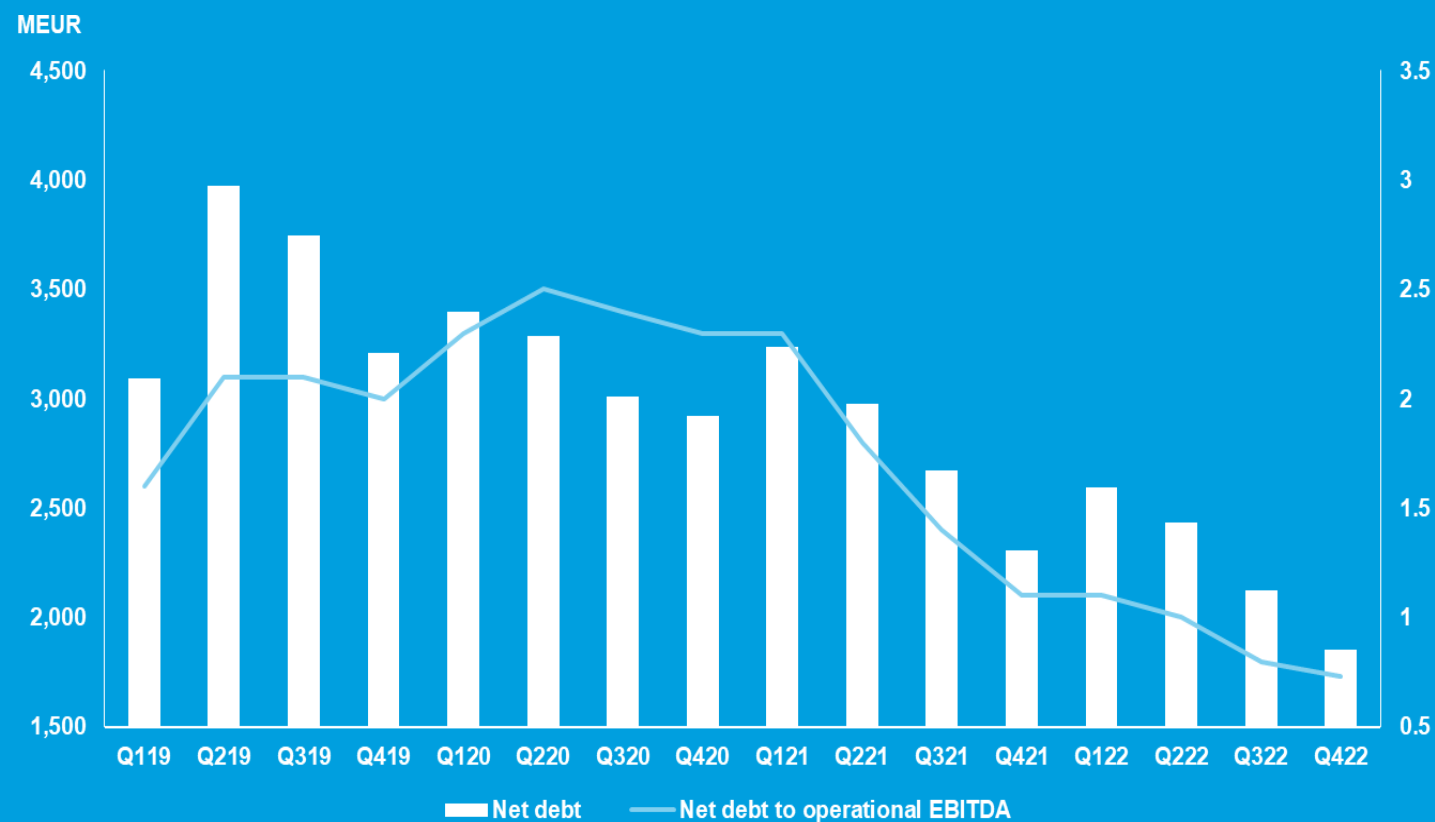


Strong cash flow generation over the cycles



- Stora Enso continues to deliver strong cash flow
- Cash flow from operations increased to €1,873 (€1,752) million in 2022
- Cash flow after investing activities was €1,162 (1,101) million in 2022

We have the balance sheet to grow through both capital expenditure and acquisitions

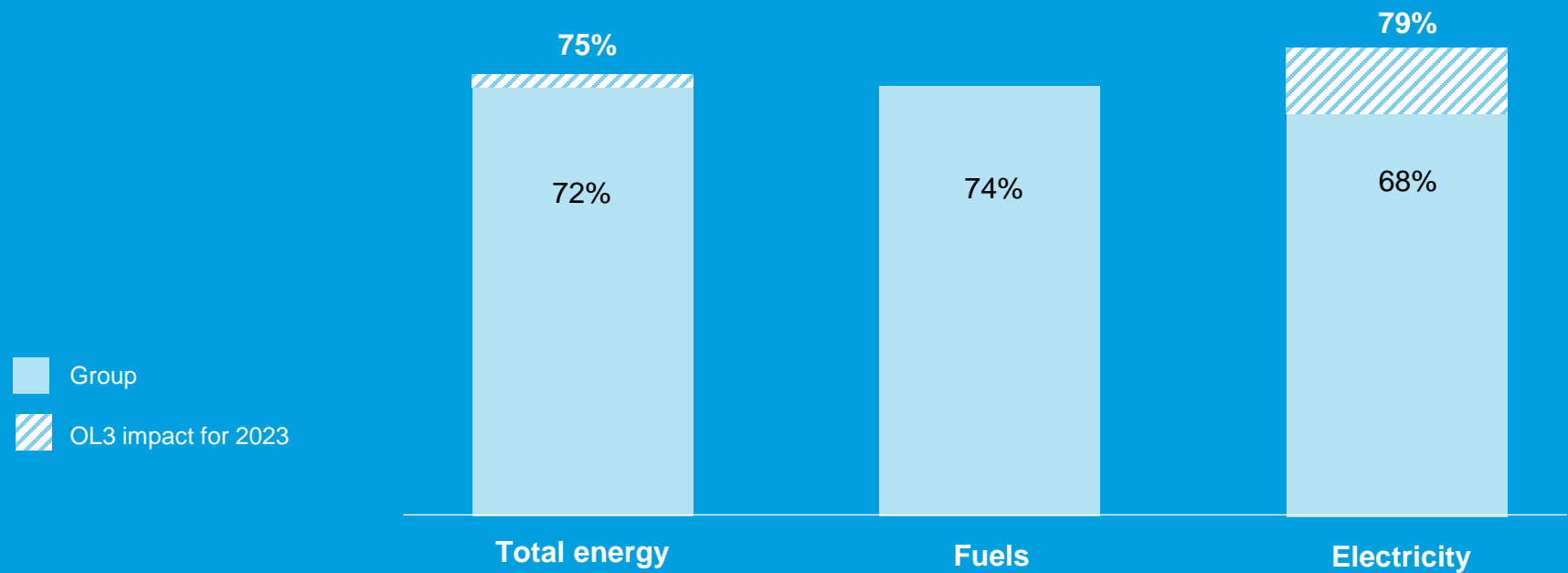


- Long-term financial target: Net debt to operational EBITDA <2.0x
- In 2022, the net debt to operational EBITDA ratio improved to 0.7x
- Strong balance sheet enables higher capex for 2023
- Growth opportunities to accelerate growth through selected M&A

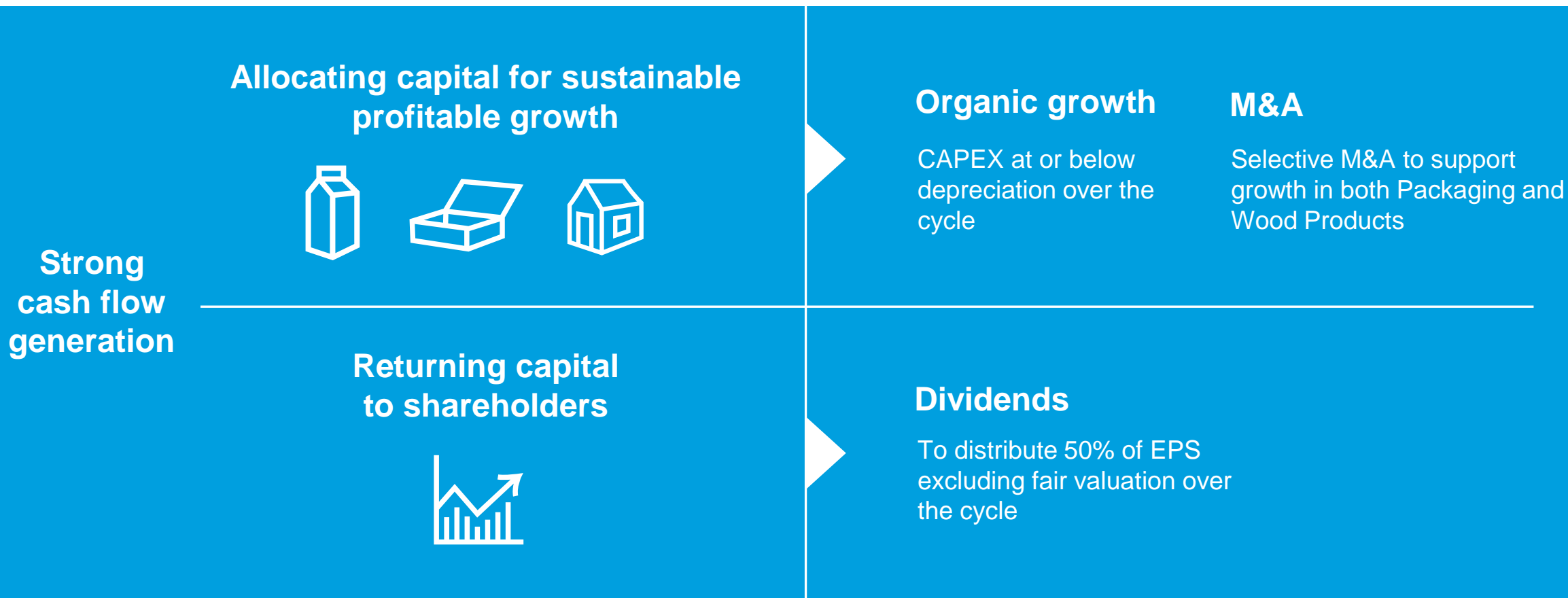
Energy self-sufficiency is expected to increase in 2023



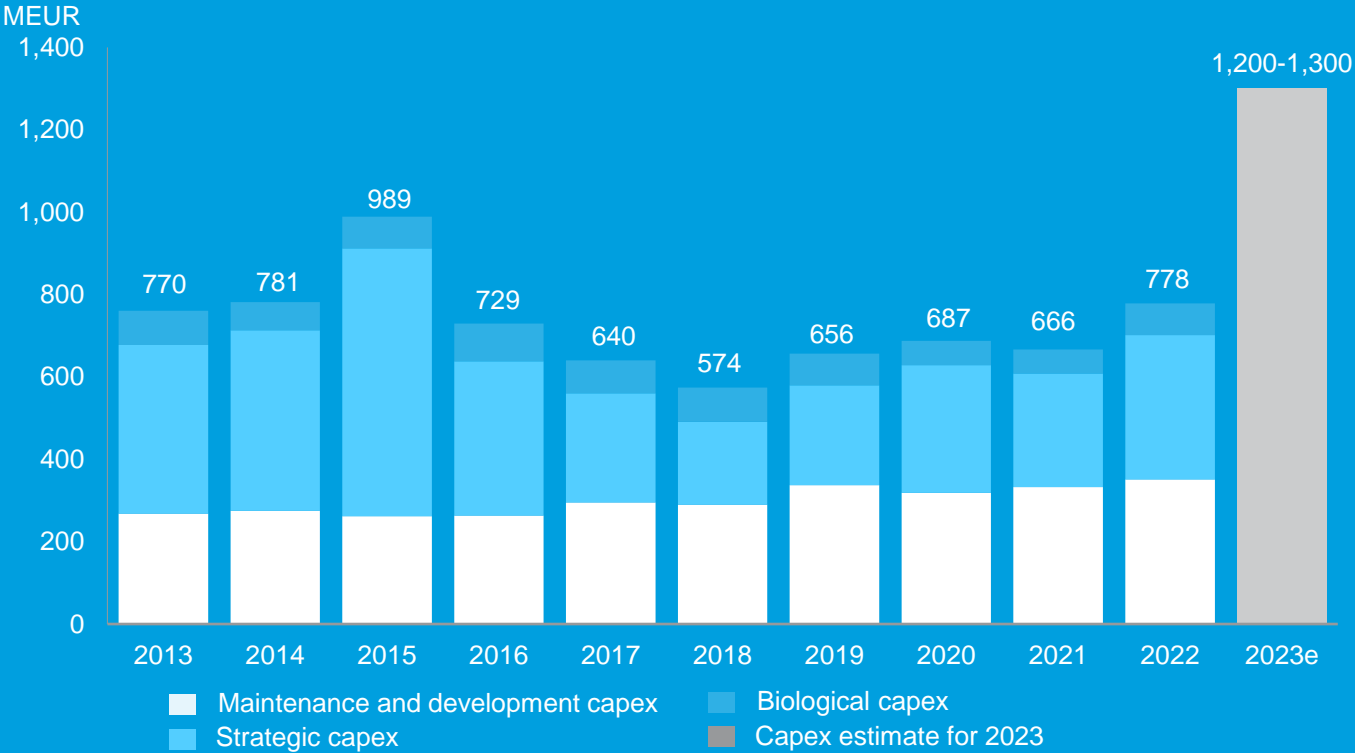
Energy self-sufficiency excl. JVs (FY2023e)



We drive shareholder value through a focused and disciplined capital allocation



Higher capex estimate mainly due to growth investments in consumer board



Capex includes the capitalised leasing contracts according to IFRS 16 Leases standard from 2019 onwards

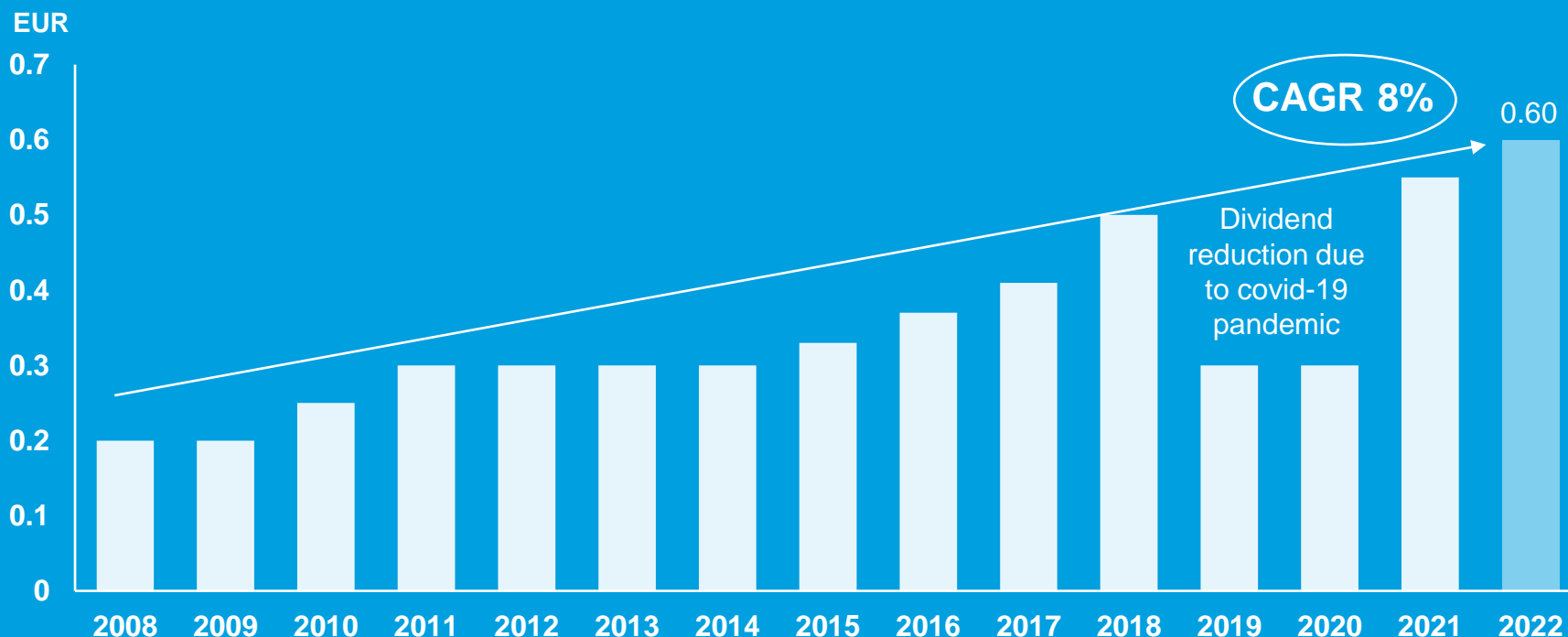
Average capex split for 2013–2023
Depending on investment decisions



Dividend was increased to an all time high of €0.60 per share



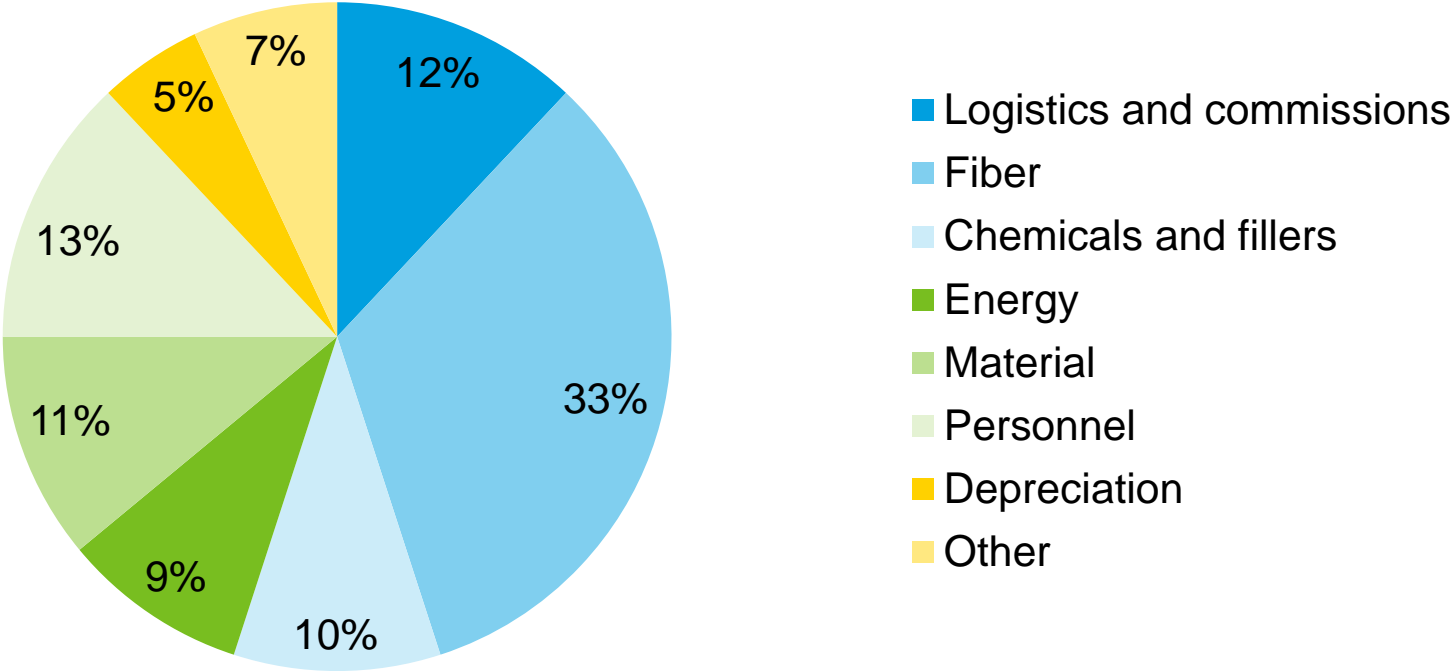
Dividend



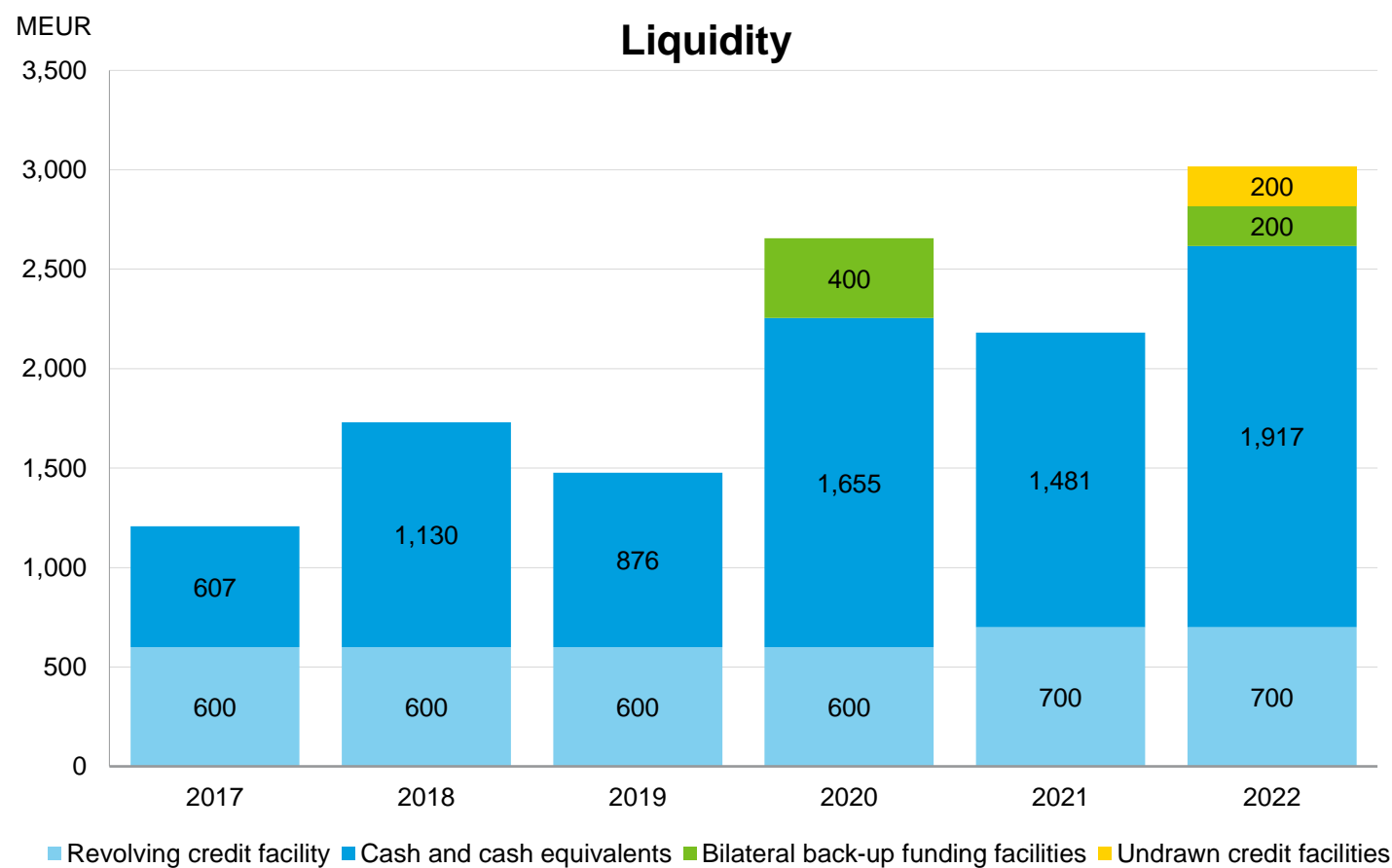
Target:
50% of EPS
excluding fair
valuation over
the cycle

Cost structure 2022

% of costs

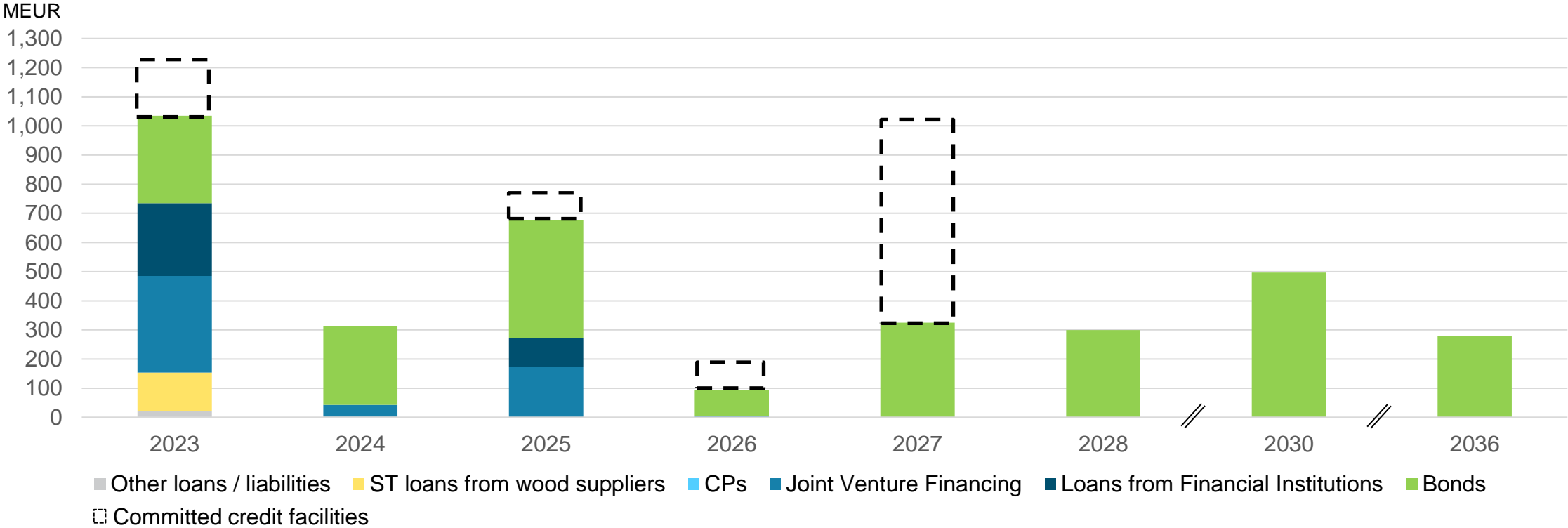


Strong liquidity position



- Liquidity at the end of 2022:
 - €1,917m cash and cash equivalents
 - €700m committed revolving credit facility fully undrawn
 - €200m committed bilateral back-up funding facilities fully undrawn
 - €200m committed credit facilities fully undrawn
 - €1,050m statutory pension premium loans available
- No financial covenants on Stora Enso Oyj's debt
- Net debt to operational EBITDA for the last 12 months at 0.7x and net debt to equity 15%










Maturity profile at the end of 2022



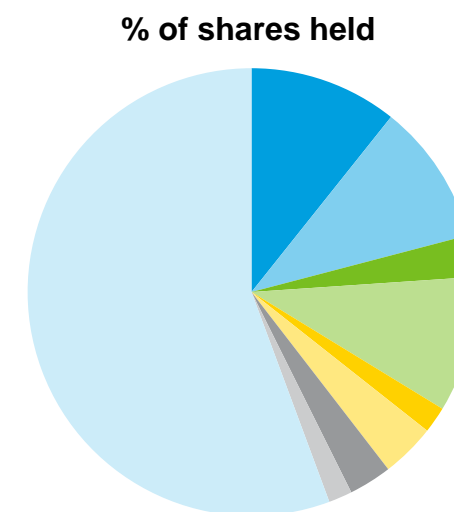
Committed credit facilities are fully undrawn and mature in 2023 and 2027 (€900m in total). A €100m undrawn bank loan matures in 2025 and another €100m undrawn bank loan matures in 2026.

Ownership Distribution as of 31 December 2022



	% of shares	% of votes
 Solidium Oy*	10.7%	27.3%
 FAM AB	10.2%	27.3%
 Social Insurance Institution of Finland (KELA)	3.0%	10.0%
 Finnish institutions (excl. Solidium and KELA)	9.8%	7.7%
 Swedish institutions (excl. FAM)	1.9%	1.1%
 Finnish private shareholders	3.9%	2.4%
 Swedish private shareholders	3.1%	2.3%
 ADR holders	1.7%	0.6%
 Under nominee names (non-Finnish/non-Swedish shareholders)	55.6%	21.3%

* Entirely owned by the Finnish State



Major Shareholders as of 31 December 2022



By voting power	A shares	R shares	% of shares	% of votes
1 Solidium Oyj*	62,655,036	21,792,540	10.7	27.3
2 FAM AB**	63,123,386	17,000,000	10.2	27.3
3 Social Insurance Institution of Finland (KELA)	23,825,086	0	3.0	10.0
4 Ilmarinen Mutual Pension Insurance Company	4,172,492	14,900,000	2.4	2.4
5 Varma Mutual Pension Insurance Company	5,163,018	1,140,874	0.8	2.2
6 MP-Bolagen i Vetlanda AB**	4,885,000	1,000,000	0.7	2.1
7 Elo Mutual Pension Insurance Company	2,000,000	7,601,000	1.2	1.2
8 Bergslaget's Healthcare Foundation	626,269	1,609,483	0.3	0.3
9 SEB Investment management	0	6,976,453	0.9	0.3
10 The State Pension Fund	0	5,000,000	0.6	0.2
11 The Society of Swedish Literature in Finland	0	3,000,000	0.4	0.1
12 Avanza Pension Insurance	146,285	1,268,398	0.2	0.1
13 Unionen (Swedish trade union)	0	2,612,750	0.3	0.1
14 Afa Insurance	0	2,381,676	0.3	0.1
15 SEB AB, Luxembourg Branch	2,177	1,785,231	0.2	0.1
16 Nordea Pro Finland Fund	0	1,678,317	0.2	0.1
17 Investment Fund Seligson & Co OMX Helsinki 25	0	1,512,742	0.2	0.1
18 Danske Invest Finnish Equity Fund	0	1,375,000	0.2	0.1
19 SEB-Stiftelsen, Skand enskilda	0	1,250,000	0.2	0.1
20 Länsförsäkringar fondvärvaltning AB	0	1,049,259	0.1	0.0
20 largest total	166,598,749	94,933,723	33.1	74.2

*Entirely owned by the Finnish State. **As confirmed to Stora Enso.

List has been compiled by the company, based upon shareholder information from Euroclear Finland Oy and Euroclear Sweden AB share registers and a database managed by Citibank, N.A. (as the company's ADR agent bank). This information includes only direct registered holdings, thus certain holdings (which may be substantial) of ordinary shares and ADRs held in nominee or brokerage accounts can not be included. The list is therefore incomplete.

Sponsored ADR Programme



Stora Enso has a sponsored Level I ADR programme in the US. The ADRs trade on the premier tier of Over-The-Counter (“OTC”) market. Details are as follows:

Ticker Symbol	SEOAY
CUSIP	86210M106
Ratio	1 ADR : 1 Ordinary Shares
ADR depositary	Citibank

Share price information www.citi.com/DR or www.otcqx.com

Contact information for Stora Enso ADR holders:

Citibank Shareholder Services

Computershare

P.O. Box 43077

Providence, Rhode Island 02940-3077

Email: citibank@shareholders-online.com

Direct dial: (781) 575-4555

Group Leadership Team



**President
and CEO**
Annica
Bresky



**CFO,
Acting Head
of Paper**
Seppo
Parvi



**Chief
Strategy and
Innovation
Officer**
Tobias
Bäärnman



**Packaging
Solutions**
David
Ekberg



Biomaterials
Johanna
Hagelberg



**Brand and
Communication**
René Hansen



**Packaging
Materials**
Hannu
Kasurinen



HR
Katariina
Kravi



Forest
Per
Lyrvall



Sustainability
Annette
Stube



Wood Products
Lars Völkel



Sourcing & Logistics
Minna Björkman

Board of Directors



Antti Mäkinen
Chair



Håkan Buskhe
Vice Chair



Elisabet Fleuriot



Astrid Hermann



Helena Hedblom



Kari Jordan



Christiane Kuehne



Richard Nilsson



Hans Sohlström

Forest assets and fair valuation

Stora Enso's global forest assets' fair values and valuation methodology by region

Group forest assets fair value at €8.3 billion or €10.57 per share in Q4 2022

All figures total forest assets including biological assets and forest land*

Group forest assets
Biological assets: €5.6 billion
Forest land*: €2.7 billion

99% certified wood
from own forests

Sweden
€6.1 billion

(Market transaction-based fair value)
(Q4 22)

Tornator (41%)
€1.3 billion

(Market transaction-based fair value)
(Q4 22)

Montes del Plata (50%)
€494m

(DCF) (Q4 22)

Veracel (50%)
€134m

(DCF) (Q4 22)

Guangxi
€362m

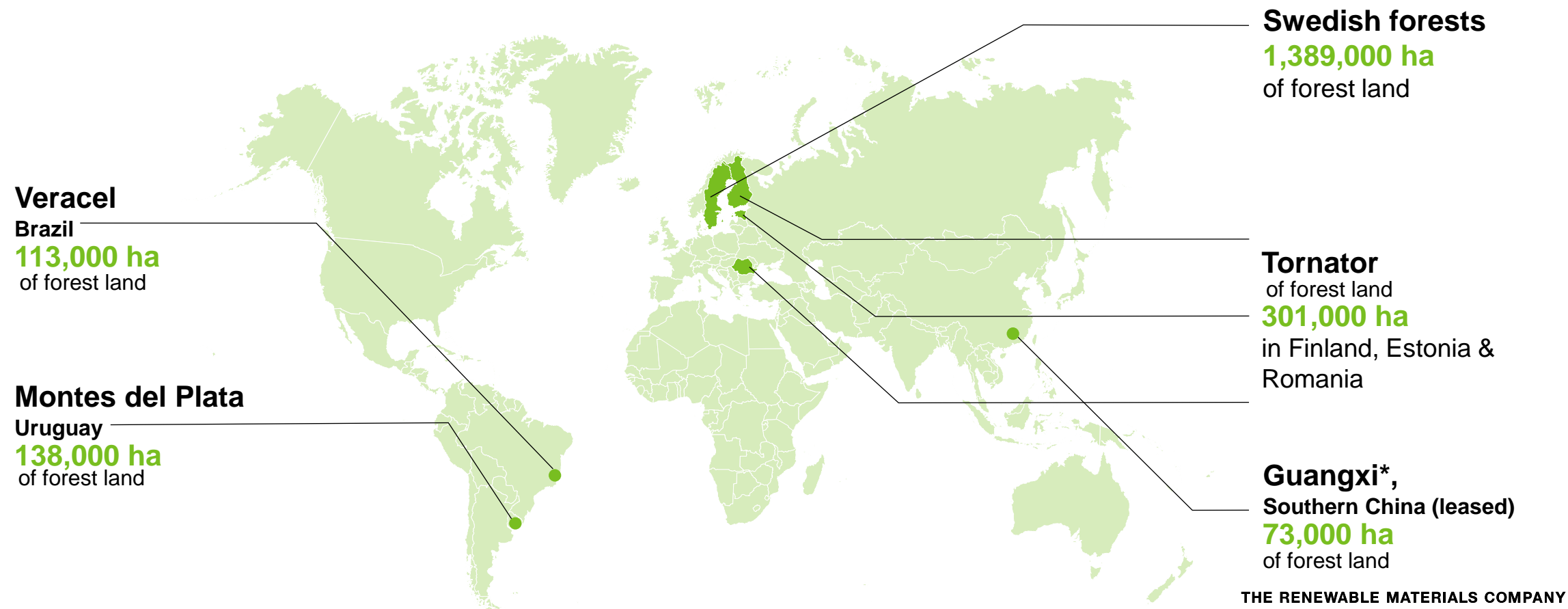
(DCF) (Q4 22)

*including leased land

We are a leader in sustainable forest management across one of the world's largest private forest estates

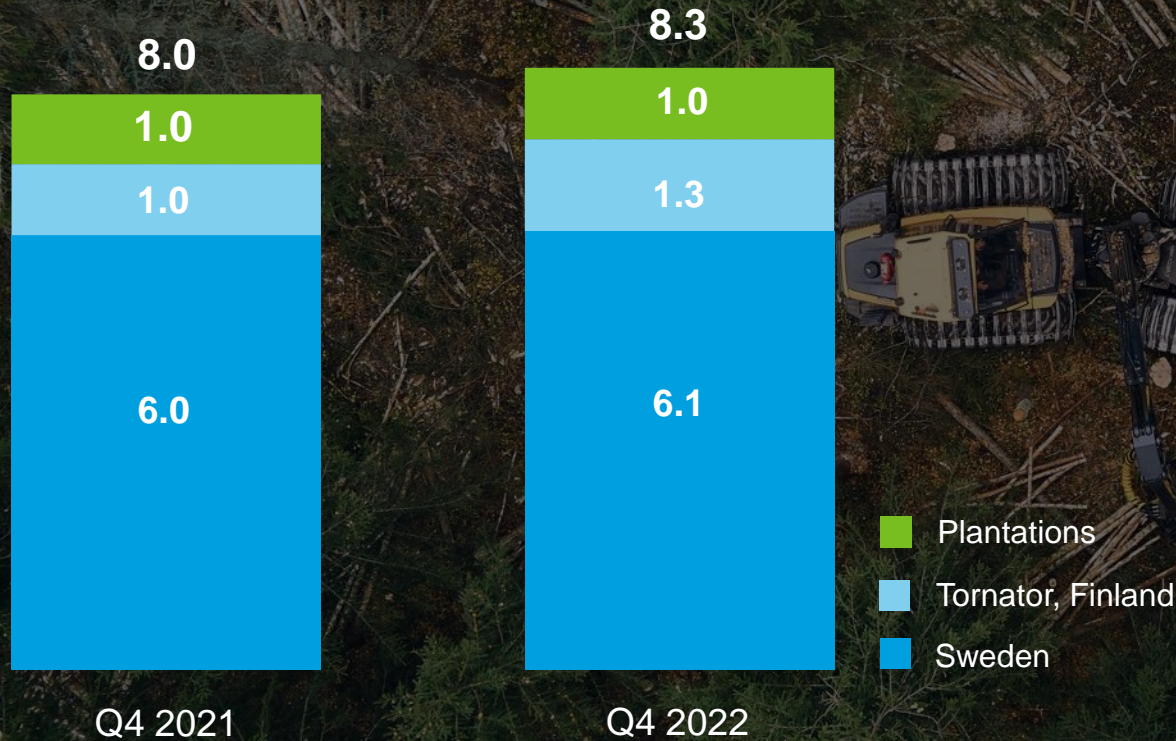


~30% self-sufficiency of wood supply from own forest assets and long-term agreements



Biannual market transaction-based fair valuation in Sweden and Finland

Group forest assets BEUR



Sweden and Finland

- Market transactions from our forest regions
- Volume weighted three year average transactions
- Standing stock and price data of the traded forest
- Biannual valuation process

Plantations

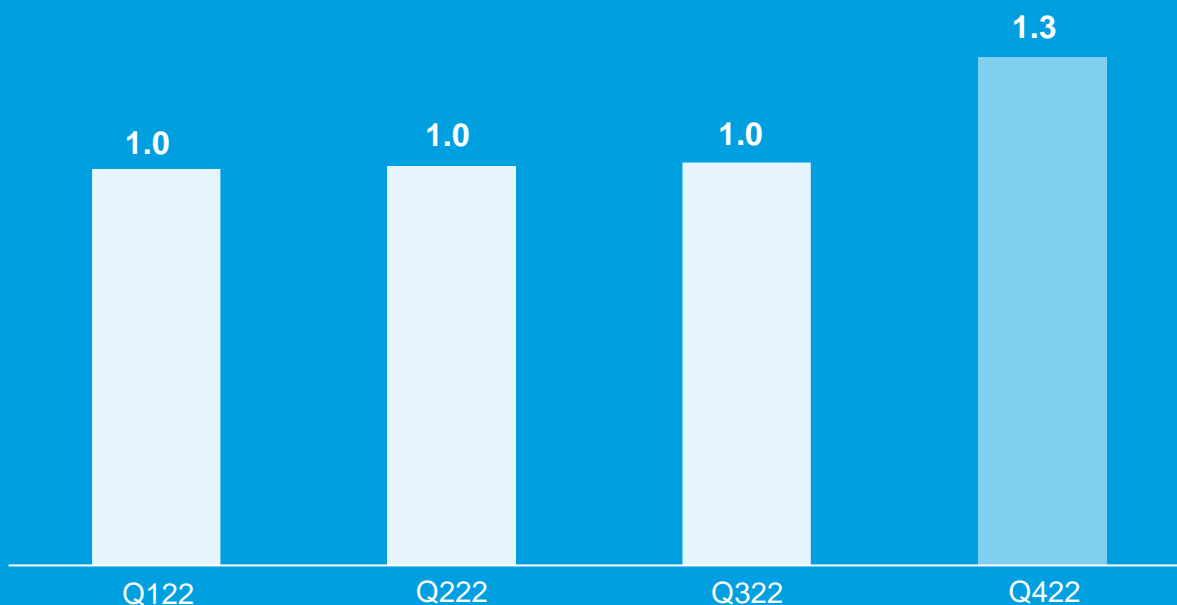
- DCF method
- Forest land at historical cost

Market transaction-based fair valuation applied for Tornator



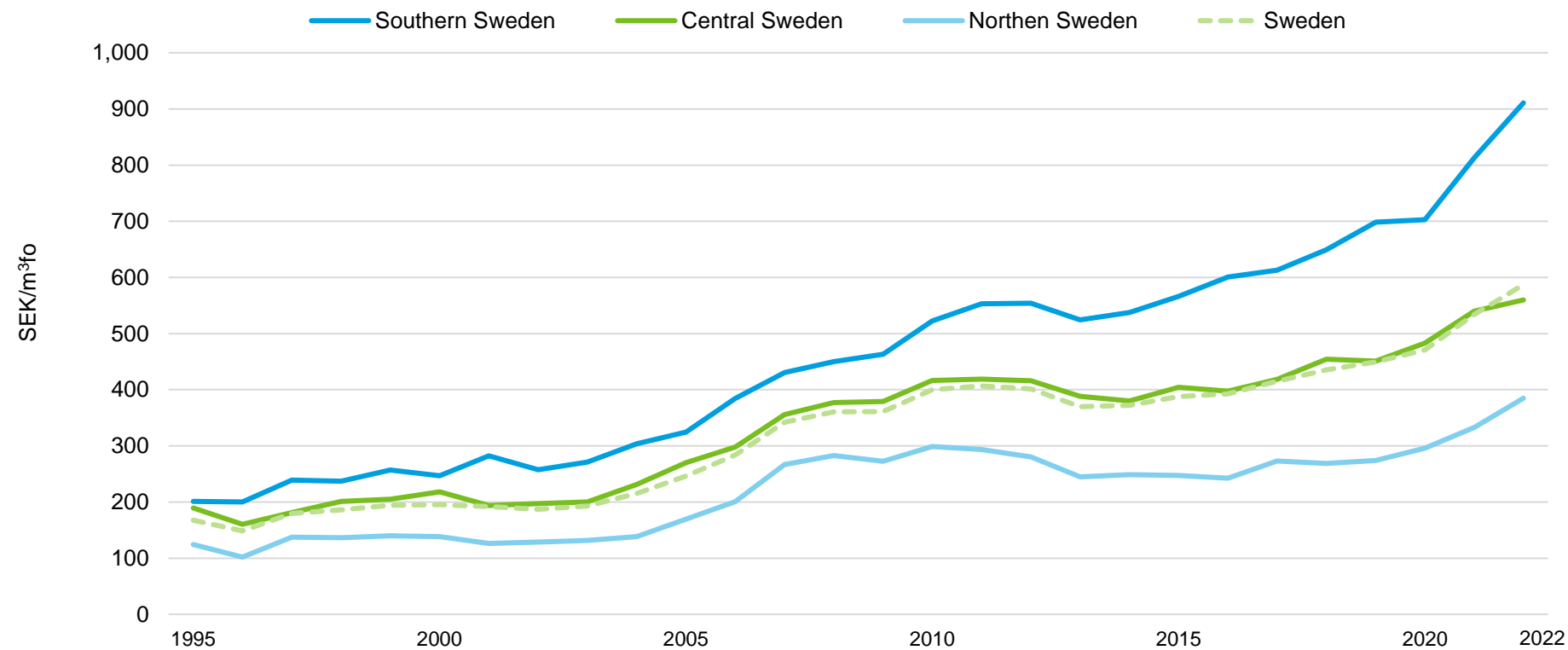
Tornator forest assets (41% ownership)

€ billion



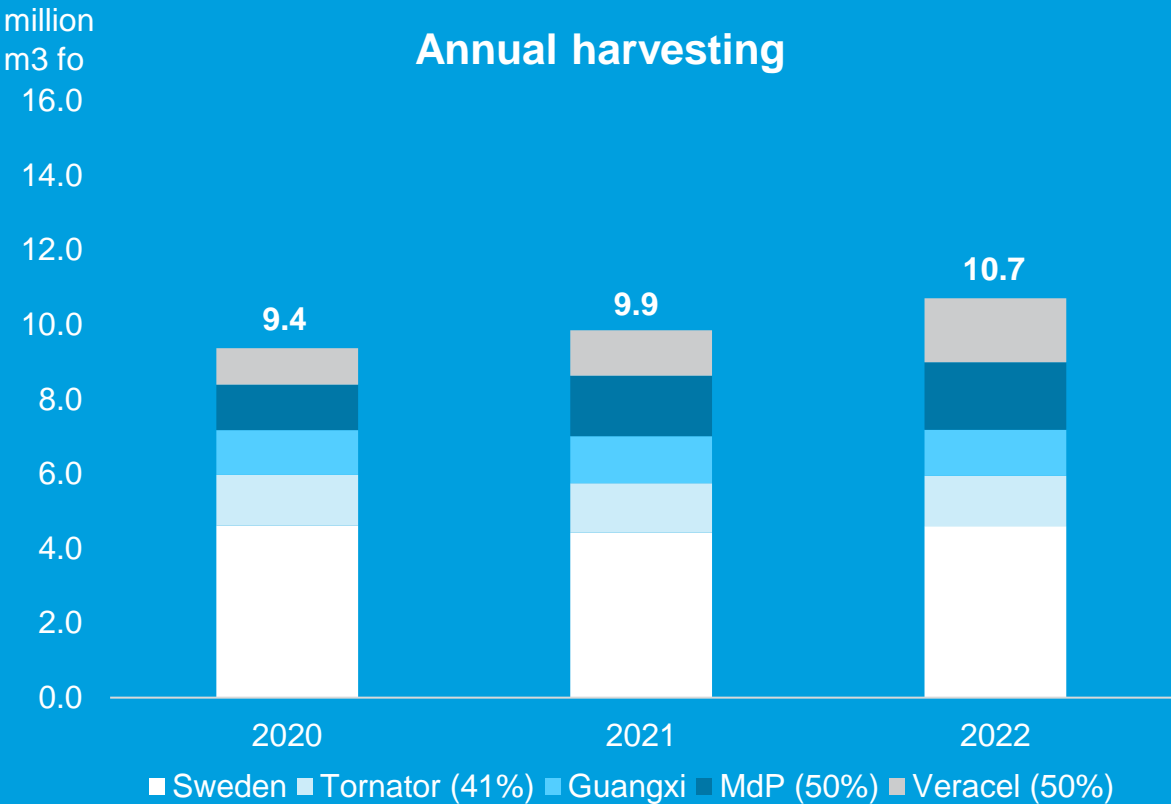
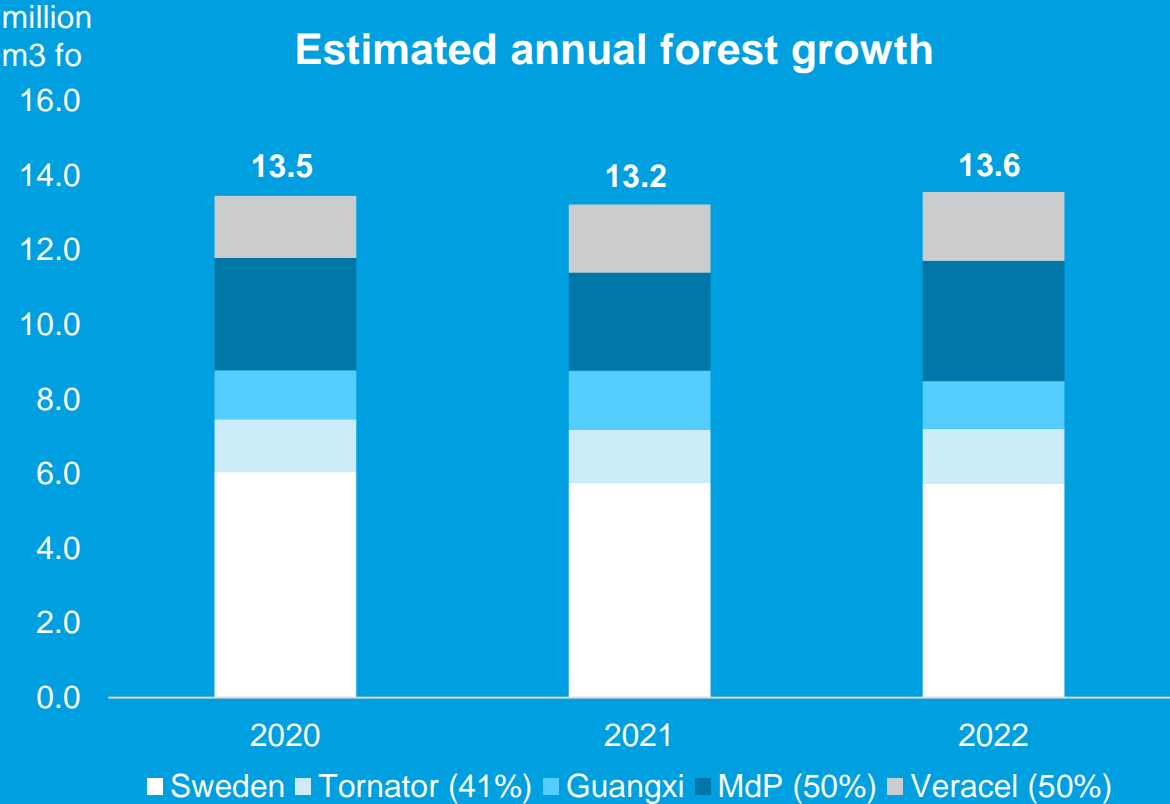
- Tornator fair value up by €265m q-o-q due to change in the fair valuation method from DCF to market transaction-based
- Volume weighted three year average forest property transactions from Finland
- Bi-annual fair valuation process

Market transaction-based forest property prices in Sweden

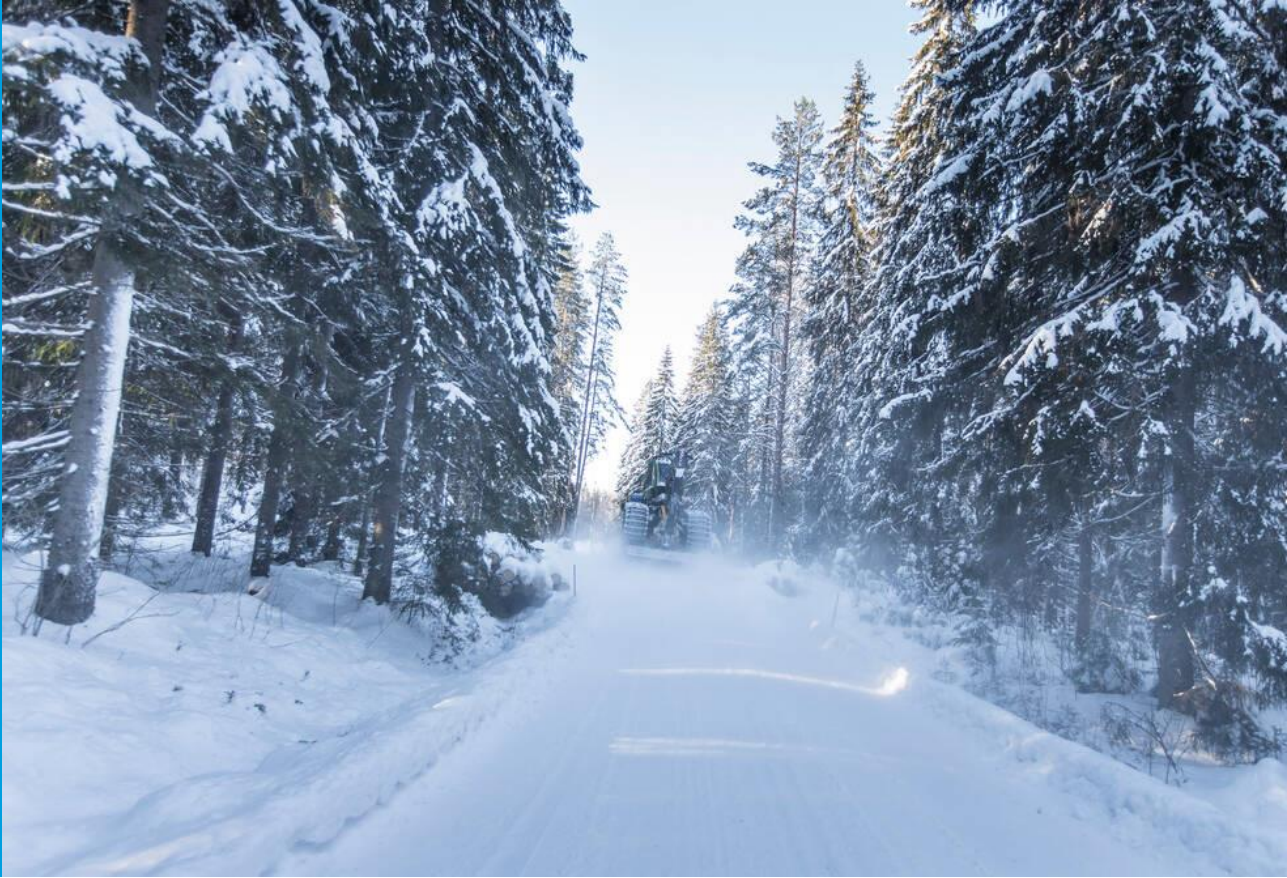
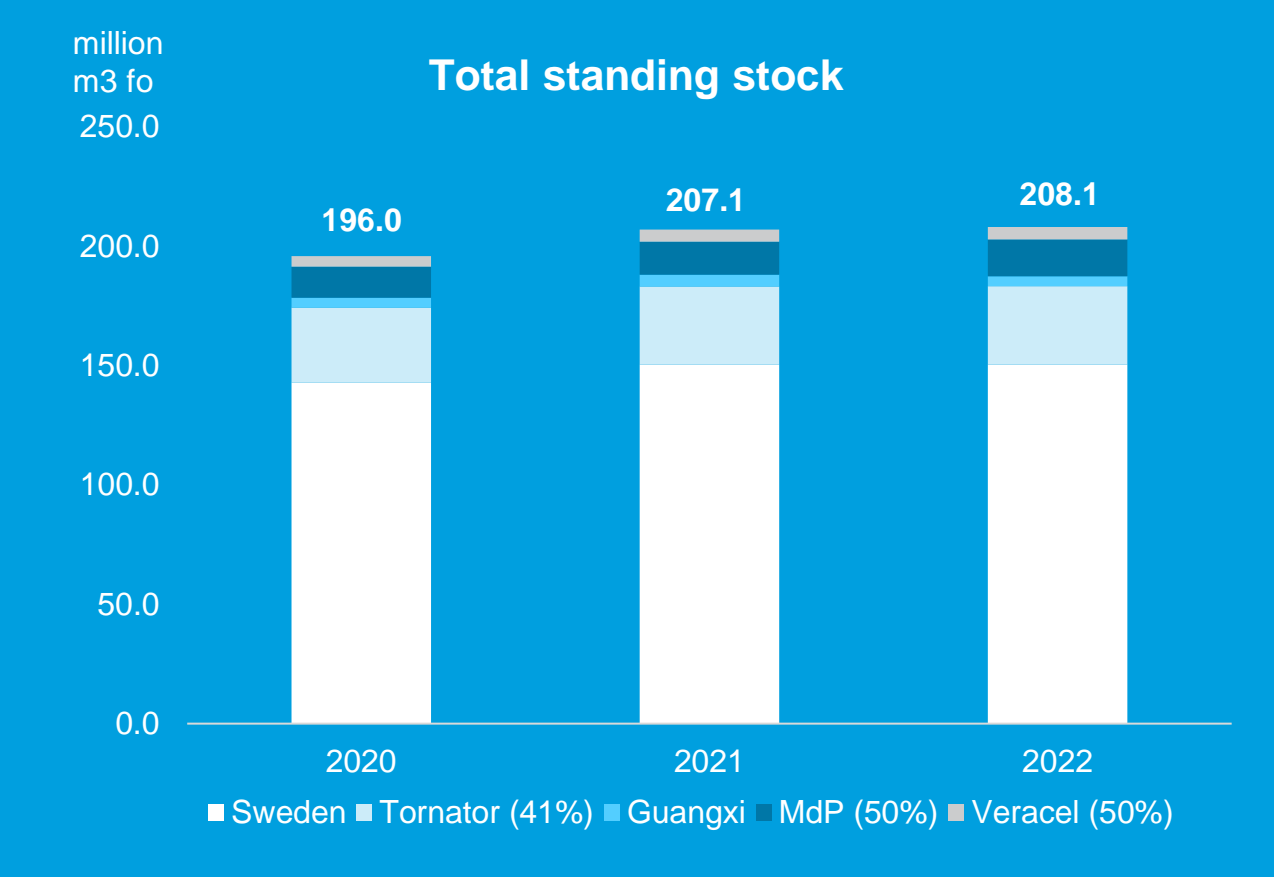


Source: Ludvig & Co 26 January 2023 report, based on nominal prices

Annual harvesting represented 79% of the forest growth in 2022



Increasing standing forest stock



Financial results

Q4 2022

Delivering the best FY financial performance in 22 years
despite Q4 market challenges

31 January 2023

Delivering the best FY financial performance in 22 years despite Q4 market challenges



- Biomaterials delivered a quarterly all-time high result, containerboard and sawn wood experienced continued slowdown
- Reshaping for future growth to drive outperformance over the cycle
 - Completed the De Jong acquisition in January 2023
 - Completed the majority of paper sites divestments and dissolved the Paper division
 - Started a process to divest the consumer packaging site and forestry operations in Beihai, China
 - Investment decision in cost-leading consumer board line at the Oulu site, Finland
 - Partnering with Polestar to contribute to their Polestar 0 project of a climate neutral car for 2030 with Lignode
- The Board proposes an all-time high dividend of €0.60 per share

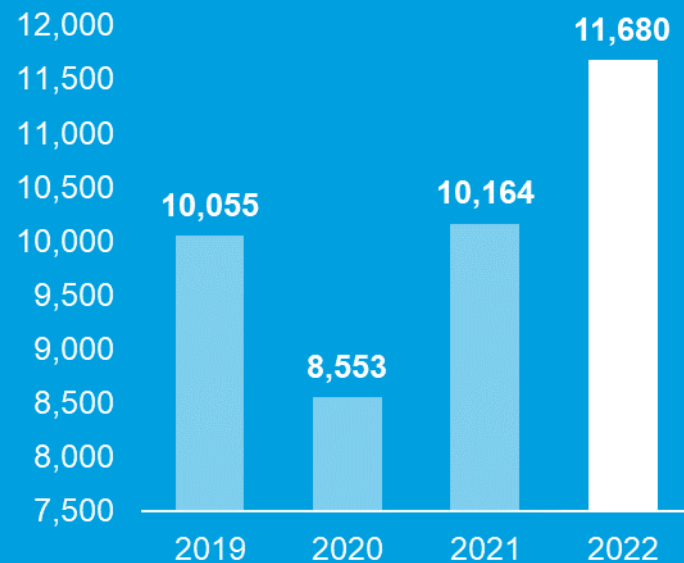


Delivered the strongest FY financial performance since 2000



Sales

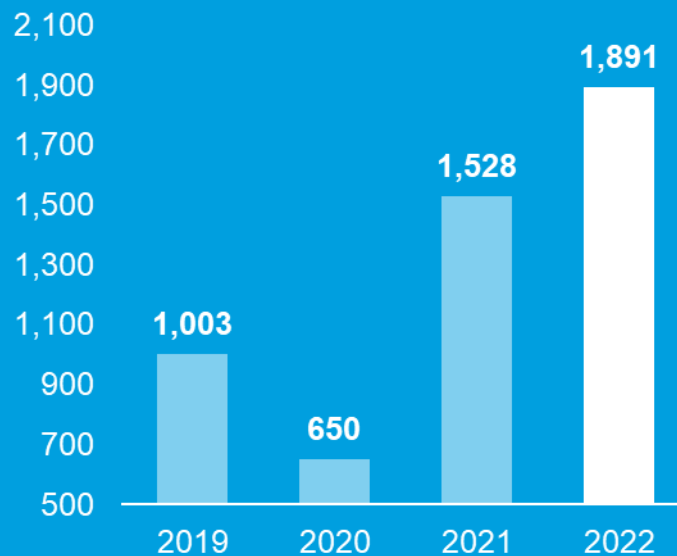
MEUR



Sales increased by +15% YoY

Operational EBIT

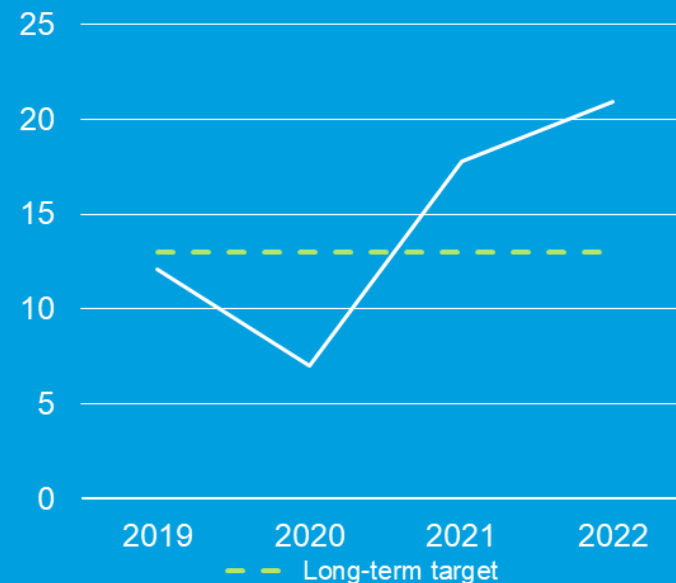
MEUR



OpEBIT +24% YoY

Operational ROCE excl. Forest

%



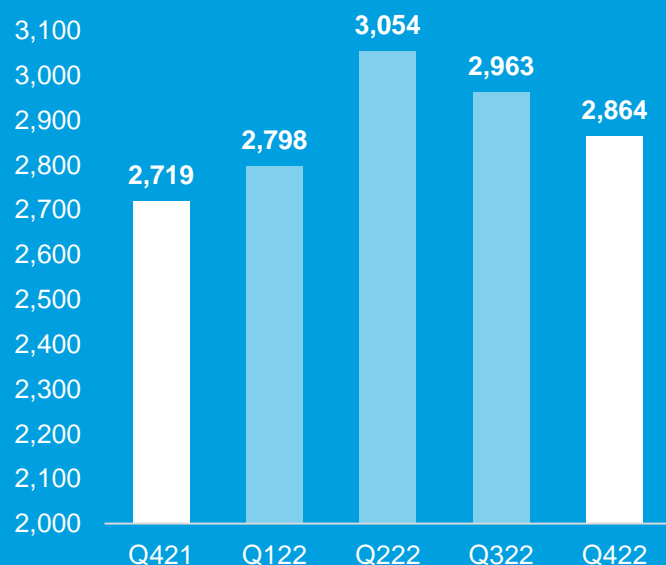
OpROCE excl. Forest 20.9%,
above long-term target of >13%

Market-driven slowdown and higher cost levels impacted sales and profit in the back half of 2022



Sales

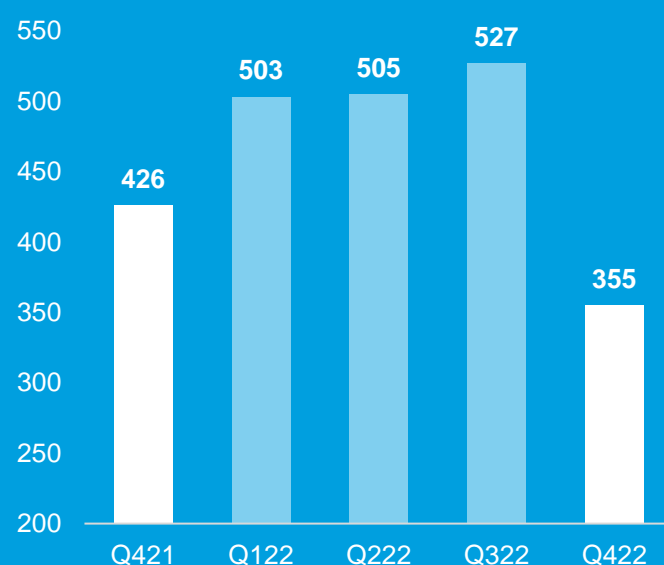
MEUR



Sales increased by +5% YoY
Sales excluding Paper +5% YoY

Operational EBIT

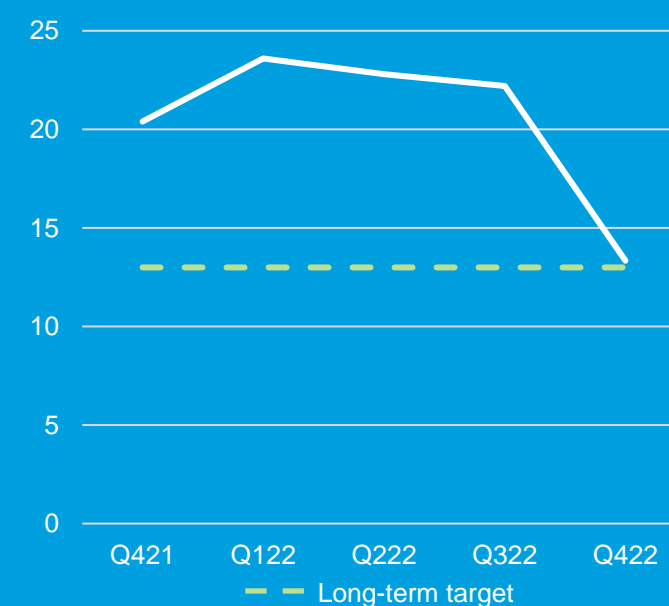
MEUR



OpEBIT -16.7% YoY

Operational ROCE excl. Forest

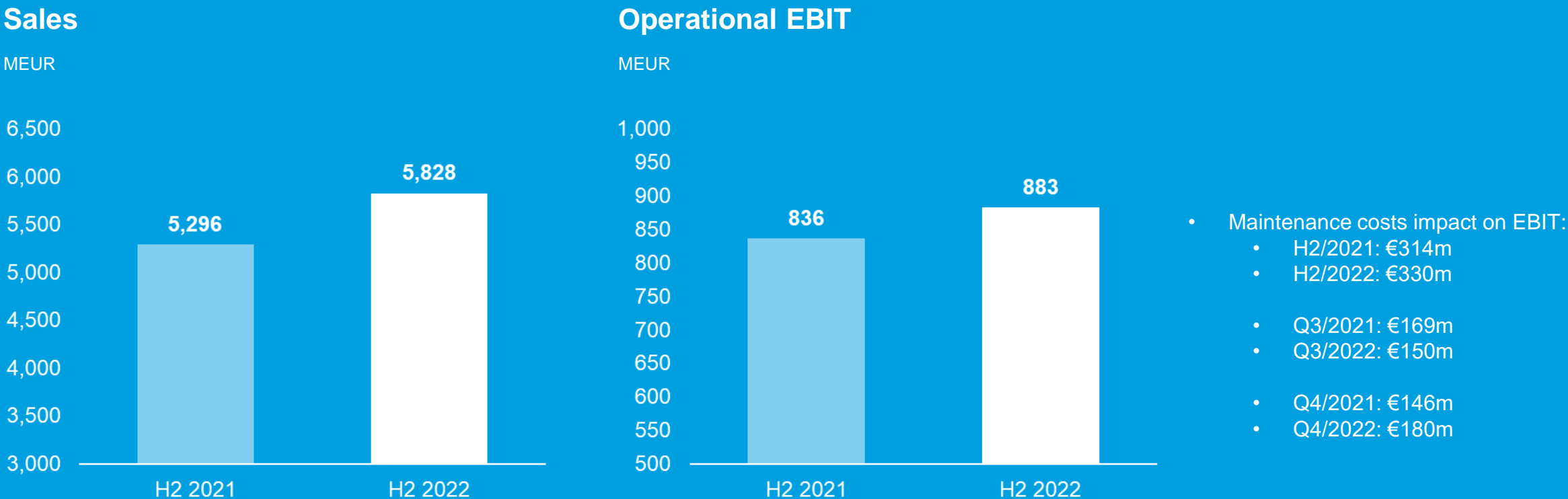
%



OpROCE excl. Forest 13.2%,
above long-term target of >13%

Continued strong performance with similar trend YoY in H2

Development comparison H2/2021 vs H2/2022



Completed De Jong Packaging Group acquisition to grow market share in Western European markets



Integration process started

€1* billion

Sales est 2022

€114* million

EBITDA est 2022

Capacity increase
by ~1,200 million
m2 to more than
2,000 million m2

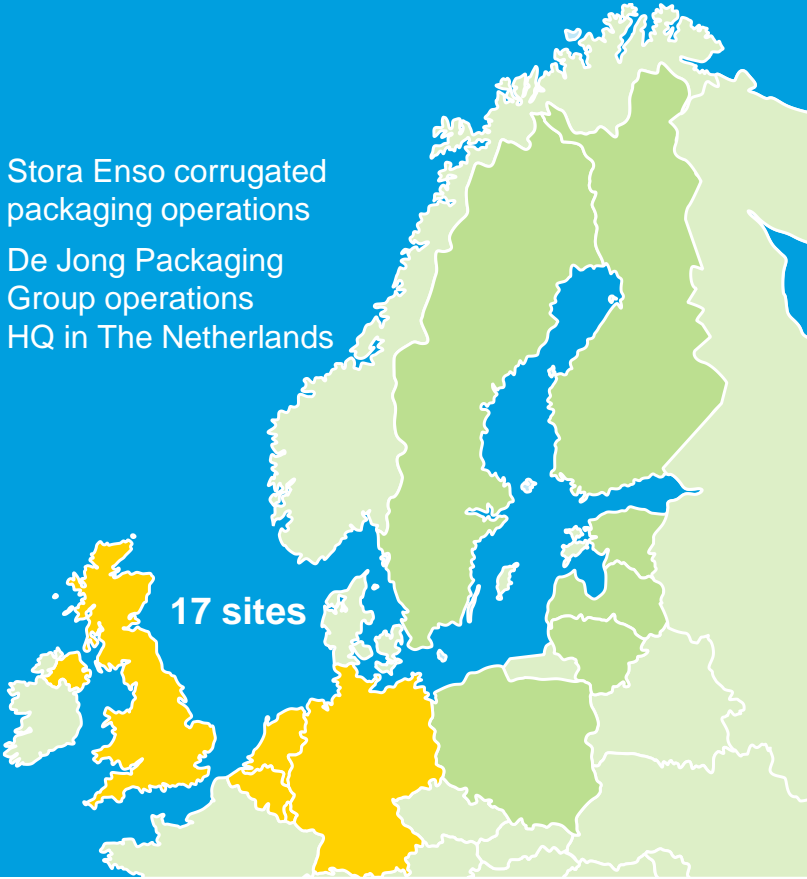
€30 million

average annual
synergies over
the cycle after
three years

€40 million

additional annual
EBITDA estimated by
2025 from ongoing
expansions projects

- Stora Enso corrugated packaging operations
- De Jong Packaging Group operations
HQ in The Netherlands



Excellent fit with a possible conversion at the Langerbrugge site in Belgium

Exiting the paper business enables investments in key strategic segments



Divestments for a total EV of €378 million

- Nymölla site to Sylvamo, completed in January 2023
- Maxau site to Schwarz Group and Hylte site to Sweden Timber, completions expected in H1/2023
- The divestment process for the Anjala site was discontinued, the site is retained in Stora Enso and continues with paper production
- Ongoing feasibility study for a potential conversion at the retained Langerbrugge site



Sales process for divestment of the Beihai site has been initiated to allocate capital for growth in other core sites



- Divestment would include both industrial site and forestry operations
 - Beihai site annual production capacity: 250kt mechanical pulp and 550kt consumer board
 - 73k ha leased eucalyptus plantations
 - Stora Enso's ownership is approximately 80%
- Capital and resources will be allocated for growth in other existing sites such as the Oulu site in Finland
- Existing and new customers in China and other Asian markets will continue to be served from Stora Enso's other global sites
- No committed timeline for completion



Recent partnering and developments to accelerate long-term growth



- Biomaterials Innovations
 - Partnership with Polestar to contribute to their Polestar 0 project of a climate neutral car for 2030 with Lignode
 - Progressing with the feasibility study for the first industrial scale production of Lignode
 - Monitoring the development of battery technologies within wood-based materials
- Renewable Packaging
 - Moving ahead according to plan with the ~€1bn investment in consumer board in Oulu, Finland
- Sustainable Building Solutions
 - Launched a new low carbon wood construction solution, Sylva, prefab and custom-made for more efficient use of material



All long-term Group level financial targets were exceeded in 2022



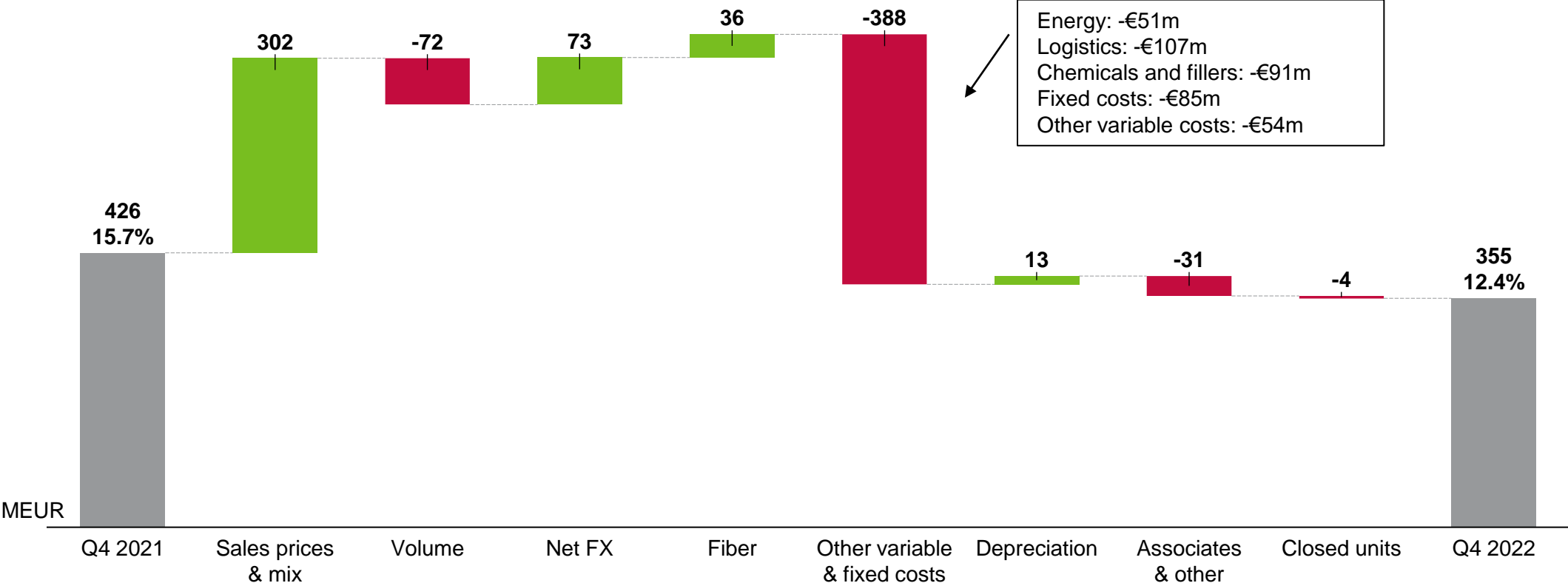
Group long-term financial targets		Q4 21	Q4 22		2021	2022	
Dividend*	To distribute 50% of EPS excluding fair valuation over the cycle	-	-		0.55	0.60**	●
Growth YoY	> 5%	39%	5%	●	29%	17%	●
Net debt to operational EBITDA	< 2.0x	1.1	0.7	●	1.1	0.7	●
Net debt to equity	< 60%	22%	15%	●	22%	15%	●
Operational ROCE excl. Forest	> 13%	20.4%	13.2%	●	17.8%	20.9%	●

Divisional long-term financial targets		Q4 21	Q4 22		2021	2022	
Packaging Materials	Operational ROOC > 20%	16.8%	3.6%	●	18.0%	18.2%	●
Packaging Solutions	Operational ROOC > 15%	19.4%	-1.4%	●	10.8%	-0.7%	●
Biomaterials	Operational ROOC > 15%	27.1%	35.0%	●	20.8%	25.8%	●
Wood Products	Operational ROOC > 20%	53.1%	-7.5%	●	59.4%	44.2%	●
Forest	Operational ROCE > 3.5%	3.6%	4.4%	●	5.1%	3.7%	●
Paper	Cash flow after investing activities to sales > 7%	-2.9%	-0.7%	●	-4.5%	0.9%	●

* Annual dividend. ** Dividend proposal

Higher prices were offset by increased variable costs

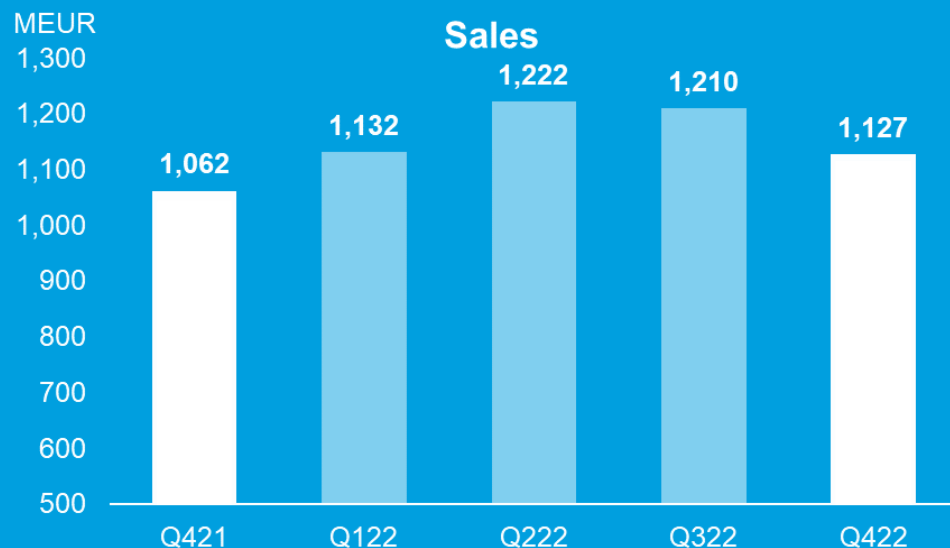
Maintenance costs €34 million higher year-on-year



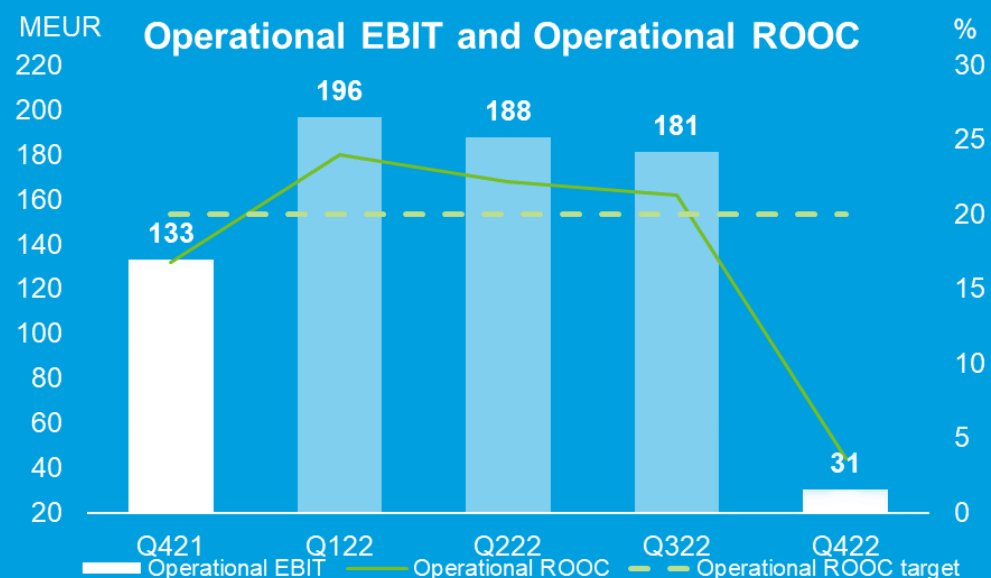
Packaging Materials

Price increases to mitigate cost inflation continues in consumer board

The containerboard market demand remained weak



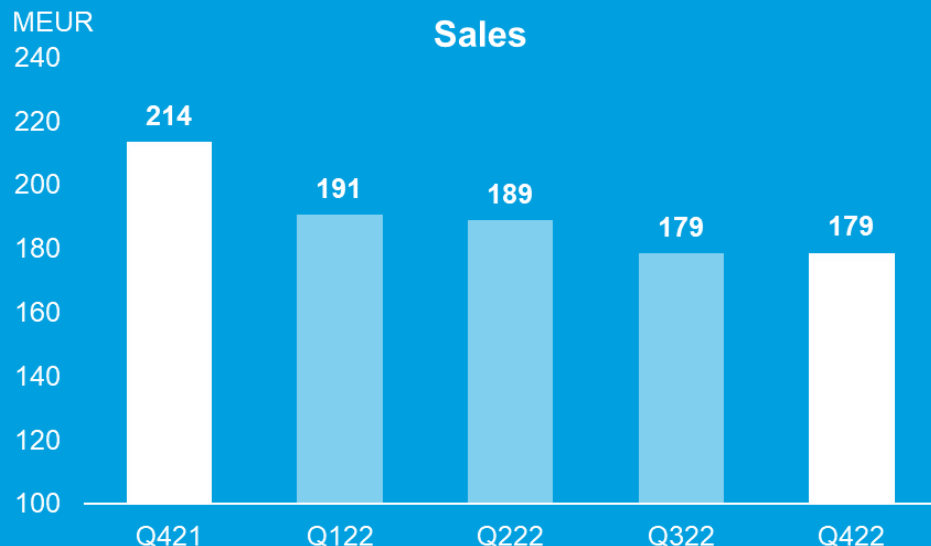
- Sales +6% YoY, driven by higher board prices
- Consumer board demand remained stable, price increases implemented to mitigate variable cost escalation
- Continued weak demand in containerboard markets



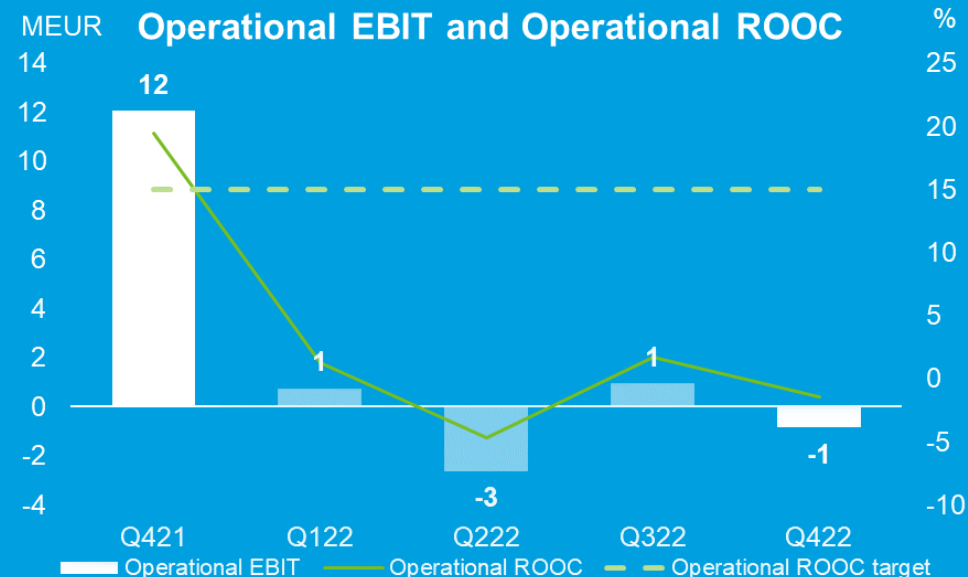
- OpEBIT -€102m YoY
- Increased short-term operating costs due to annual maintenance shutdowns at four large sites, and inflationary pressures
- Margin squeeze due to escalated variable costs and lower volumes
OpROOC at 3.6%, long-term target >20%

Packaging Solutions

Sales and profitability were impacted by the exit from Russian operations and high inflationary pressures



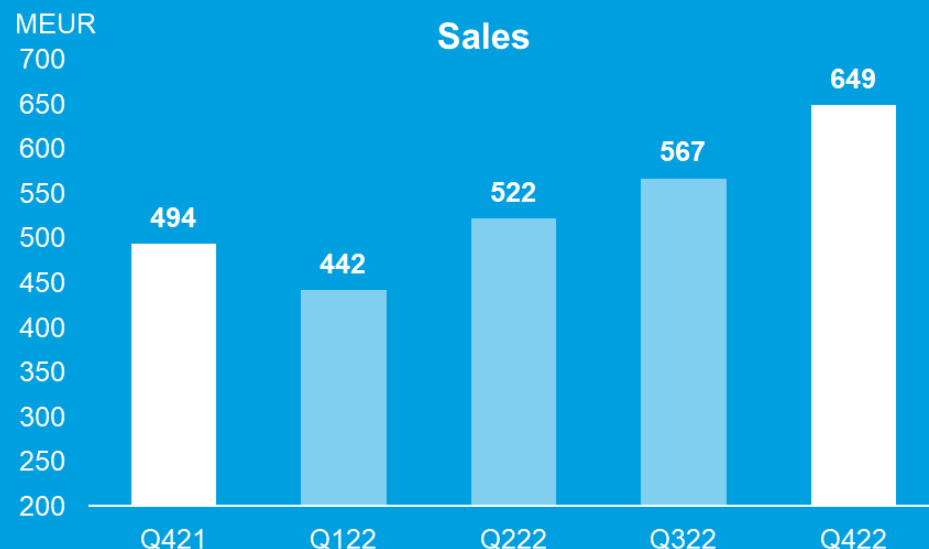
- Sales -16% YoY
- Lower sales mainly due to the divestment of the Russian units
- Higher sales prices in the corrugated packaging operations despite softer market conditions



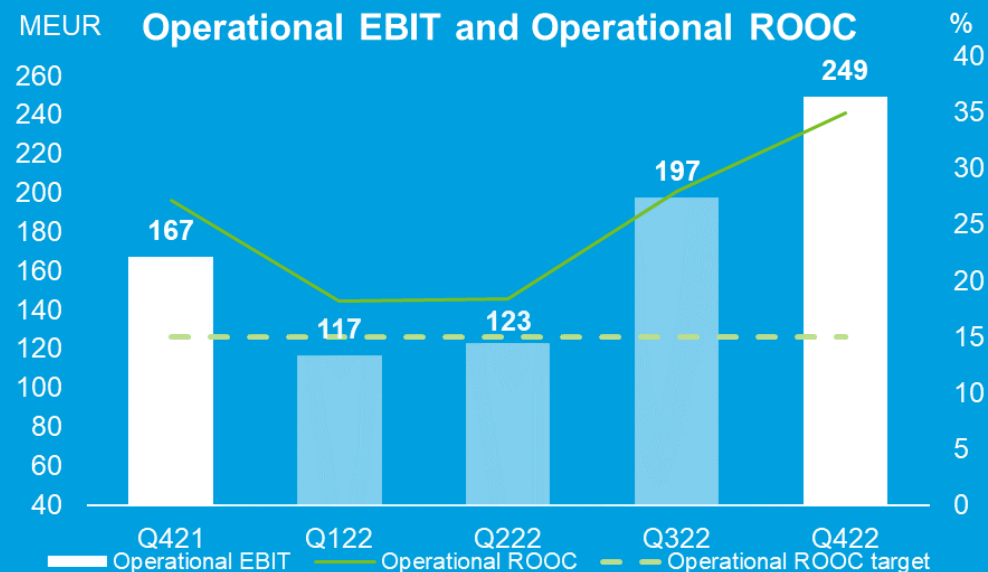
- OpEBIT -€13m YoY
- Negatively impacted by the exit from Russia
- Higher costs related to investments in growing the new businesses
- OpROOC at -1.4%, long-term target >15%

Biomaterials

All-time high quarterly sales and profitability reached through record high pricing and effective operational performance



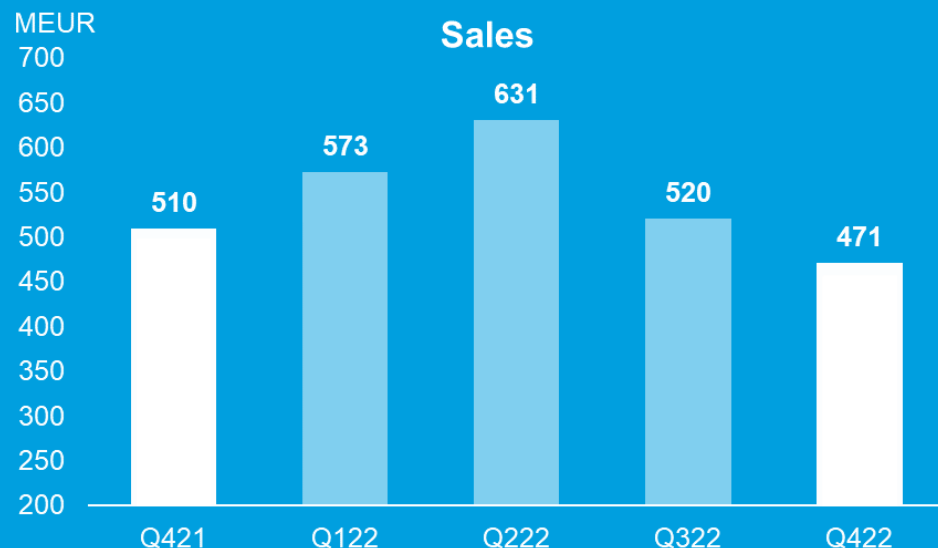
- Sales +32% YoY, all-time high quarter
- The record high sales were driven by strong prices and deliveries, supported by good performance in by-product sales and effective operational performance



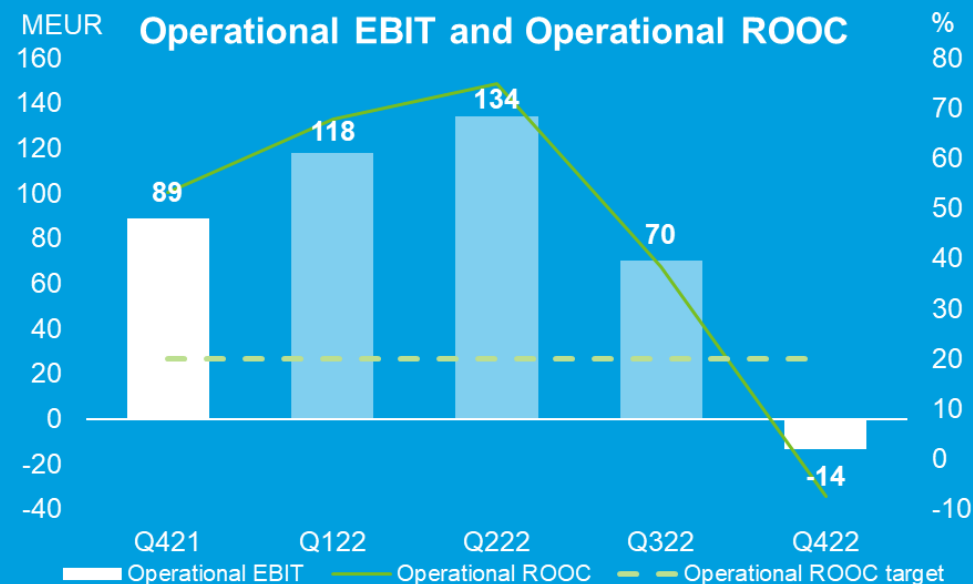
- OpEBIT +49% YoY, all-time high quarter
- Higher sales prices and positive FX impact fully offset higher costs
- OpROOC at 35%, clearly above the long-term target of >15%

Wood Products

Rapid market decline in sawn wood with continued stability in Building Solutions



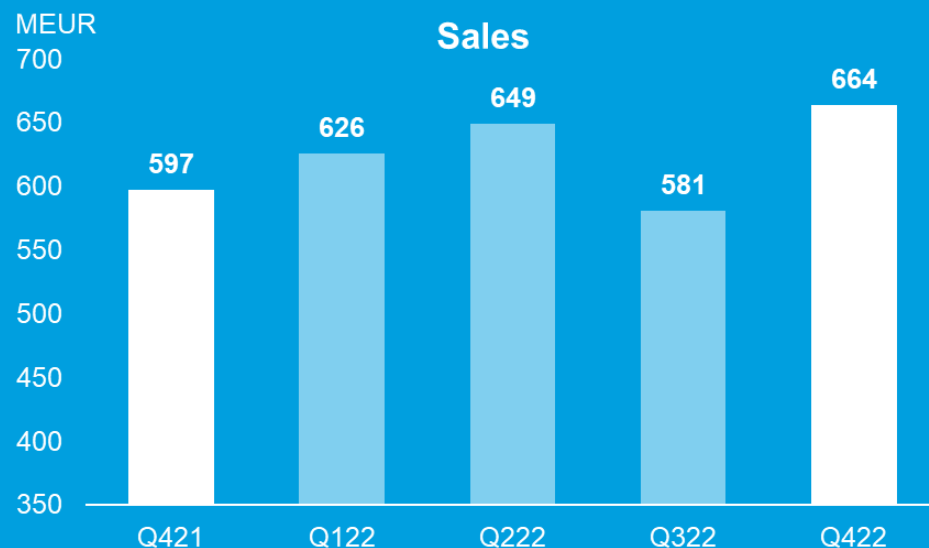
- Sales -7% YoY
- The construction market was impacted by market slowdown with fewer building permits and projects
- Lower sales mainly impacted by lower prices in sawn wood and the exit from the Russian operations
- The stable demand in Building Solutions continued



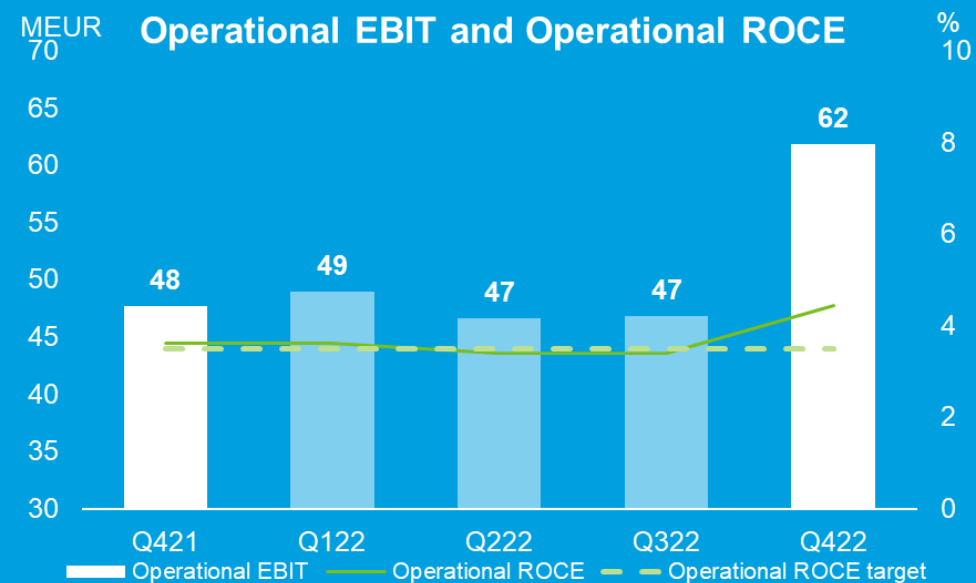
- OpEBIT -€103m YoY
- Lower sales prices and increased costs for logistics, electricity and raw materials
- OpROOC at -7.5%, long-term target >20%

Forest

Wood demand and prices remained on a high level



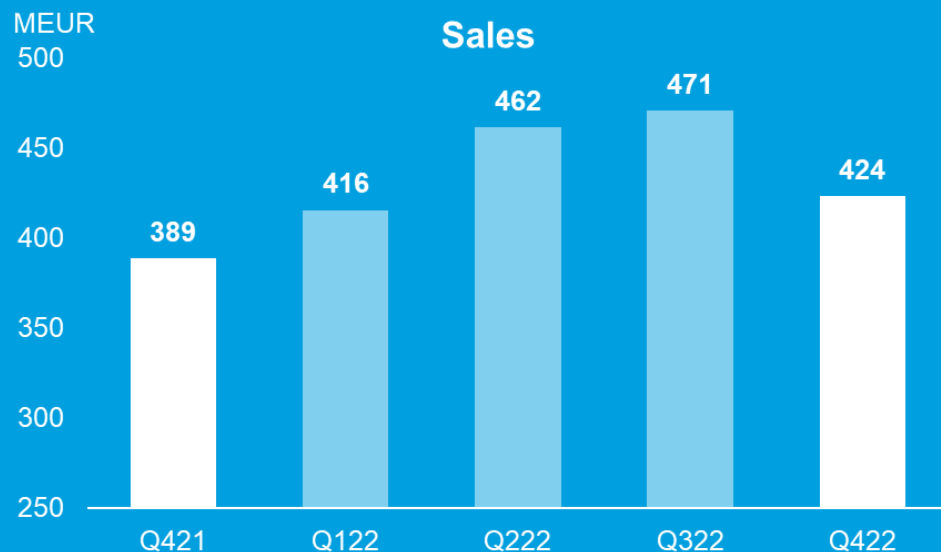
- Sales +11% YoY driven by increased wood demand and higher prices
- Tighter wood markets both in Finland and Sweden mitigated by flexible sourcing



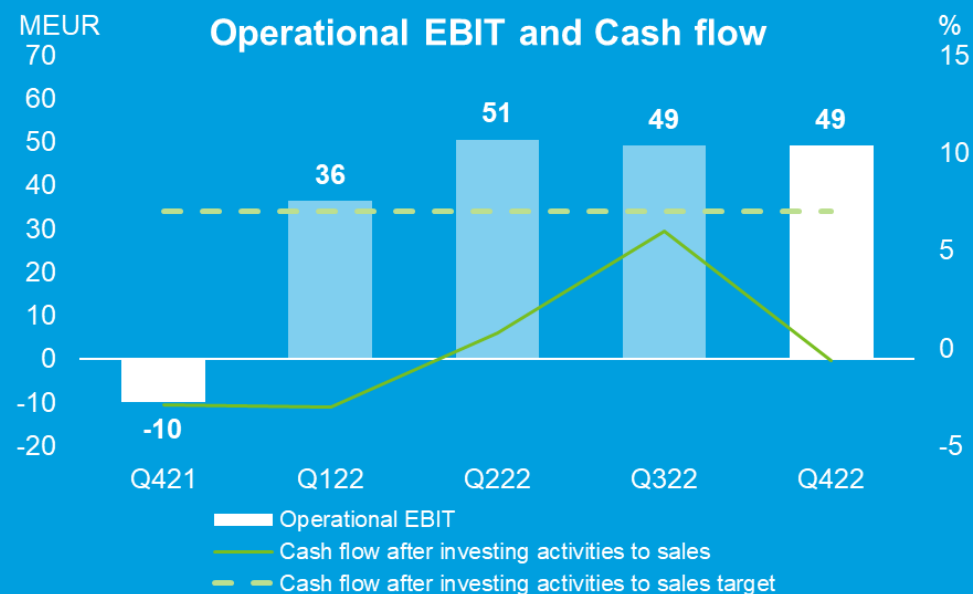
- OpEBIT +30% YoY
- Supported by efficient operational performance
- Positive impact from land sales in Sweden of €10m
- OpROCE at 4.4%, above long-term target of >3.5% despite the higher fair value of the Nordic forest assets

Paper

Delivered significantly improved profitability due to business turnaround after restructuring



- Sales +9% YoY
- Higher sales prices for Stora Enso's products
- Volumes impacted by scheduled maintenance shutdowns during the quarter



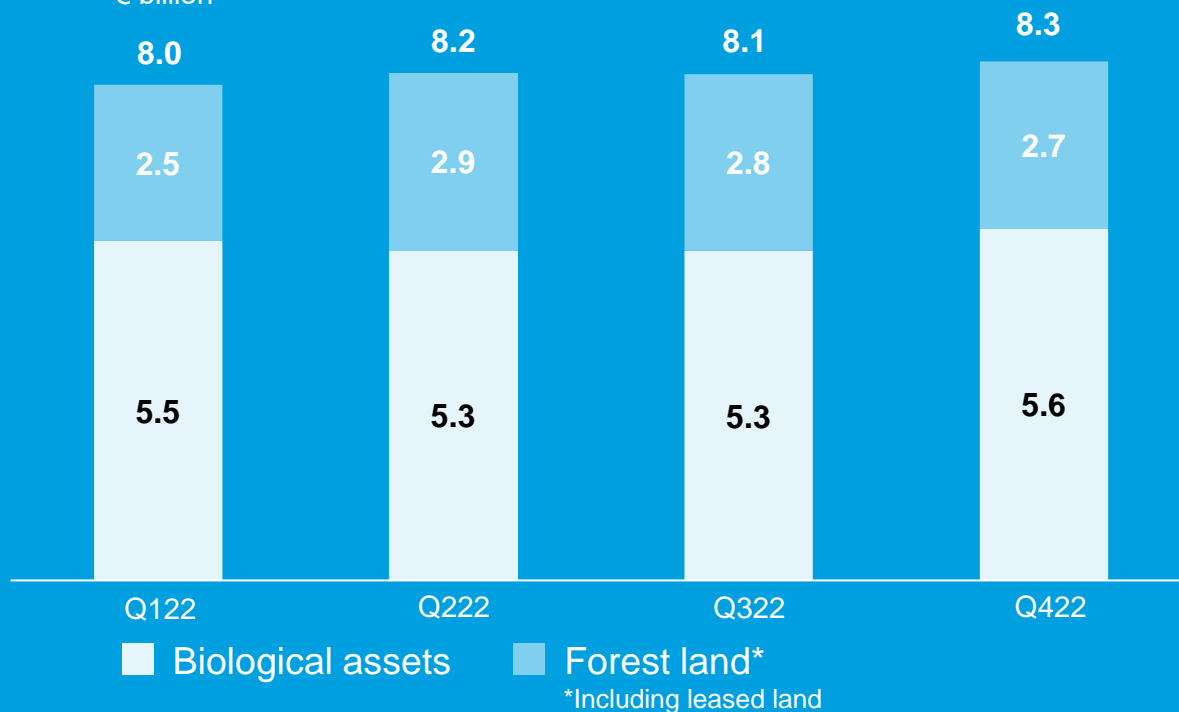
- OpEBIT +€59m YoY
- Higher paper prices more than offset higher variable costs
- Cash flow to sales after investments -0.7%, impacted by restructuring provision payouts and transaction costs related to the announced divestments (long-term target >7%)

Market transaction-based fair valuation applied for Tornator



Group forest assets

€ billion

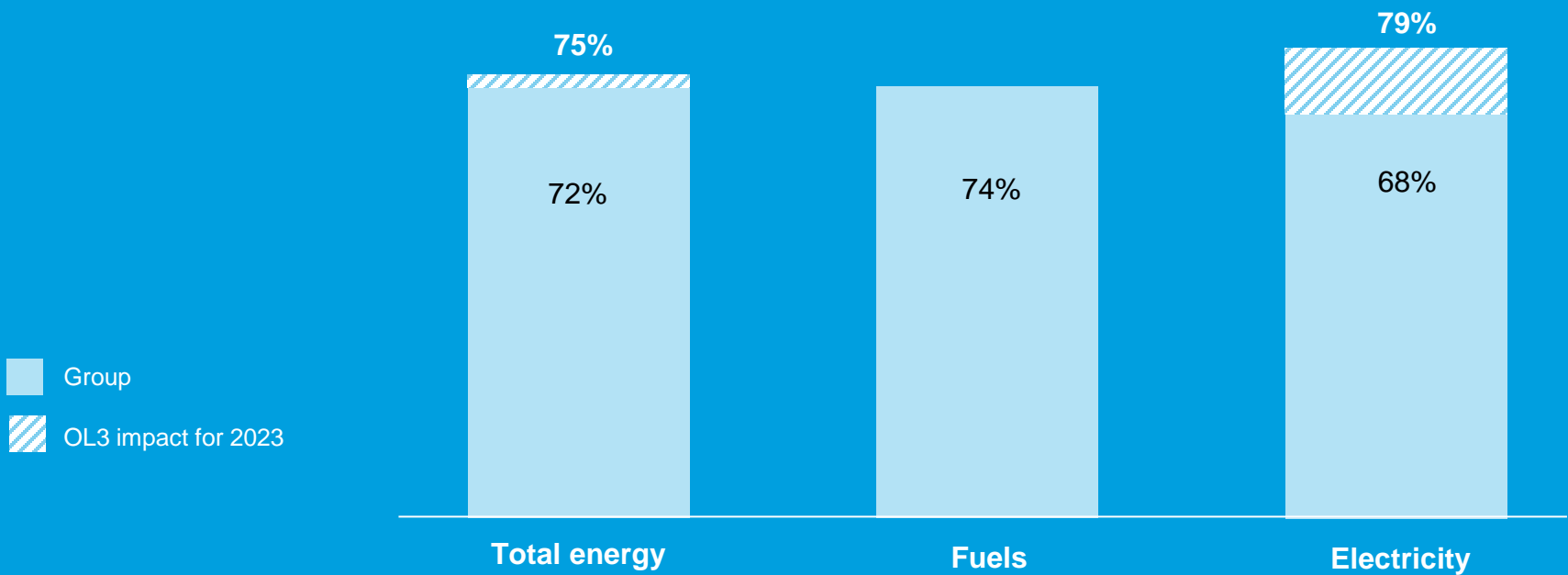


- Fair value of €8.3 billion equivalent to €10.52 per share
- Change in the fair valuation method from DCF to market transaction-based in Finland resulted in a €265m positive impact q-o-q
- Positive impact from higher market transaction-based forest property prices in Sweden was largely offset by negative FX SEK/EUR
- Higher WACCs for plantations decreased fair values slightly

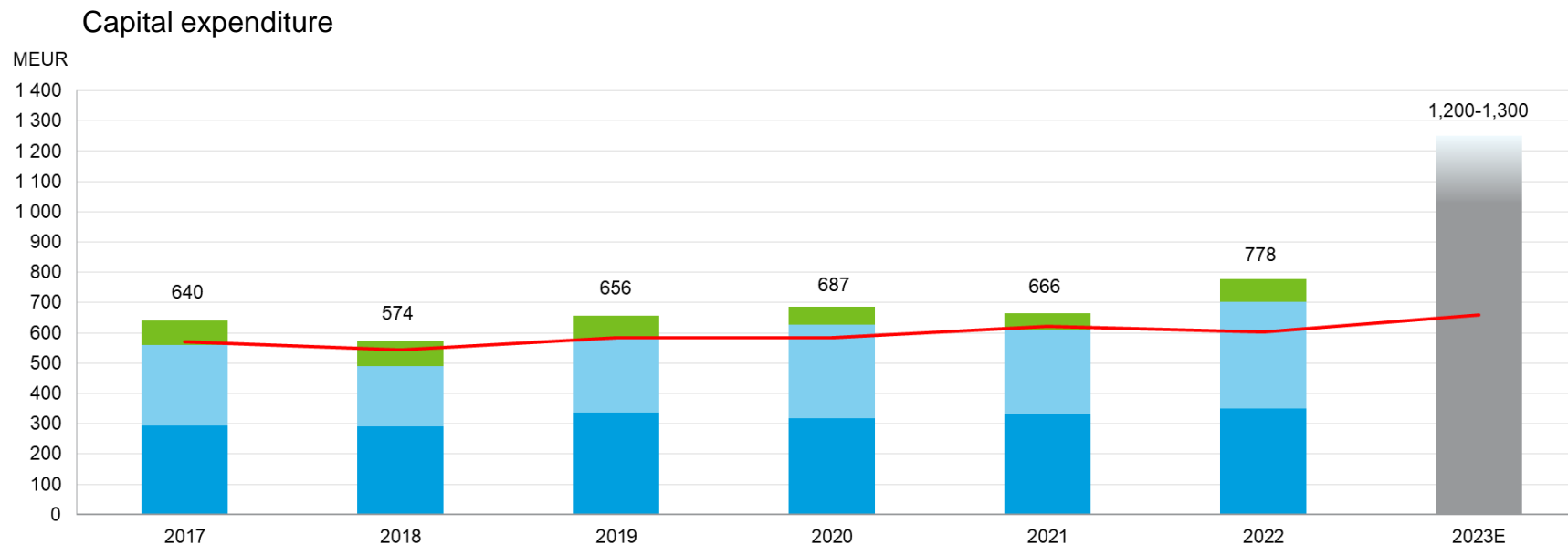
Energy self-sufficiency is expected to increase in 2023



Energy self-sufficiency excl. JVs (FY2023e)



Higher capex estimate mainly due to growth investments in consumer board



The majority of the increase in 2023 relates to the consumer board investment in Oulu, Finland

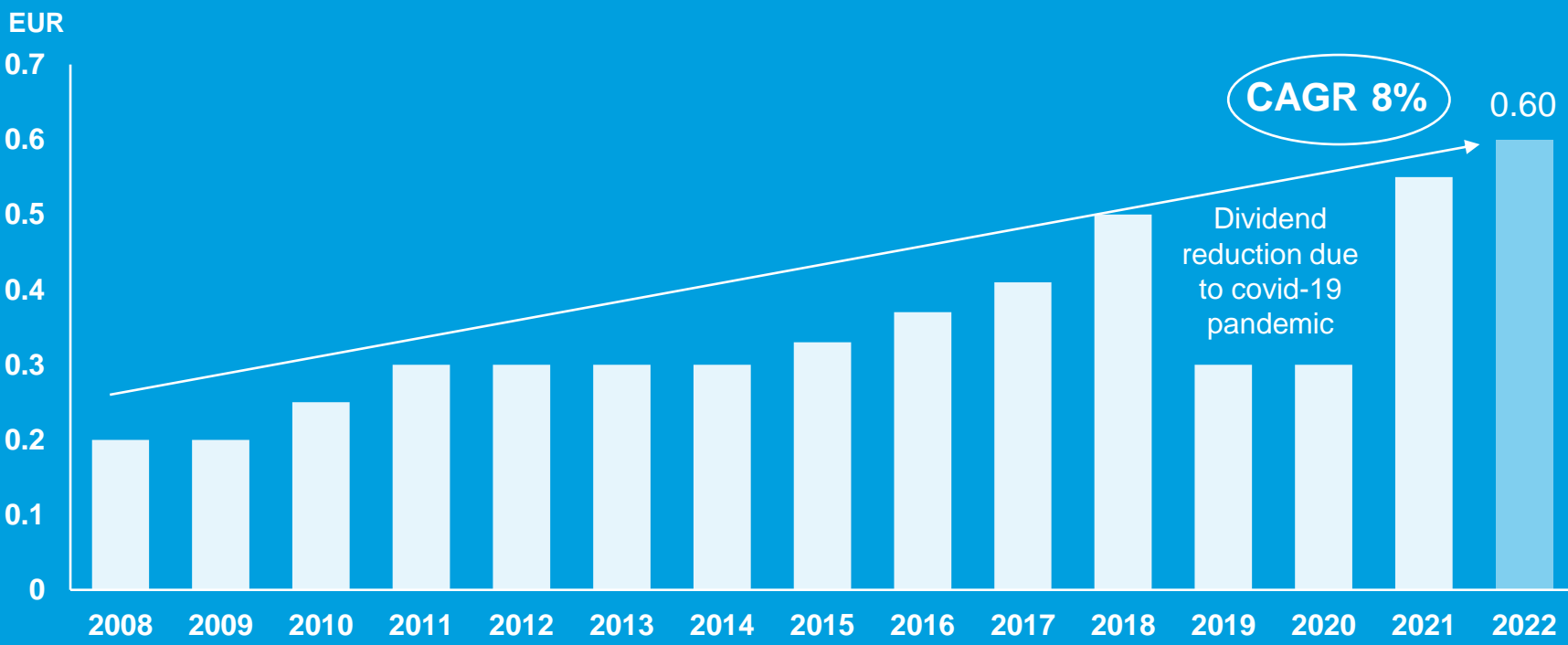
- Biological capex
- Strategic capex
- Maintenance and development capex
- Capex estimate for 2023
- Depreciation and depletion of capitalised silviculture costs

Capex for 2019-2022 and estimate for 2023 include the capitalised leasing contracts according to IFRS 16 Leases standard

Dividend was increased to an all-time high of €0.60 per share



Dividend



Target:
50% of EPS
excluding fair
valuation over
the cycle

Changes in segment reporting – exited the Paper division



Changes as of 1 January 2023

- The Paper division is discontinued
- The Maxau and Hylte paper sites are reported in Segment Other until completion of the divestments
- The Langerbrugge and Anjala sites, retained in Stora Enso, are reported as part of Packaging Materials
- The New Business units transferred from Packaging Solutions to Segment Other
- Restated figures shall be issued prior to the Q1/2023 reporting (Q1 report publication date 25 April 2023)



Annual guidance: the full-year 2023 operational EBIT is expected to be lower than for the full-year 2022 (€1,891m)



- Market conditions and inflationary pressures are expected to be more challenging in 2023 than in 2022
- To manage market volatility, measures like pricing, flexibility in product mix, capacity, inventory, sourcing and logistics, and reinforced cost control are in place
- Stora Enso benefits from its self-sufficiency in energy of 72% as well as hedging, and in wood of ~30%
- Stora Enso's extensive changes in the past three years have reshaped the Company to be financially, operationally and strategically in a stronger position for future growth



Market development

Q1/2023 market demand outlook year-on-year



Packaging Materials

The overall demand for consumer board is expected to remain stable while the overall containerboard demand is expected to remain weak

Packaging Solutions

Demand for corrugated packaging is expected to weaken in Europe

Biomaterials

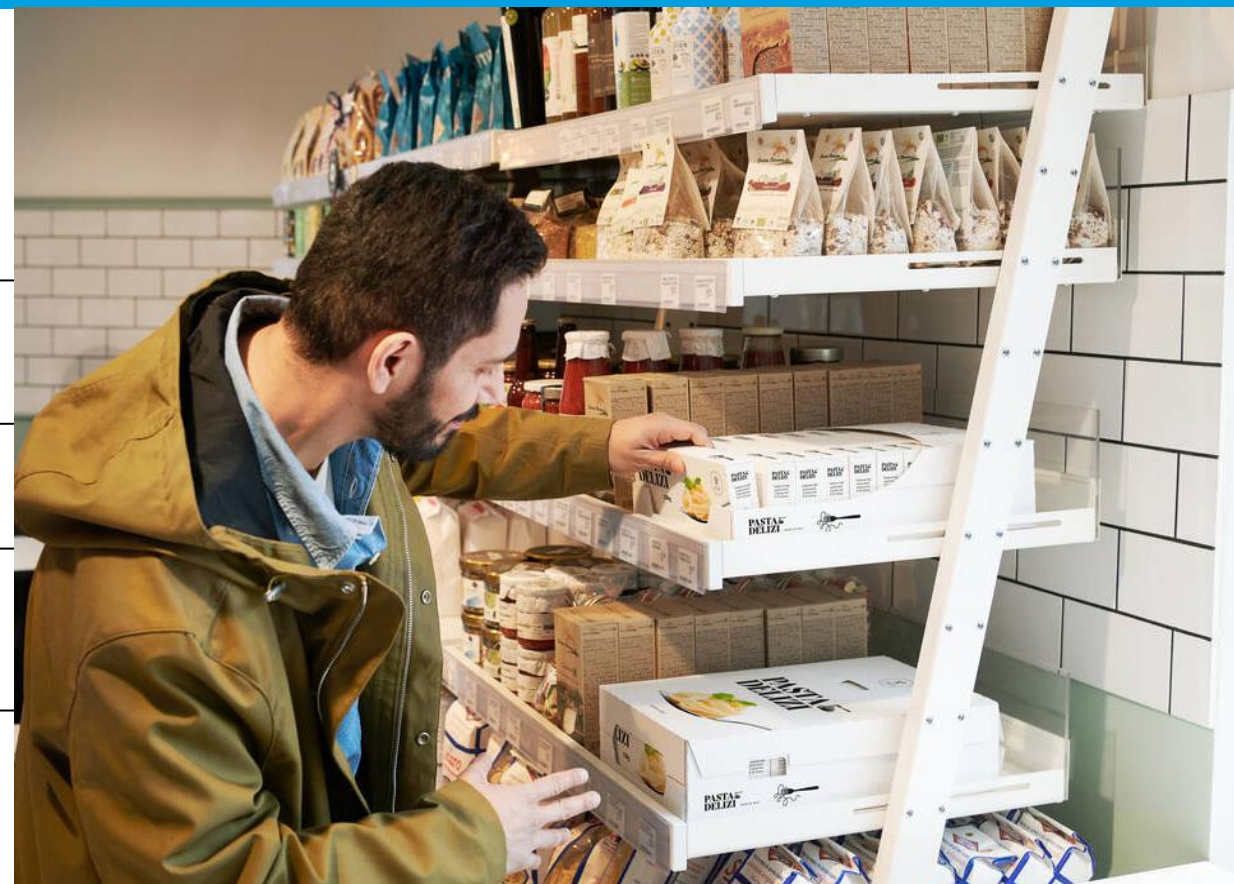
Pulp demand is expected to be on par with the previous year

Wood Products

The demand for sawn wood is expected to be significantly weaker especially in Europe with the overseas markets remaining stable

Forest

Pulpwood demand is expected to remain stable, while demand for sawlogs is expected to decrease



Delivering the best FY financial performance in 22 years despite Q4 market challenges



- Our performance in 2022 demonstrates the strength of our leading market positions and our ability to be proactive and agile
- Quarterly all-time high results in Biomaterials, with continued slowdown in containerboard and sawn wood
- Investing in organic and acquisitive growth, and entering partnerships, all to drive outperformance over the cycle
- The Board proposes an all-time high dividend of €0.60 per share

