

# Meeting consumer demand for eco-friendly and circular solutions

President and CEO Annica Bresky



storaenso



Meeting consumer demand for eco-friendly and circular solutions

# Megatrends are changing business and society – we contribute to mitigating climate change



Meeting consumer demand for eco-friendly and circular solutions

# We are a solution for consumers' new demands



Everything that's made with fossil-based materials today can be made from a tree tomorrow



# Our key competitive advantage is substituting materials from finite resources

Average annual CO<sub>2</sub> emissions of

**5.1**  
million cars

Our products substitute fossil-based products, saving

**20**  
Mt CO<sub>2</sub>


Our total climate benefit:

**12**  
Mt CO<sub>2</sub>


Meeting consumer demand for eco-friendly and circular solutions

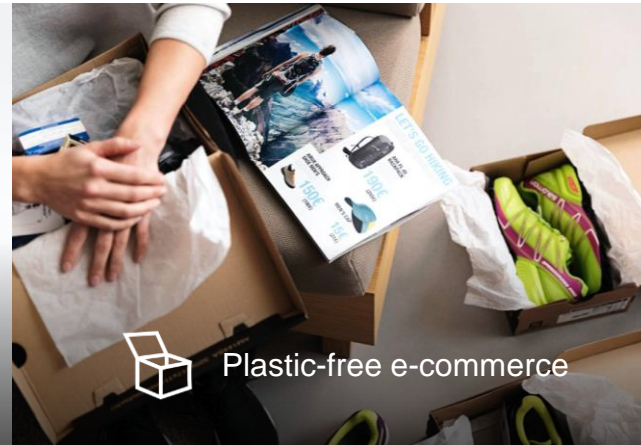
# Our products solve sustainability challenges




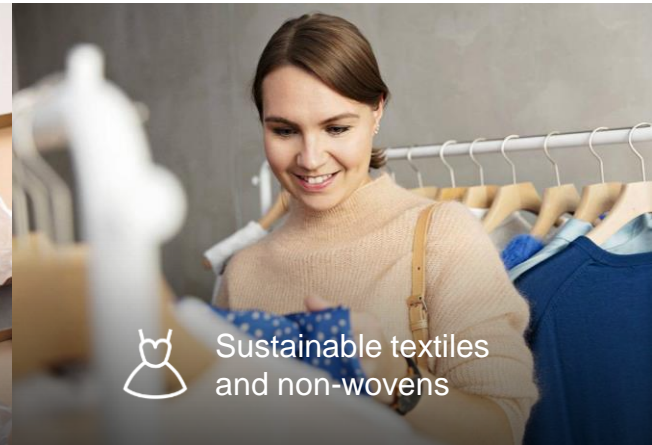
 Replacing plastic in food packaging



 Natural cosmetics & personal care




 Plastic-free e-commerce



 Sustainable textiles and non-wovens




 Circular retail

 Carbon neutral buildings



 Sustainable print



 Low-carbon industrial solutions

# Shaping our business for higher growth and value



**Growth**



Packaging Materials



Packaging Solutions




Wood Products:  
Building Solutions




Biomaterials: Innovations

The "Growth" section is a 2x2 grid of illustrations. The top-left illustration shows a person in a blue suit pushing a shopping cart in a store, holding a green product. The top-right illustration shows a hand holding a smartphone with a checkmark on the screen, next to a house icon and a Wi-Fi symbol. The bottom-left illustration shows a large wooden beam being processed in a factory setting. The bottom-right illustration shows a stack of wood chips and a tree icon next to a blue container.


**Foundation**



Forest




Wood Products:  
Traditional wood products



Biomaterials: Pulp

**Cash**



Paper

The "Foundation" section is a 2x2 grid of illustrations. The top-left illustration shows a landscape with green trees and a yellow sun. The top-right illustration shows a stack of wooden planks. The bottom-left illustration shows a forklift moving a stack of paper rolls in a factory. The "Cash" section is a single illustration showing a person in a blue suit holding a document, standing next to a desk with books.



# Our three focus areas for growth – Packaging, Building Solutions, Biomaterials Innovations



Packaging Materials & Solutions

- High demand for plastic free and eco-friendly circular packaging
- Leading market positions
- Attractive investment options available

**Significant growth potential with  
20%+ margin  
Majority of future company growth**



Wood Products: Building Solutions

- 10%+ annual growth
- Leading global supplier
- Potential to capture a larger share of the value chain

**3x sales from Building Solutions with  
~20% margin**



Biomaterials Innovations

- High growth end product markets
- Uncontested sustainability position
- Proprietary technologies and unique value propositions

**35%+ margin in novel markets with  
strong growth**

\*Excluding Paper

# Increased focus on our innovation agenda



## Sustainable packaging applications to replace fossil materials

Formed fiber  
Biofoam



## Bio-based barrier solutions for packaging



## Biomaterials Innovation

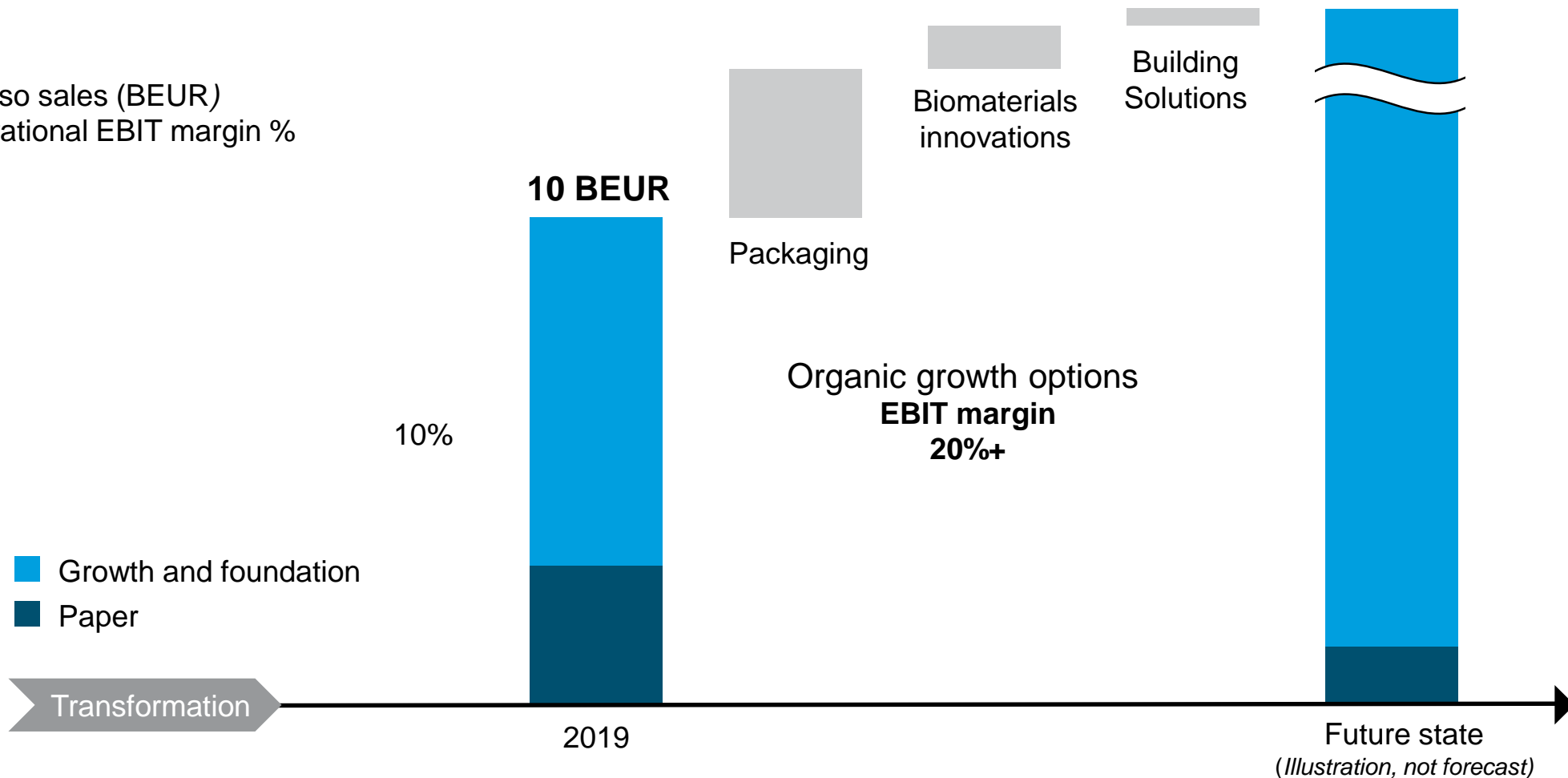
Carbon for energy storage  
Bio-binders  
Carbon fibers





# Significant potential for profitable growth

Stora Enso sales (BEUR)  
and operational EBIT margin %



# Packaging

- Packaging Materials – Leading premium packaging board supplier
- Packaging Solutions – Premium sustainable solution provider



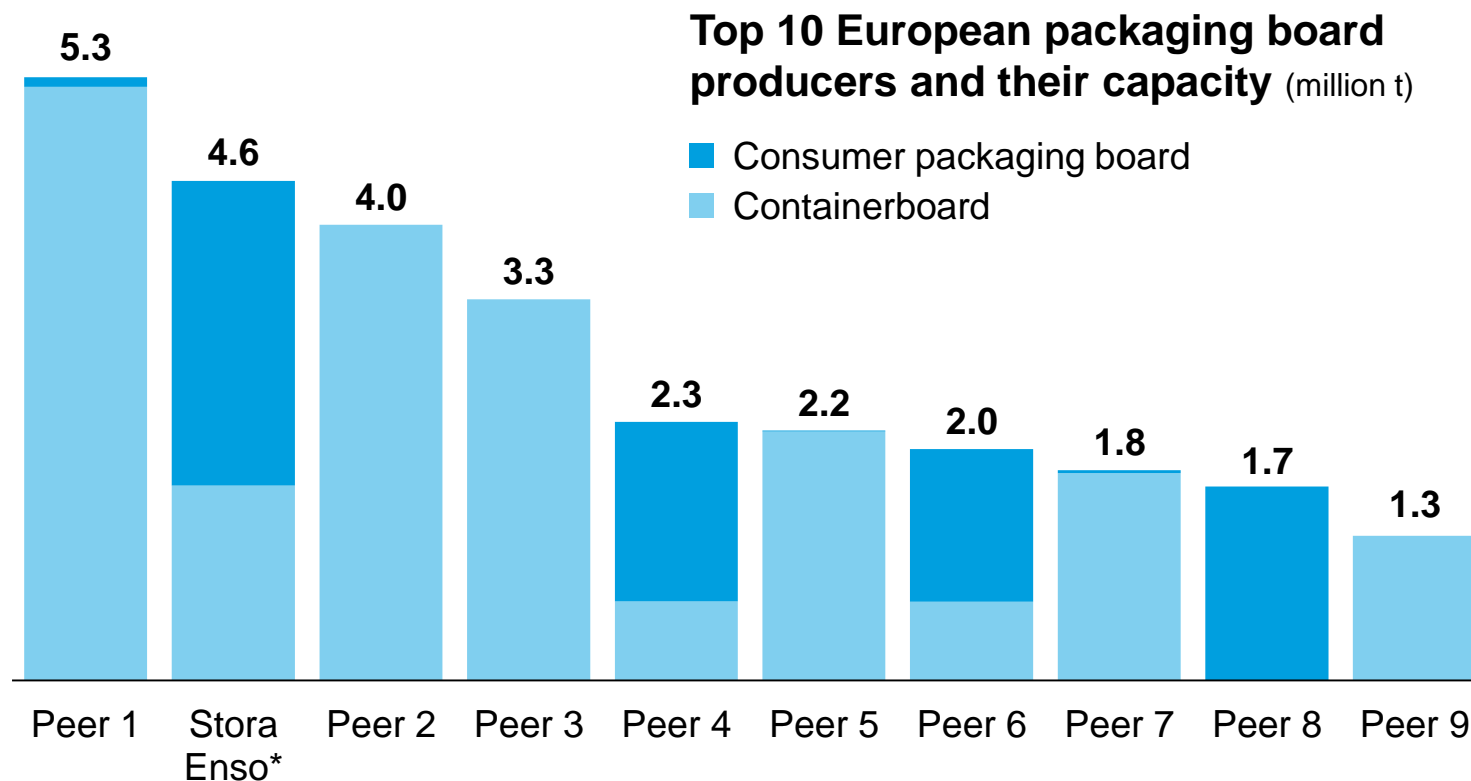
# Leading position in attractive packaging materials segments

Significant presence in both consumer and industrial packaging boards

#1 in consumer board in Europe

#2 in packaging board in Europe

#4 in consumer board globally



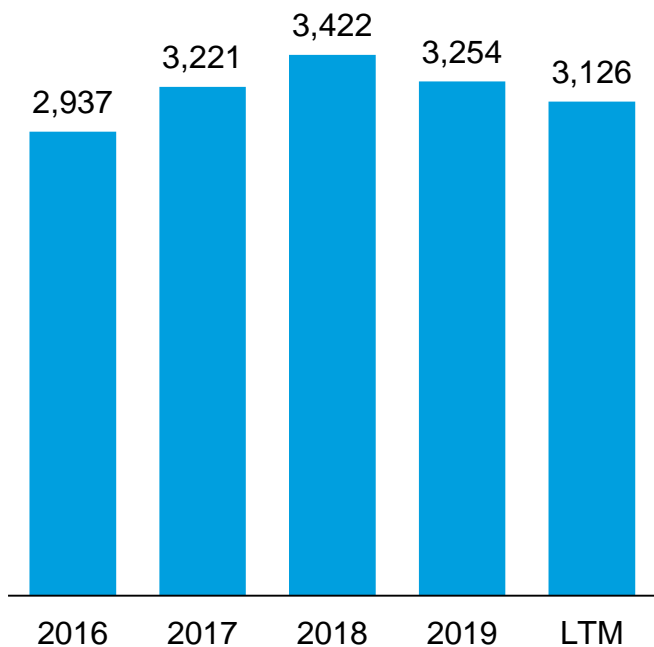
Industrial packaging board does not include wrapping paper and sack paper

\*After completion of Oulu conversion - Source: AFRY, Stora Enso

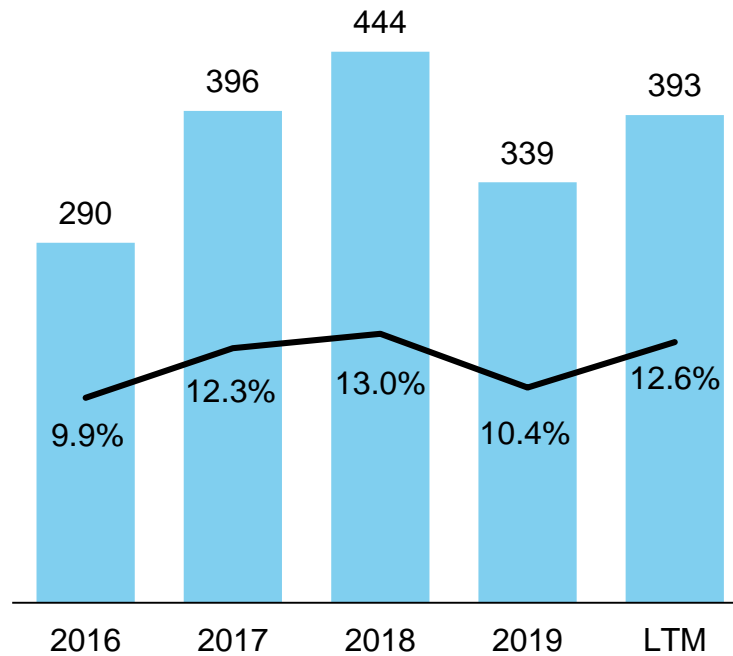


# Leveraging strong market position with high margins

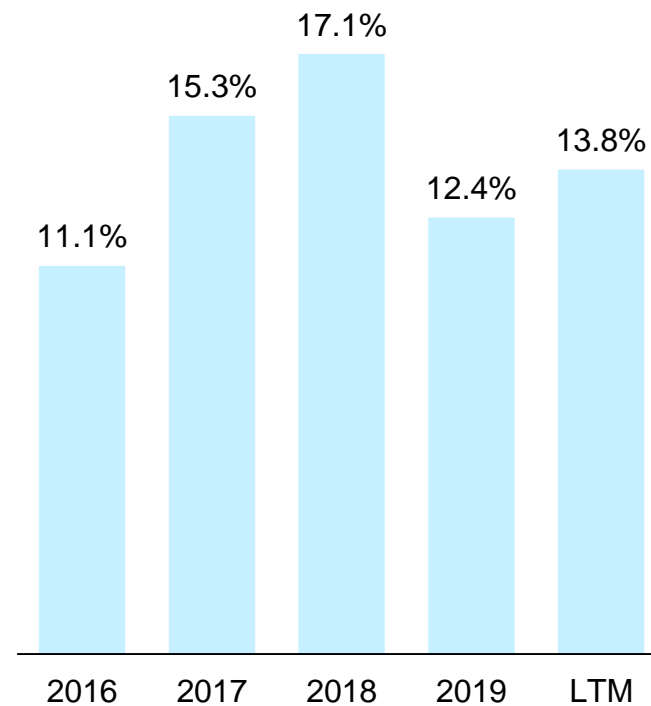
**Packaging Materials sales**  
MEUR



**Packaging Materials operational EBIT**  
MEUR, % margin



**Packaging Materials operational ROOC**



LTM = Q4/19 - Q3/20. Historical figures for 2016 - 2017 not fully comparable due to restatement.



# Attractive converting positions in growing markets

Active engagement in plastic substitution

Speed in introduction of new materials and solutions

Synergies with Packaging Materials from integrated supply chain

## Industrial packaging converting

**Nordic countries**

Annual market growth  
~ 1.5%\*

#1

**Baltics and Poland**

Annual market growth  
~ 3.5%\*

#2

**Russia**

Annual market growth  
~ 3%\*

#6

## Consumer packaging converting

**China**

Annual market growth  
~ 9%\*

#3

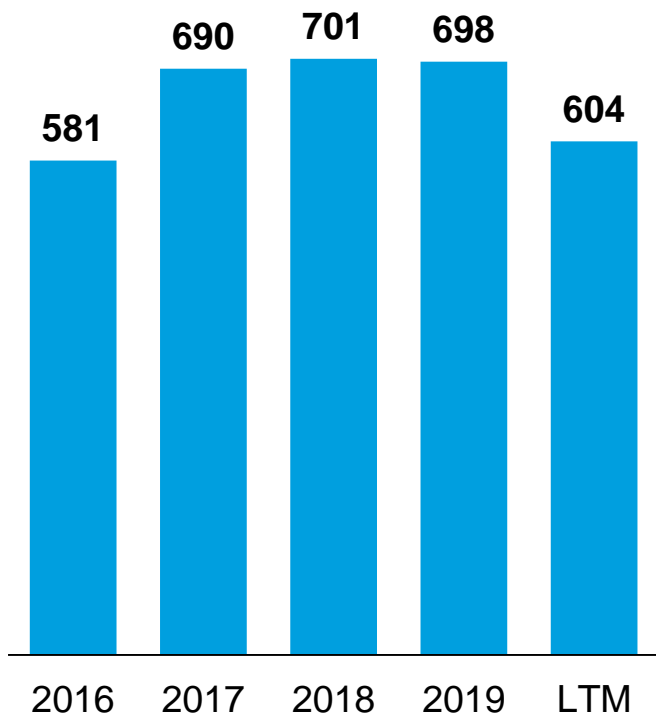
Source: RISI, ICCA, and others

\*in 2020 - 2025

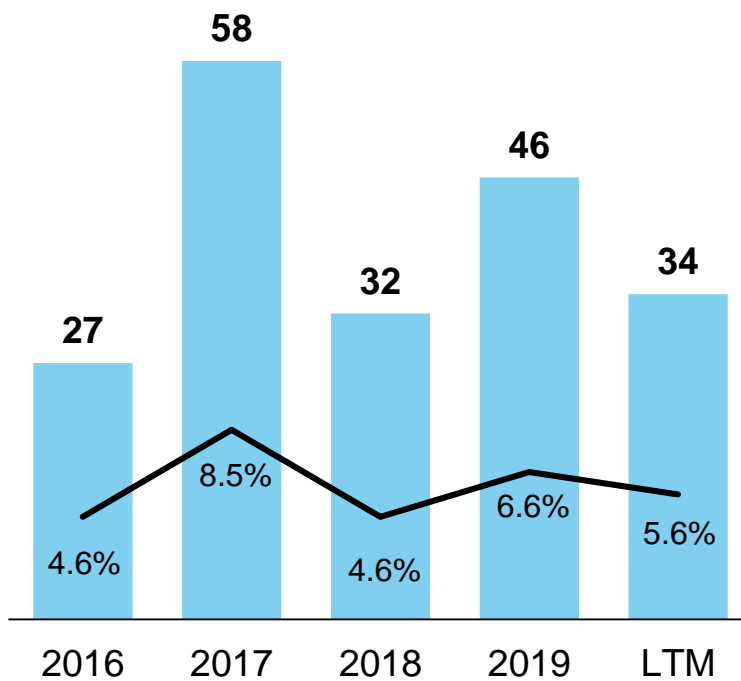


# Solid returns in converting

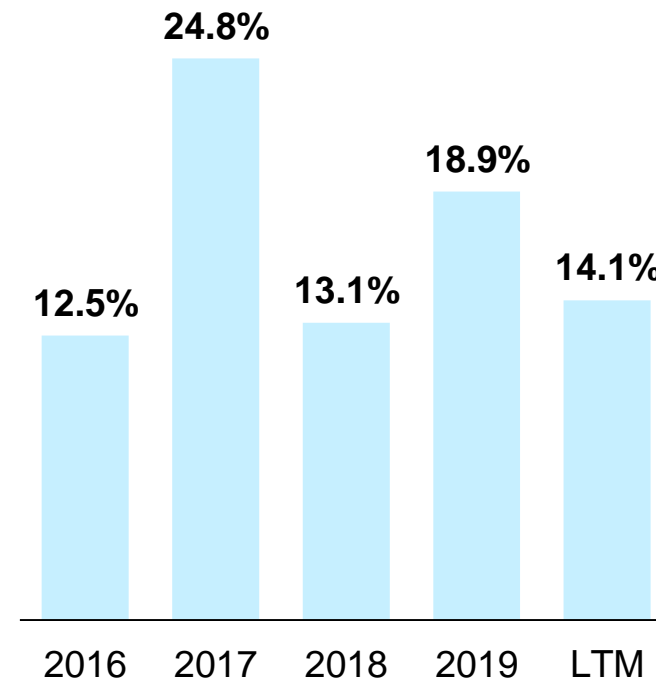
**Packaging Solutions sales**  
MEUR



**Packaging Solutions operational EBIT**  
MEUR, % margin



**Packaging Solutions operational ROOC**



LTM = Q4/19 - Q3/20. Historical figures for 2016 - 2017 not fully comparable due to restatement.

# Strategic choices for Packaging

- Significant growth opportunities for plastic free and circular packaging
- Attractive investment options for Packaging Materials growth
- Drive packaging innovation closer to consumers
- Significant opportunities for new sustainable packaging



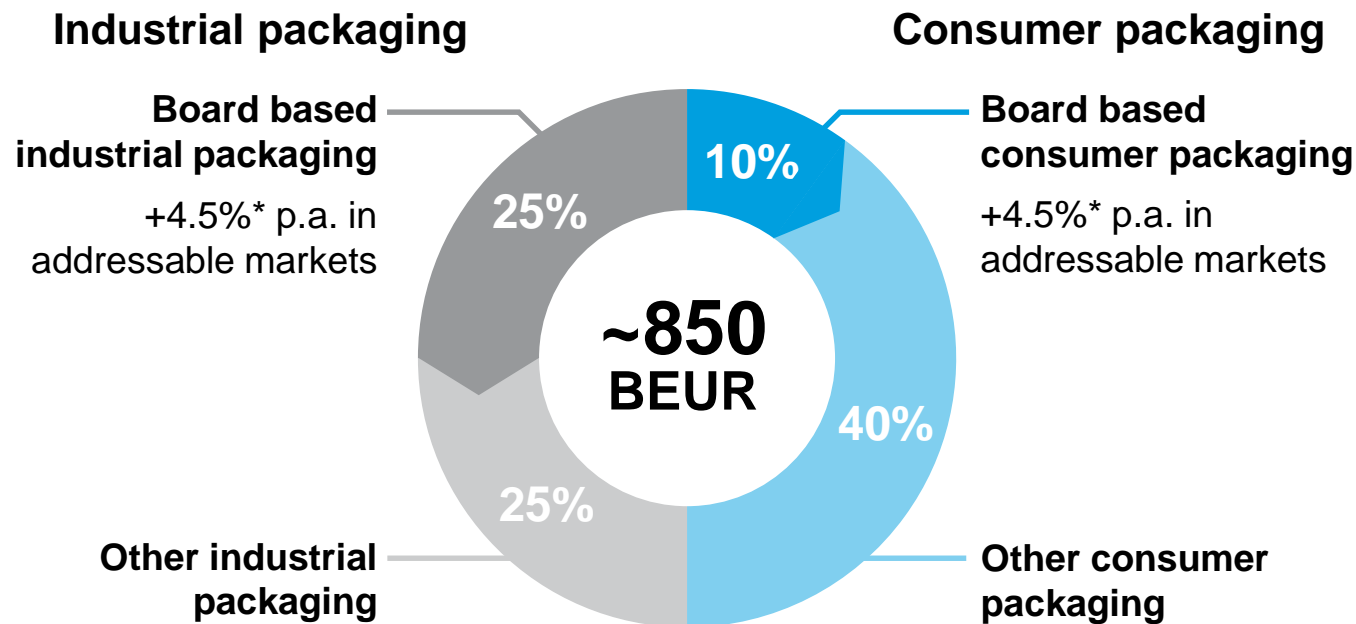
# Significant growth opportunities for plastic free and circular packaging

## Global packaging market

Increased disposable income & urbanisation

Growing e-commerce & on-the-go consumption

Demand for renewable & low CO<sub>2</sub> alternatives



\*including inflation

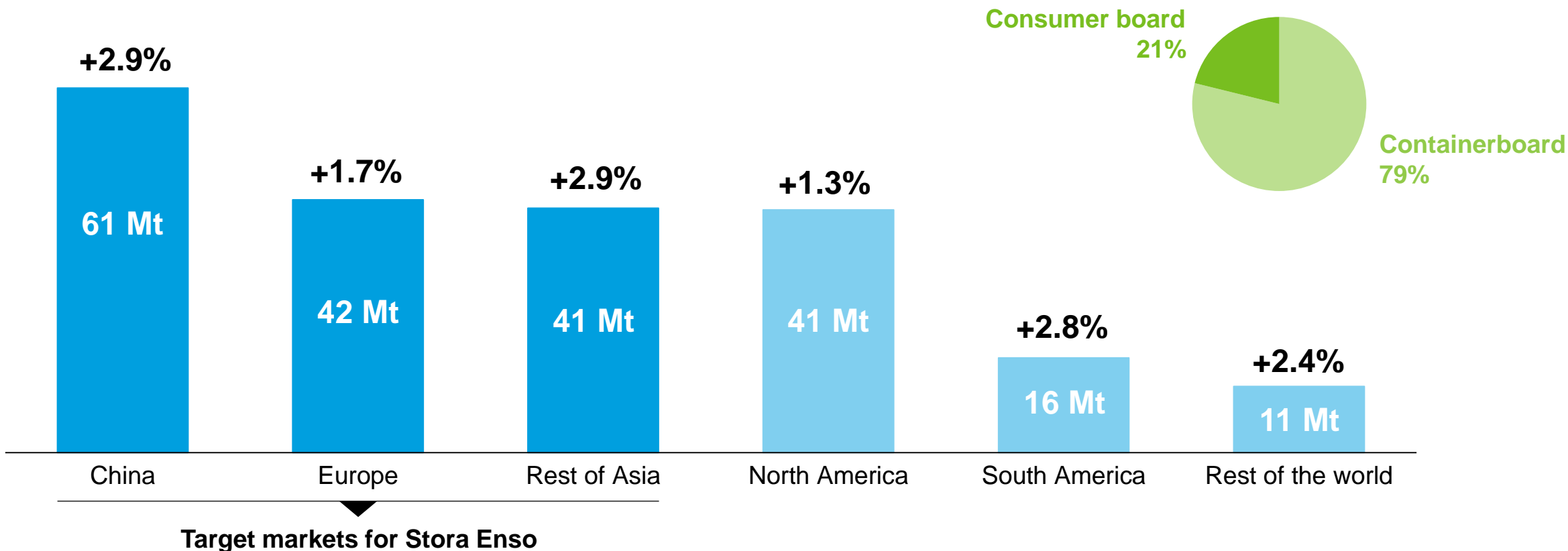




# Solid global growth in consumer and containerboard

Annual demand growth of consumer board and containerboard\* combined in 2020 - 2030 and market sizes (2019)

Global demand split 2019



\*Excluding sack and kraft papers

Source: Stora Enso and AFRY

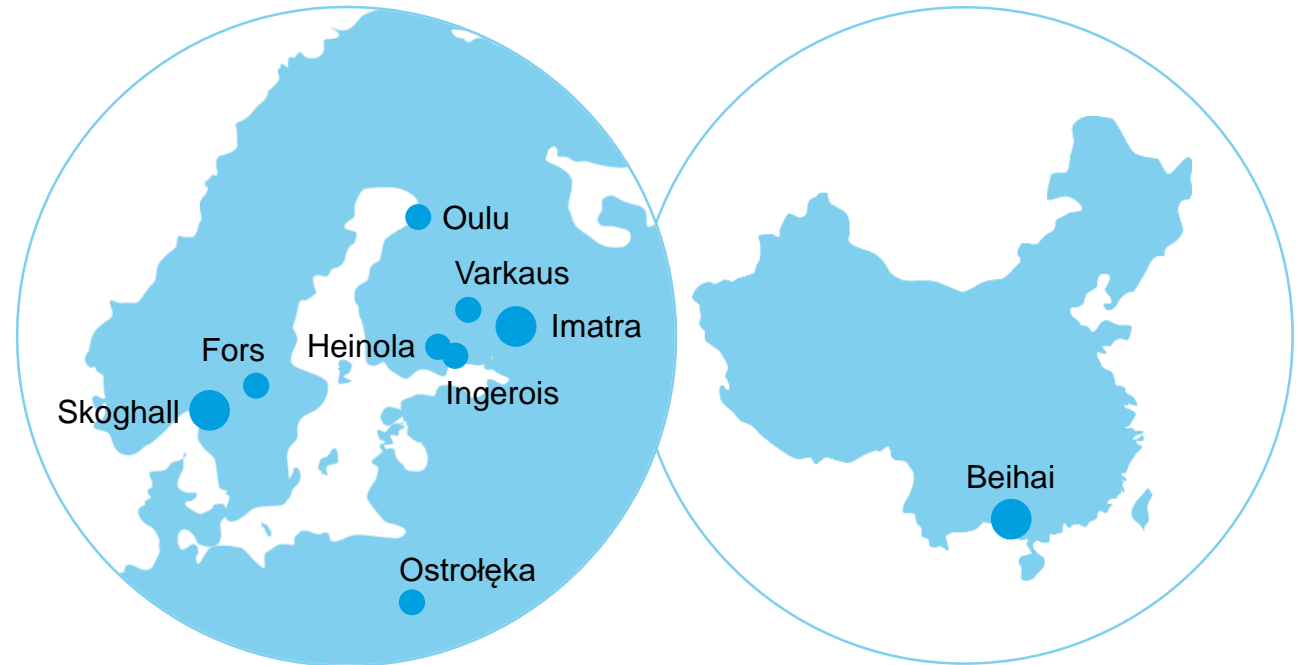


# Attractive investment options for Packaging Materials growth

Focus on brownfield investments, debottlenecking and improving operational efficiency

Develop world leading cost competitive integrates

Explore opportunities to consolidate the market through selective M&A



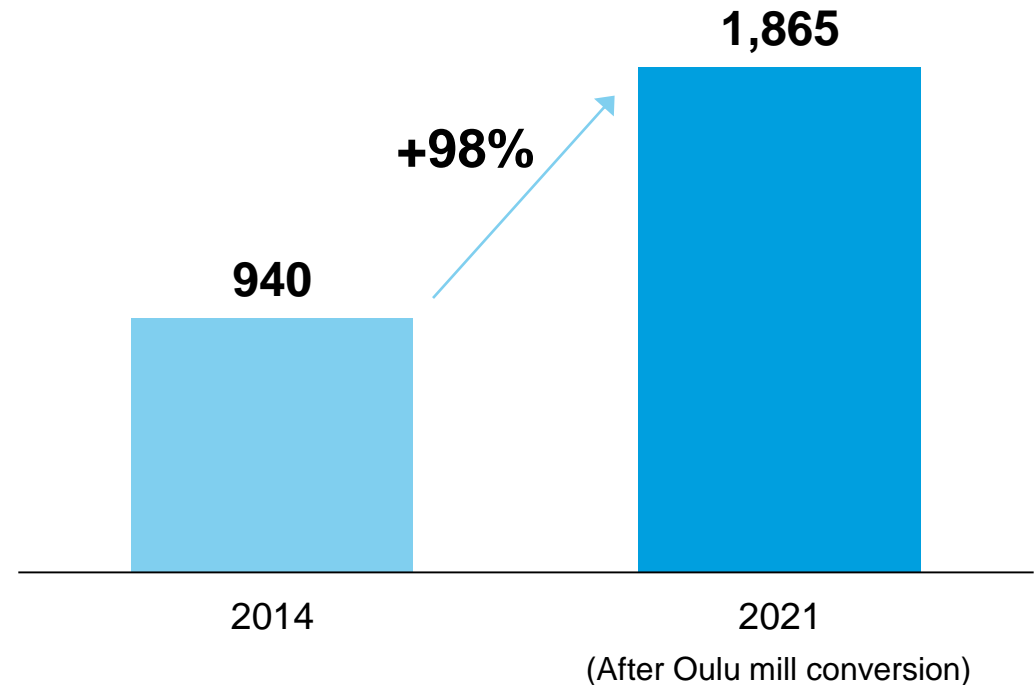


# Step change in premium kraftliner, ~300 MEUR sales increase in 2022

AvantForte – a new premium kraftliner with superior purity and strength:

- Global product for food and e-commerce applications
- Safe and plastic-free packaging, less materials needed

Stora Enso containerboard capacity (kt)



# Opportunity to grow Consumer Board in Skoghall

Start feasibility study and environmental impact assessment Q4/2020

- Pulp capacity +410 kt
- Board capacity +120 kt
- Market pulp 220 kt

800 - 850 MEUR capex

Study completed by end of 2021, ready for decision making

Earliest possible start-up Q4/2023

## Strategic rationale



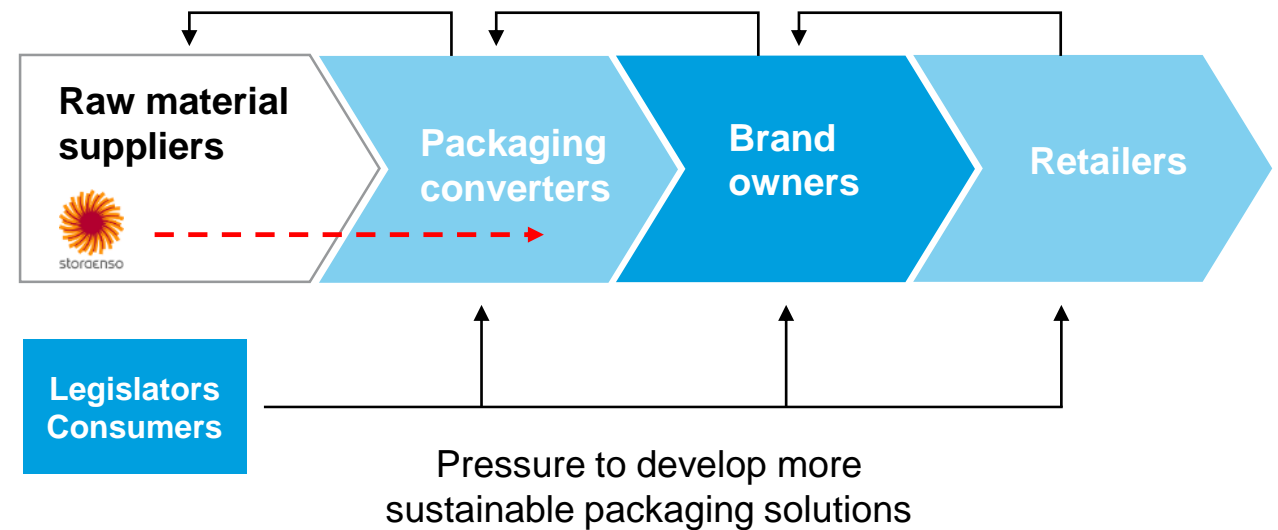
# Drive packaging innovation closer to consumers



Options for growing downstream exposure in packaging

- Leverage partnerships and collaborations
- Expansion of packaging design services
- Selective organic growth in converting
- Selective M&A opportunities

## Collaborations and partnerships



# Significant opportunities for new sustainable packaging



## Formed fiber



## Biofoam



## Biobarriers and films



Market growth  
(CAGR 2020 - 2030)

**3%**

**6%**

**3%**

Total market size  
(BEUR, 2020e)

**30**

**15**

**80**

EBIT margin  
potential

**30%**

**35%**

**Supporting  
existing business**

1<sup>st</sup> production line in Hylte

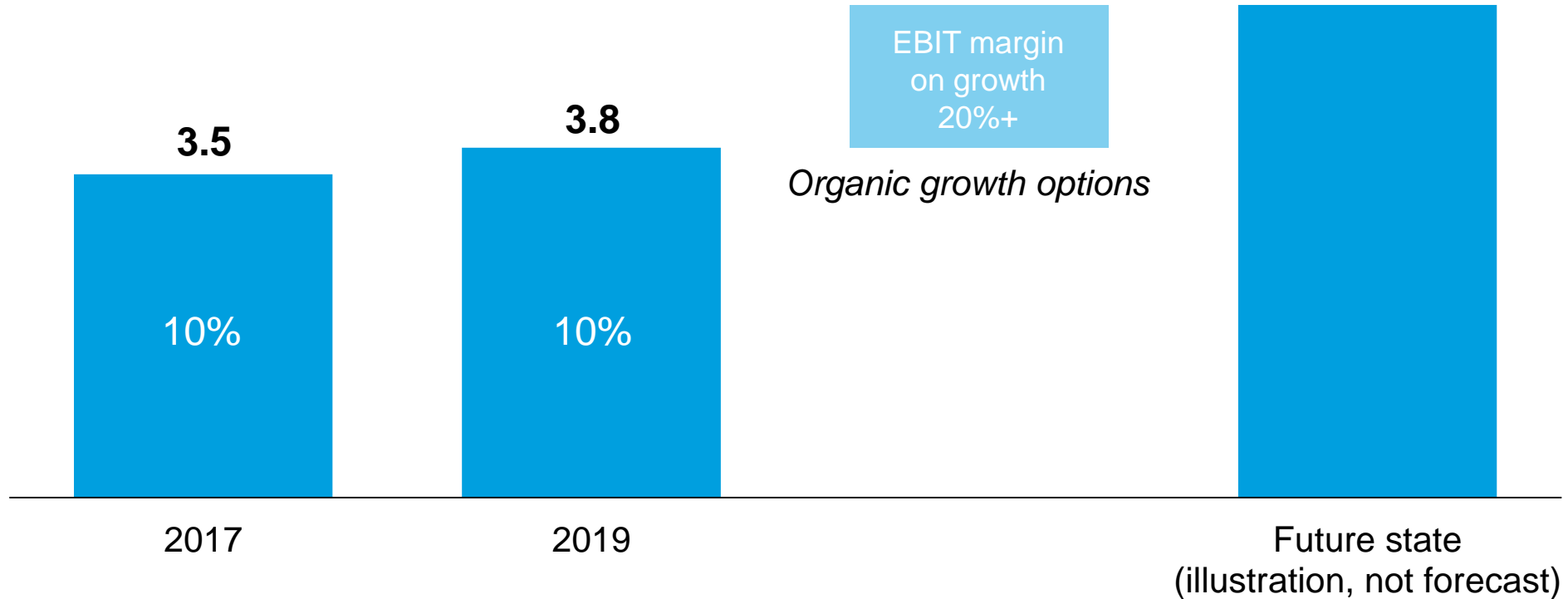
Pilot plant in Fors

Capacity investment in Forshaga



# Significant growth potential with 20%+ margin

Stora Enso Packaging Materials and Packaging Solutions sales (BEUR) and operational EBIT margin %





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# Wood Products

- Building Solutions – Leading supplier of wood-based construction solutions
- Traditional wood products – Largest producer of classic sawn and planed wood in Europe





# Leading market positions in Europe and globally

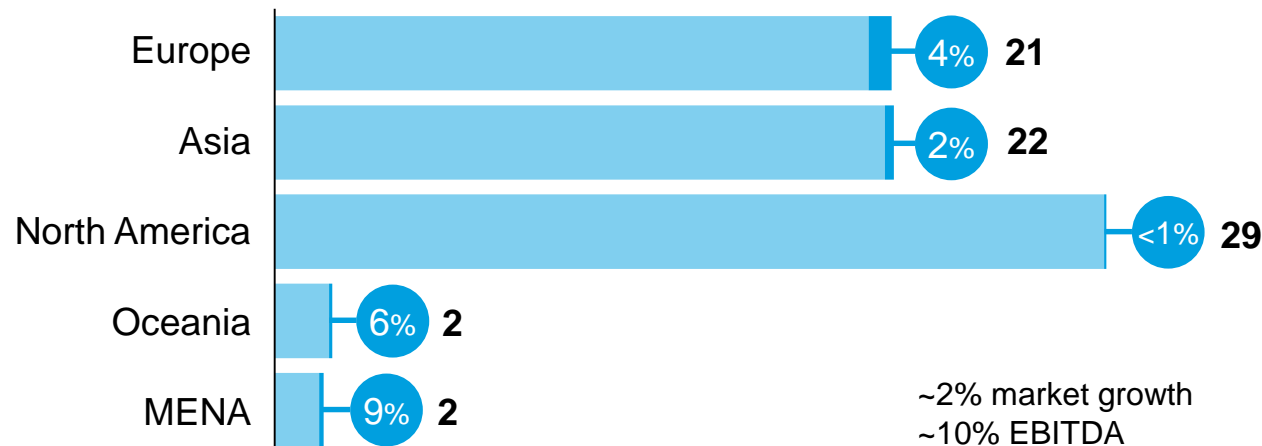
Europe's biggest sawmilling company

2<sup>nd</sup> largest global supplier of wood-based Building Solutions

Global reach with > 40% sales in overseas markets

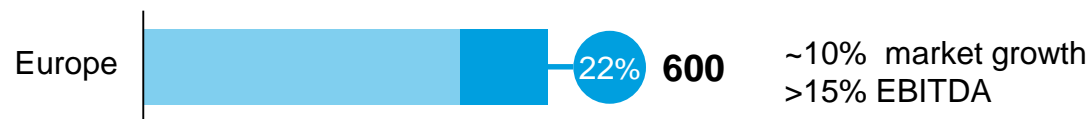
## Traditional wood products

■ Total market size (BEUR) ■ % Stora Enso market share



## Mass timber Building Solutions

■ % Stora Enso market share, total market size (MEUR)



# Strong foundation for Building Solutions growth



## Traditional wood products

- ~5% operational EBIT -margin business over a cycle
- ~2% market growth
- Platform for building solutions and fiber supply to pulp mills

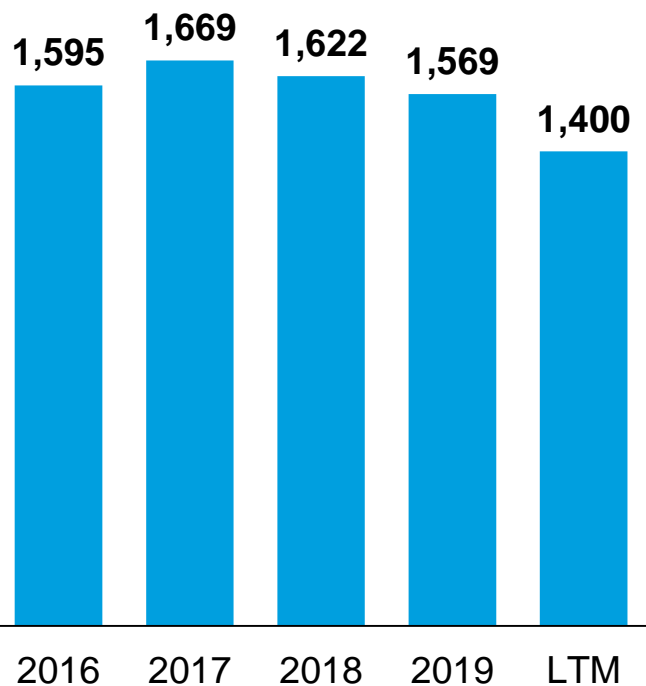
## Building Solutions

- ~20% operational EBIT -margin business
- ~10% market growth
- Opportunities to take a larger part of value chain with new business models and services

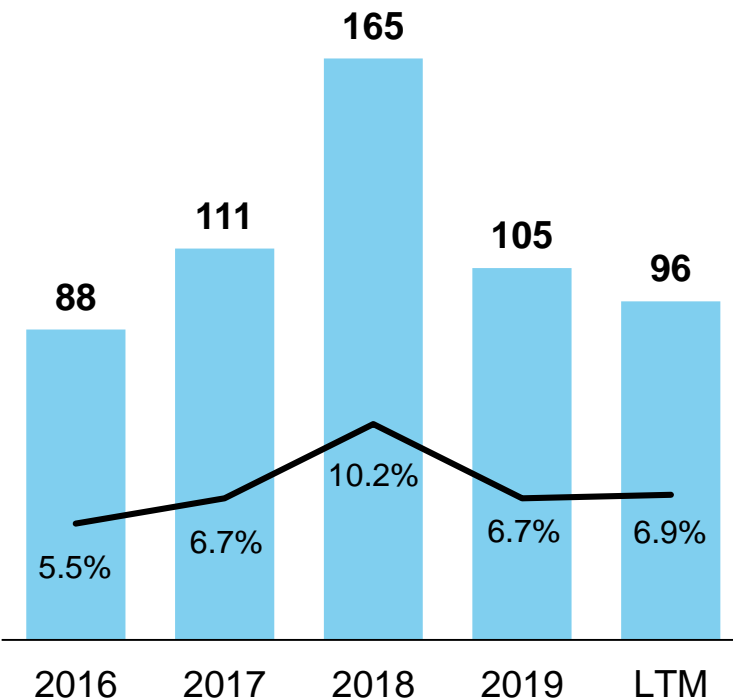


# Wood Products delivers solid margins

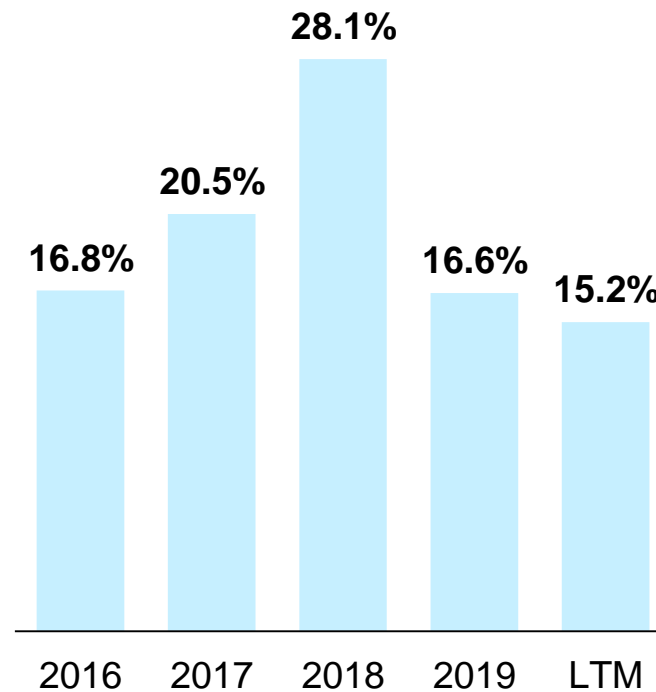
Wood Products sales  
MEUR



Wood Products operational EBIT  
MEUR, % margin



Wood Products operational ROOC



LTM = Q4/19 - Q3/20

# Strategic choices for Wood Products

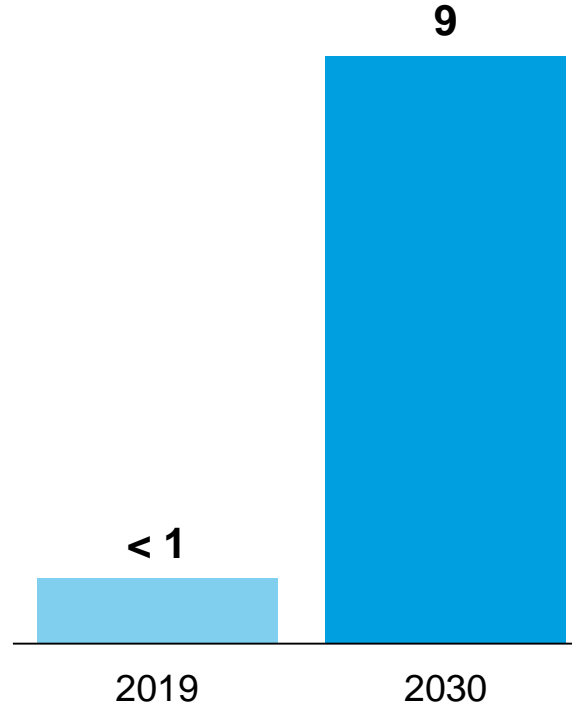
- Attractive growth opportunities in Building Solutions
- Capturing a larger share of the value chain



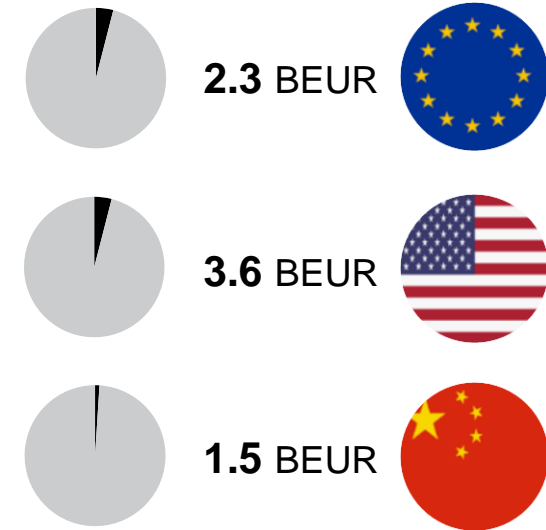
# Attractive growth opportunities in Building Solutions

- Carbon storage & safer workplaces
- Lower building costs & faster construction
- Policies promoting wooden construction

The global wood-based Building Solutions market (BEUR)



2030 market share and value by geography

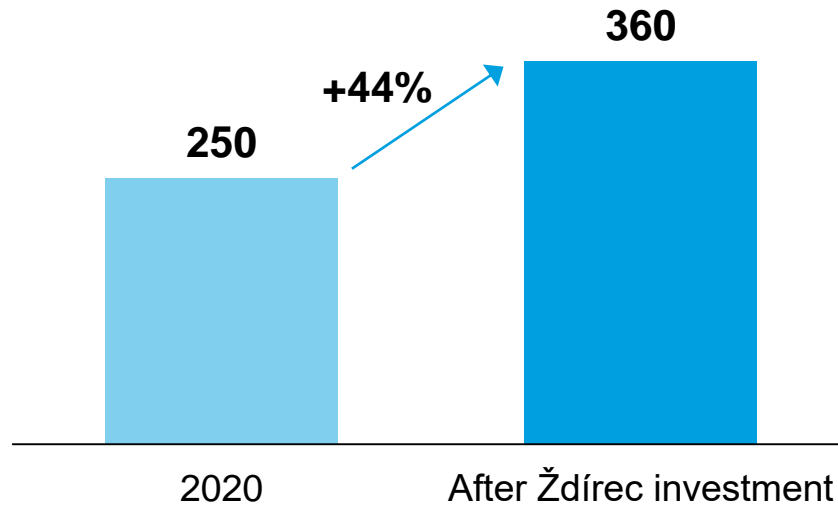


**Building Solutions**  
Other construction materials (concrete, steel)

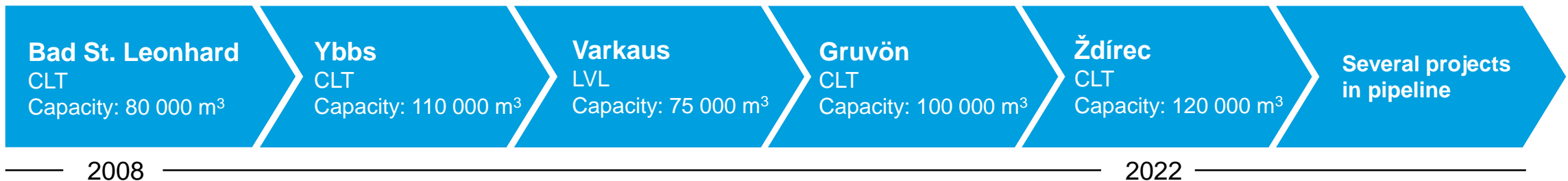
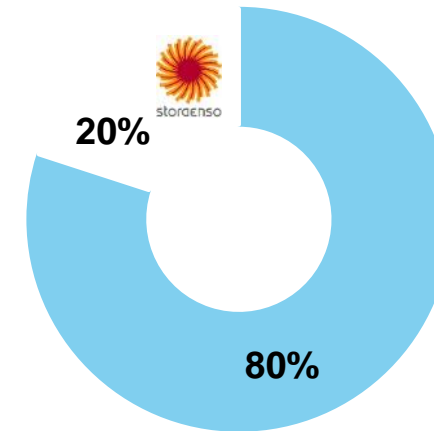
# Global market leader of wood-based Building Solutions



Stora Enso Cross Laminated Timber (CLT) capacity (k m<sup>3</sup>)



Stora Enso global CLT market share in 2020



# Capturing a larger share of the value chain

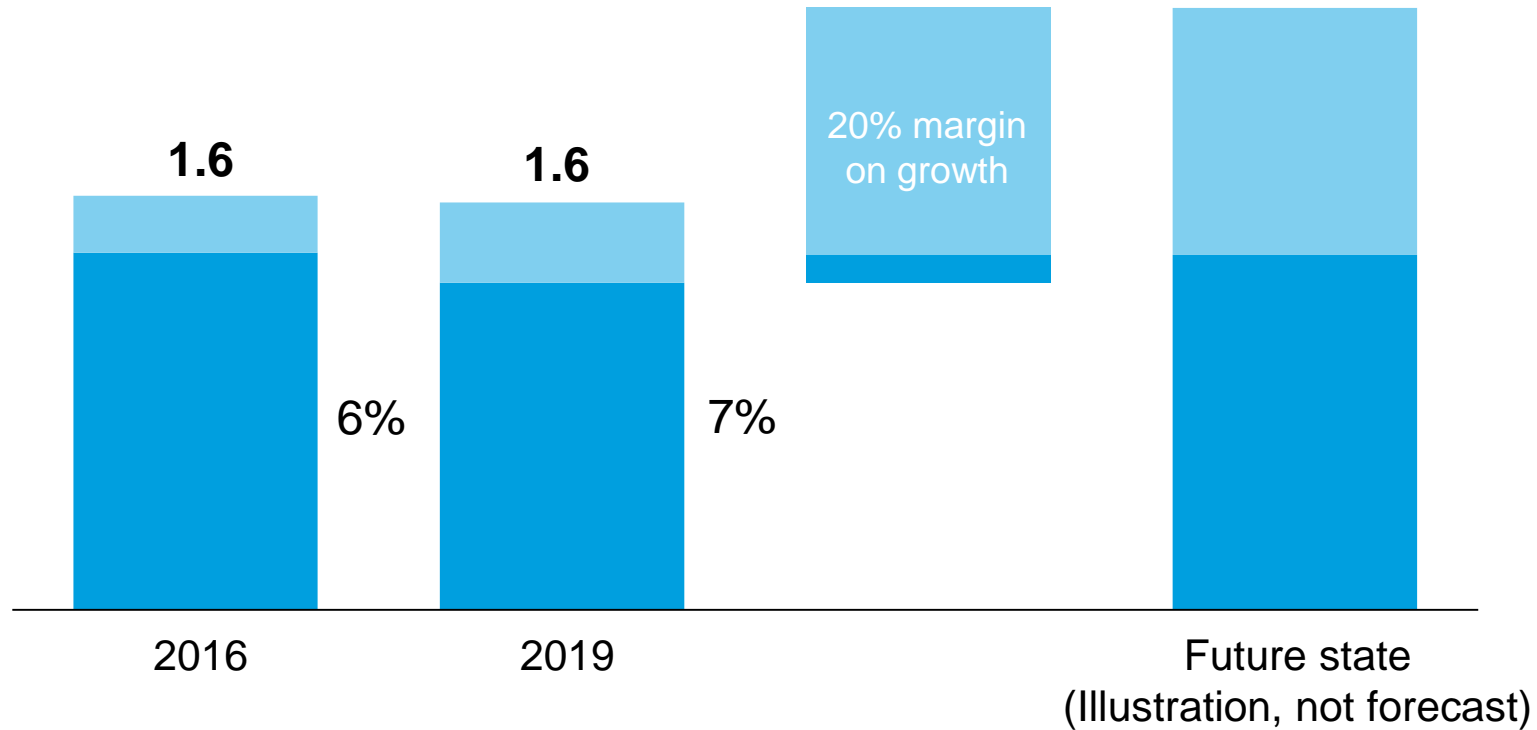




# Ambition to triple sales from Building Solutions

Wood Products' sales split and operational EBIT margin

- Traditional wood products
- Building Solutions





# Biomaterials

- Integrated pulp producer with cost efficient stand alone assets
- Innovations to replace fossil-based products

# Integrated producer with cost efficient stand alone assets

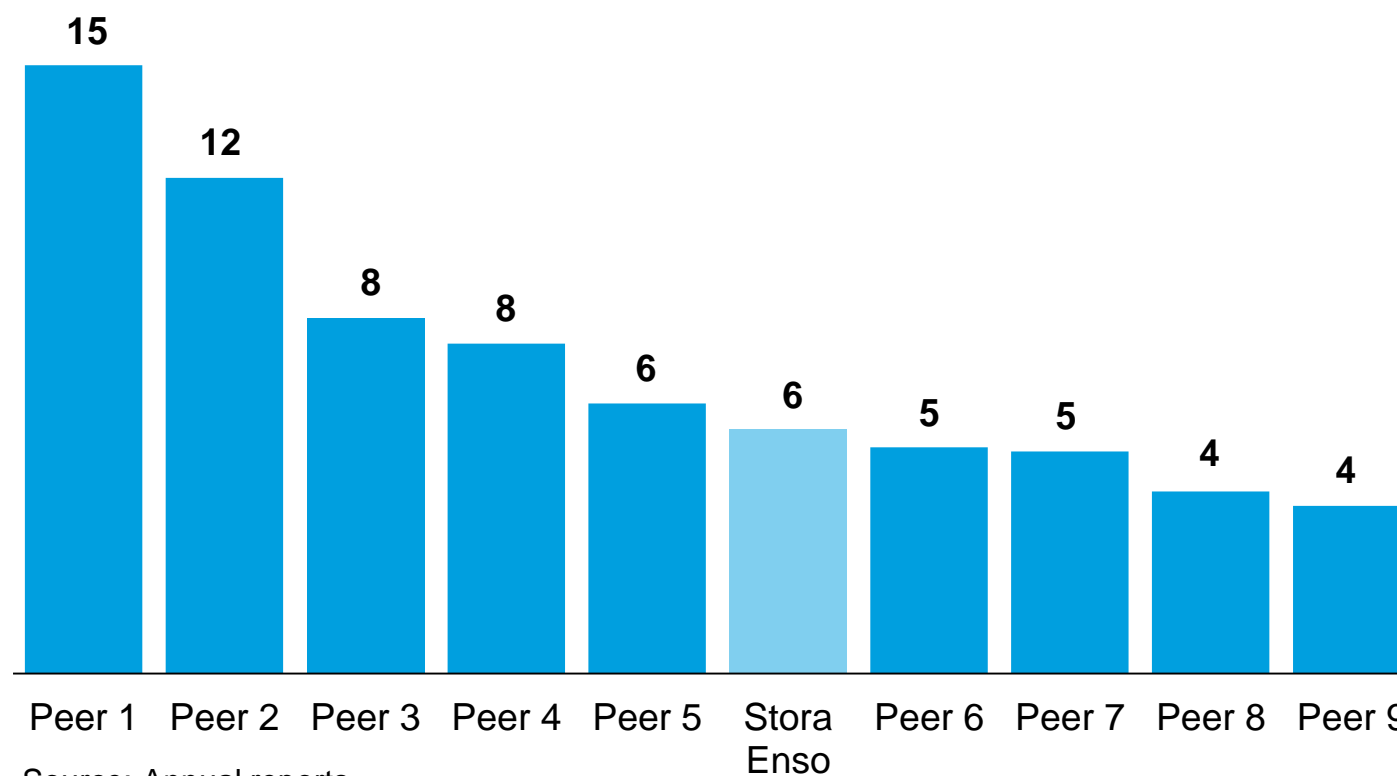


One of the top 10 largest chemical pulp producer globally

60% of all our pulp is used internally

A leading market pulp producer with the broadest portfolio in the industry

Top 10 chemical pulp producers globally and their capacity (million t)



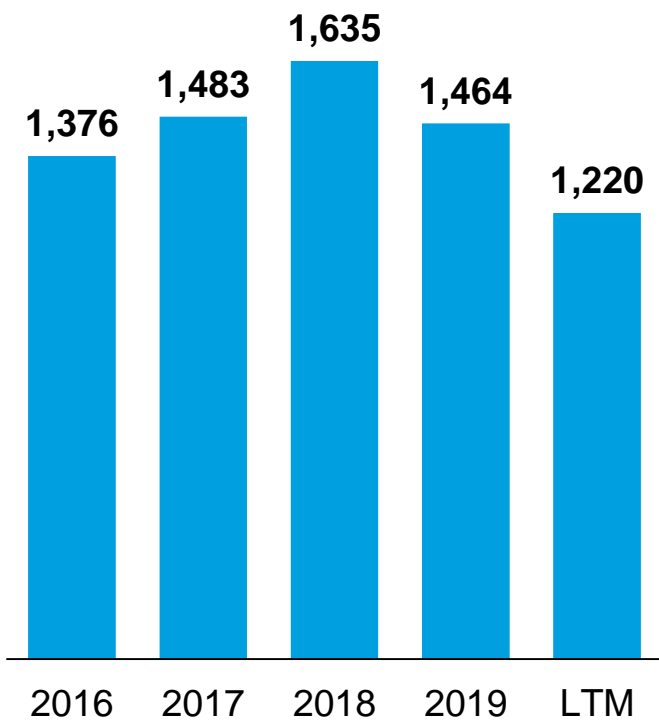
Source: Annual reports



# Attractive margins and returns over the cycle

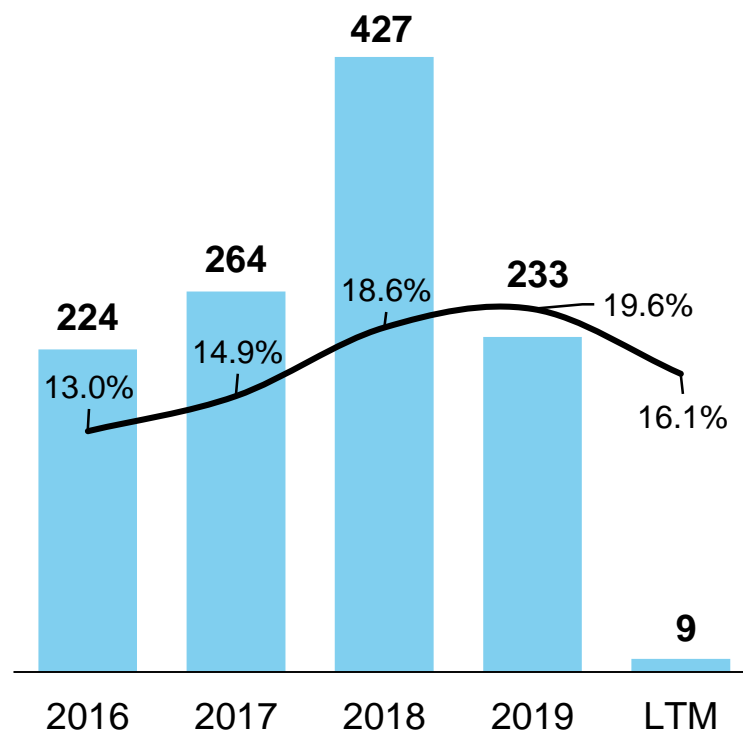
## Biomaterials sales

MEUR



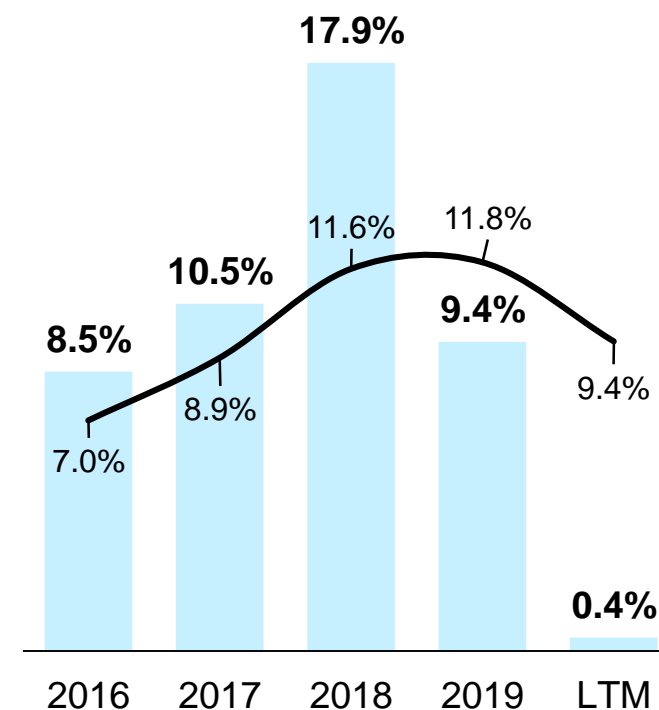
## Biomaterials operational EBIT

— % rolling 5 year average margin



## Biomaterials operational ROOC

— rolling 5 year average



LTM = Q4/19 - Q3/20



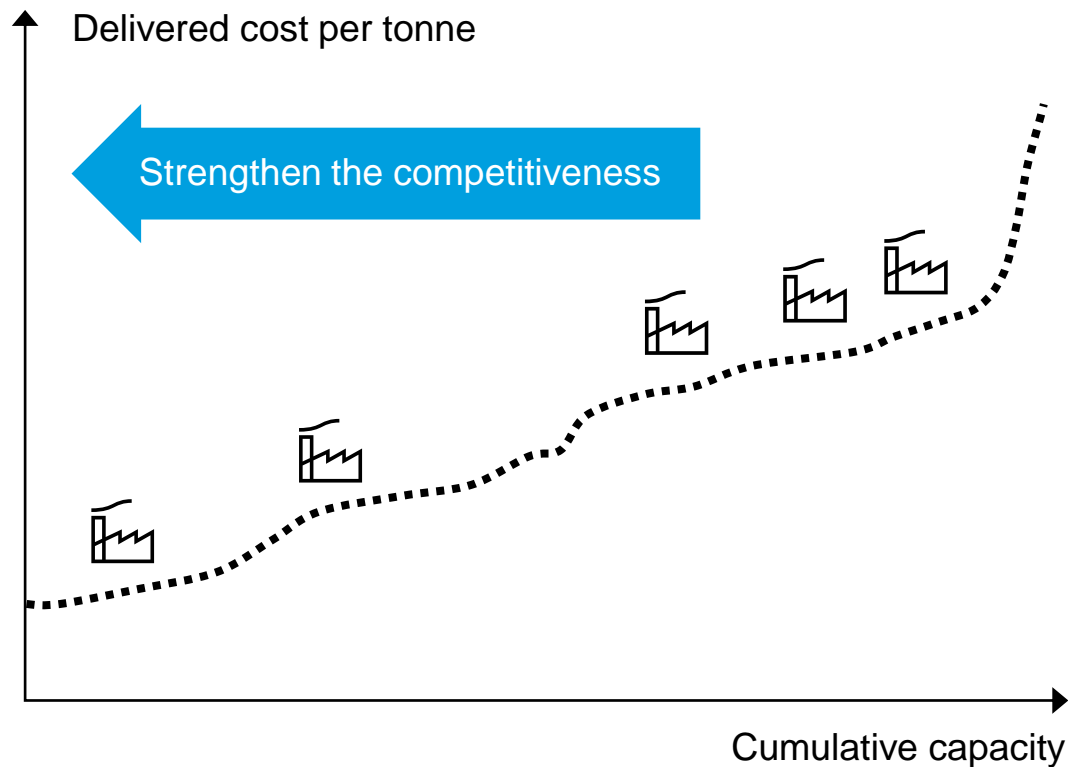
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# Strategic choices for Biomaterials

- Focus on strengthening competitiveness
- New biomaterials are a highly attractive innovation platform

# Focus on strengthening competitiveness

## Delivered cost – Standard market pulp



- Market pulp not a focus area for growth
- Investments in integrated pulp to support Packaging Materials
- Maintain cost competitiveness of the Eucalyptus mills
- Focus on specialty pulp product development in Nordic mills

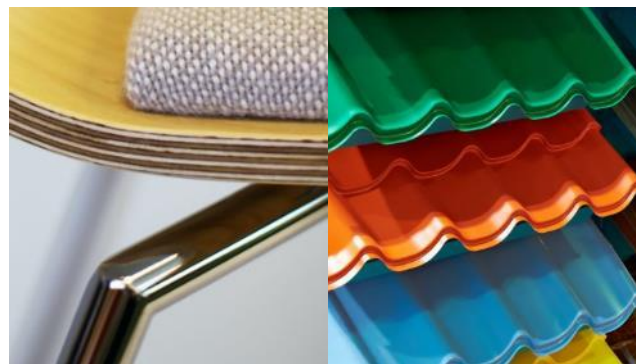


# New biomaterials are a highly attractive innovation platform

## Carbon for energy storage



## Bio-binders



## Carbon fibers



Market growth  
(CAGR 2020 - 2030)

**30%**

**2 - 4%**

**8 - 10%**

Total market size  
(BEUR, 2020e)

**10**

**20**

**3**

EBIT margin  
potential

**35%**

**35%**

**35%**

Pilot plant in Sunila

1<sup>st</sup> production line in Sunila

Pilot ongoing in JD with Cordenka



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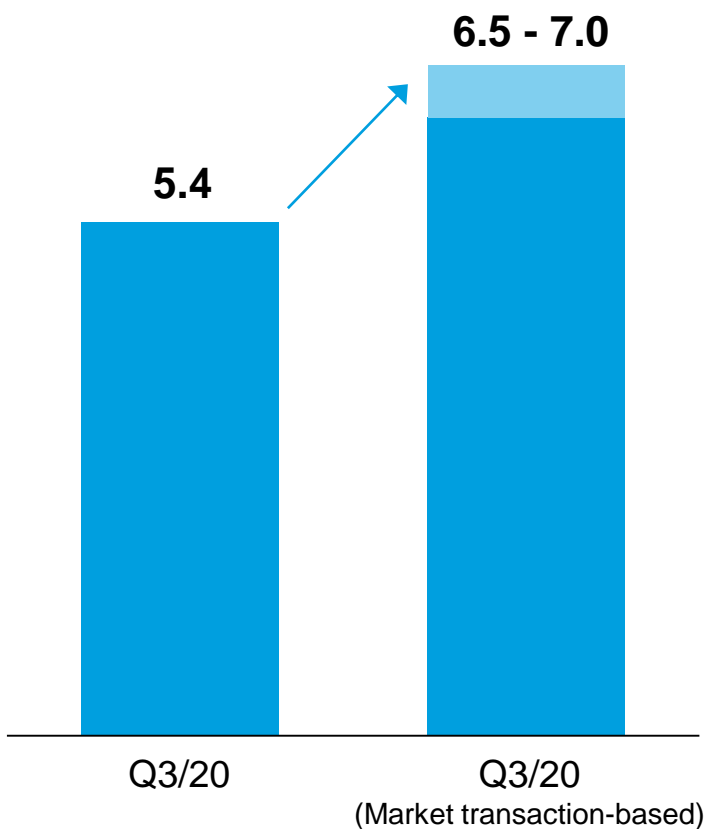
# Forest

- One of the largest private forest owners globally
- Strong sourcing position securing raw material supply

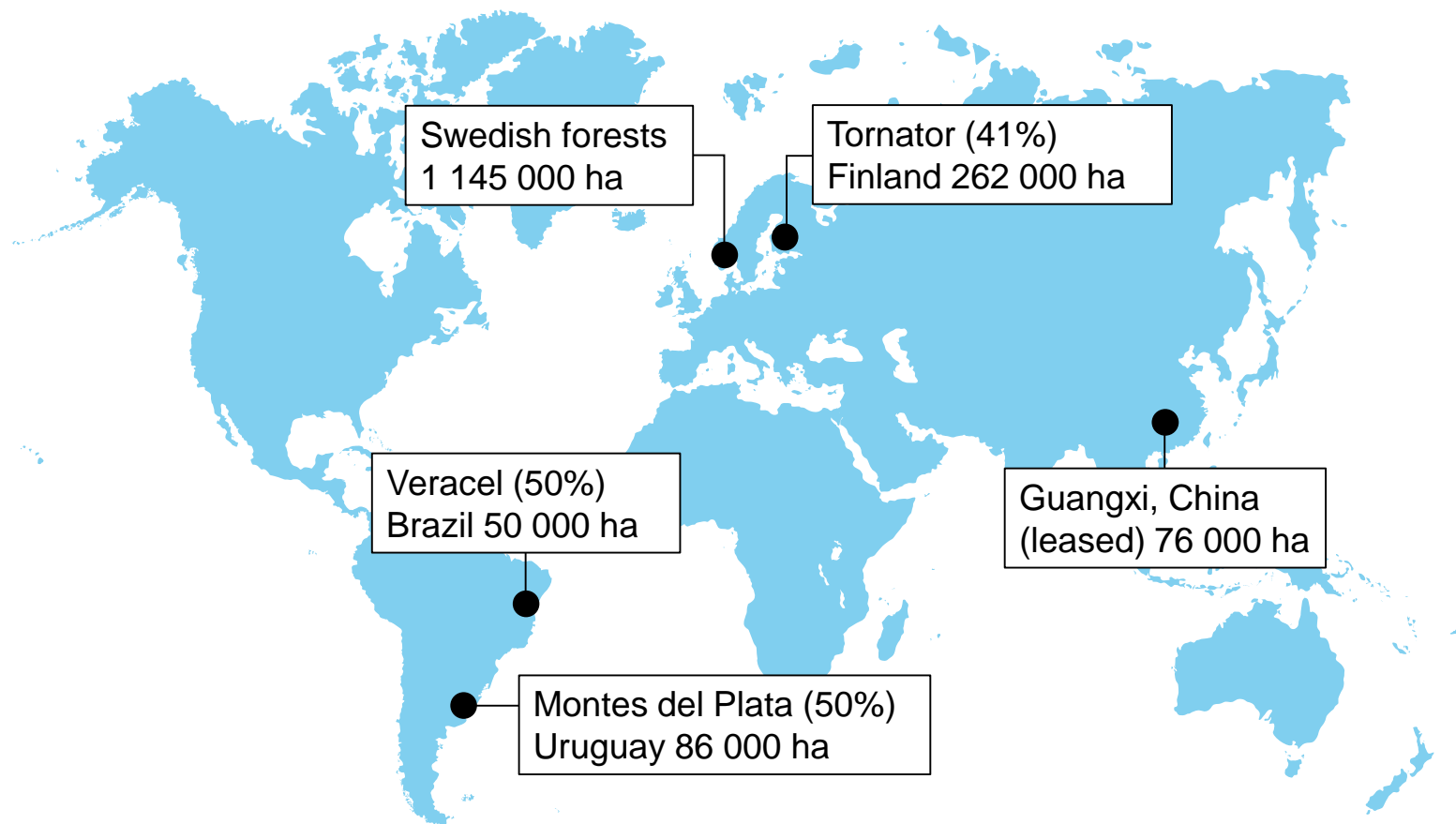


# Forest assets fair value increase to 6.5 - 7.0 BEUR

Group forest assets  
BEUR



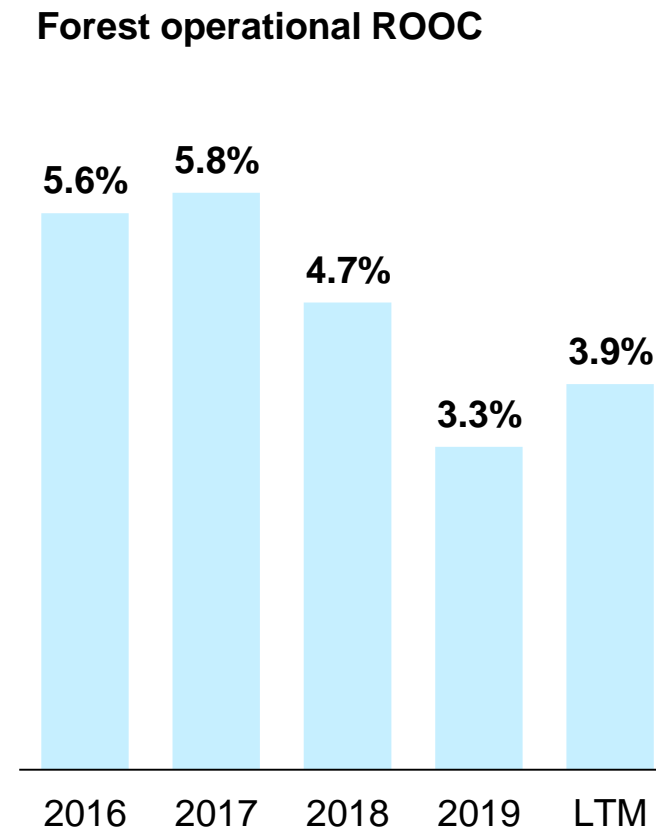
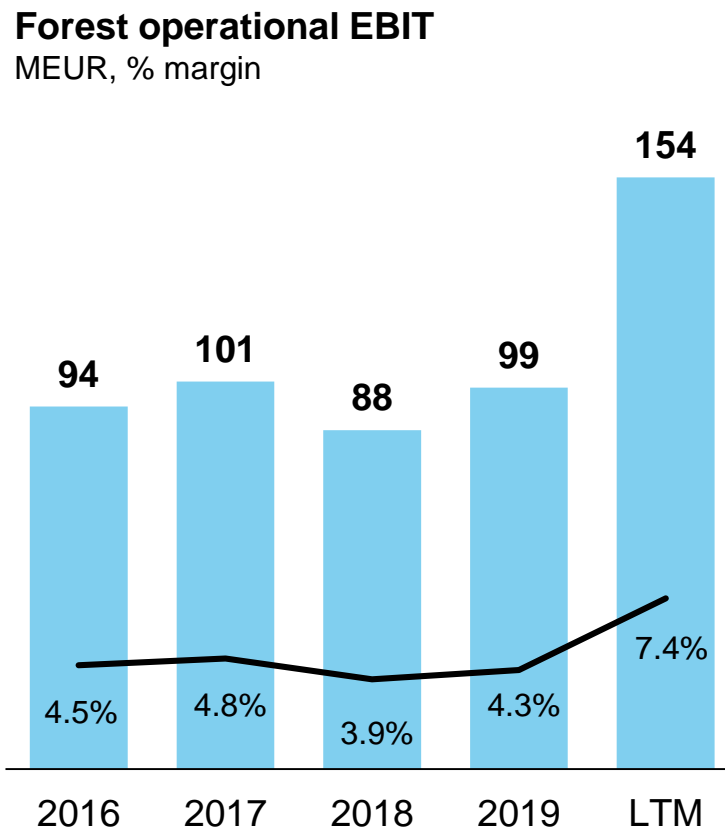
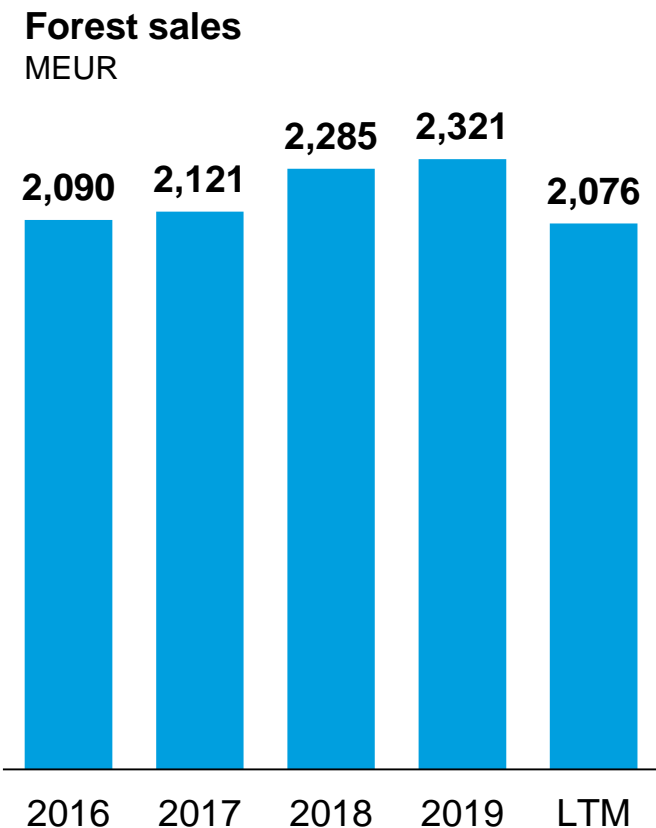
Stora Enso productive forest land areas at end of 2019







# Stable financial returns



LTM = Q4/19 - Q3/20. Historical figures for 2016 - 2017 not fully comparable due to restatement.



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# Strategic choices for Forest

- The leader in sustainable forest management
- Innovation to increase forest growth

# The leader in sustainable forest management



**Biodiversity**  
Preserving local biodiversity and culture



**Climate benefits**  
Capturing CO<sub>2</sub> from the atmosphere

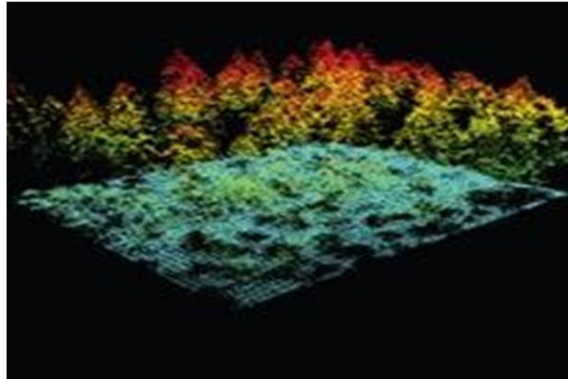


**Land use**  
Safeguard ecosystems while optimising social benefits from efficient land use



**Community**  
Maintain prosperity of communities close to our operations

# Innovation to increase forest growth



## Precision forestry and digitalisation

Accurate and timely operations and efficient use of digital opportunities



## Tree breeding and biotechnology

Increased yield, disease resistance, and improved wood properties



## Sustainability and biodiversity

Best in class forestry practices and holistic biodiversity measurements

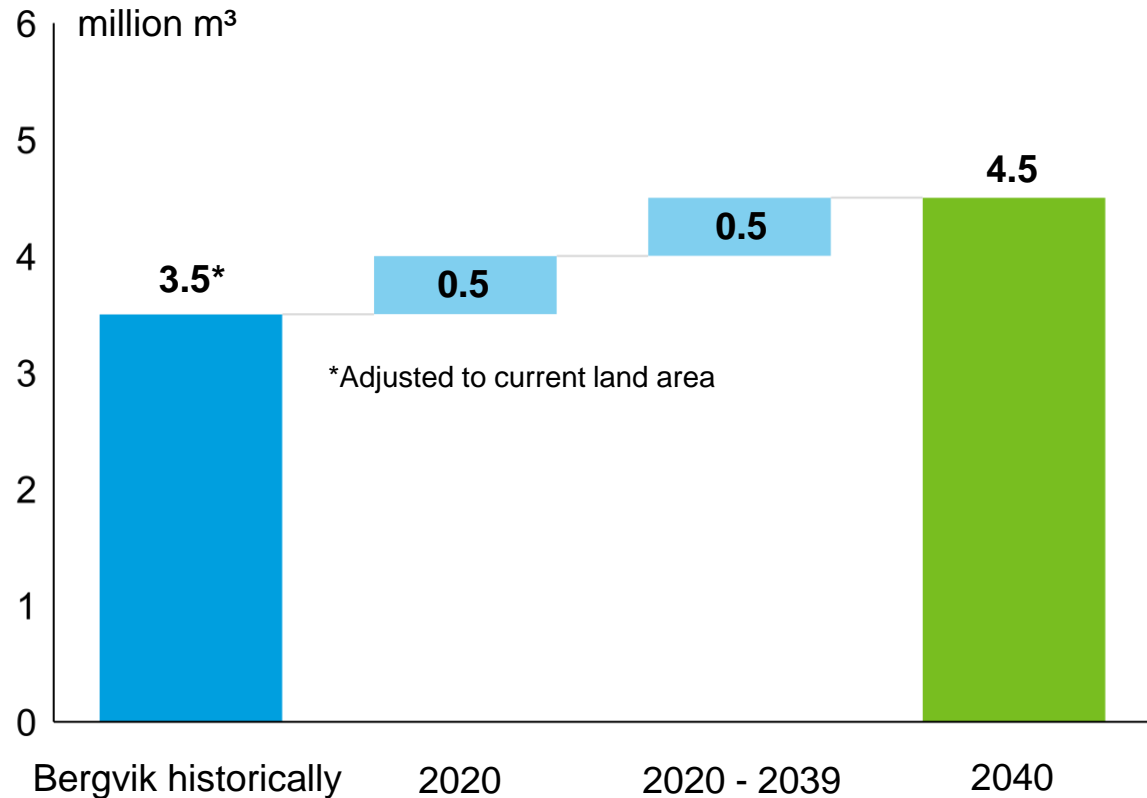


# Target to increase sustainable harvesting by 10 - 15% in Sweden

Innovation and forest management driving higher harvesting

Target to increase standing stock

Long-term harvesting plan in Sweden for 2020 - 2040  
(m<sup>3</sup> solid under bark)





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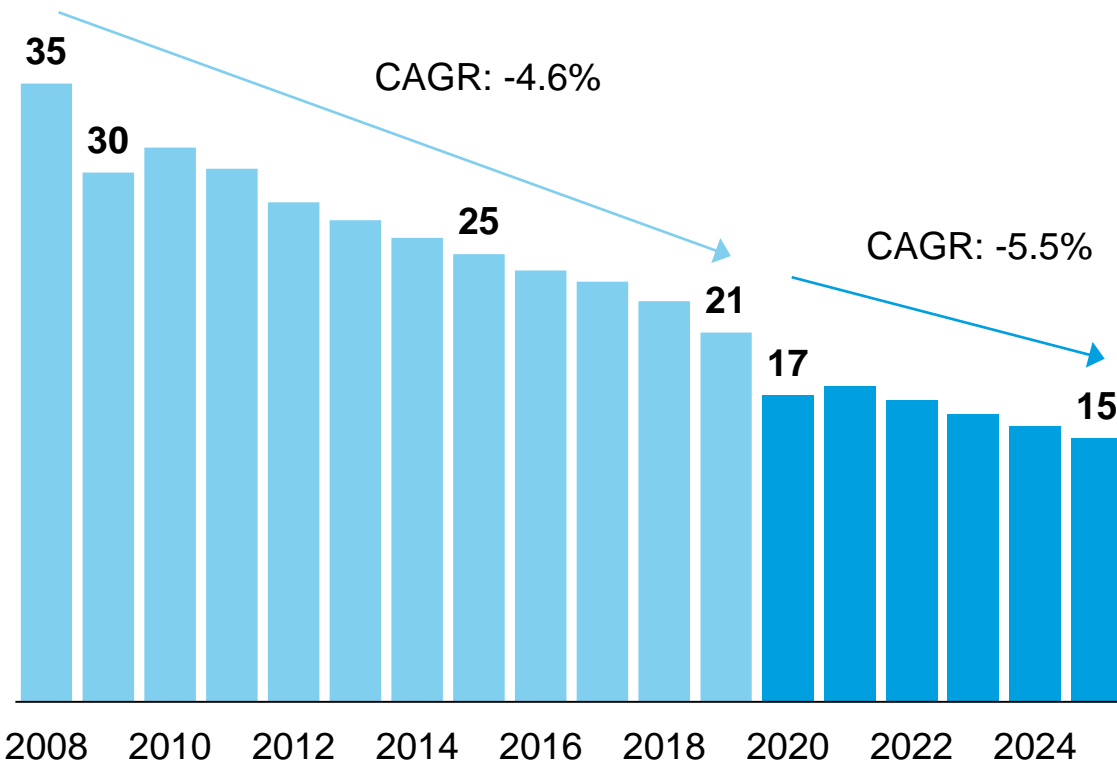
# Paper

- Cash flow generator to fund our growth
- Adopting to structurally declining markets

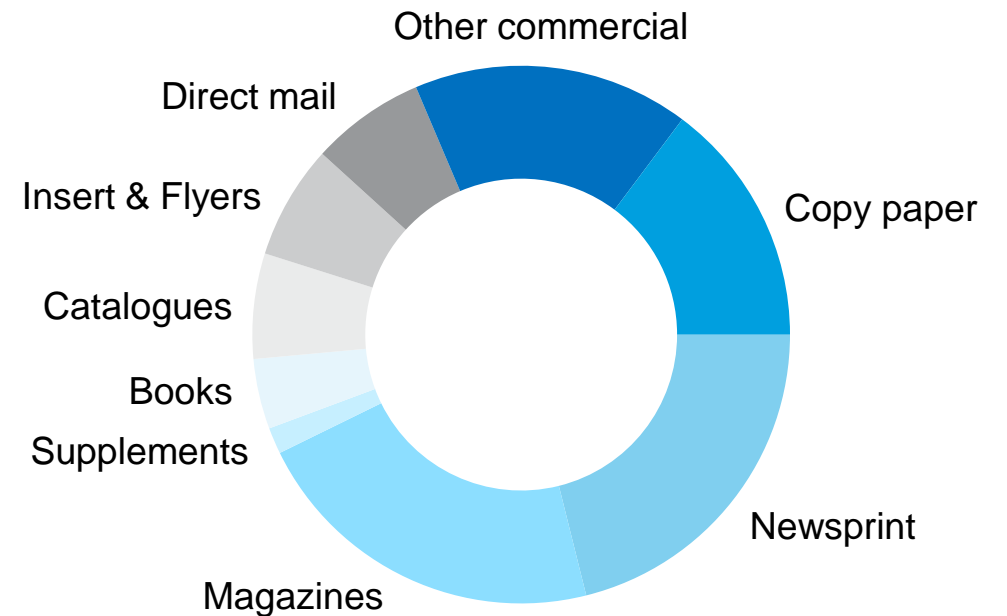


# Structural paper demand decline continues

European paper (Excl. wood free coated) demand (million t)



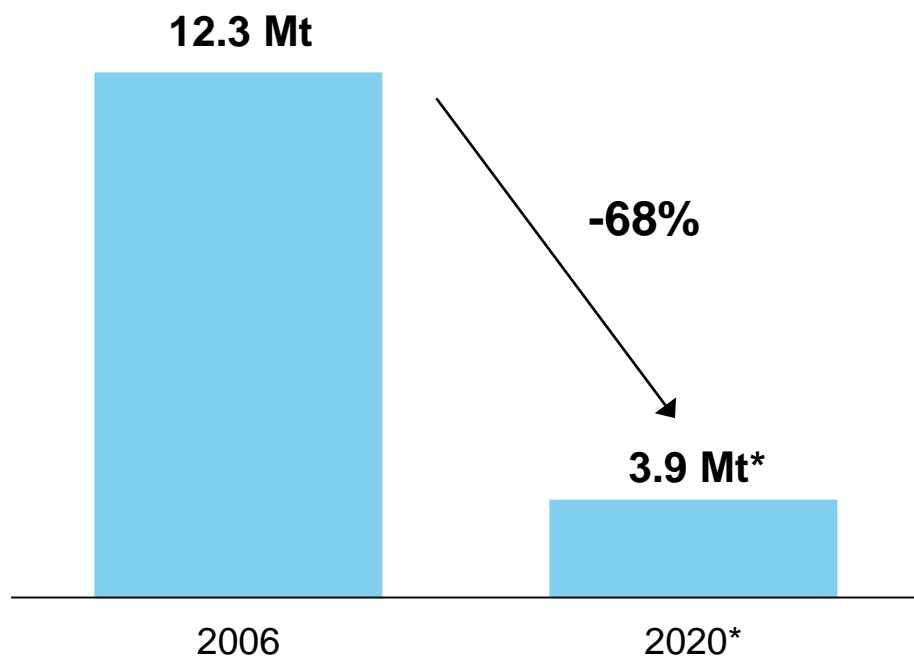
European paper demand by end use





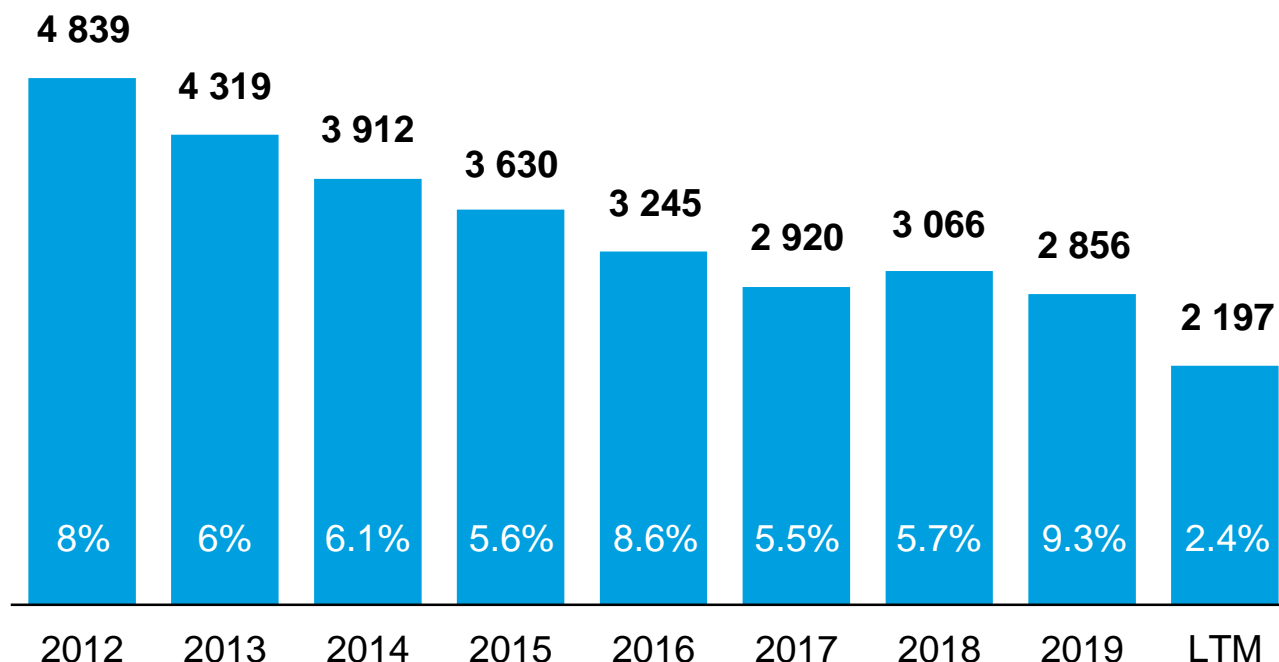
# Successful cash management despite sales decline

**Stora Enso paper capacity (kt)**



\*After Oulu mill (810 000 tonnes) conversion and Hylte PM3 (235 000 tonnes) closure by the end of 2020

**Paper division sales and cash flow after investing activities to sales %**  
MEUR



■ Sales (%) Cash flow after investing activities

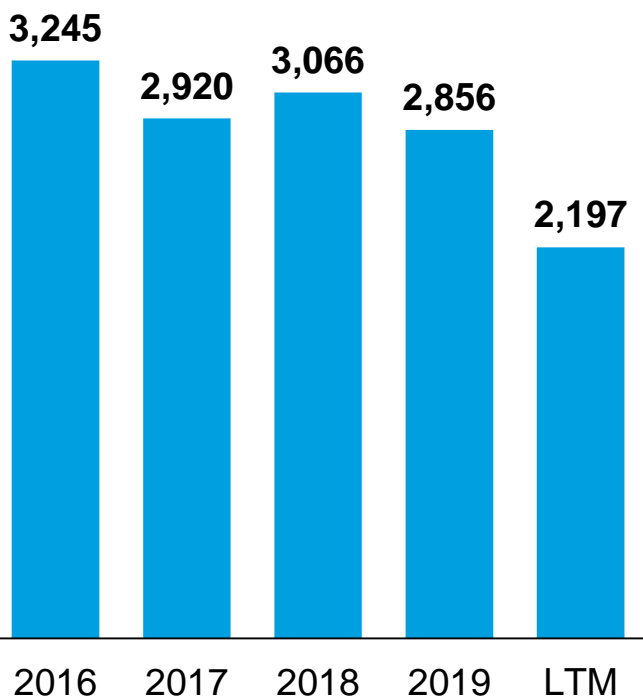
LTM = Q4/19 - Q3/20



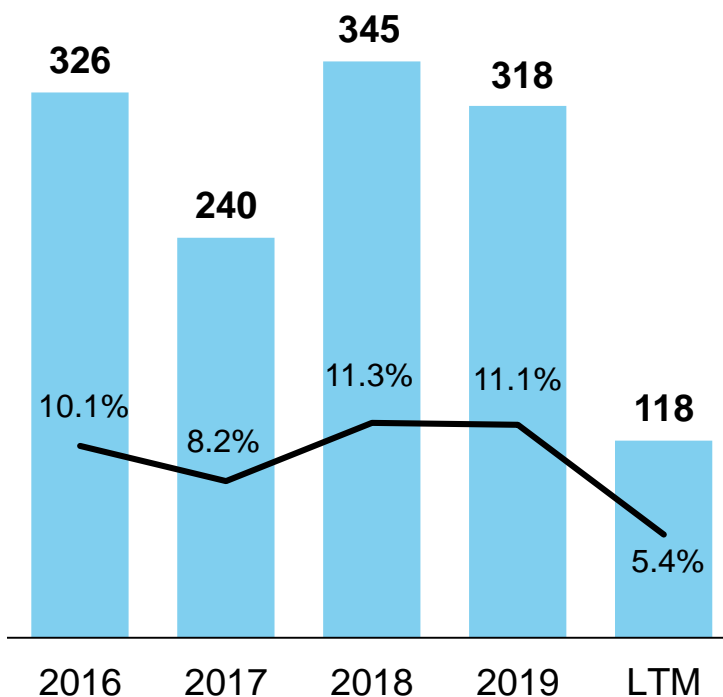


# Focus on cash flow

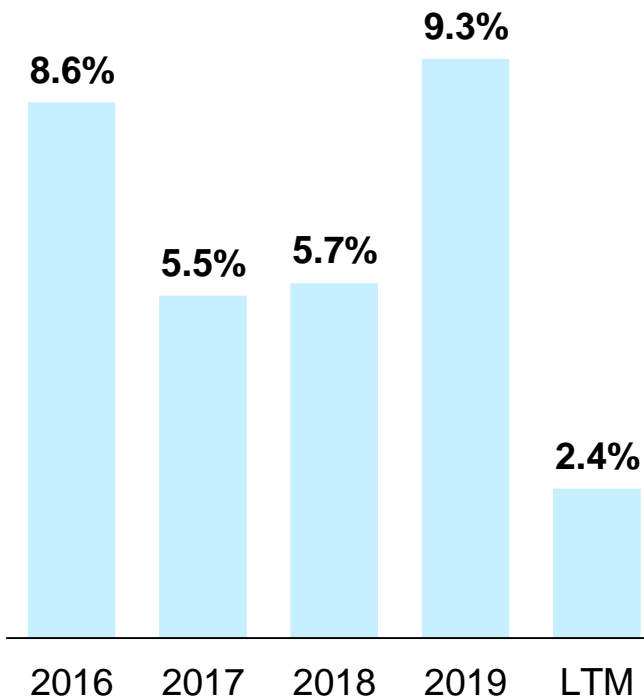
**Paper sales**  
MEUR



**Paper operational EBITDA**  
MEUR, % margin



**Paper cash flow after investing activities to sales**



LTM = Q4/19 - Q3/20

# Strategic choices for Paper

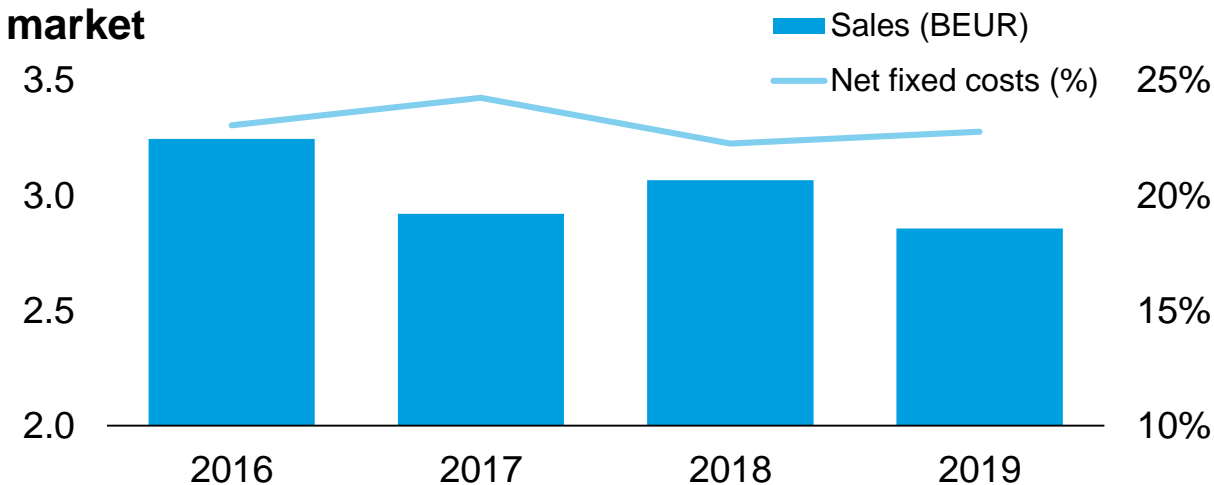
- Strong cash generation through cost reductions and active capacity management
- Higher operational independence to adapt to challenging market conditions



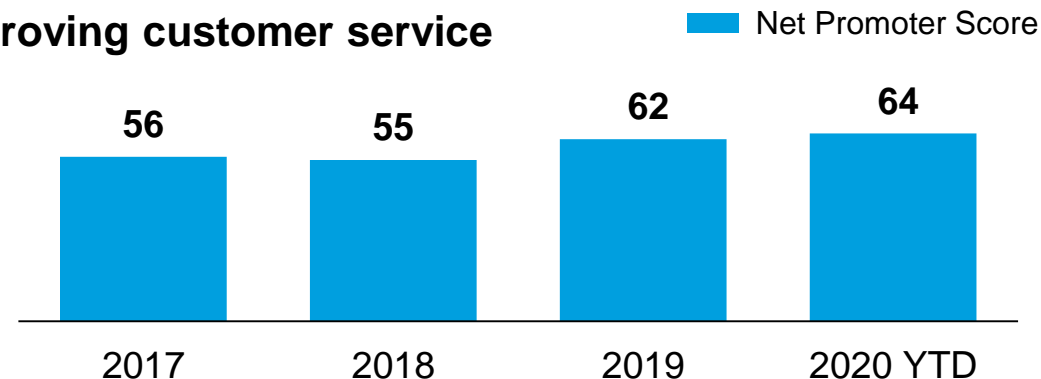
# Strong cash generation through cost reductions and capacity management

- Focus on cost reductions and working capital
- Capacity management through conversions, closures and divestitures
- Active asset management since 2006
  - 17 machine and four mill closures
  - Two mill site conversions
  - 13 mill divestments
- Strong commitment to customer service

### Managing costs in a declining market



### Improving customer service



# Higher operational independence to adapt to challenging market conditions



Increased focus on the particular needs of the Paper business

Fit-for-purpose processes and tools

Allowing scalability of costs



# Value creating capital allocation, supported by strengthening balance sheet

CFO Seppo Parvi



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# Value creating capital allocation, supported by strengthening balance sheet

- Forest fair value increases
- Focus on cash flow
- Selective capital allocation
- Revised long-term financial targets



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# Forest fair value increases



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# Why change forest assets fair valuation method now?

## Importance of forests increased as a valuation driver

- Forests are a significant part of our balance sheet
- Significant difference between the market values and balance sheet values
- Market practice for forest valuation changing in the Nordics

## As of Q4/2020, forest assets value will be based on market transactions

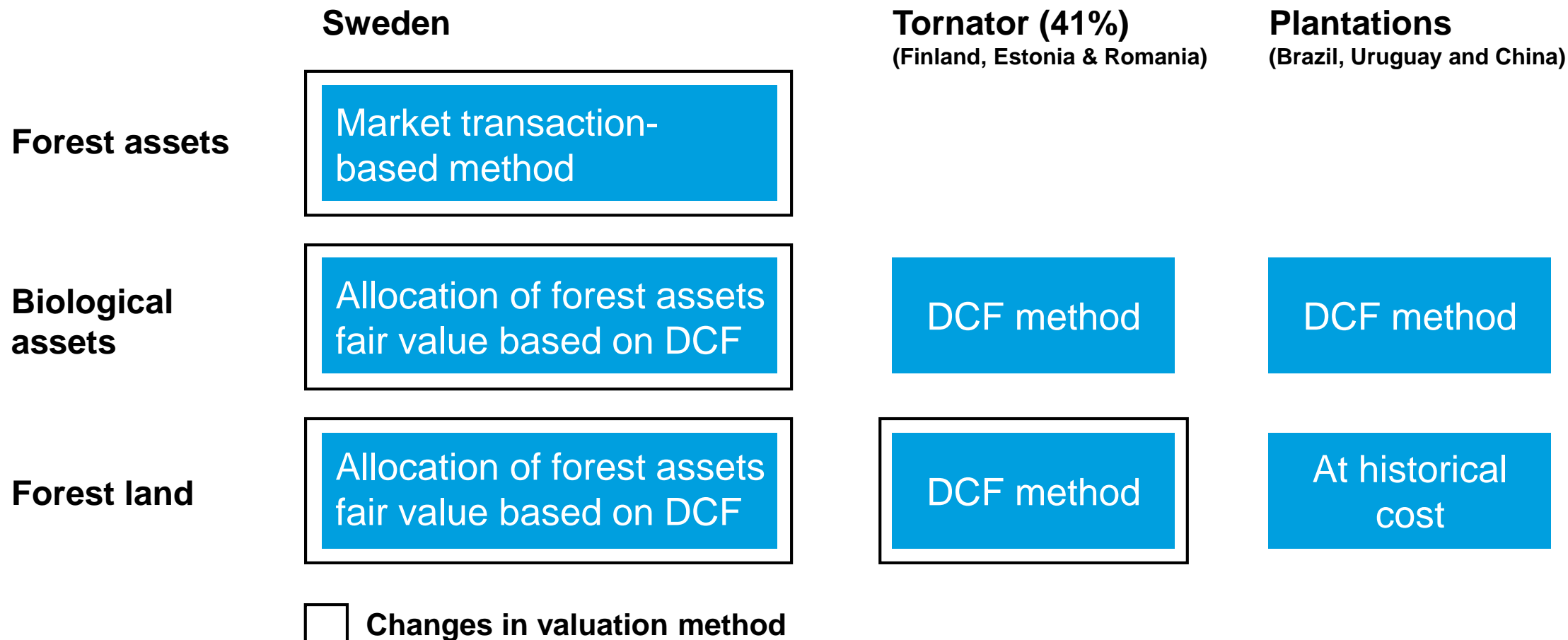
- Applies to Nordic forest assets
- Plantation valuation not changed due to lack of sufficient market transaction data and shorter harvesting cycles (6 - 12 years vs 60 - 100 years)





# Changes in the forest valuation methodology

## Starting at year end 2020



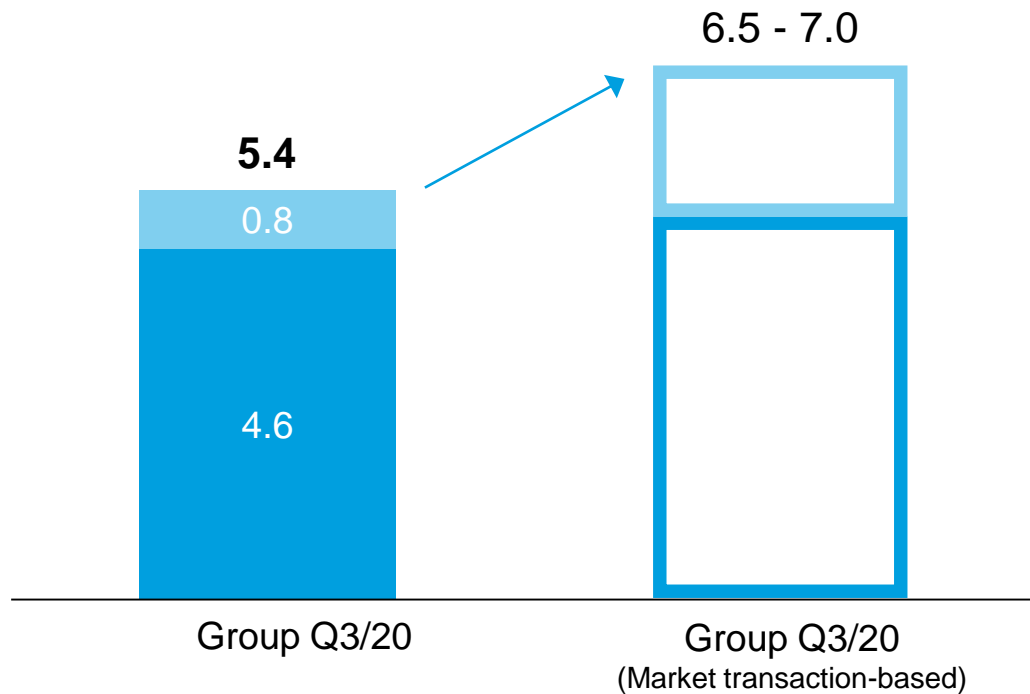


# Increasing forest fair value to 6.5 - 7.0 BEUR

## Group forest assets

BEUR

■ Biological assets ■ Forest land



## Market transaction-based valuation method in Sweden

- Market transactions in the Stora Enso forest regions
- Standing stock and price data of the traded forest
- Average prices per region from Ludvig & Co statistics

## Land revaluation in Finland

- Impact not material



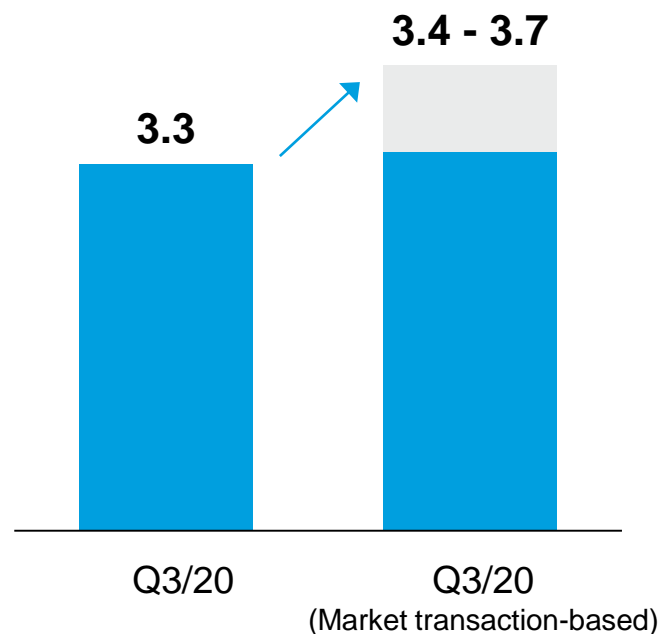
# Forest asset valuation method change – significant forest land value increase in Sweden

Preliminary market transaction-based price per hectare range is EUR 4 190 - 4 620

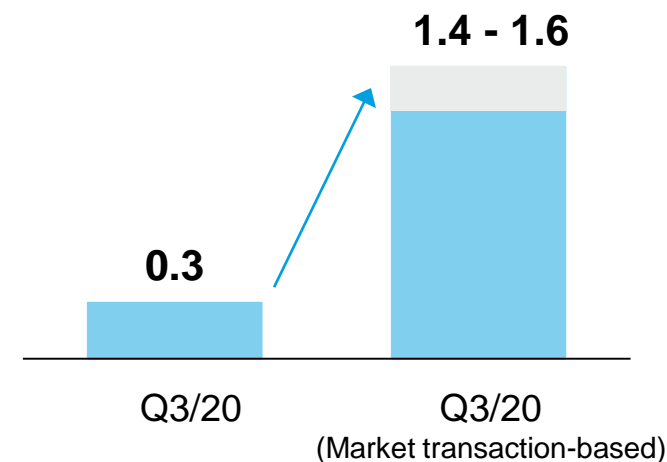
Forest assets market transaction-based valuation range 4.8 - 5.3 BEUR

With standing stock of ~143 million (m<sup>3</sup>fo), price per m<sup>3</sup>fo range is EUR 34 - 37

**Biological assets in Sweden**  
BEUR



**Forest land in Sweden**  
BEUR



Stora Enso's productive forest land in Sweden was 1 145 000 hectares at the end of Q3/2020

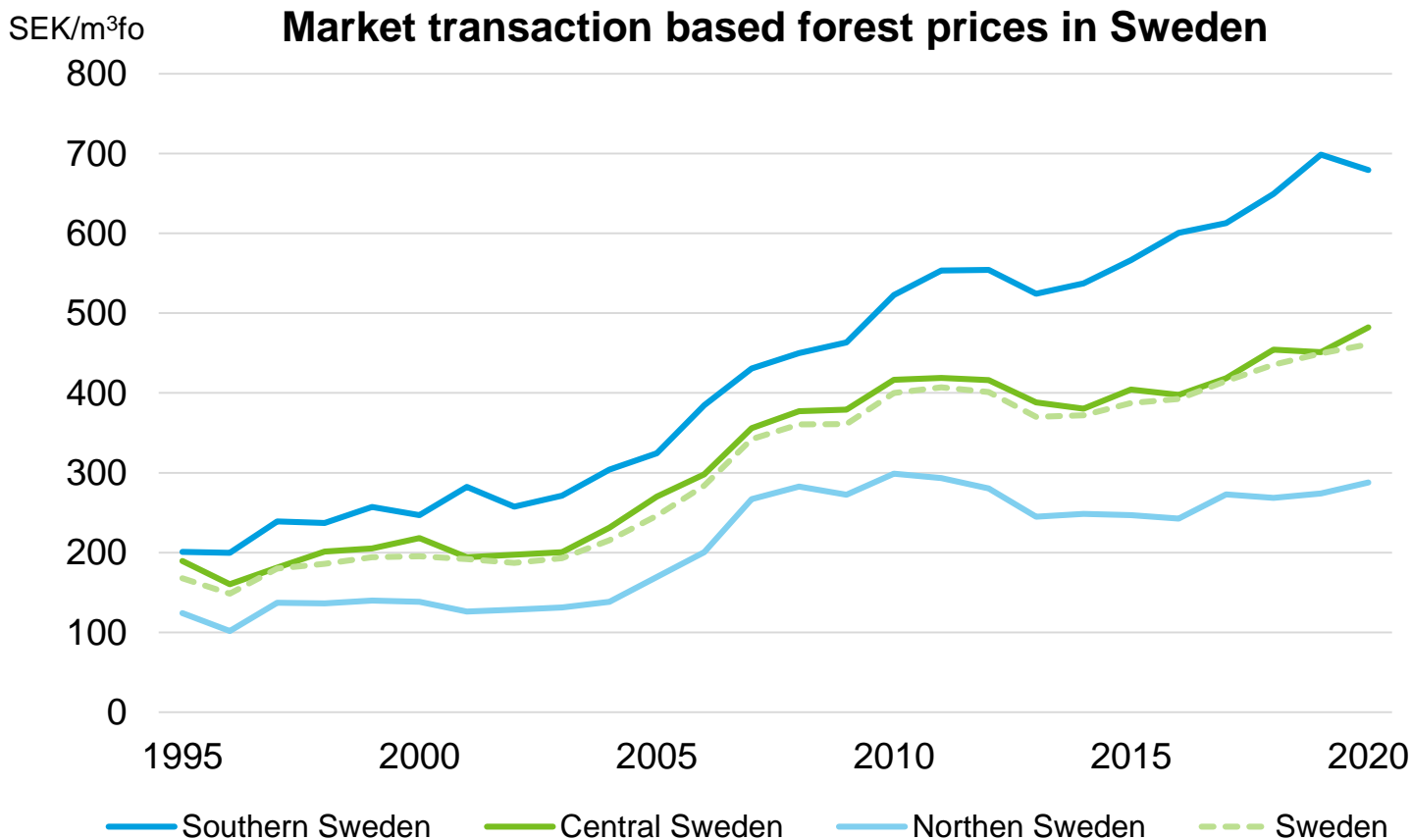


# Stora Enso forests are mainly in Central Sweden

Price changes per region in 1-6/2020 (y-o-y): Central +6.9%, Northern +5.1%, Southern -2.7%

Large differences between regional transaction prices

Stora Enso's forest asset in Sweden: 83% Central, 17% Northern



Source: Ludvig & Co Half-year report 2020 LUDVIG & CO



# Large private forest owner with more than two million hectares of forests

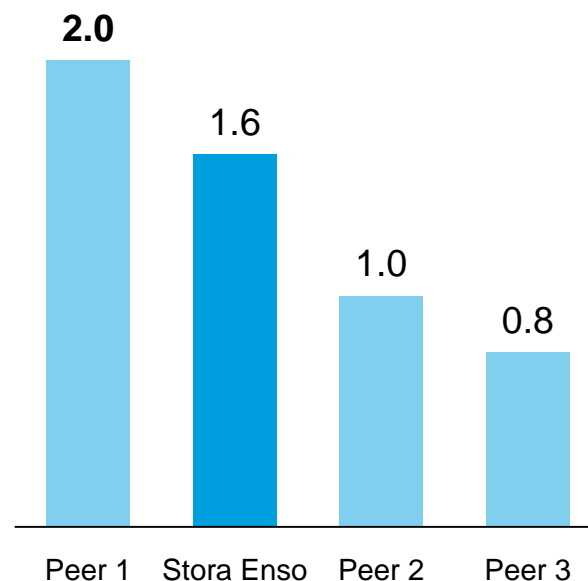
> 2 million ha of forest land and 1.6 million ha productive forest land

~192 million m<sup>3</sup> standing stock\*

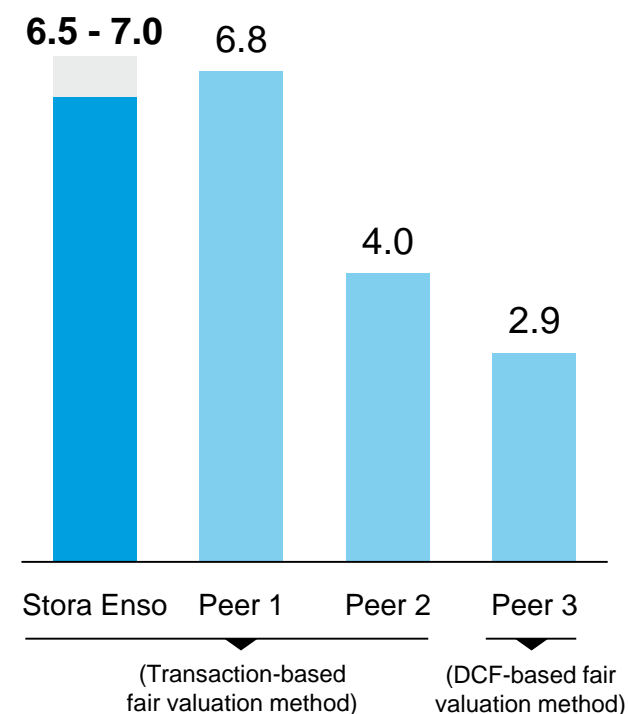
10.8 million m<sup>3</sup>\* in annual growth (Exceeding harvesting levels with > 1 million m<sup>3</sup>\*)

\*Productive forest land

Nordic companies' productive forest land at end of 2019  
Million hectares



Nordic companies' forest assets fair valuations  
BEUR





# Stora Enso's global forest assets – significant share of the balance sheet

All figures total forest assets including biological assets and forest land

Our forests absorb annually 3 Mt CO<sub>2</sub>

98% certified wood from own forests

**Sweden**  
**4.8–5.3 BEUR**  
(Market transaction-based range)

**Tornator (41%)**  
**803 MEUR**  
(DCF) (Q3/20)

**Montes del Plata (50%)**  
**425 MEUR**  
(DCF) (Q3/20)

**Veracel (50%)**  
**87 MEUR**  
(DCF) (Q3/20)

**Guangxi**  
**375 MEUR**  
(DCF) (Q3/20)



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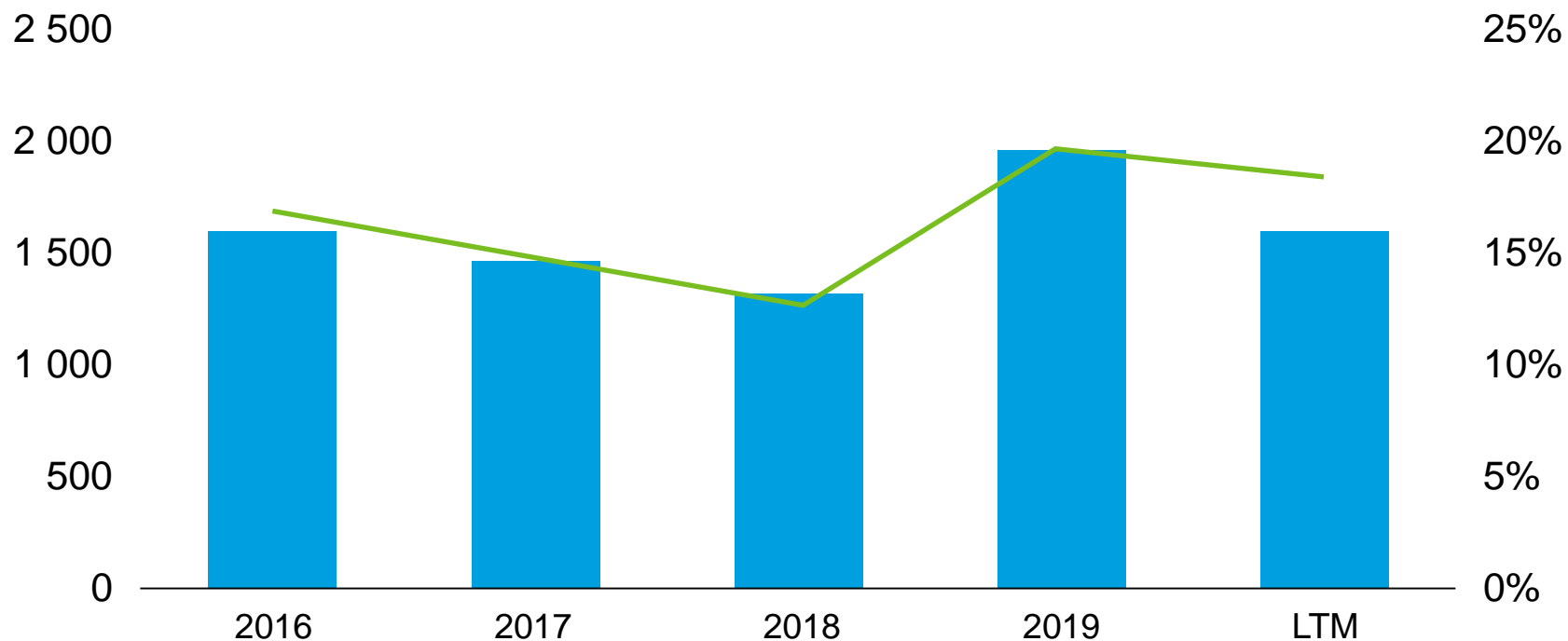
# Focus on cash flow



# Strong cash flow despite lower profitability in 2020

## Cash flow from operations

■ Cash flow from operations, MEUR    — Cash flow to sales



LTM = Q4/19 - Q3/20

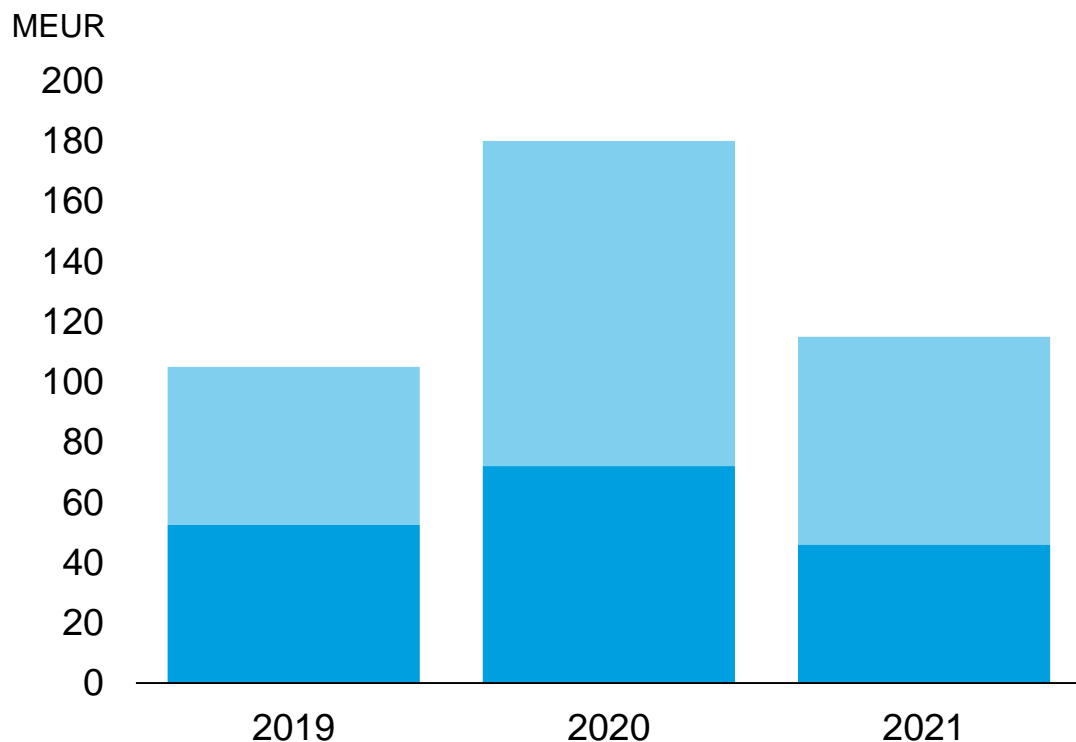




# Further intensified profit protection programme and working capital management due to Covid-19

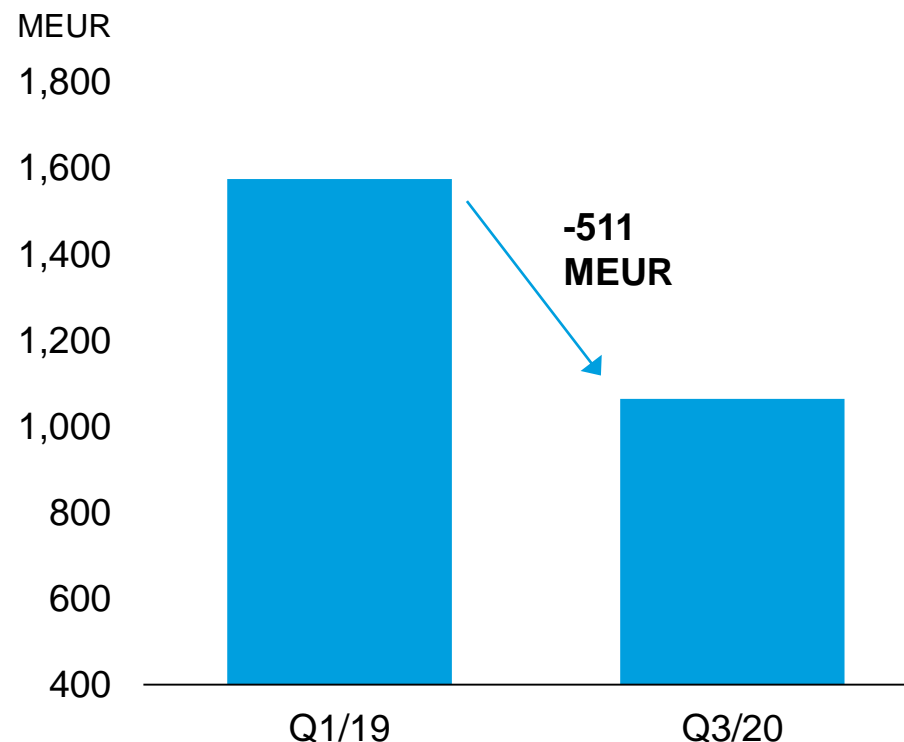
## Group continuous annual savings

■ Fixed costs ■ Variable costs



## Operative working capital

■ Operating working capital (period end)





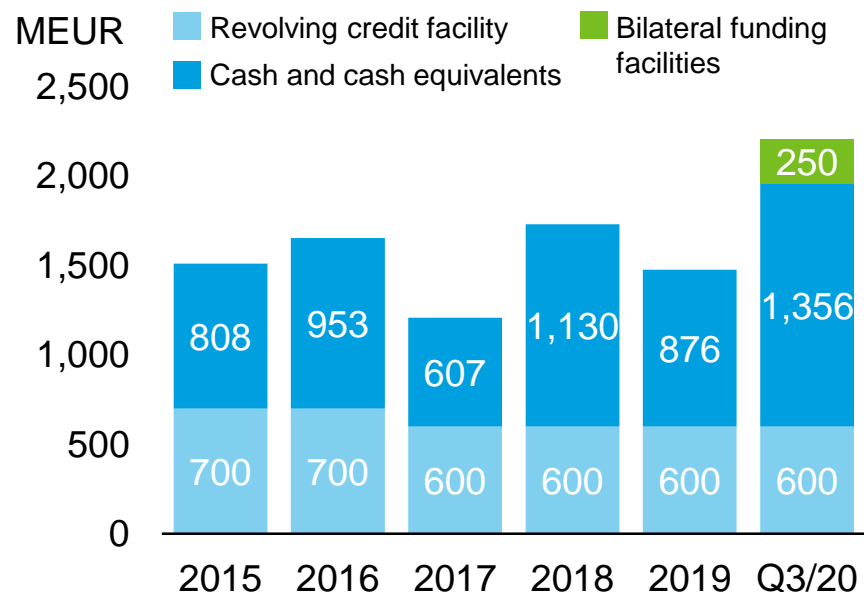
# Continued focus on liquidity

Strong liquidity at 2.2 BEUR

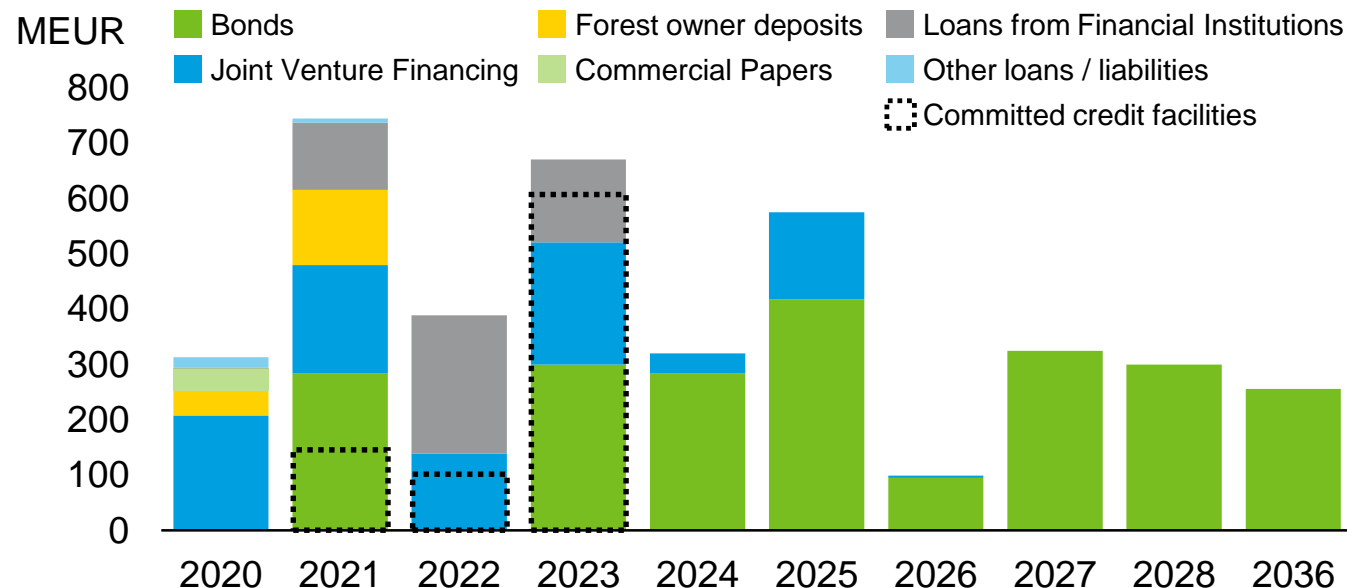
Taking opportunity of the long-term bond market to prolong maturity structure

No financial covenants on Stora Enso Oyj's debt

## Liquidity



## Maturity profile



Committed credit facilities are fully undrawn and mature in October 2021 (150 MEUR), June 2022 (100 MEUR) and January 2023 (600 MEUR)



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# Selective capital allocation

# Capex allocated to our focus areas for growth



**Significant growth potential with  
20%+ margin  
Majority of future company growth**



**3x sales from Building Solutions with  
~20% margin**



**35%+ margin in novel markets with  
strong growth**

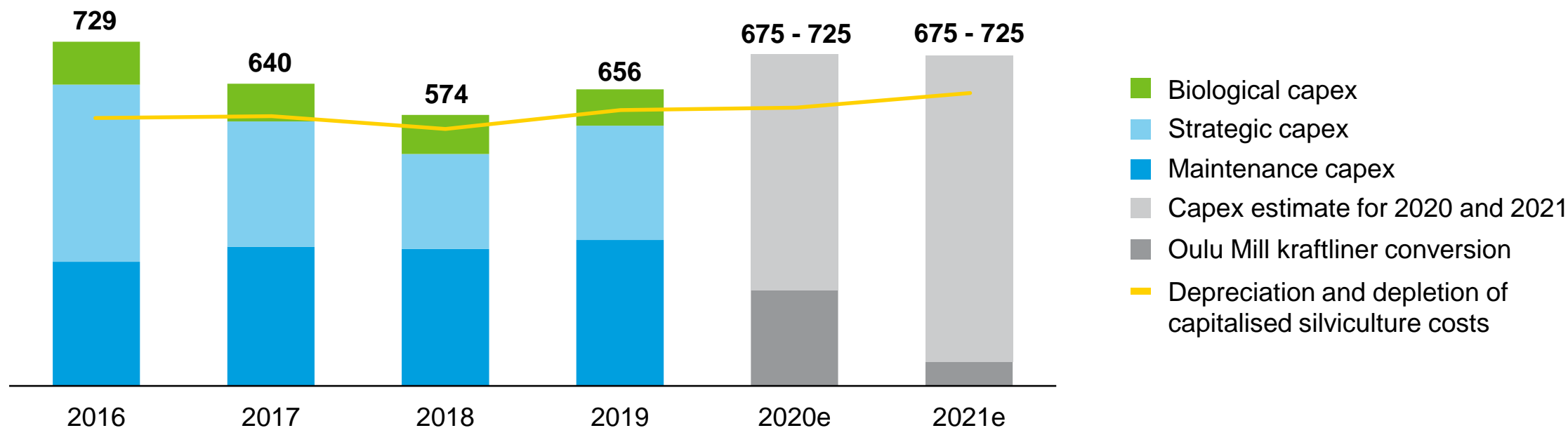
\*Excluding Paper



# Selective capex to support growth

## 2021 capex planned on 2020 level

MEUR



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



# Strong cash flow to support growth and distribution to shareholders

## Strong cash flow generation

### Allocating capital for sustainable profitable growth



**Organic growth**

CAPEX at or below depreciation over the cycle



**M&A**

Selective M&A to support packaging growth

### Returning capital to shareholders



**Dividends**

To distribute 50% of EPS excluding fair valuation over the cycle



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# Revised long-term financial targets

# Revised long-term financial targets



Group long-term financial targets	New targets	Comparison to current targets
<b>Dividend*</b>	To distribute 50% of EPS <b>excluding fair valuation over the cycle</b>	To distribute 50% of EPS over the cycle
<b>Growth**</b>	<b>&gt; 5% per annum</b>	To grow faster than the relevant market
Net debt to operational EBITDA	< 2.0x	No change
Net debt to equity	< 60%	No change
Operational ROCE <b>excl. Forest</b>	<b>&gt; 13%</b>	<i>&gt; 13%, but including Forest</i>
Divisional long-term financial targets		
Packaging Materials	Operational ROOC > 20%	No change
<b>Packaging Solutions</b>	<b>Operational ROOC &gt; 25%</b>	Operational ROOC > 30%
Biomaterials	Operational ROOC > 15%	No change
Wood Products	Operational ROOC > 20%	No change
<b>Forest</b>	<b>Operational ROCE &gt; 3.5%***</b>	Operational ROOC > 5%
Paper	Cash flow after investing activities to sales > 7%	No change

\*Annual dividend \*\*Excl. Paper \*\*\*Including deferred tax liabilities





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# Value creating capital allocation, supported by strengthening balance sheet

- Forest fair value increases
- Focus on cash flow
- Selective capital allocation
- Revised long-term financial targets

# Shaping our business for higher growth and value...



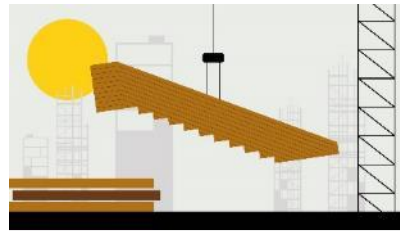
## Growth



Packaging Materials



Packaging Solutions



Wood Products:  
Building Solutions



Biomaterials: Innovations

## Foundation



Forest



Wood Products:  
Traditional wood products



Biomaterials: Pulp

## Cash



Paper

# ...by focusing on our three leading positions



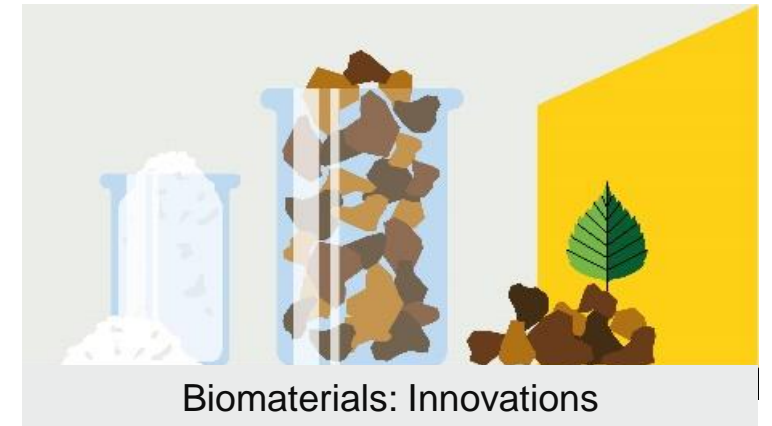
Packaging Materials & Solutions

**Significant growth potential with  
20%+ margin  
Majority of future company growth**



Wood Products: Building Solutions

**3x sales from Building Solutions with  
~20% margin**



Biomaterials: Innovations

**35%+ margin in novel markets with  
strong growth**

\*Excluding Paper

# Meeting consumer demand for eco-friendly and circular solutions



# 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.

**THE RENEWABLE MATERIALS COMPANY**