



Metsä

Metsä Board

Investor presentation 2024



January–December 2024

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Investment highlights



Premium fresh fibre paperboards

- Recyclable and lightweight paperboards from renewable raw materials
- Packaging materials providing an alternative to plastics



A leading position in a growing market

- Metsä Board is #1 producer in folding boxboard and white kraftliners in Europe
- #1 in coated white kraftliners globally



Strong focus on sustainability

- Fossil free production and products by the end of 2030
- Resource efficiency and reduced carbon footprint of packaging



Investments in sustainable and profitable growth

- Recently completed large-scale growth investments
- Planned investments to improve competitiveness and sustainability, and develop new products

Metsä Board is part of Metsä Group

Group structure ensures high availability of Nordic fibres and pulps

Metsä Board is part of Metsä Group

Metsä Group's interest is to increase the value of the forest of owner-members by processing wood into valuable and sustainable end-products

All figures based on FY2024

METSÄ GROUP

Sales EUR 5.7 billion | Operating margin: 3.5% | Personnel 9,000

Parent company: METSÄLIITTO COOPERATIVE

owned by over 90,000 Finnish forest-owners

METSÄ FOREST

WOOD SUPPLY AND
FOREST SERVICES

Sales EUR 2.4 bn
Personnel 700

Holding:
Metsäliitto Cooperative 100%

METSÄ WOOD

WOOD PRODUCTS

Sales EUR 0.6 bn
Personnel 1,700

Holding:
Metsäliitto Cooperative 100%

METSÄ FIBRE

PULP AND
SAWN TIMBER

Sales EUR 2.3 bn
Personnel 1,500

Holding:
Metsäliitto Cooperative 50.1%
Itochu Corporation 25.0%
Metsä Board 24.9%

METSÄ BOARD

PAPERBOARD

Sales EUR 1.9 bn
Personnel 2,300

Holding:
Listed in Nasdaq Helsinki
Metsäliitto Cooperative 52%

METSÄ TISSUE

TISSUE AND
GREASEPROOF PAPERS

Sales EUR 1.2 bn
Personnel 2,600

Holding:
Metsäliitto Cooperative 100%

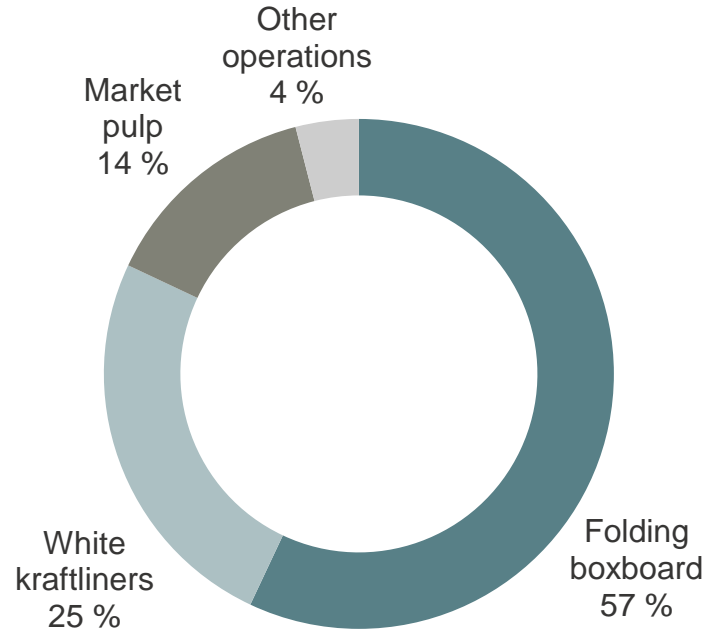
METSÄ SPRING INNOVATION COMPANY

Metsä Spring invests and supports potential sustainable innovations and technologies that find new purposes and higher value for Nordic wood

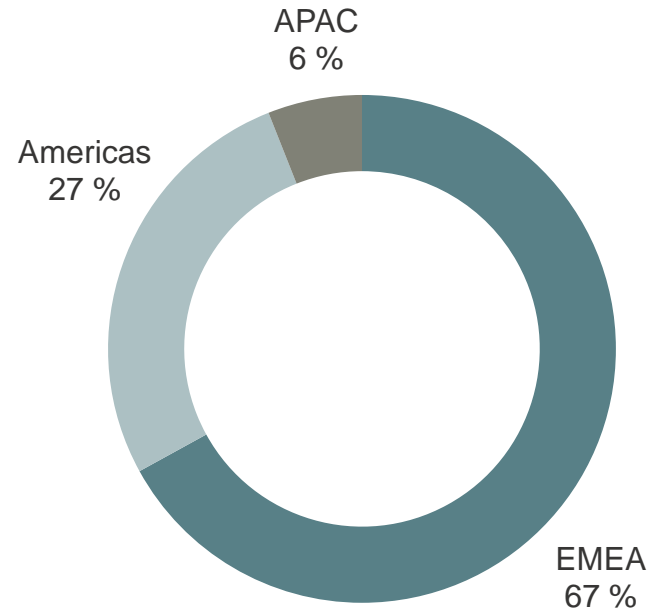


Company in figures

Split by product

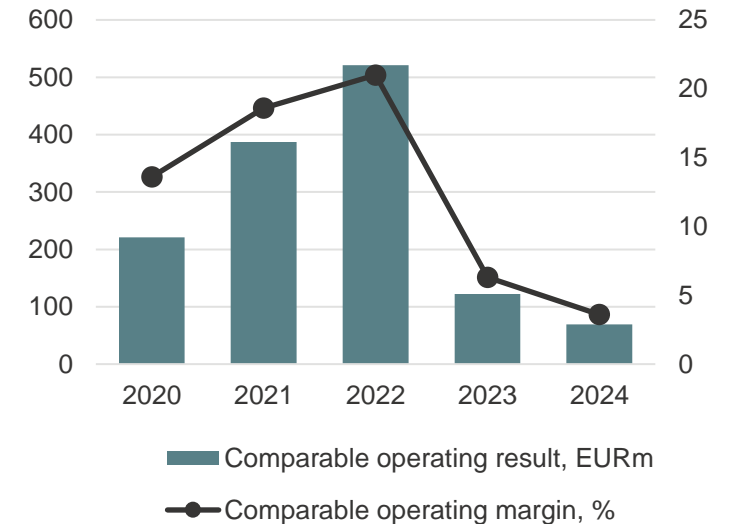


Split by region



Comparable operating result

FY2024: EUR 69 million or 3.6% of sales



Long-term customerships

Diversified customer base in 100 countries including brand owners, converters, manufacturers of corrugated products and merchants

Paperboard capacity

2.3 million

tonnes/year

Pulp and BCTMP capacity

1.7 million

tonnes/year

Ownership in Metsä Fibre*

24.9%

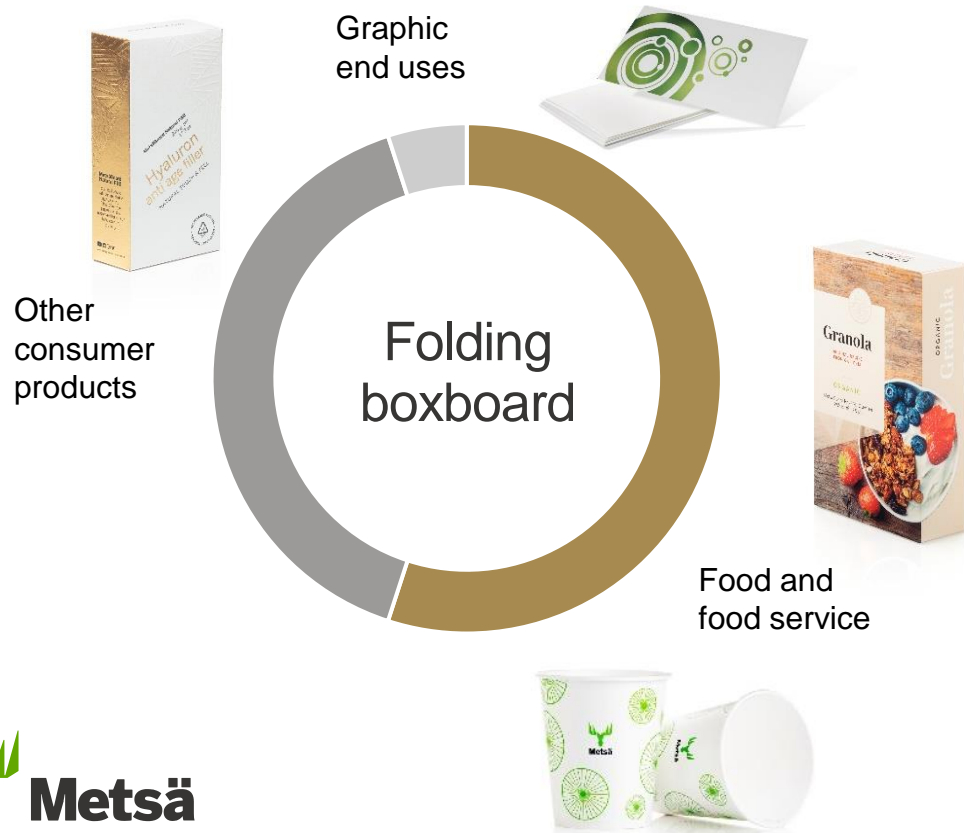
secures self-sufficiency in pulp

In 2023 paperboard capacity increased by 240,000 tonnes due to the capacity expansions in Husum and Kemi. Additional capacity is expected to be fully in the market in 2026.

Focus on premium and recyclable fresh fibre paperboards, end-uses mainly in consumer products

Metsä Board's annual capacity in FBB in 1.6 mt

Metsä Board's annual capacity in WKL in 0.7 mt
- of which 2/3 is coated WKL



Our main markets are Europe and North America

Total paperboard deliveries in 2024 were 1.5 million tonnes
(2023: 1.4mt)

Regional focus on key demand drivers

Further strengthening our leading market position in EUROPE

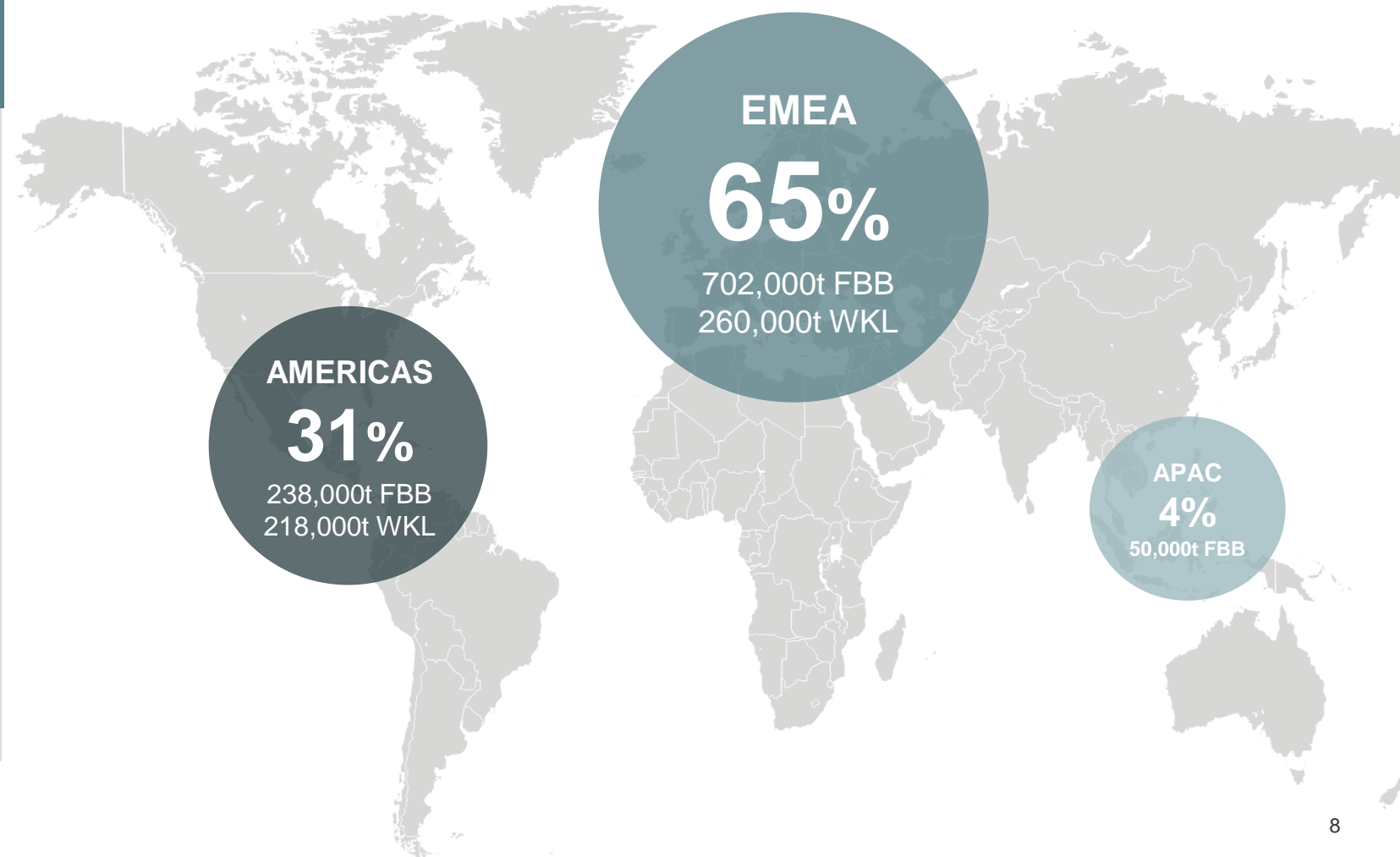
- Environmental awareness and regulatory requirements support recyclable packaging materials
- Trend towards material reduction and lightweighting favours folding boxboard
- Food safety requirements favour pure fresh fibre paperboards
- Weakened availability of high-quality recycled paper

Continuing growth in NORTH AMERICA

- Limited local availability of high-quality lightweight paperboards
- Growth in sustainable packaging for food and food service
- Product brand promotion and personalization in growing e-commerce

Focus on high-quality packaging in selected end use segments in APAC

- Middle class growth increases purchasing power and demand for packaged consumer goods

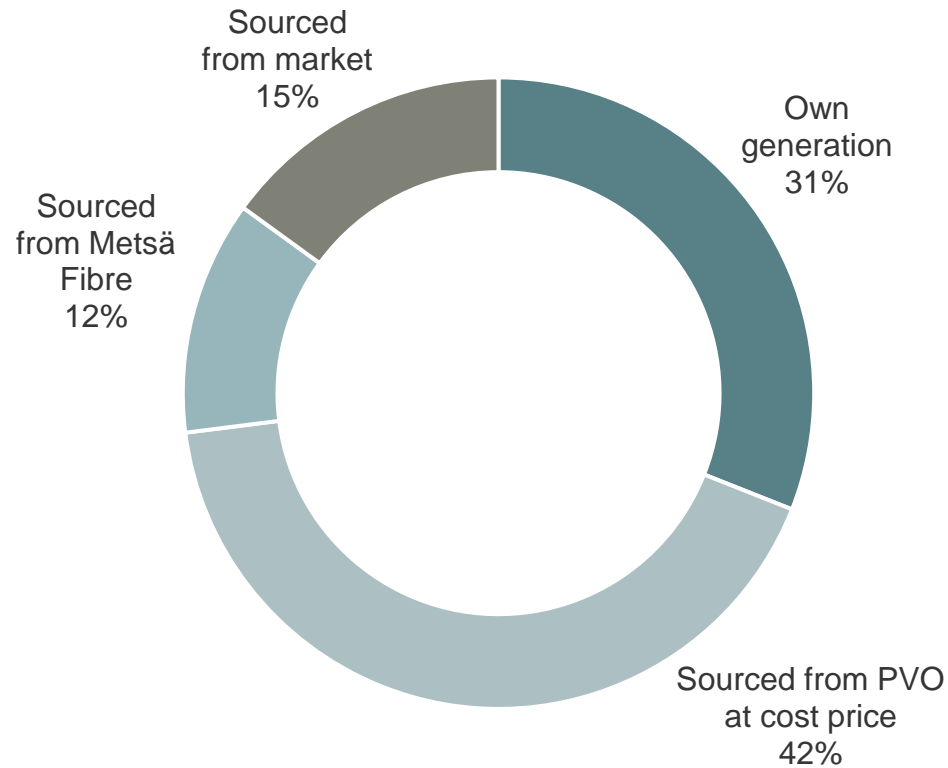


Self-sufficiency in energy is 90%

Energy consumption by sourcing method

Electricity

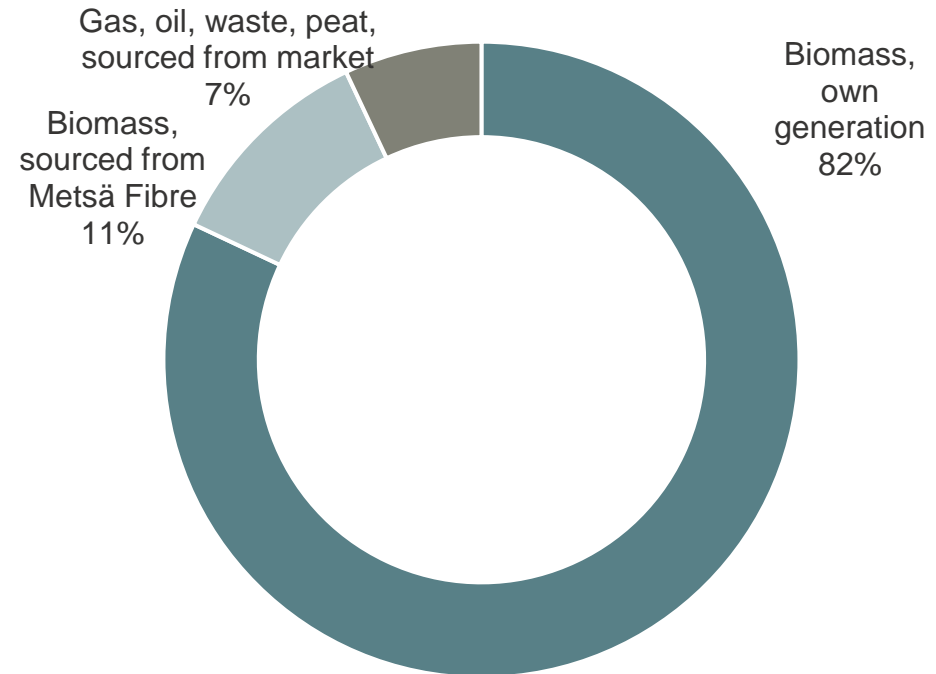
Total 2.0 TWh



Based on GRI calculation

Fuels (Heat)

Total 6.4 TWh



Based on primary energy calculation

Self-sufficiency in pulp is secured through ownership of Metsä Fibre

Metsä Fibre is globally #1 producer in softwood market pulp (NBSK)

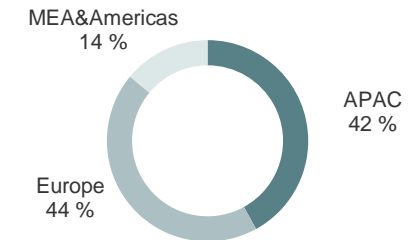
- Capacity ~4 million tonnes/year chemical pulp (80% SW, 20% HW)
- 2.1 million m³/year sawn timber (40% spruce, 60% pine)
- Self-sufficiency in electricity over 200% (total annual production capacity ~5 TWh)

Metsä Board owns 24.9% of Metsä Fibre

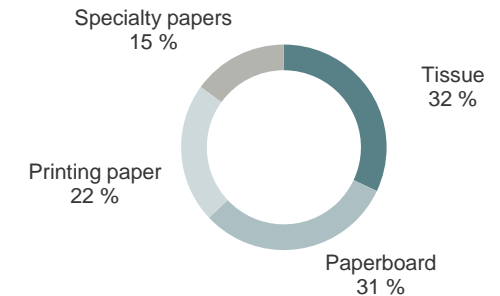
- Other owners Metsäliitto Cooperative 50.1% and Itochu Corporation 25.0%
- Metsä Board consolidates 24.9% of Metsä Fibre's net result into its EBITDA. The annual dividend by Metsä Fibre is typically paid at the end of Q1
- Taking into account the ownership in Metsä Fibre, +/- 10% change in market pulp price has an +/- EUR 50 million impact on Metsä Board's annual operating result



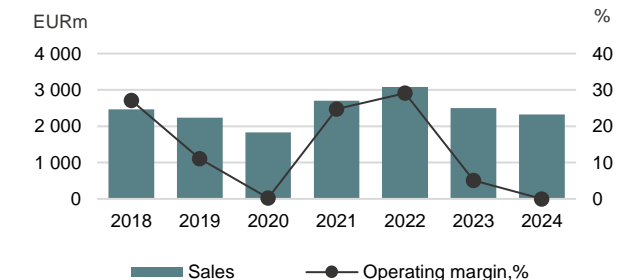
Metsä Fibre's pulp sales split by region 2024



Metsä Fibre's pulp sales split by end-use 2024



Metsä Fibre's sales (EUR million) and operating margin (%)



Metsä Board's production is close to the main raw material – northern wood

Total paperboard capacity:
 Folding boxboard (FBB): 1,560,000 t/a
 White kraftliner (WKL): 715,000 t/a

Total pulp / BCTMP capacity:
 BCTMP: 750,000 t/a
 Chemical pulp: 910,000 t/a
 24.9% ownership in Metsä Fibre, total pulp capacity ~4Mt

Production units and annual capacities

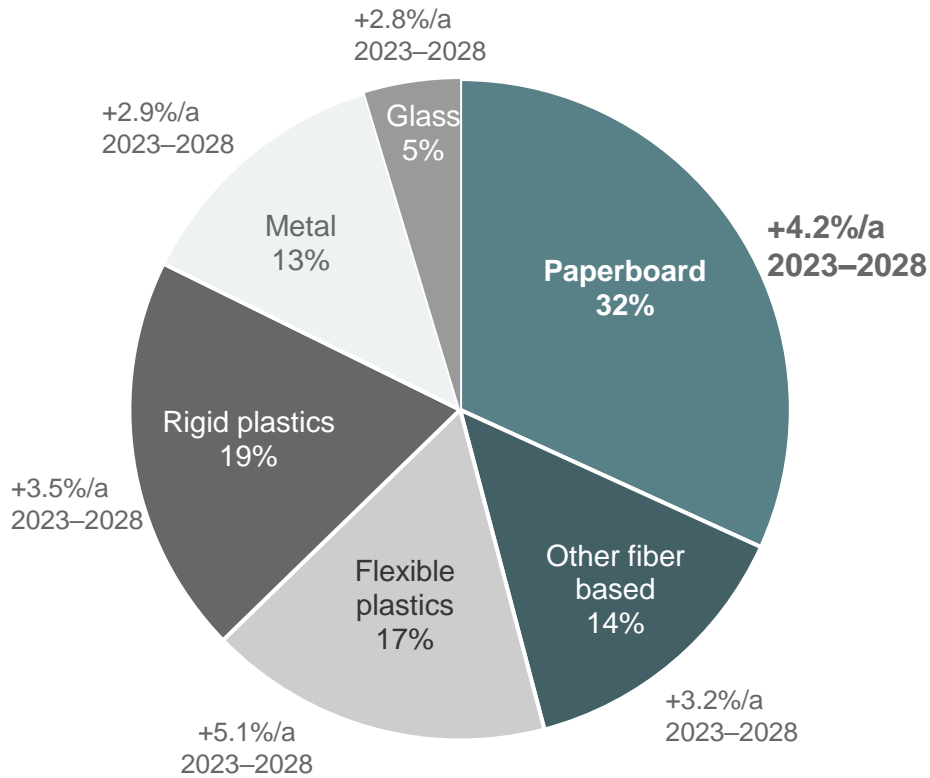


¹⁾ Metsä Fibre's mill
²⁾ Metsä Board 180,000 t/a and Metsä Fibre 1,320,000 t/a

Global need for packaging is growing

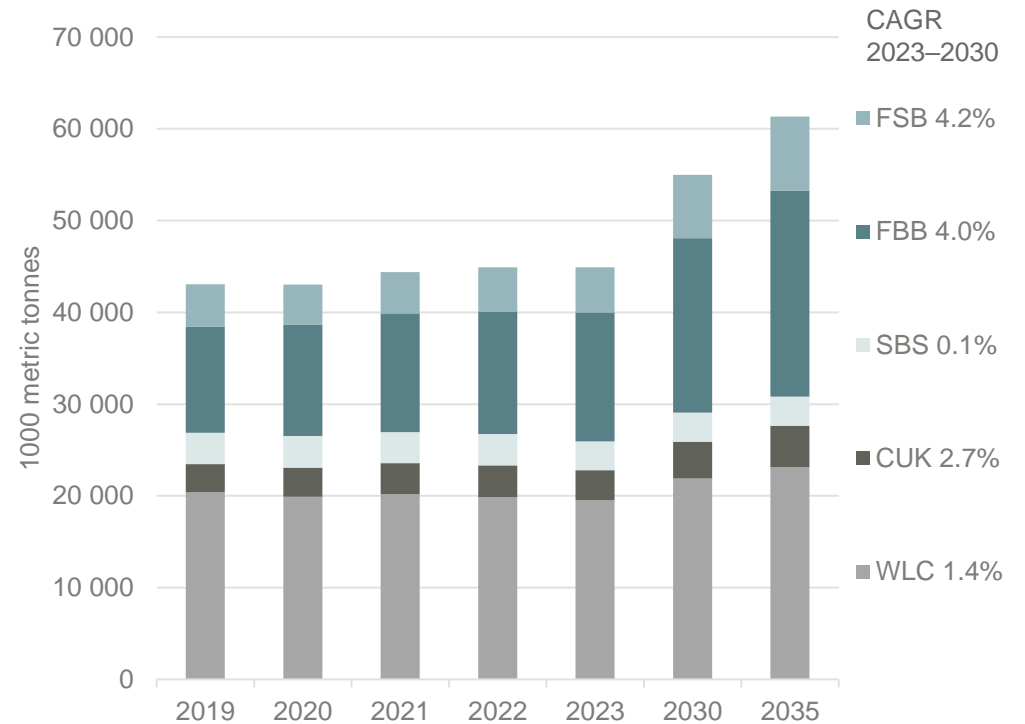
Global packaging market value is USD 1.175 billion and it is growing by 3.9% per year

Paperboard is growing faster than all packaging materials on average



Source: Smithers Information Ltd

Folding boxboard and foodservice board have fastest growth rates of all cartonboards



Source: AFRY

Demand drivers for fresh fibre paperboards



Population growth, urbanisation and rising living standards drive packaging



Regulation and consumer preferences favour fossil-free packaging materials



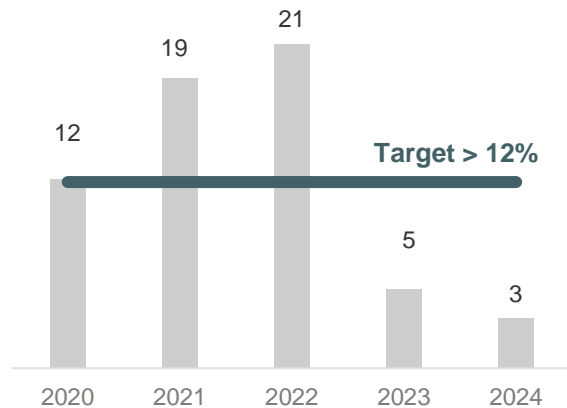
Availability and quality of recycled fibre is declining



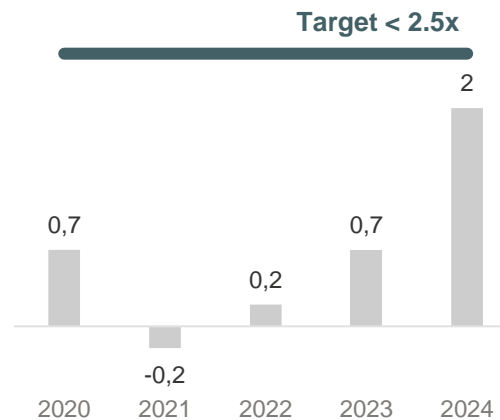
Brandowners' commitments to reduce use of plastic

Financial targets and dividend policy

Comparable ROCE, %:

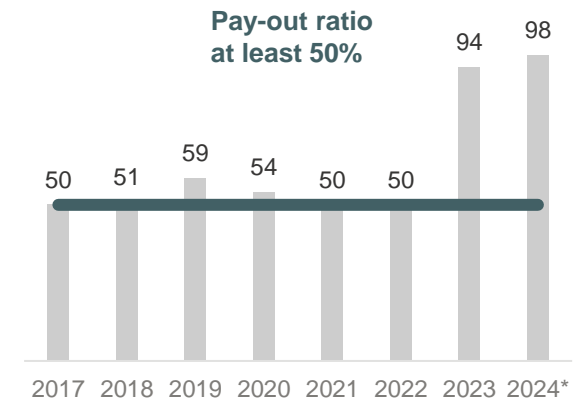


IB Net debt/comparable EBITDA



Dividend policy

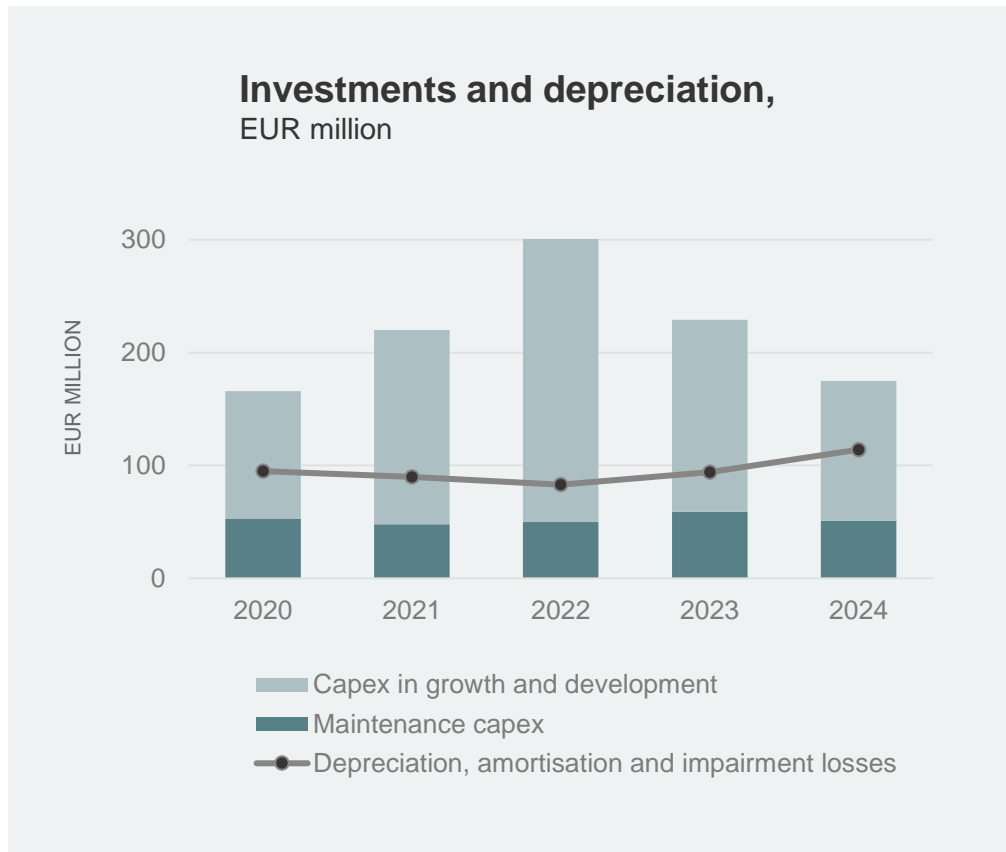
Dividend/net result, %



* FY 2024: Board's proposal to AGM:
EUR 0.07/share, total dividend payment EUR 25 million

Investments

Investments and depreciation



Year 2024

- Total investments in 2024 were EUR 175 million, and depreciation* EUR 114 million

Year 2025, estimated

- The value of 2025 total investments is expected to be in the range of 100–150 million euros

Ongoing and planned investments

Investments aim to improve the competitiveness of our mills and products and accelerate the move to fossil-free production



Simpele board mill

- Renewal of paperboard machine¹⁾, **ongoing**
- Renewals in paperboard finishing area and mechanical pulp production, a new power plant



Kyro board mill

- Improving the performance of barrier boards and expanding end-use areas, **in pre-engineering**



Husum pulp mill

- New pulp drying machine



Husum board mill

- New products on the existing BM 2 white kraftliner production line, **in pre-engineering**

Renewal of Simpele paperboard machine

- Investment decision made in April 2024
- Estimated completion in H2 2025
- Investment value EUR ~60 million, divided in 2024–2026
- Renewal will improve the quality of FBB, increase the annual production capacity and enable fossil free production

Simpele board mill

- After the investment, annual capacity will be 310,000 tonnes of premium lightweight folding boxboard
- Main end uses in food and pharma packaging
- Future investments in the mill include renewals in the finishing area of paperboard and in mechanical pulp production, as well as a new power plant



Completed investments in Husum and Kemi



Husum folding boxboard capacity expansion and port investments

- Increase of 200,000 t/y FBB
- Husum total capacity 600,000 t/y FBB, fully available on the market in 2026
- Investment value EUR 230 million
- Increase in port warehouse capacity, EUR 20 million



Kemi mill development programme

- Increase of 40,000 t/y coated WKL
- Kemi total capacity 465,000 t/y coated WKL, fully available on the market in 2025
- Decreased water and energy use
- Included a purchase of modernised pulp production line from Metsä Fibre
- Investment value EUR 110 million

Metsä Fibre's bioproduct mill in Kemi

- New mill started in 2023
 - Annual pulp capacity: 1,020kt SW, 300kt HW and 180kt* unbleached pulp
 - Full production capacity to be reached in 2025
 - Annual pulpwood consumption 7.6 m³
 - Self-sufficiency in electricity 250%, annual maximum capacity 2,000GWh
- Investment value EUR 2.02 billion
 - Metsä Board has not invested equity to finance the project
- Gas explosion at the mill in March 2024
 - Led to a long shutdown in Q2 2024
 - Damaged units will be replaced with new units in summer 2025 (additional 1 month shutdown)



* Owned by Metsä Board, pulp entirely used in Metsä Board's kraftliner production in Kemi



Cost structure and profit drivers



Cost structure

Year 2024

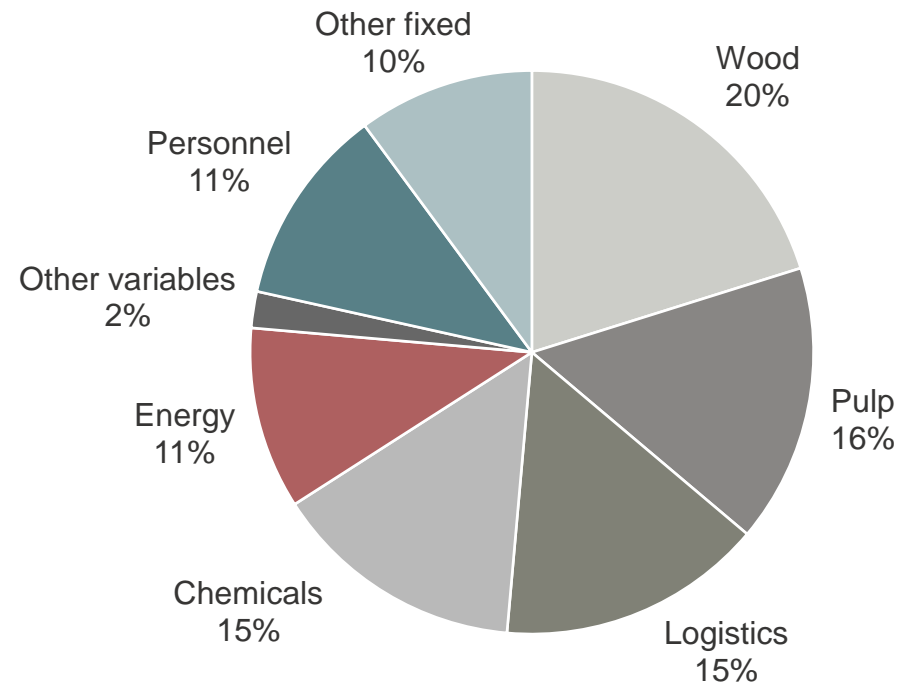
- **Total costs EUR 1.8 billion (1.7)**
- Total cost deflation, excluding pulp, 1%
- Decreased chemical and energy costs, increased wood, logistics and fixed costs

wood price development on slide 32



Metsä Board's cost structure in 2024

Total costs EUR 1.8 billion (1.7)



¹⁾ **Pulp:** Metsä Board purchases all external pulp from its associated company Metsä Fibre, of which Metsä Board owns 24.9%.

Metsä Fibre's pulp cost structure in 2024: Wood 57%, Chemicals 11%, Logistics 9%, Energy 5%, Personnel and other fixed 17%.

Main profit drivers and sensitivities

Component	Unit	Change	Impact on EBIT, approximately
Folding boxboard	Price / tonne	+/- 10%	>EUR 120 million
White kraftliners	Price / tonne	+/- 10%	>EUR 50 million
FX	USD/EUR	+/- 10%	EUR 85 million
	SEK/EUR	+/- 10%	EUR 55 million
Pulp*	PIX price of SW/HW per tonne	+/- 10%	EUR 50 million
Wood*	Cost, delivered to Finnish mills	+/- 10%	EUR 50 million
	Cost, delivered to Husum	+/- 10%	EUR 20 million

*) sensitivities take into account Metsä Board's 24.9% stake in Metsä Fibre

Wood is Metsä Board's main raw material

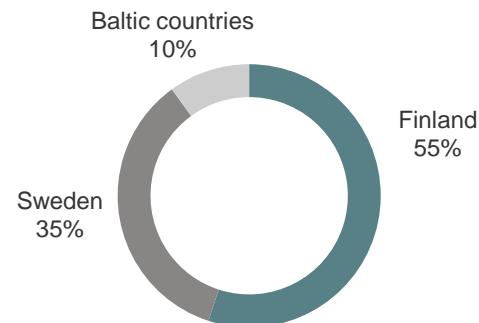
Wood usage

- In 2024, Metsä Board used¹⁾ 6.8 million m³ wood for its products, of which 92% was certified (PEFC, FSC®)
- Wood¹⁾ represents roughly 30% of Metsä Board's total costs

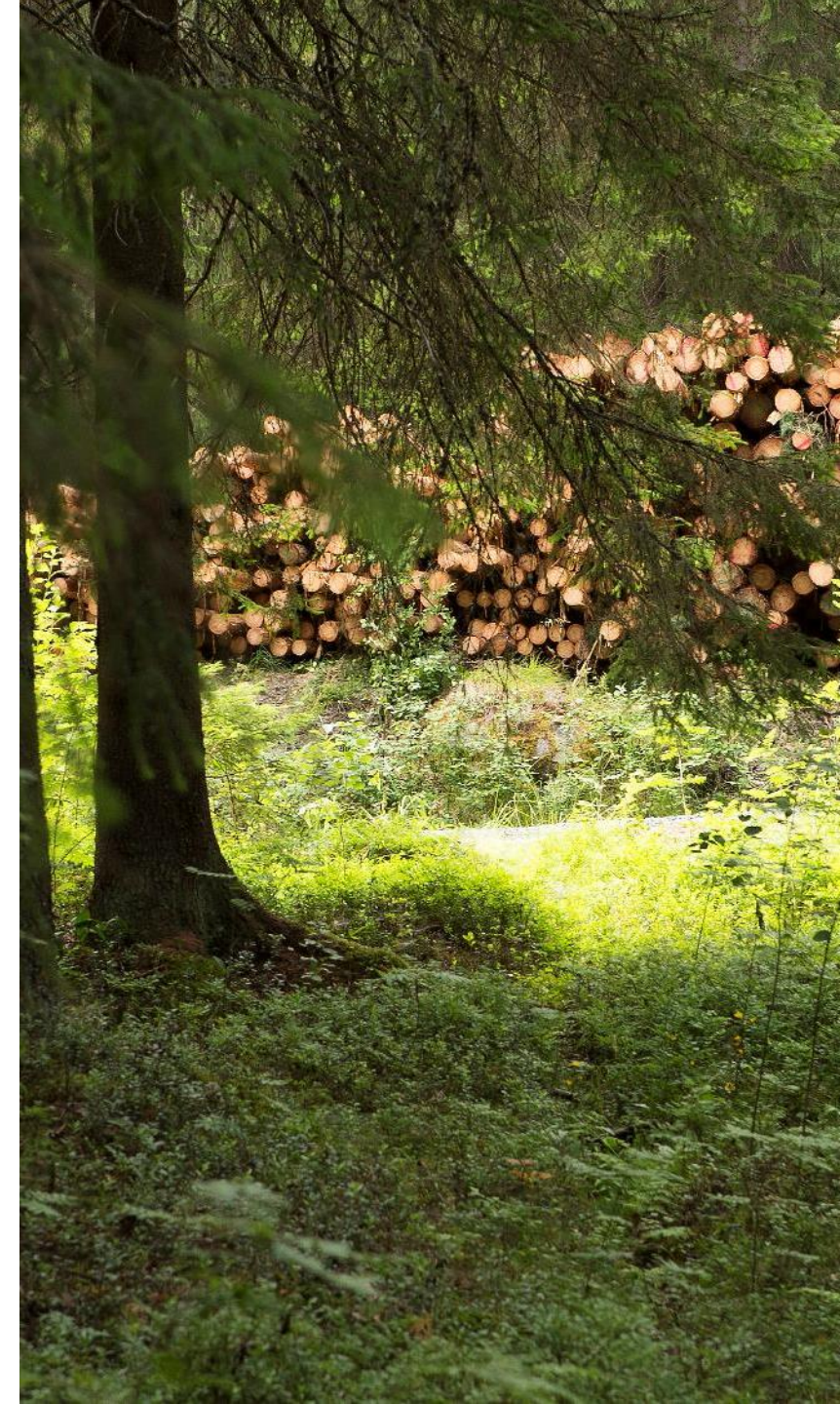
Wood supply

- Metsä Group is responsible for Metsä Board's wood sourcing
- Metsä Group's total annual wood sourcing is ~30 million m³
- Majority of wood sourced in Finland comes from the owner members of Metsäliitto Cooperative, roughly 90,000 private forest owners
- In Sweden Metsä Board has a long-term wood supply agreement with Norra Skog, a co-owner with a 30% stake in the Husum pulp mill

Wood sourcing by region



¹⁾ Includes Metsä Board's own wood use for pulp/BCTMP as well as the wood used in pulp that Metsä Board buys from Metsä Fibre.
PEFC/02-31-92 FSC®-C001580



Impacts of FX

- Impact including hedges, actual
 - Q4 2024 vs Q4 2023: EUR 2 million
 - FY 2024 vs FY 2023: EUR 5 million
- Estimated impacts, including hedges
 - Q1 2025 vs Q4 2024: slightly positive
 - Q1 2025 vs Q1 2024: slightly positive

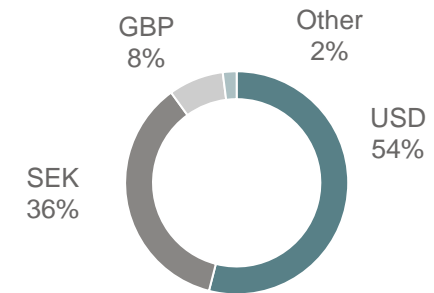
Hedging policy:

In addition to the balance sheet position of trade receivables and trade payables, 50% of the projected annual net foreign currency exposure at the normal level is hedged.

At the end of the review period, an average of 7.9 months of the net foreign currency exposure was hedged.



Annual FX transaction exposure total EUR 1.6 billion



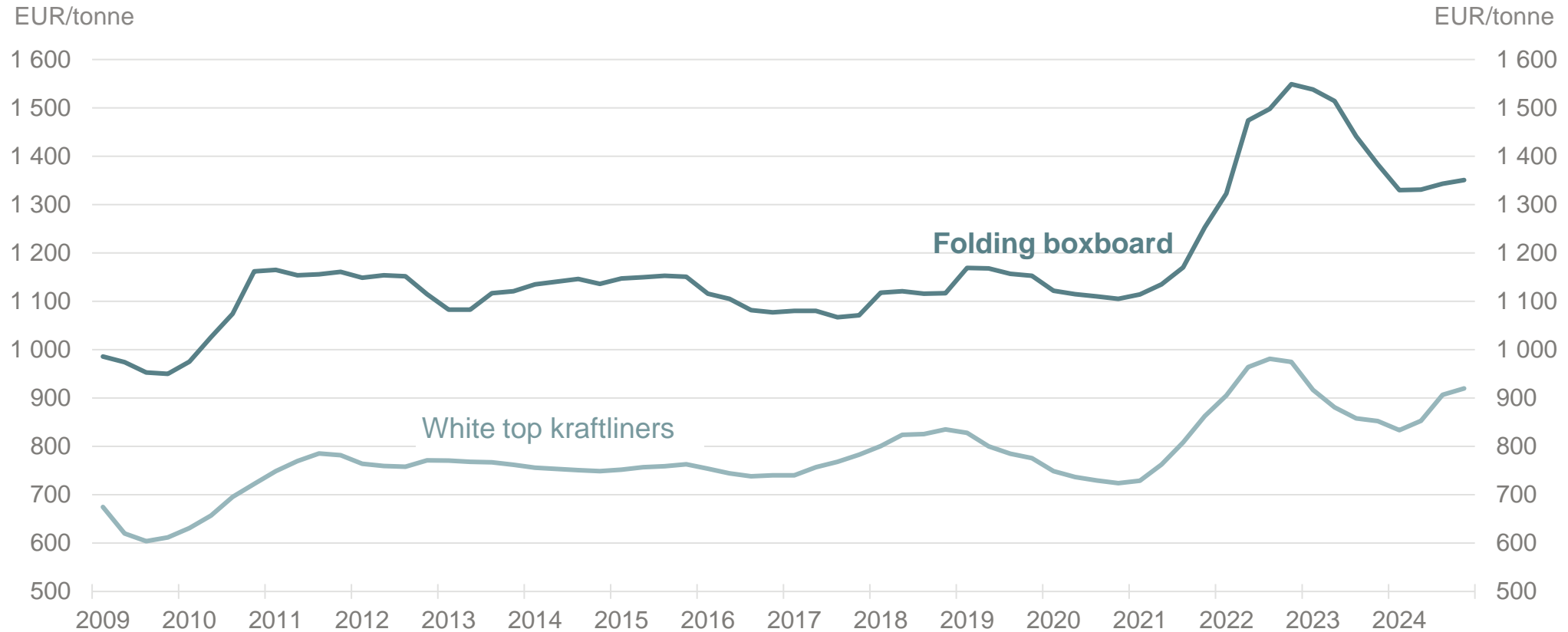
The foreign currency transaction exposure consists of foreign-currency-denominated sales and costs.

FX sensitivities, excluding hedges

A 10% strengthening of foreign currency vs EUR would have an impact on Metsä Board's EBIT

Currency	Next 12 months
USD, \$	EUR 85 million
SEK, kr	EUR 55 million
GBP, £	EUR 15 million

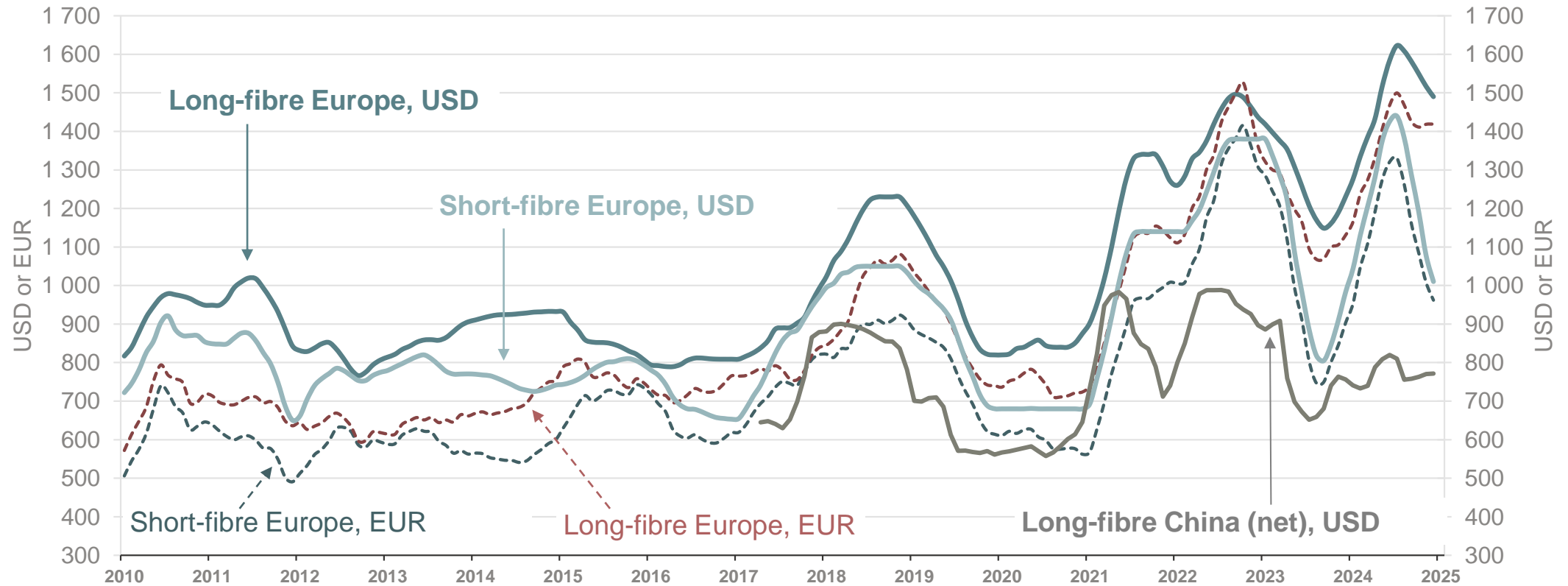
Price development of folding boxboard and white kraftliners in Europe



Sources: Fastmarkets RISI & Fastmarkets FOEX

Price development of pulp (PIX)

Long-fibre (SW) and short-fibre (HW) pulp

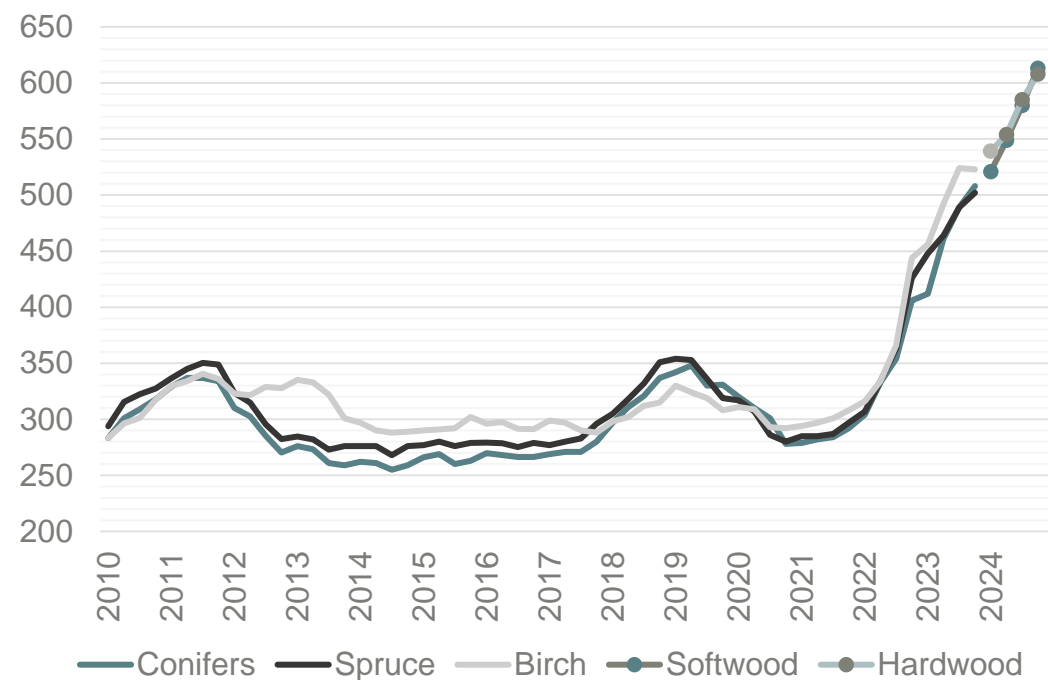


Price development of pulpwood in Finland and Sweden

Price (delivery at roadside, on bark) of pulpwood in Finland, EUR/m³



Price (delivery at roadside, under bark) of pulpwood in Sweden, SEK/m³



Sources:

[Finland](#) – Luke (Natural Resources Institute Finland): Average delivery prices at roadside (EUR per solid cubic metre with bark, excl. VAT)

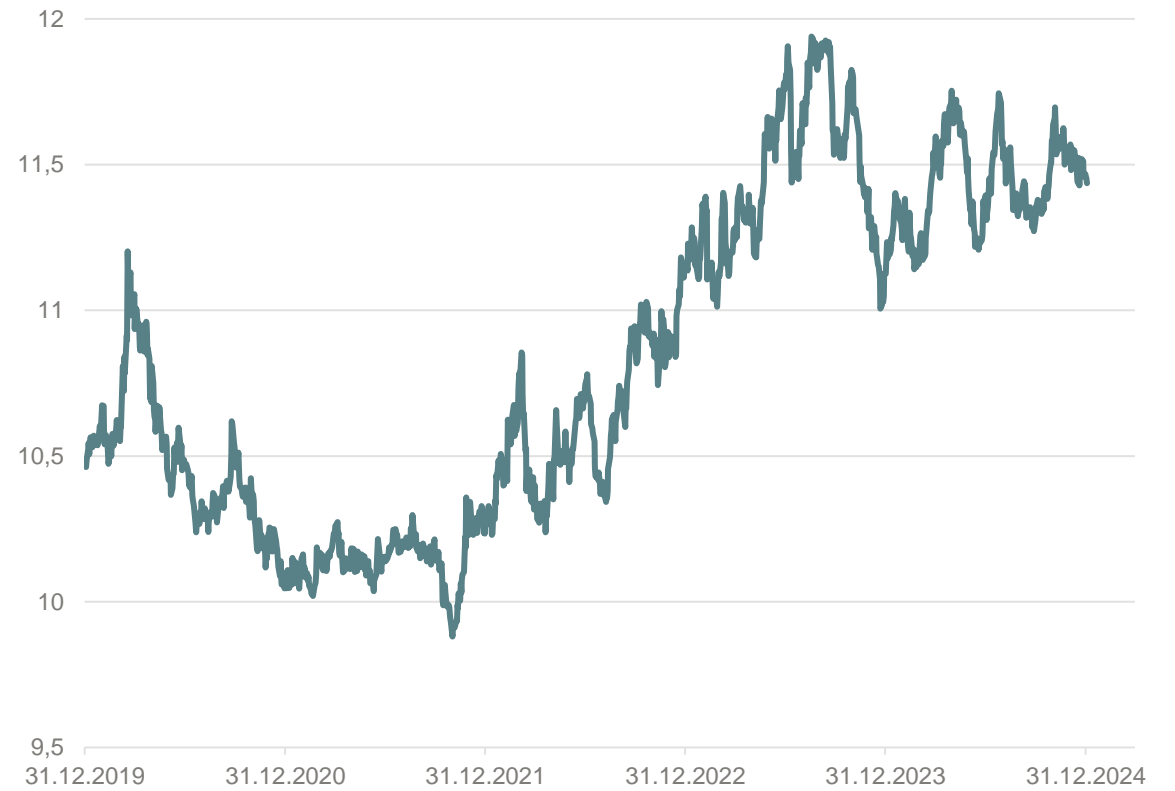
[Sweden](#) – Skogsstyrelsen (The Swedish Forest Agency): Average delivery prices at roadside (SEK per cubic metre under bark)

FX rates development: EUR/USD and EUR/SEK

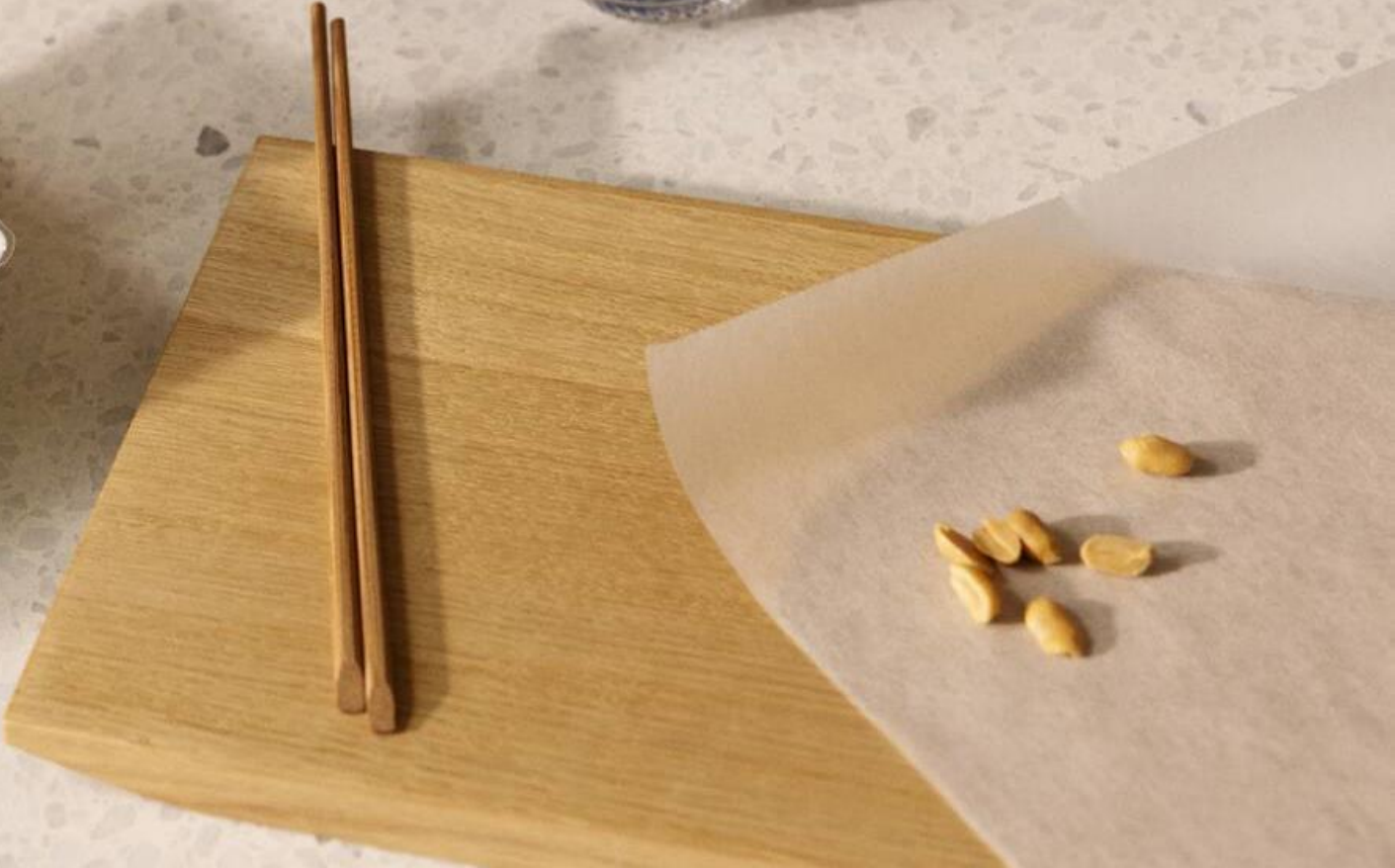
EUR/USD



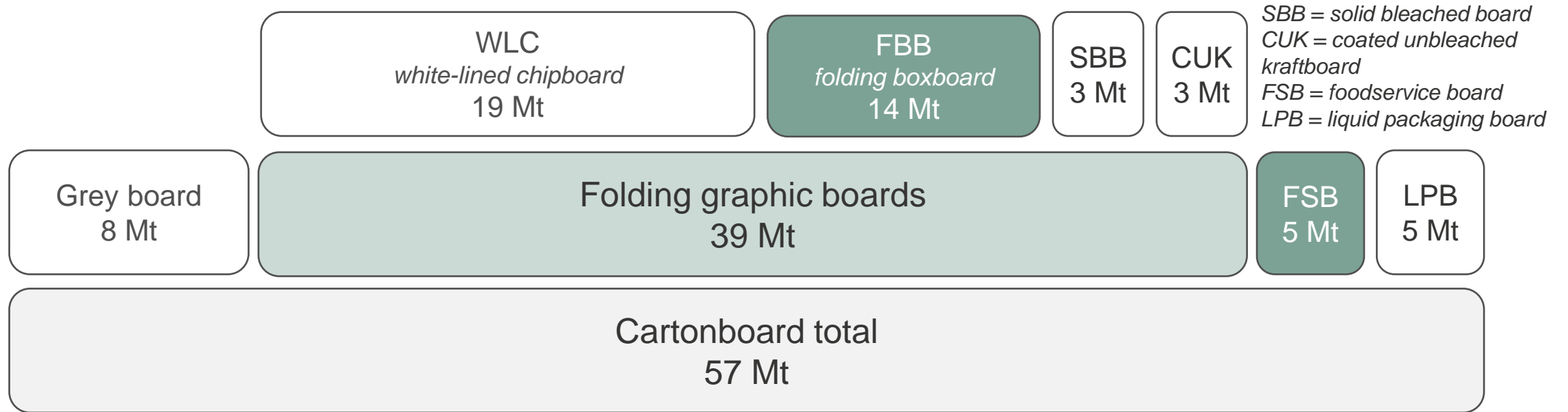
EUR/SEK



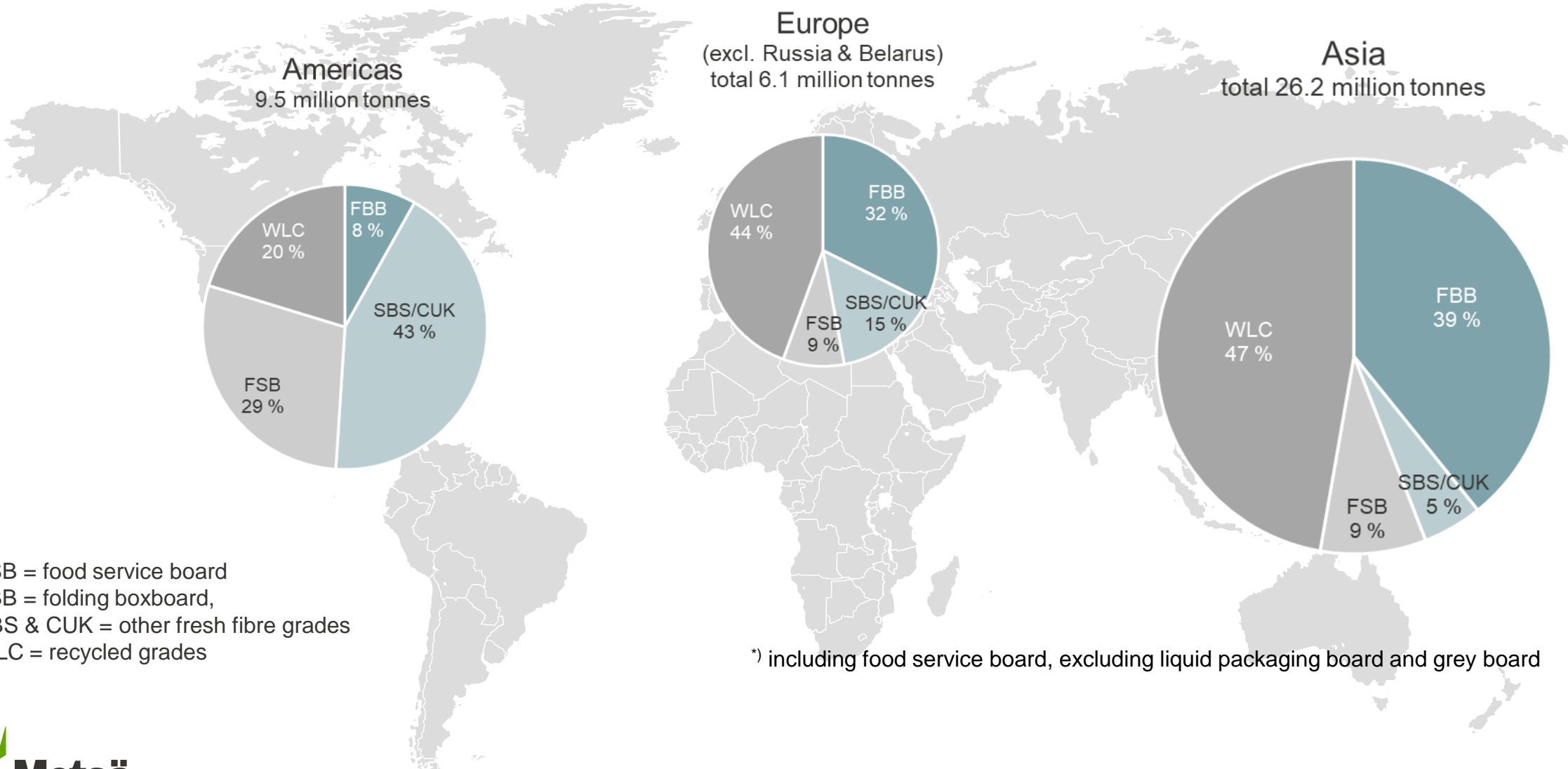
Operating environment and impacts from regulation



Global annual demand for cartonboards



Global demand for folding cartonboard*

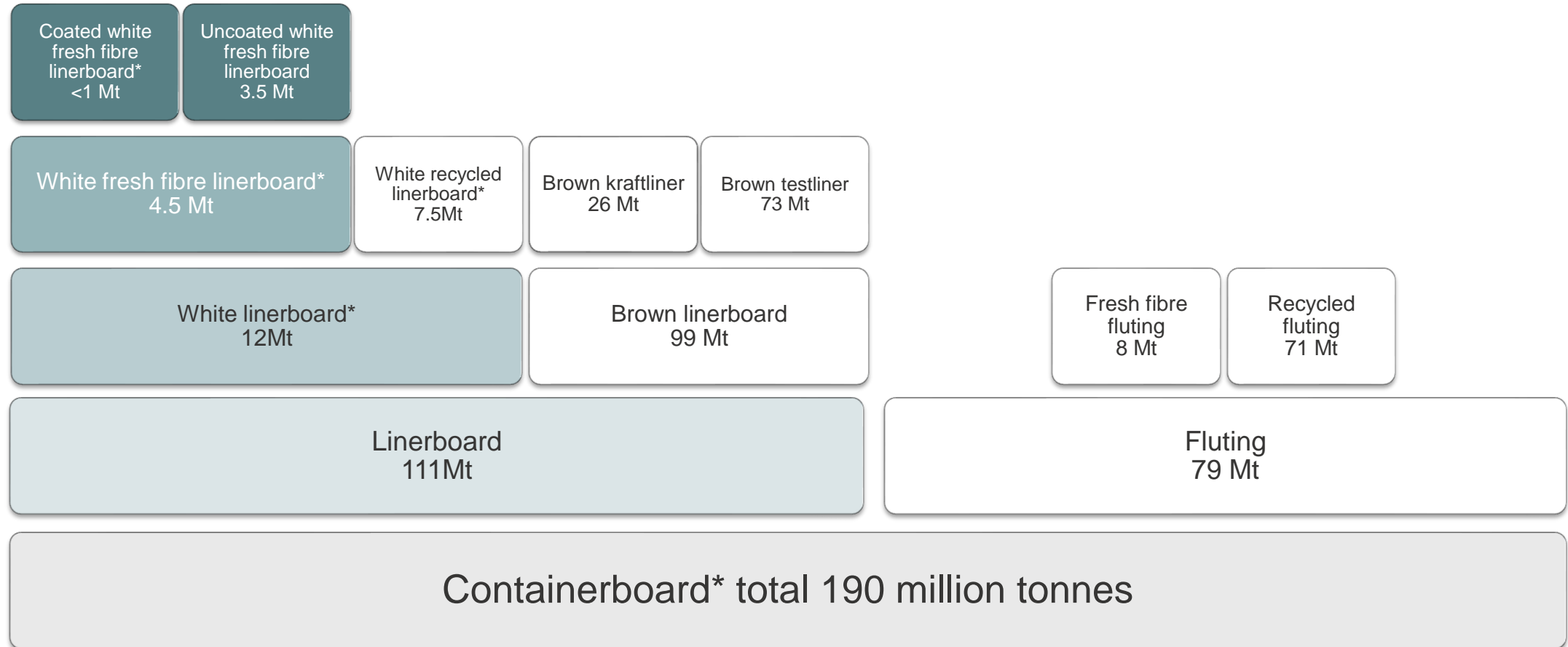


FSB = food service board
 FBB = folding boxboard,
 SBS & CUK = other fresh fibre grades
 WLC = recycled grades

*) including food service board, excluding liquid packaging board and grey board

Global annual demand for containerboards

Metsä Board's linerboards are at the top of the quality pyramid – in a very niche market

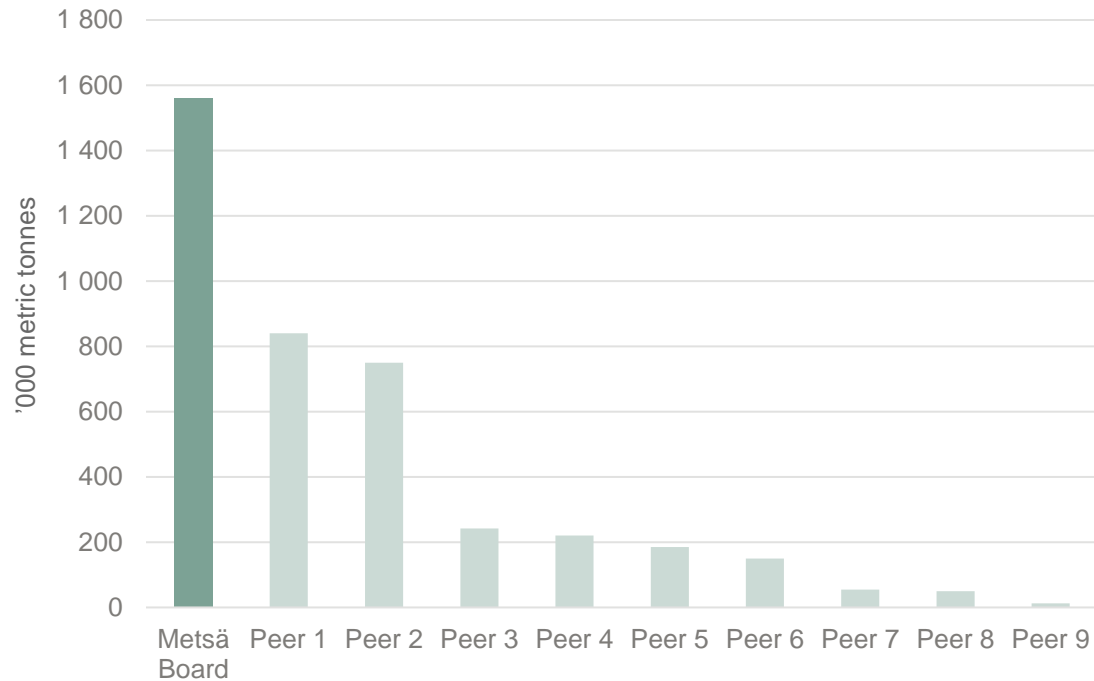


* Estimates include cartonboard for litholamination

Folding boxboard and white kraftliner capacity in Europe (excluding Russian and Belarusian producers)

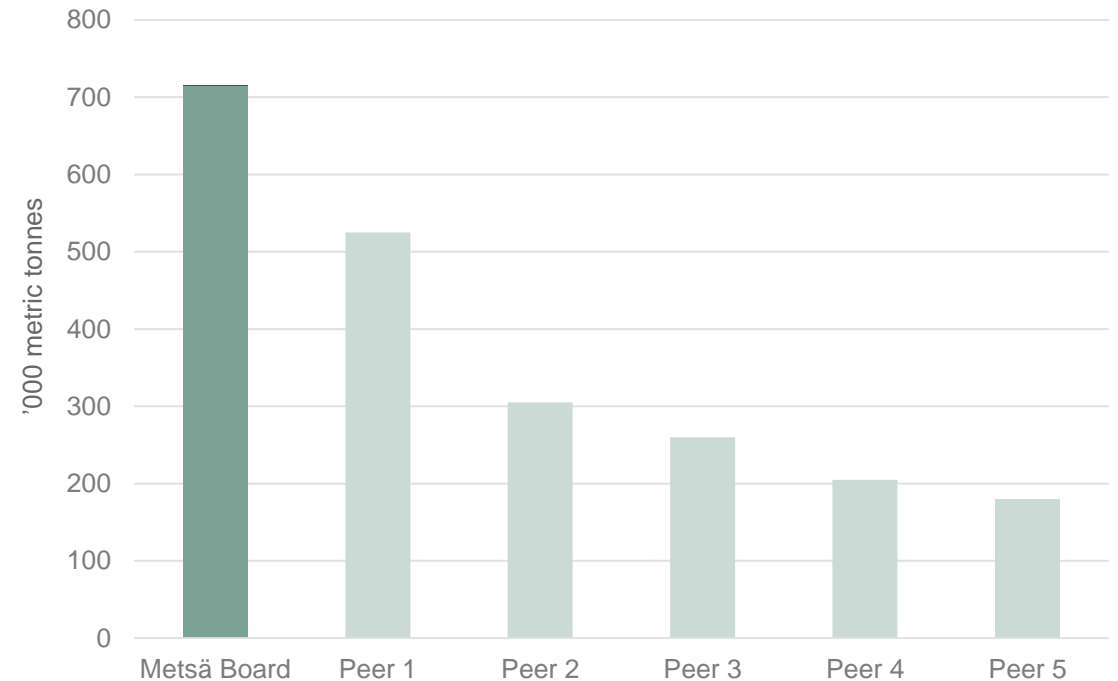
FBB producers in Europe

Total capacity 4.1 million tonnes



WKL producers in Europe

Total capacity 2.2 million tonnes



Source: Industry consultant

Regulation on Deforestation-free products (EUDR)

Main objectives and status

- Aims to combat deforestation and forest degradation globally
- Ensures that commodities* placed on or exported from EU market do not cause deforestation or forest degradation
- Creates a reporting obligation to operators to ensure that they comply with the requirements
- Entered into force in 2023. The rules start to apply on 30 December 2025, when they will replace the EU timber regulation (EUTR)

Metsä Board's / Metsä Group's approach

- Metsä Group fully supports the objectives of the EUDR
- Company's reporting system and internal due diligence system will be finalised to be ready when the reporting obligations start to apply



^{*)} selected commodities and their production: cocoa, coffee, oil palm, rubber, soya, cattle and wood



Packaging and packaging waste regulation (PPWR)

Main objectives and status

- Aims to reduce the amount of packaging waste generated in the EU, and promote reusable and recyclable packaging solutions. All packaging has to be recyclable by 2030
- Was formally adopted in 12/2024. Enters into force in 02/2025 and application starts on 08/2026. Replaces Packaging Waste Directive
- Some definitions that still need to be clarified by the European Commission

Metsä Board's / Metsä Group's approach

- The PPWR recognises climate and environmental benefits of highly recyclable fibre-based packaging, and treats recyclable single-use packing more fairly than the European Commission's original proposal



Nature Restoration Regulation

Main objectives and status

- Aims to ensure recovery of biodiverse and resilient nature across EU
- Introduces indicators for forest ecosystems to support nature restoration objectives
- Entered into force on 08/2024
- Member States must prepare national restoration plans. Finland's draft plan expected to be ready by 08/2026
- The Commission reviews the draft plans and can give further guidance. Member States should have the final restoration plans in place in 08/2027 at the latest

Metsä Board's / Metsä Group's approach

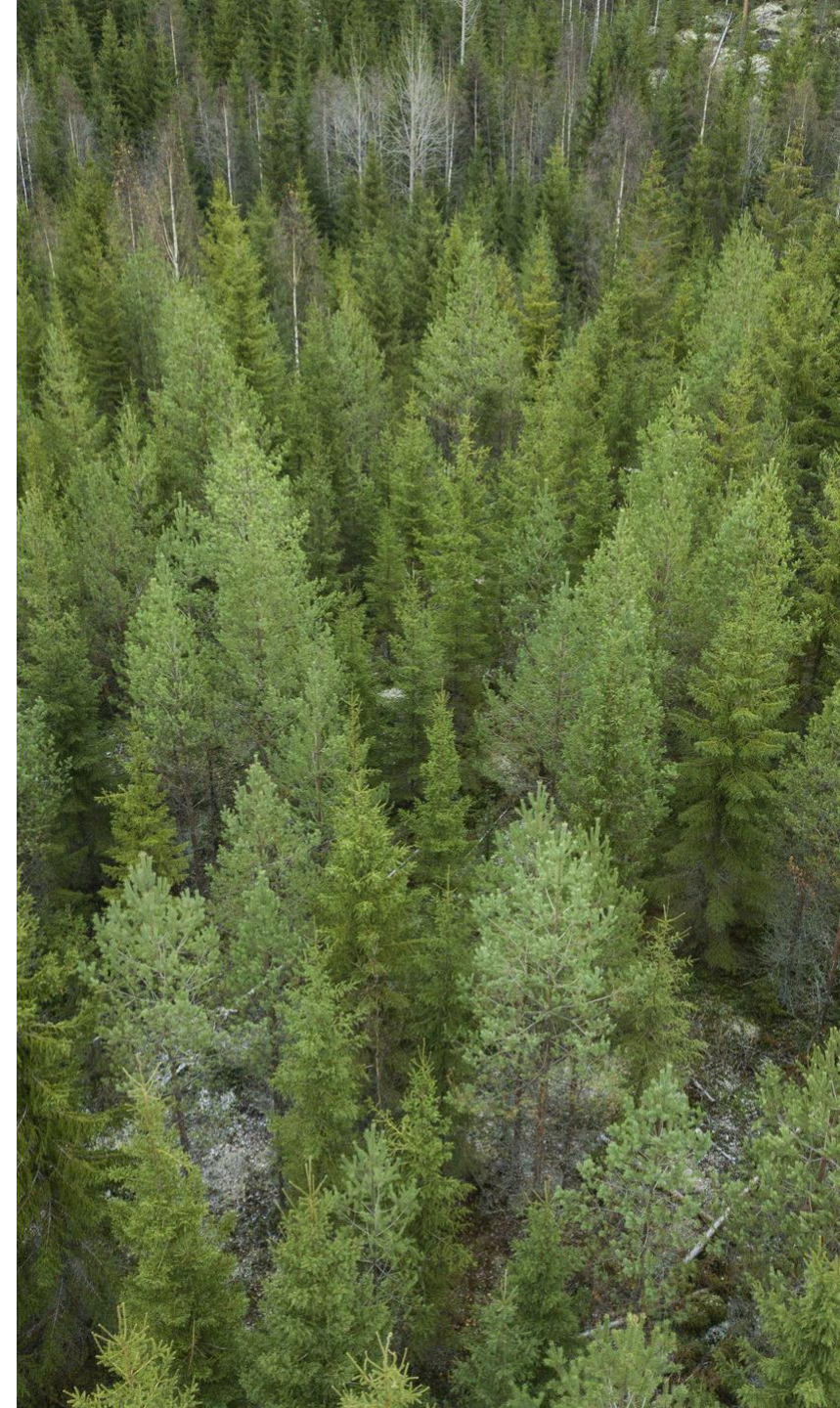
- Fully support the goals of the Nature Restoration Regulation
- Metsä Group's principles of regenerative land use aim to improve the state of nature
- *Metsä Group Plus* -management model for owner-members focus especially on forest biodiversity



More information:

<https://www.metsagroup.com/regenerativeforestry>

<https://www.metsagroup.com/metsaforest/sustainability/regenerative-forestry/metsa-group-plus/>



Results for FY2024



Key financials

		Q4/24	Q4/23	Change Q4/24 vs Q4/23	FY/24	FY/23	Change 1–12/24 vs 1–12/23
Sales	EUR, m	446	423	6%	1,939	1,942	0%
EBITDA*	EUR, m	25	26	-5%	175	216	-19%
Operating result*	EUR, m	-4	1		69	122	-44%
<i>% of sales*</i>	%	-0.8	0.2		3.6	6.3	
Metsä Fibre's share of operating result*	EUR, m	-3	-5		-10	28	
Earnings per share	EUR	-0.02	0.01		0.07	0.27	-73%
<i>ROCE*</i>	%	-0.3	0.4		3.2	5.1	
Total investments	EUR, m	55	72	-23%	175	229	-23%
Cash flow from operations	EUR, m	50	124	-60%	38	343	-89%
IB Net debt at end of period	EUR, m	345	144	+140%	345	144	+140%



Metsä

*comparable

Q4 2024 in brief

- Decreased paperboard volumes with stable sales prices compared to Q3 2024
- Due to the low demand in Q4, production was adjusted with temporary layoffs
- In market pulp, stable demand situation in Europe. In China, demand returned to normal levels
- Metsä Fibre's long repair shutdown in Kemi bioproduct mill had EUR -9 million impact on Metsä Board's operating result
- Q4 operating result includes EUR +7.5 million insurance compensation regarding the Kemi mill explosion in Q1



Sales

446

EUR million

Q3 2024: EUR 499m
Q4 2023: EUR 423m



Comparable operating result

-3.6

EUR million

Q3 2024: EUR 42m
Q4 2023: EUR 0.7m

Paperboard deliveries

342,000

tonnes

Q3 2024: 388,000t
Q4 2023: 299,000t

Paperboard production

356,000

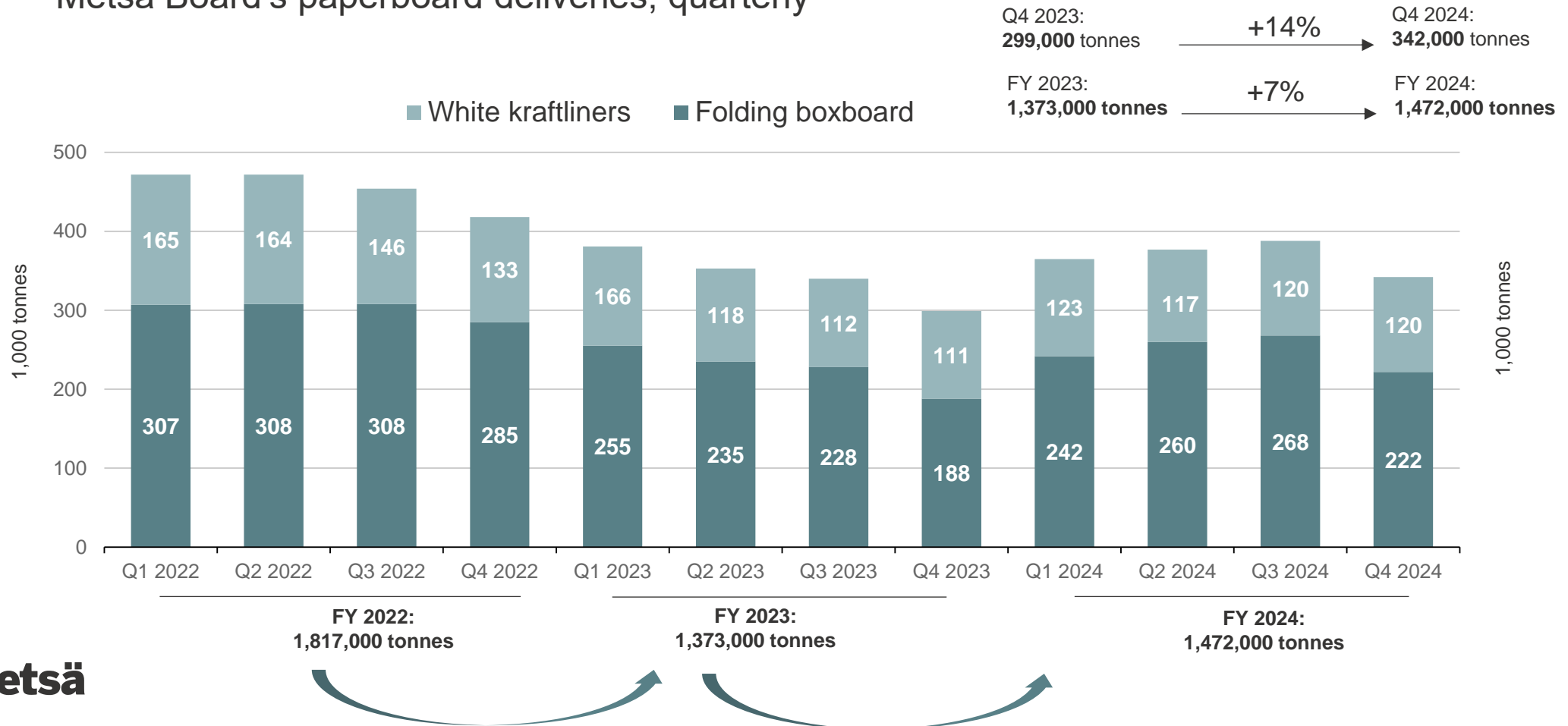
tonnes

Q3 2024: 414,000t
Q4 2023: 311,000t



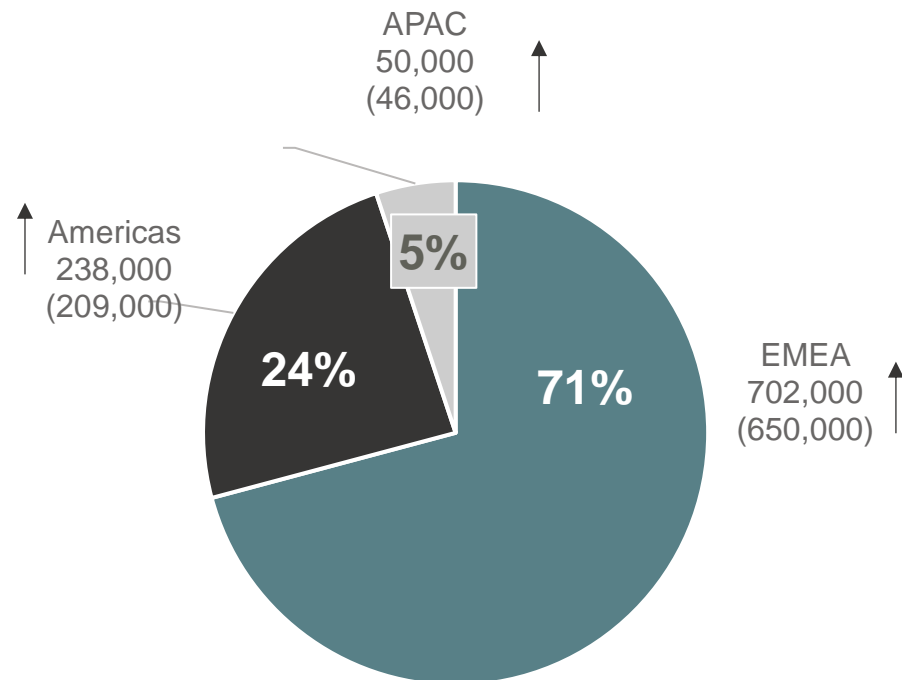
Paperboard sales seasonally low in Q4

Metsä Board's paperboard deliveries, quarterly

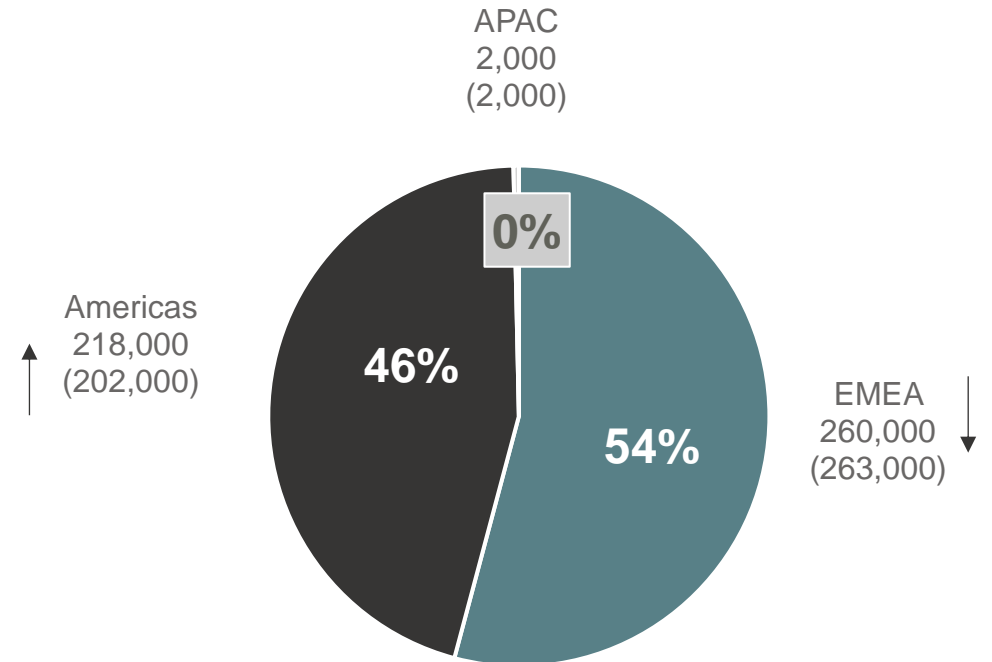


Paperboard deliveries by region

FBB deliveries 2024 (2023)
total 992,000 tonnes (906,000) **+9%**



WKL deliveries 2024 (2023)
total 480,000 tonnes (467,000) **+3%**

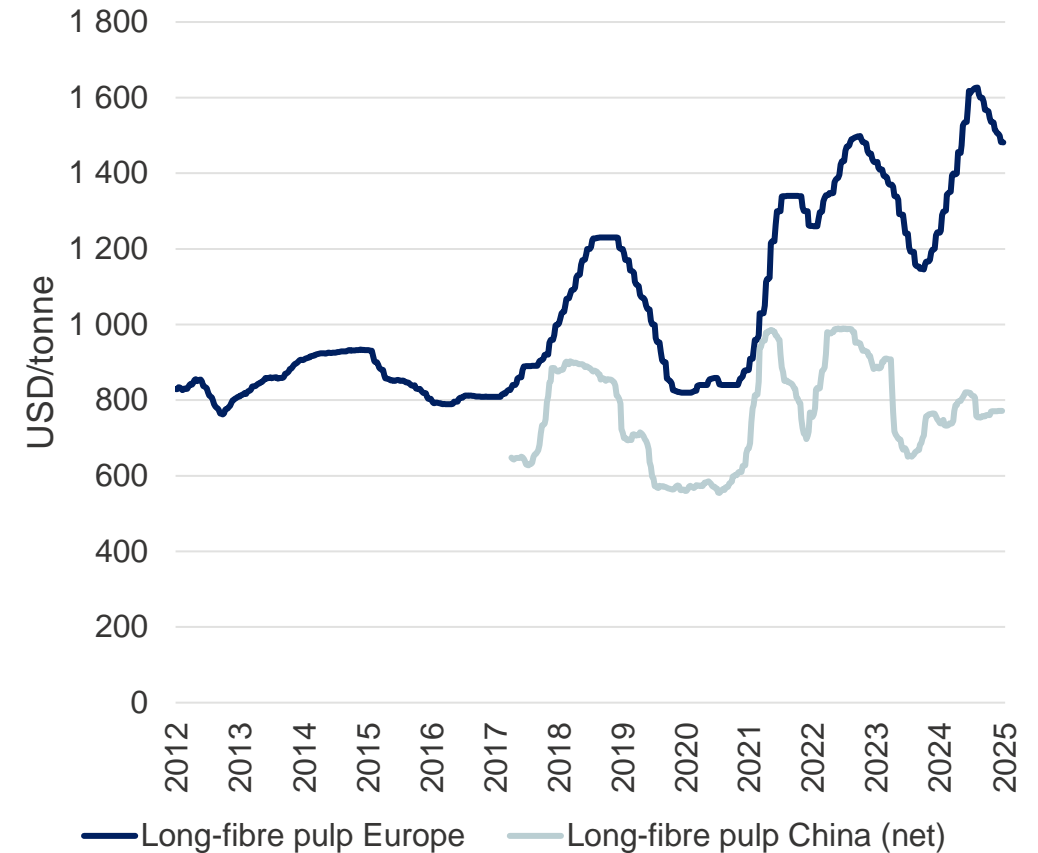


FBB = Folding boxboard
WKL = White kraftliners, coated and uncoated

Market pulp

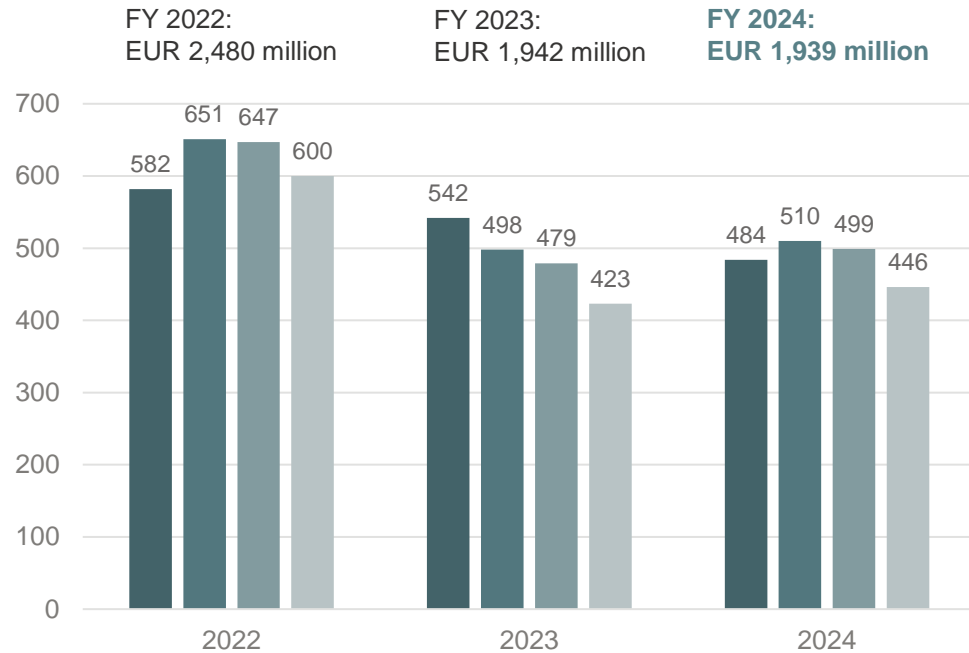
- Market pulp deliveries (2024 vs 2023)
 - Metsä Board +2%: (400,000t vs 394,000t)
 - Metsä Fibre¹⁾ -11%: (2,484,000t vs 2,747,000t)
- In Europe, demand for softwood market pulp was stronger in H1/24 than in H2/24. In China, the demand was halted from the summer to early autumn.
- Supply of softwood pulp has been limited due to the planned/unplanned shutdowns, political strikes in Finland and global logistical bottlenecks
- Price (PIX) development²⁾ in **softwood pulp**
 - 2024 vs 2023: Europe +17%, China +2%
 - Q4/2024 vs Q3/2024: Europe -5%, China -1%

Softwood pulp price (PIX) development in Europe and China

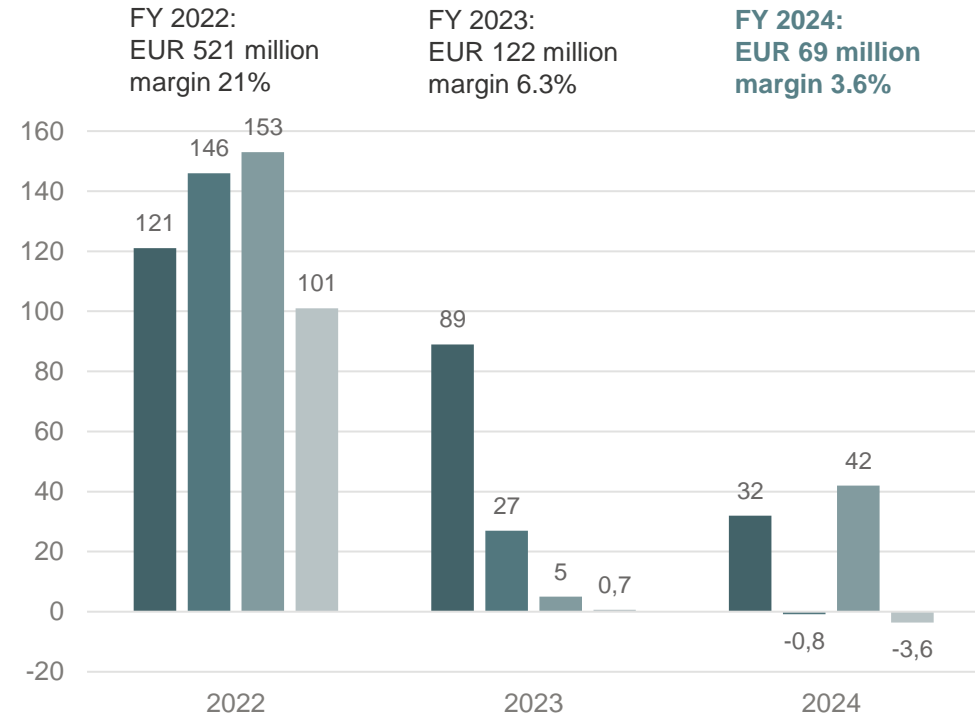


Stable sales in 2024 with weak profitability

Sales, quarterly EUR million



Comparable operating result, quarterly EUR million and % of sales



Result comparison

Comparable operating result and % of sales

Q4/24: EUR -3.6 million, -0.8%

Q4/23: EUR 0.7 million, 0.2%

Positives:

- ↗ Increased paperboard volumes (+43kton)
- ↗ Lower energy and chemical costs
- ↗ Less maintenance
- ↗ *Insurance compensation, EUR 7.5m**

Negatives:

- ↘ Lower paperboard (FBB) prices
- ↘ Higher wood costs and logistics costs
- ↘ Metsä Fibre's repair shutdown at Kemi bioproduct mill

Comparable operating result and % of sales

1–12/24: EUR 69 million, 3.6%

1–12/23: EUR 122 million, 6.3%

Positives:

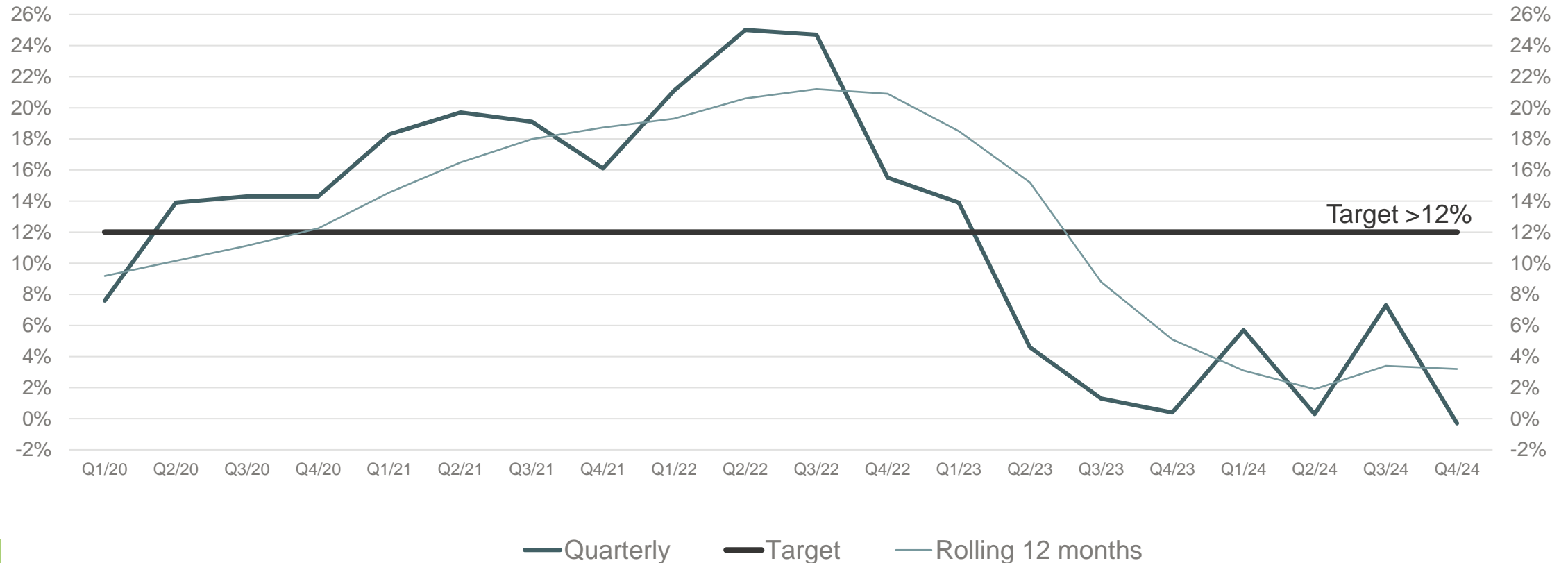
- ↗ Increased paperboard volumes (+99kton)
- ↗ Higher pulp prices
- ↗ Lower energy and chemical costs

Negatives:

- ↘ Lower paperboard (FBB) prices
- ↘ Increased wood costs, logistics costs and fixed costs
- ↘ Higher depreciation
- ↘ Lower sale of unused emission allowances (EUR 35 vs 55 million)
- ↘ Result share from Metsä Fibre EUR -10m (EUR 28m)
- ↘ *Explosion in Kemi mill, estimated net impact EUR -10m**
- ↘ *Political strikes, estimated impact EUR -25m**

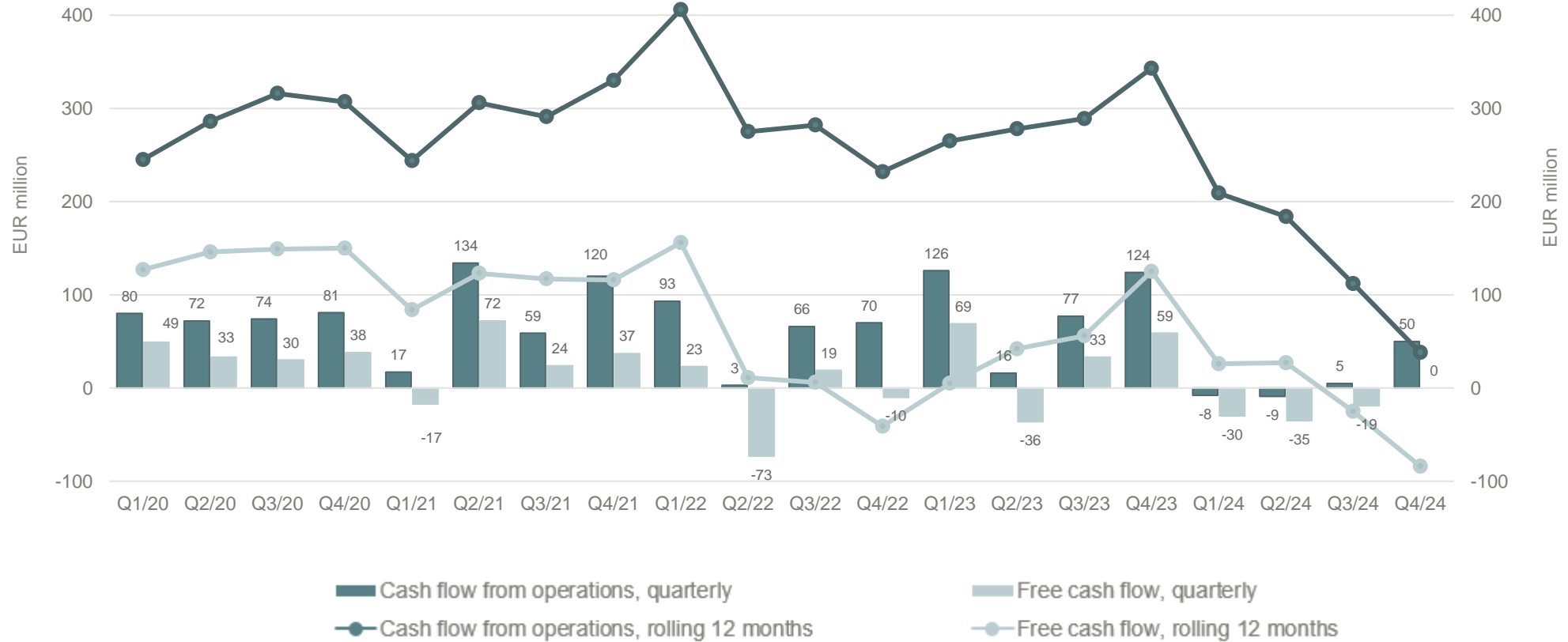
FY 2024 ROCE at 3.2%

Comparable return on capital employed, %
Quarterly and rolling 12 months



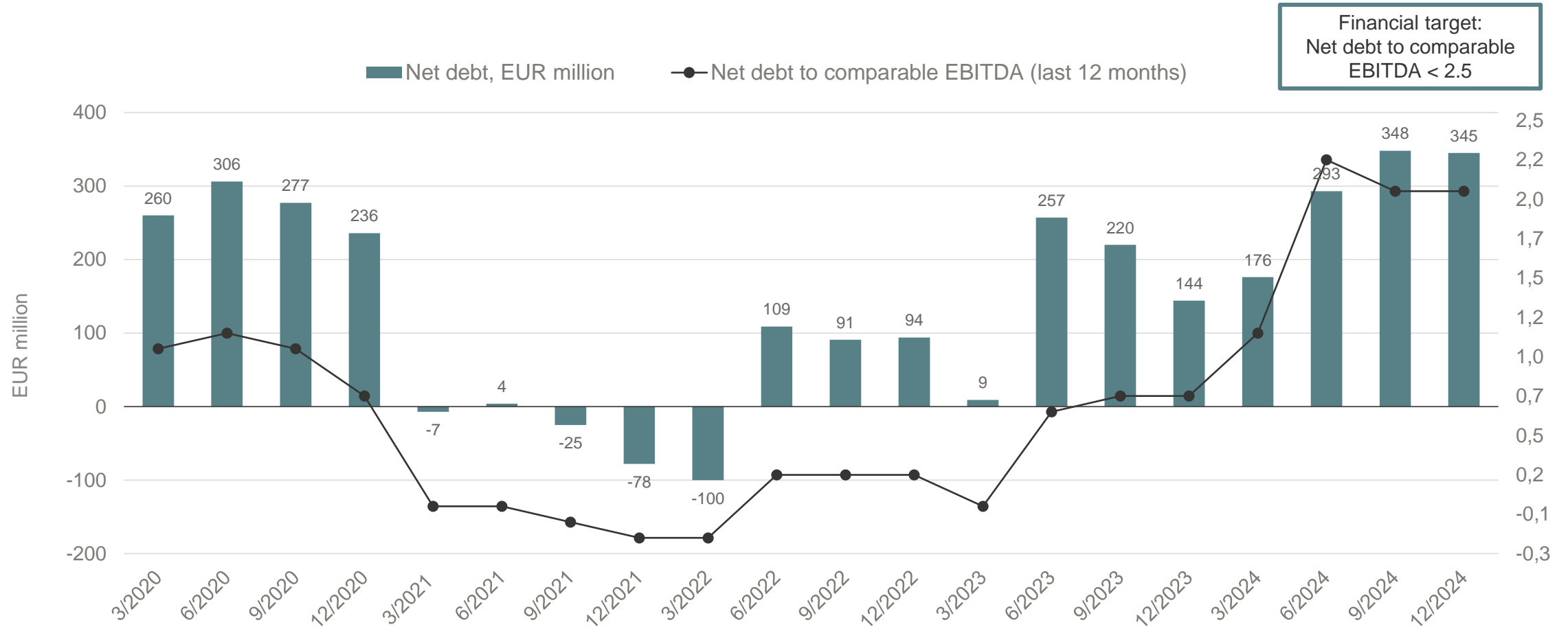
Significant decrease in 2024 cash flow

2024 cash flow includes a dividend from Metsä Fibre of EUR 10 million (2023: EUR 83 million)



Free cash flow = cash flow from operations – investments in intangible and tangible assets

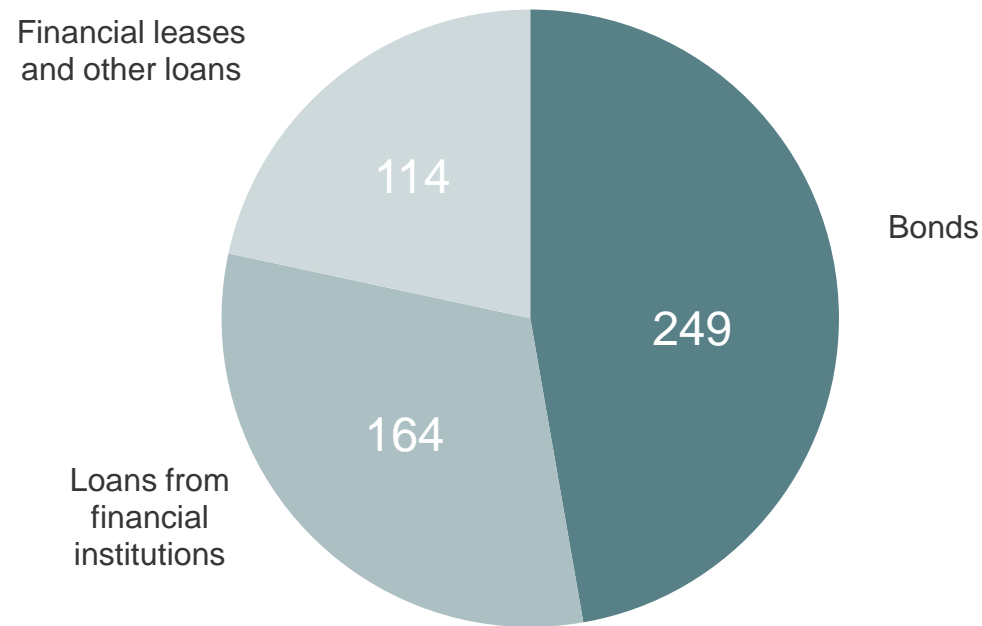
Solid financial situation despite leverage increase



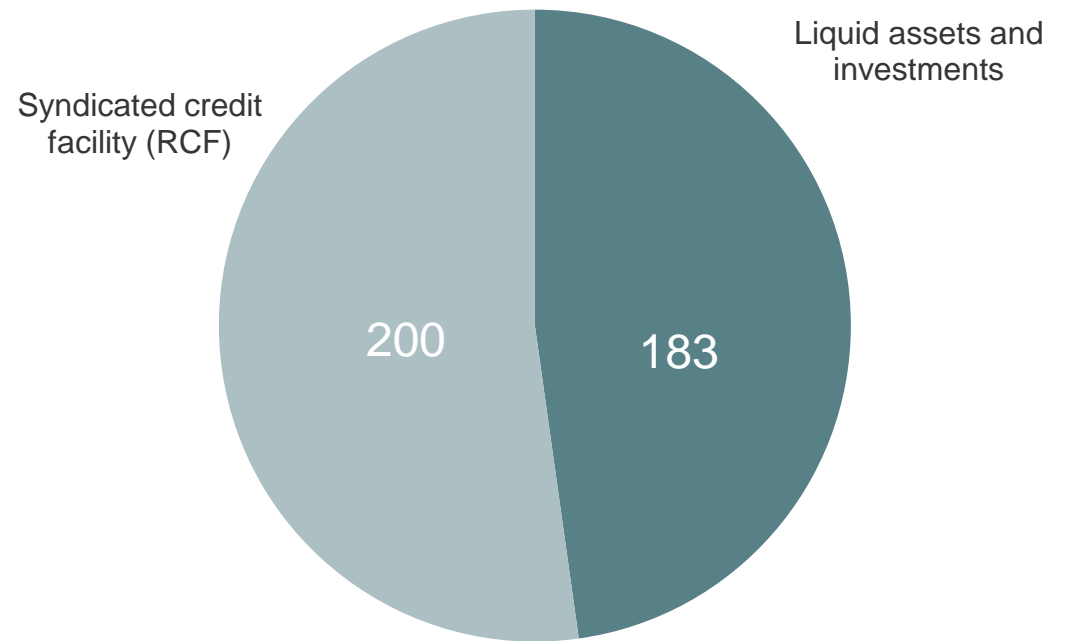
Interest-bearing debt and liquidity

31 December 2024

Interest-bearing debt EUR 527 million



Liquidity EUR 383 million



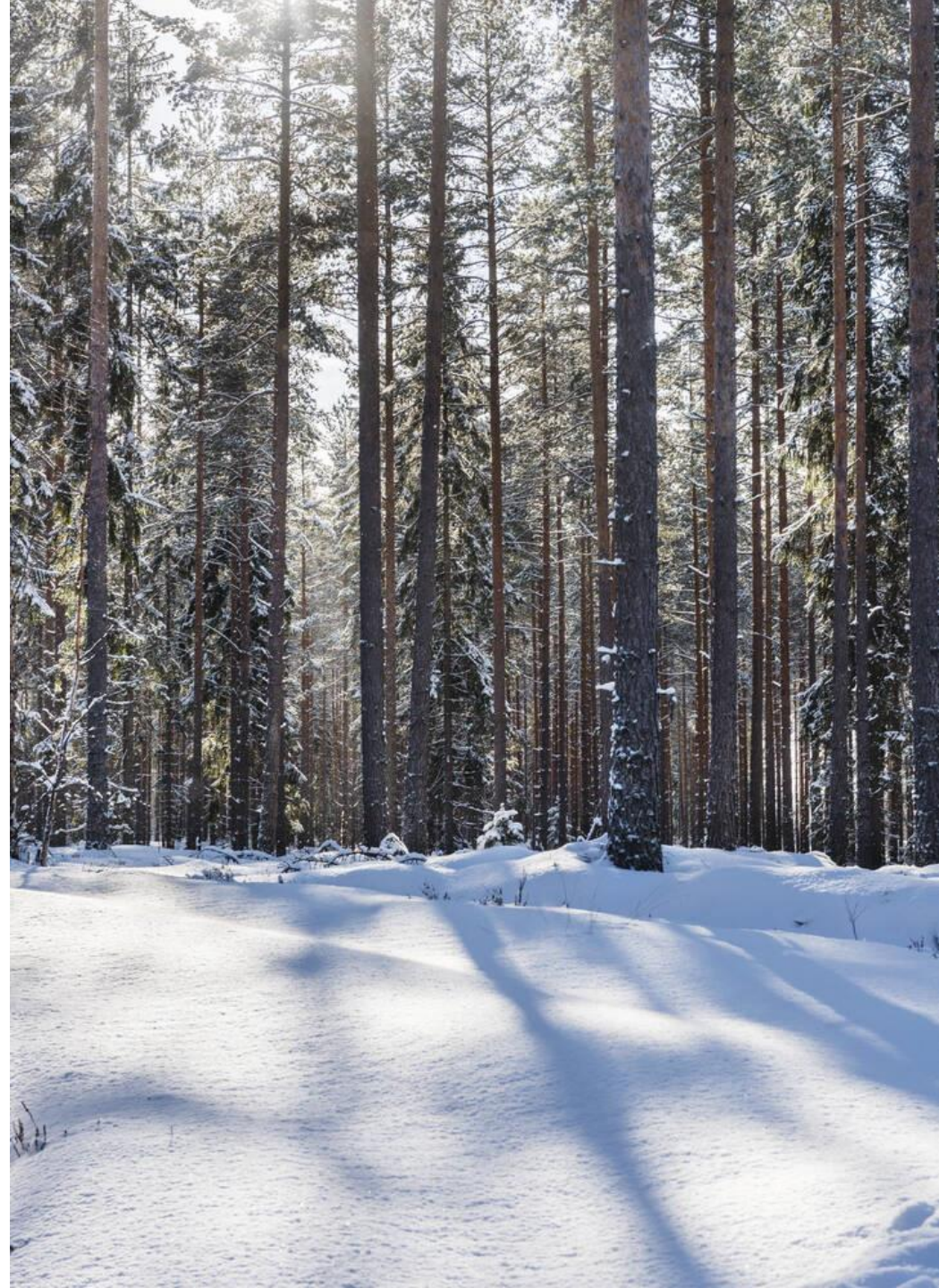
Liquidity is complemented by:

- Commercial paper programme of **EUR 200 million** (EUR 30 million outstanding)
- Metsä Group's internal undrawn short-term credit facility of **EUR 150 million**

Near-term outlook

January–March 2025

- Paperboard delivery volumes are expected to increase from Q4, average sales prices to remain stable
- Total costs, excluding pulp, are expected to remain at Q4 level
- No planned maintenance shutdowns in Q1
- Demand for softwood market pulp is expected to remain stable. Metsä Fibre's result share is expected to improve
- Metsä Board's comparable operating result in January–March 2025 is expected to improve from October–December 2024 (EUR -3.6 million)



Metsä Board plans to close Tako mill and enhance the operational efficiency of Kyro mill

- [Release](#) announced after the review period
- Change negotiations launched on 23 January at both mills will last at least six weeks
- Any decisions on personnel reductions and mill closure will only be taken after the negotiations are concluded
- If the plan is implemented, production at Tako mill would end in 2025
- Possible mill closure would not have an impact on customer deliveries, as company's overall capacity for folding boxboard is sufficient to meet current demand



ESG



Key sustainability figures

TARGET
set for 2030

ACTUAL
FY 2024

Accidents at work
TRIF, TARGET 0

ACTUAL 3.4
FY 23: 6.1



Certified wood fibre
TARGET >90%

ACTUAL 92%
FY 23: 91



Fossil-based CO₂ emissions¹⁾ Scopes 1&2
TARGET 0

ACTUAL:
Scope 1: 169kt
FY 23: 181kt
Scope 2: 82kt
FY 23: 2kt



Process water use²⁾
TARGET -35%

ACTUAL -11%
FY 23: +3.5



Energy efficiency²⁾
TARGET +10%

ACTUAL +0.9%
FY 23: -5,8



TRIF = Total Recordable Injury Frequency per million hours worked

1) Scope 1. Scope 2 emissions are reported only annually
2) per tonne produced, rolling 12 months, change from the base year of 2018

Forest management plan as part of Metsä Group's regenerative forestry

Forest management plan for typical forest stands

1

More diverse tree species composition

- Increasing the proportion of broadleaved trees
- Mixed forests
- 80 % of tree species outside purchase

2

Increased dead wood volumes

- Retention trees and tree groups
- Buffer zones
- Biodiversity stumps

3

More diverse forest structure

- Continuous cover harvesting
- Retention tree groups
- Valuable habitats
- Protective thickets

4

Protected valuable habitats e.g.

- Brooks
- Springs
- Fertile bogs
- Cliffs
- Flood habitats

5

Habitat restoration at threatened species hot spots

- Herb-rich forests
- Esker sunny slopes
- Fire habitats

Metsä Board's 1.5°C aligned Science Based target

ZERO FOSSIL CO₂ EMISSIONS

Fossil-free production* and products by the end of 2030

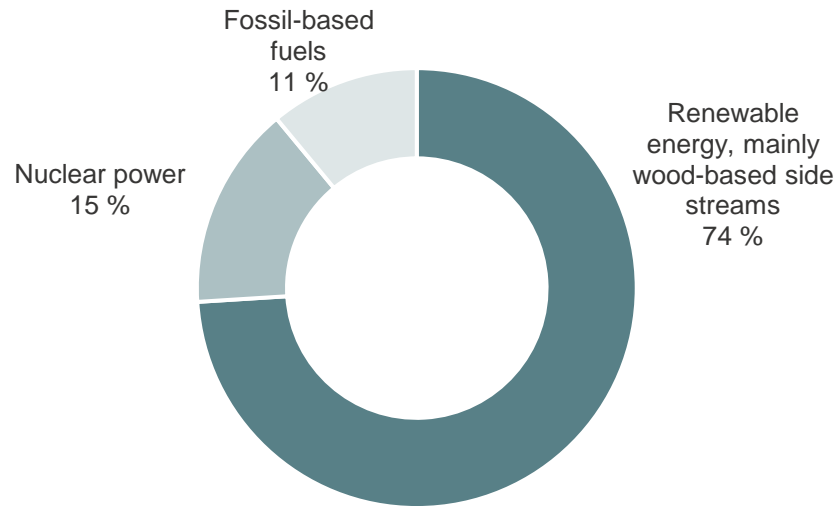


*including Scope 1 and Scope 2 market-based



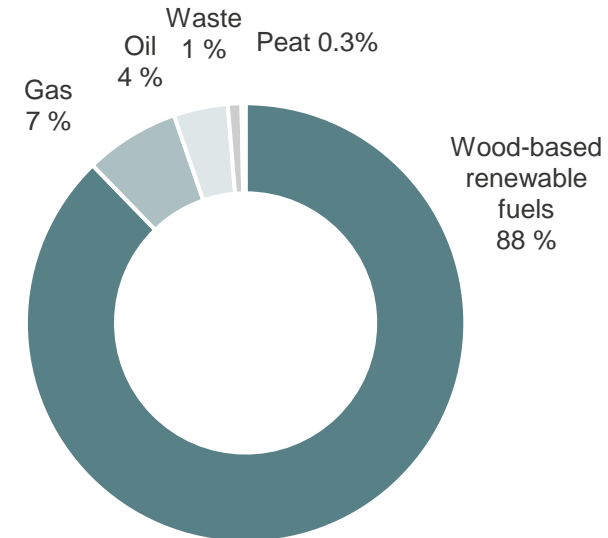
89% of total energy use is fossil-free

Total energy consumed in 2024
Total 8.3 TWh



In 2024, the share of coal was 0.8% of Metsä Board's total energy consumption. Metsä Board do not use coal in its own energy generation, but a small share of purchased electricity was based on coal.

Fuel consumption in 2024
Total 6.2 TWh



Fuel consumption includes fuels used in own energy generation and process fuels used in the mills

Metsä Board has reduced its fossil-based CO₂ emissions by 56% since 2018

Target is to reduce fossil-based CO₂ emissions by 100% by the end of 2030

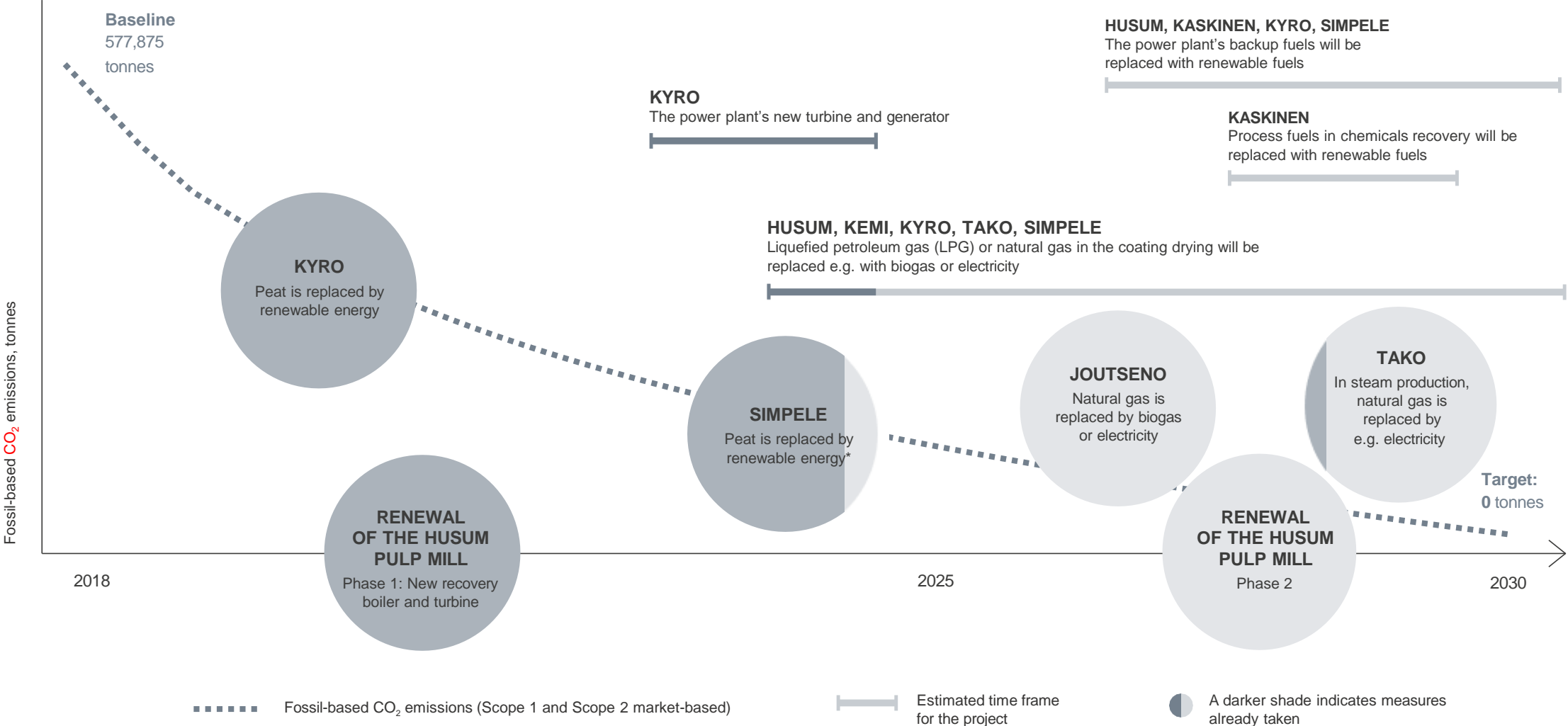
Fossil-based CO₂ emissions, Scope 1+2



Emission allowances

- Metsä Board has received emission allowances in accordance with the EU Emissions Trading System
- During the past years, the number of free allowances received have exceeded the company's annual fossil-based CO₂ emissions. The surplus have been partly sold to the market
- Unused emission allowances do not have an impact on income statement or balance sheet. Metsä Board discloses the possible sales of emission allowances in its interim reports
- Due to the Renewable Energy Directive II (RED II) it is expected that granting of free emission allowances under the EU ETS will end after 2025 for production units having more than 95% of greenhouse gas emissions from biomass in 2019–2023

Plan for transition to fossil-free mills by the end of 2030

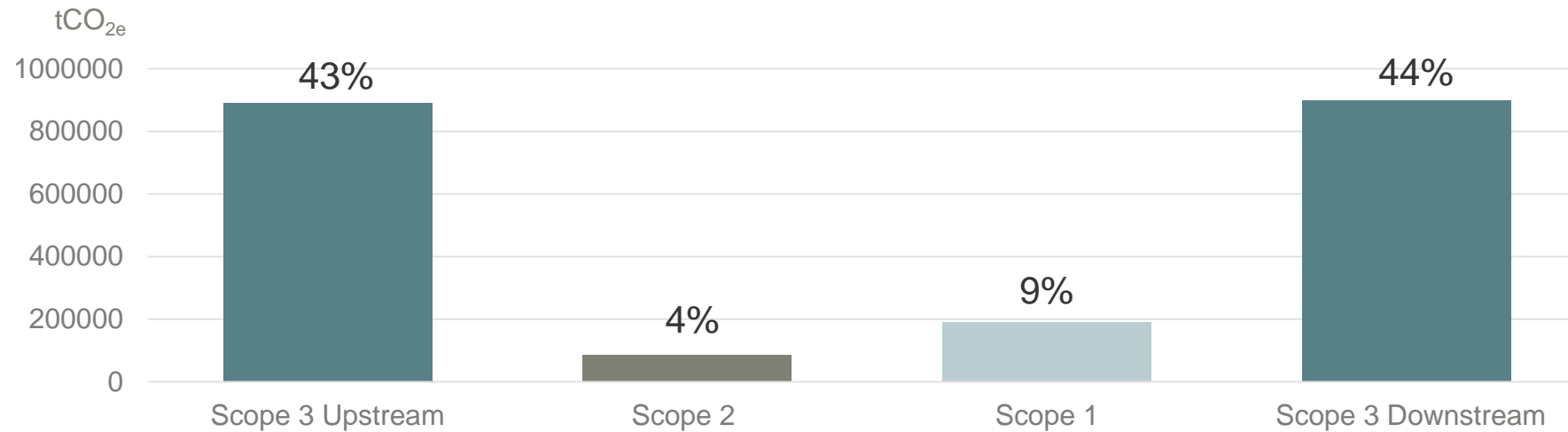


A final investment decision for some of the projects is still pending, and the times shown are indicative.
*Simpele power plant discontinued the use of peat in 2023, but some peat was used in 2024 due to lower availability of wood chips

Total greenhouse gas emissions

Scope 1, 2 and 3

Total greenhouse gas emissions ca. 2 million tonnes CO_{2e}



In 2024:

	tCO _{2e}		tCO _{2e}		tCO _{2e}		tCO _{2e}
• Purchased goods and services	485 533	• Market-based indirect GHG emissions from purchased electricity and heat	84,989	• Direct GHG emissions from own processes and power plants	192,098	• Downstream transportation and distribution	7,304
• Capital goods	27 746					• Processing of sold products	275,061
• Fuel and energy-related activities	73 778					• Use of sold products	1,846
• Upstream transportation and distribution	300 233					• End-of-life treatment of sold products	563,093
• Waste generated in operations	727					• Investments	50,954
• Business travel	937						
• Employee commuting	1 926						
	890,880		84,989		192,098		898,258



Metsä Board is preparing to set an absolute Scope 3 emissions reduction target in accordance with the 1.5 °C goal of the Paris Agreement no later than 2027

The carbon footprint (CO₂) of packaging material depends in particular on:

1

Energy used in production

Metsä Board uses 89% **fossil-free energy** in its production

2

Material and resource efficiency

Lightweighting reduces the use of fibre, energy and water and generates less waste

More information: [The technical background report verified by IVL Swedish Environmental Research Institute](#)



Paperboard provides an alternative to plastics

PET

- Made of fossil oil-based materials with fossil-based energy
- Recycling rate of PET is low
- In the EU, recycling rate is 38% for plastic packaging and 82% for paper packaging (Eurostat, 2020)

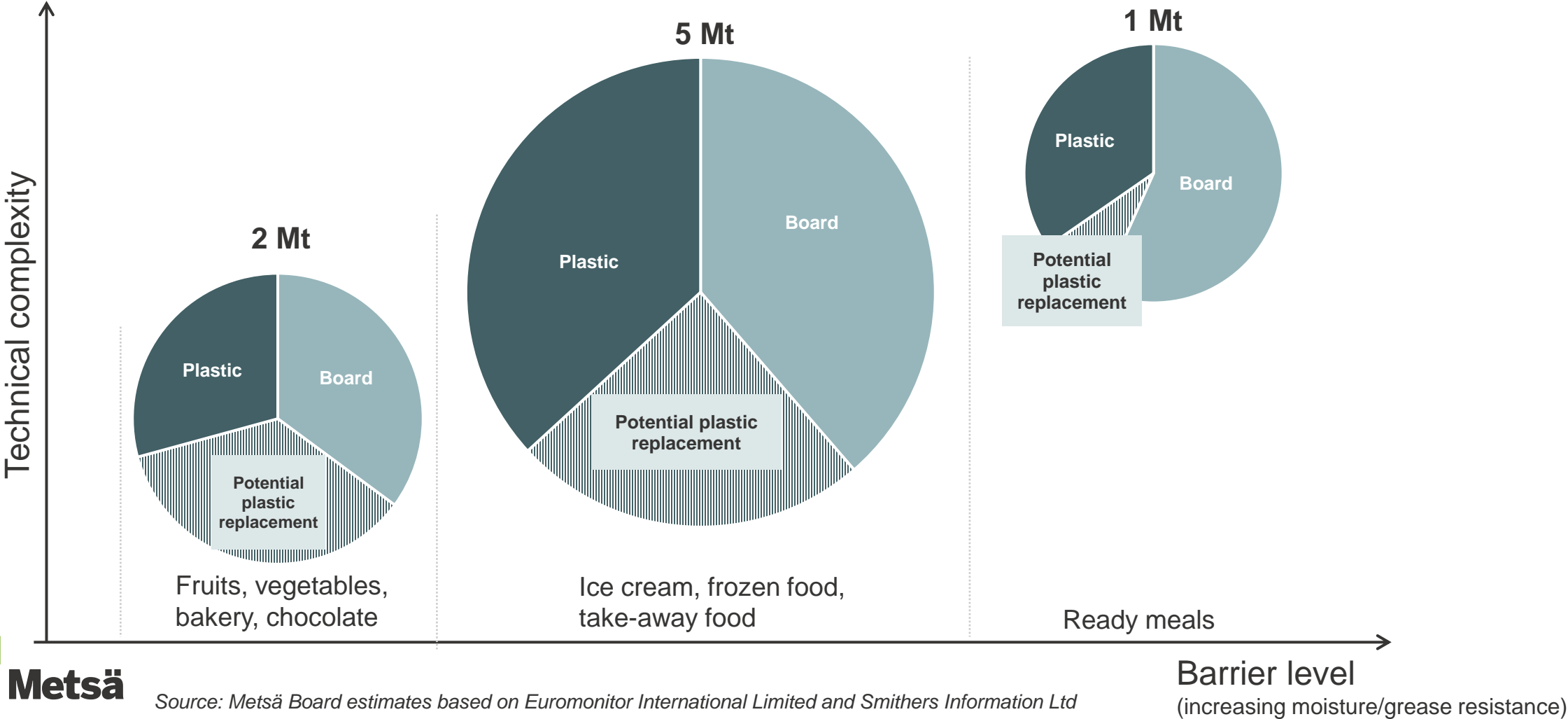
MetsäBoard Prime FBB EB

- Made from renewable fresh wood fibre with a high share of fossil free energy
- Easy to recycle, biodegradable and compostable
- The climate impact of a paperboard box for cherry tomatoes is ca. 80% smaller than that of a box made from recycled PET (Natural Resources Institute Finland, 2019)



Plastic replacement potential roughly 2 million tonnes

Cartonboard and rigid plastic packaging market size in selected food categories, excluding cupstock and liquid packaging



Source: Metsä Board estimates based on Euromonitor International Limited and Smithers Information Ltd

Barrier level
(increasing moisture/grease resistance)

Fresh and recycled fibres are equally good in terms of the circular economy

83%

of paper and paperboard packaging is recycled

100%

recovery of wood fibres **is not possible** because part of the fibre is lost during a cycle, or is contaminated

Fresh fibre is needed in the recycling loop to maintain quality and strength, and to keep the loop ongoing

External assessments and own commitments



Metsä Board has an “A” score in the Climate and Water rating and an “A-” in the Forest rating.

Total score 91/100. Metsä Board has achieved the highest rating level every year since 2017.



[Link](#) to ISS website

[Link](#) to MSCI website

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Metsä Board's GHG emission reduction targets are approved by the Science Based Targets initiative.



As part of Metsä Group, Metsä Board is committed to the UN Global Compact corporate responsibility initiative and its principles in the areas of human rights, labour, the environment and anti-corruption. Metsä Board also supports the UN's Sustainable Development Goals, the SDGs.

Innovation and R&D



Our R&D work aims to resource efficiency and reduce carbon footprint of packaging material



1

Light and resource efficient paperboards



2

Developing barrier boards as an alternative to plastics

High-yield pulp makes the difference between folding boxboard and other grades

Benefits of lightweighting:



Lightweight yet strong and stiff

=

paperboard for cost-efficient, sustainable and sturdy packaging



Improved yield

=

more cartons per tonne



Improved sustainability

=

less natural resources used, lower carbon footprint

Resource efficiency in production

Wood consumption depends on right fibre-mix.
Less wood needed in the production of high-yield pulp



Reduced water use through a closed water circulation and reduction of process water

New technology, development of energy recovery and AI improve energy efficiency



Resource and operational efficiency in production results into lightweight paperboards with less waste



As part of Metsä Group, we are looking for new growth opportunities

Metsä Spring* invests expertise and financial resources into initiatives with the ambition to reshape the forest-based bioeconomy



Wood-based 3D products



Wood-based textile fibres



Wood composite products



Bioactive products from birch bark

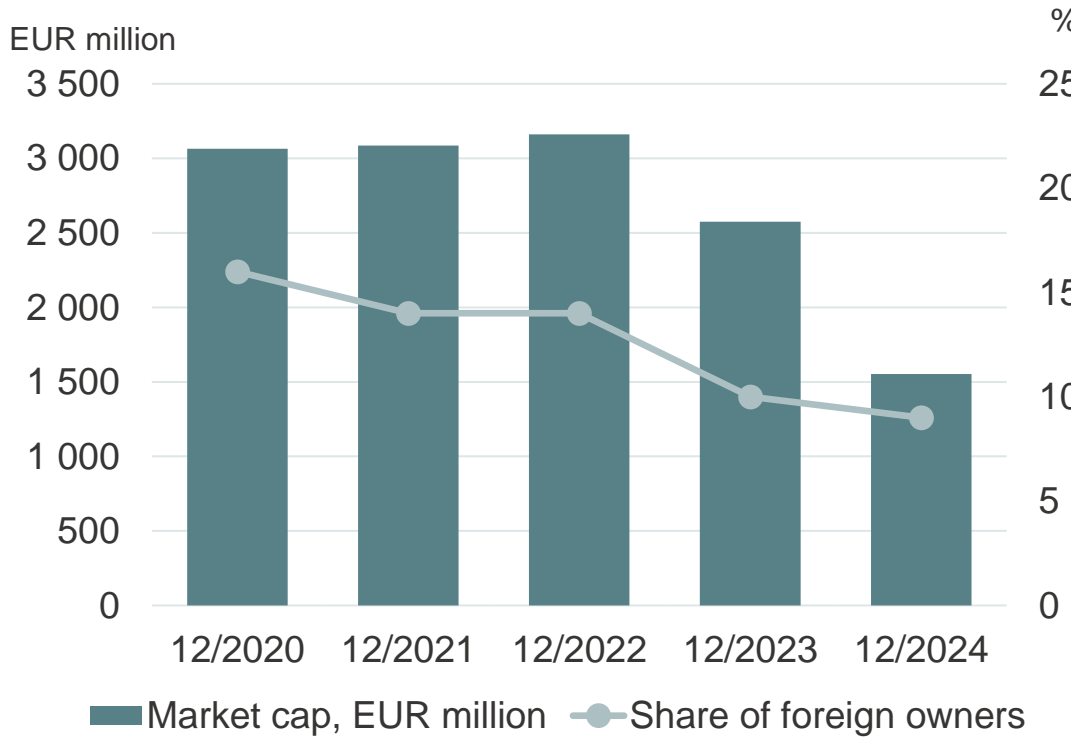
Owners and management



Market cap and ownership distribution

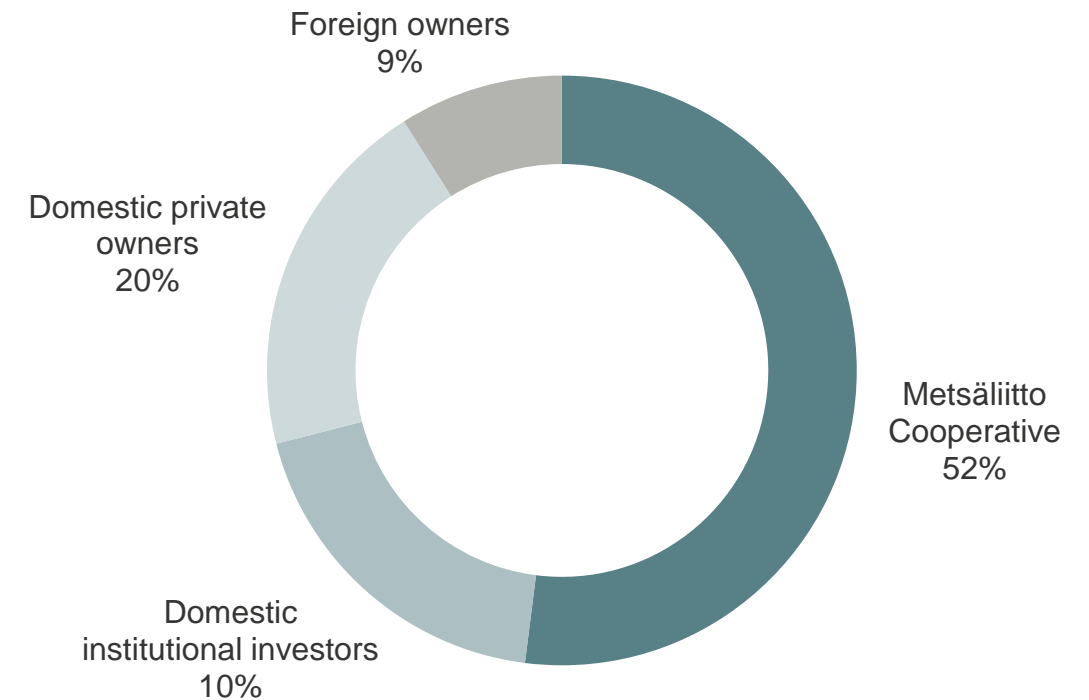
Metsä Board has over 70,000 shareholders, combined amount of A and B shares

Market cap and foreign owners



Ownership distribution

31 December 2024



Metsä Board Corporate Management Team



Mika Joukio
CEO
Chair of CMT since 2014
At Metsä Group since 1990
Shares: 377,846



Henri Sederholm
CFO
Member of CMT since 2021
At Metsä Group since 2003
Shares: 60,000



Markku Leskelä
SVP, Development
Member of CMT since
October 2021
At Metsä Group since 1993
Shares: 29,615



Jussi Noponen
SVP, Sales
and Supply Chain
Member of CMT since 2016
At Metsä Group since 2000
Shares: 93,806



Harri Pihlajaniemi
SVP, Production and
Technology
Member of CMT since 2017
At Metsä Group in 2001–2004
and since 2017
Shares: 32,745



Camilla Wikström
SVP, HR
Member of CMT since 2019
At Metsä Group since 2001
Shares: 28,293



Metsä

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