

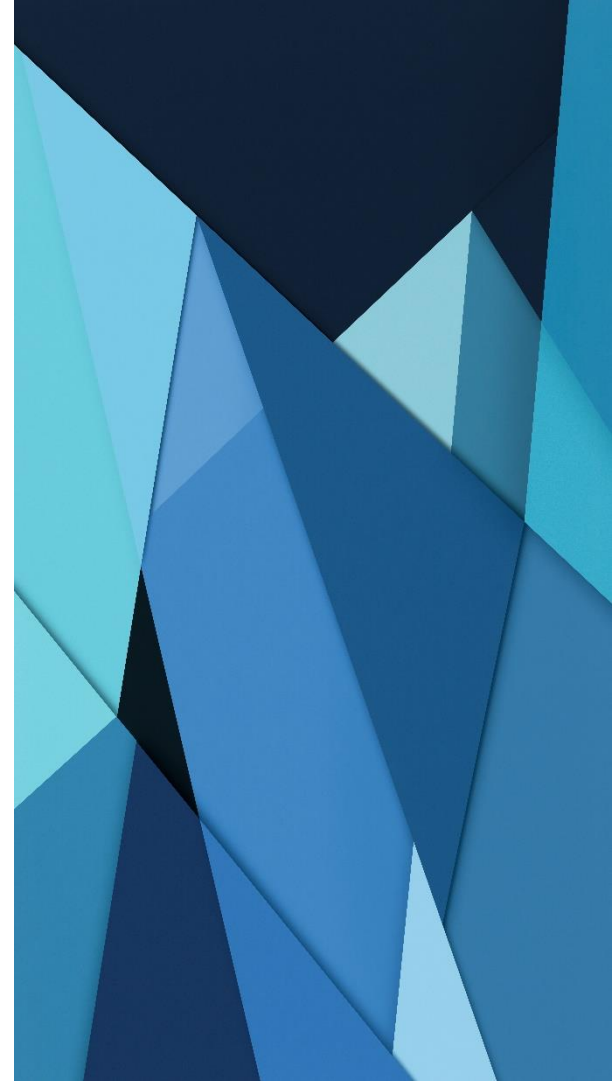
# Metsä Board Corporation

## Investor presentation

January – December 2018

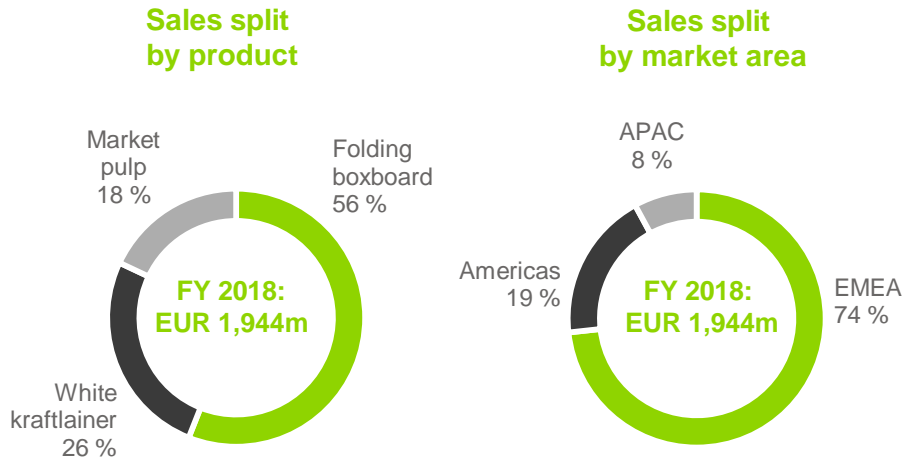
# Contents

This is Metsä Board	3
Main contributors in Metsä Board's profitability	15
Operating environment and demand drivers	21
Results for Q4 and FY 2018	26
Sustainability and product safety	38
Research and Development	51
Owners and management	61
Contact information	64



# Investment highlights of Metsä Board

- We are pure-play paperboard company focused on premium fresh fibre paperboards
- Global trends, e.g. sustainability and urbanization drive the demand for ecological and lightweight packaging
- We have a strong market position ...
- ... and good control of wood raw material and self-sufficiency in pulp



Our total paperboard capacity is

**2m tonnes/year**

of which

1/3 are white kraftliners and  
2/3 folding boxboard



# Our light, pure and safe paperboards have various end-uses...

## Folding boxboards

Packaging solutions for consumer goods



## Food service boards

Solutions for food service

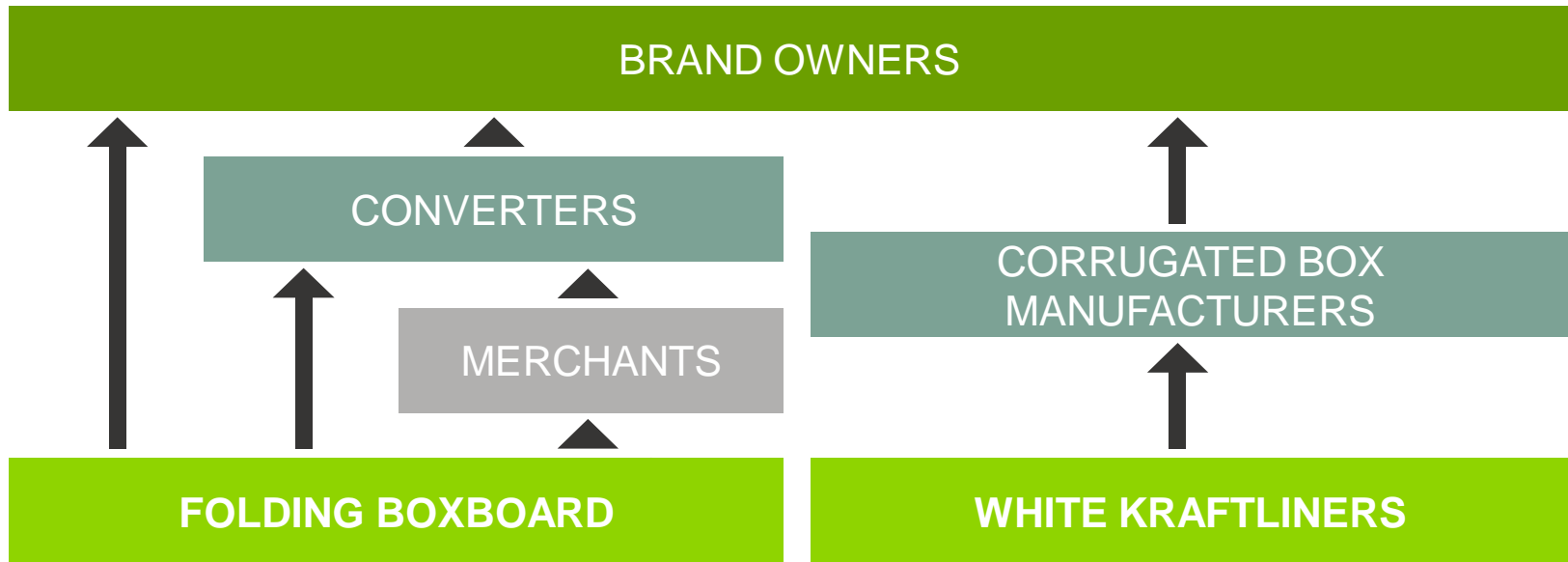


## White kraftliners

Retail-ready tray and point-of-sale solutions



... and we have a broad customer base



# Global trends driving the demand for fresh fibre paperboards

## Globalisation & urbanisation

We offer recyclable products that are ideal for the circular economy



## Sustainability

We use only renewable fresh fibres from sustainably managed northern forests



## Food safety

We have good control of raw materials, which guarantees purity and safety in food contact uses



## E-commerce

Our paperboards offer a strong promotion and branding experience

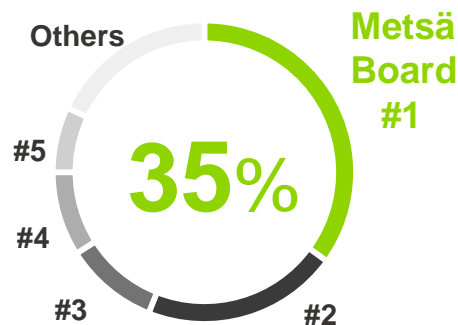




# We have a leading position in Europe in our main products

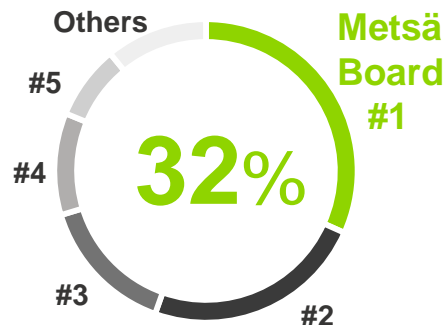
## Folding boxboard in Europe

Total capacity 3.8m tonnes



## White kraftliner in Europe

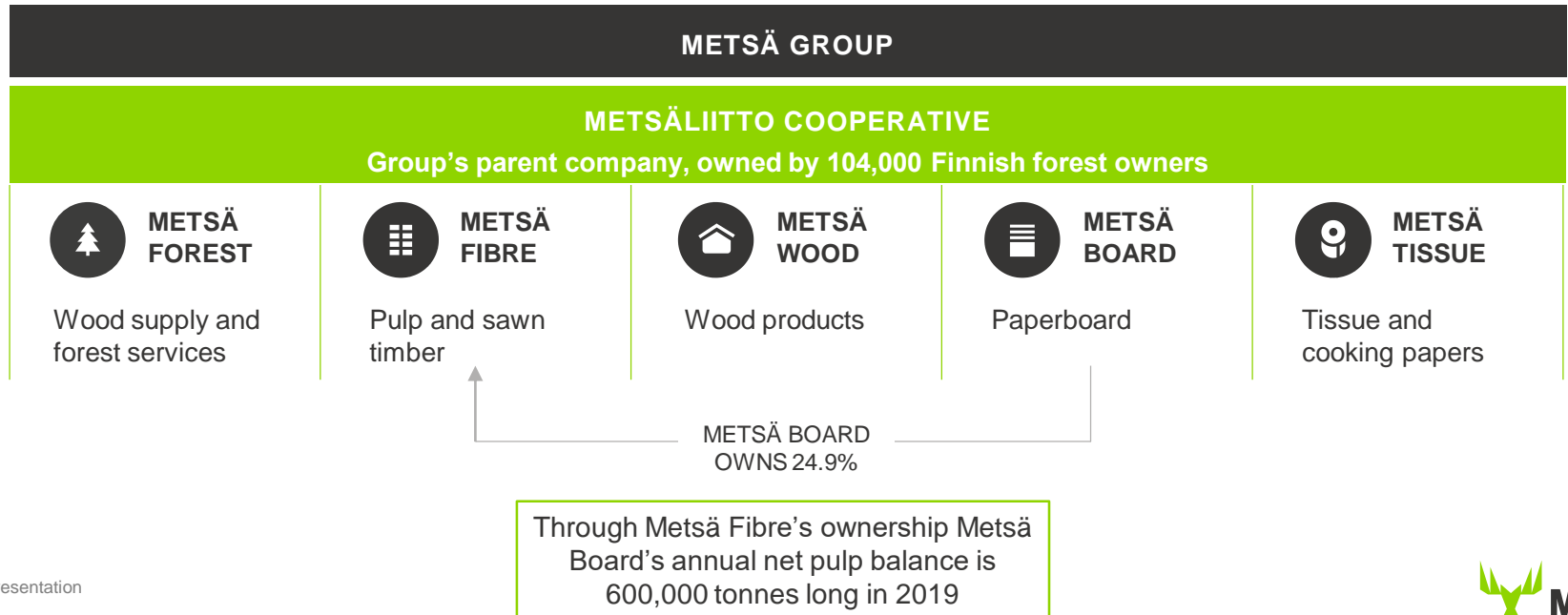
Total capacity 2.1m tonnes



- Regional sales split of paperboard deliveries:
  - 70% EMEA
  - 23% Americas
  - 7% APAC
- In APAC we focus on high-quality FBB segment
- We are the largest European importer of FBB to US
- We are #1 in coated white kraftliners globally

# We have good control of wood raw materials, from forests to pulp and board production

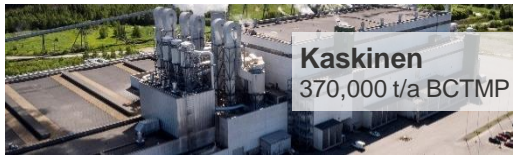
- High availability of northern wood
- Consistent quality of fibres that are tailor-made for the end products





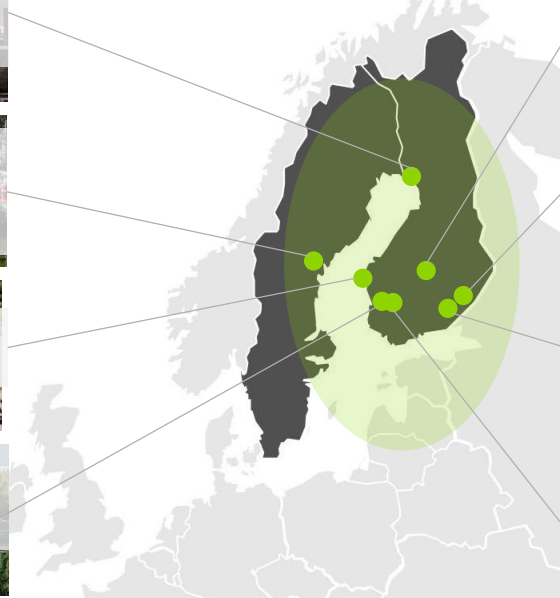
# Our production is close to our main raw material

**Total paperboard capacity:**  
Folding boxboard (FBB): 1,345,000 t/a  
White kraftliner (WKL): 675,000 t/a



\*Metsä Fibre mill

Wood sourced from  
Finland, Sweden,  
Baltics and Russia.

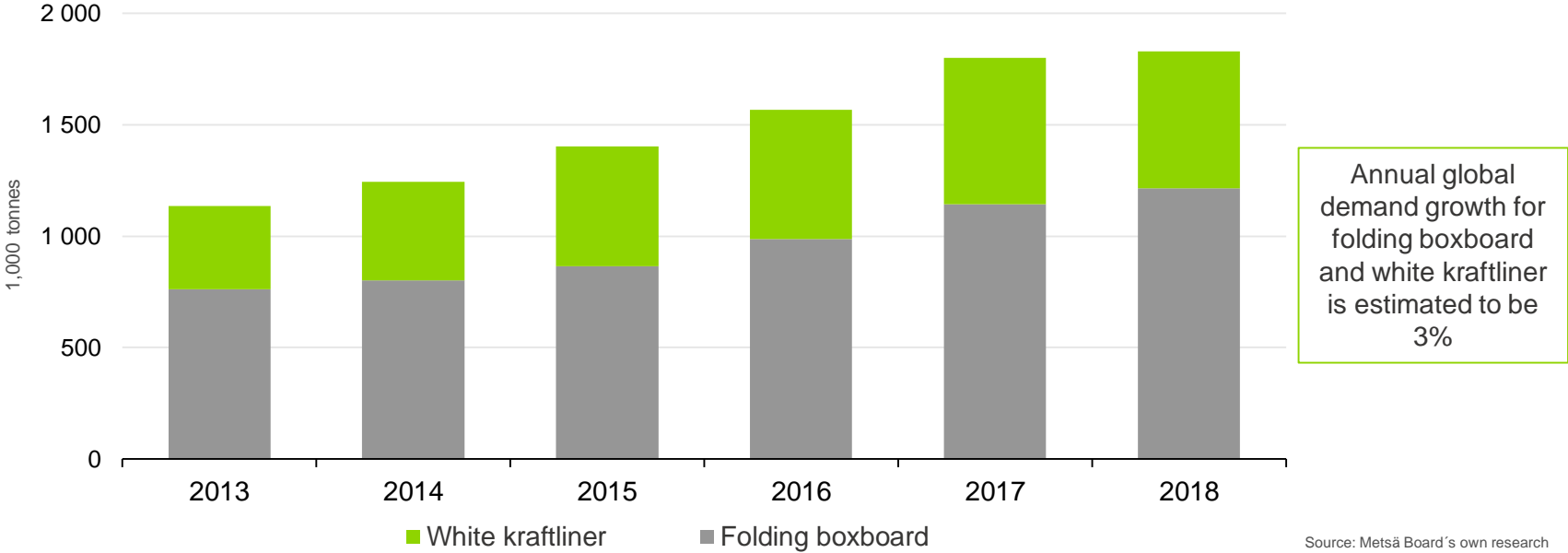


**Our net balance in pulp in 2019,**  
including the 24.9% ownership in  
Metsä Fibre, is 600,000 t/a



# We have been growing well above average market growth rate during past years ...

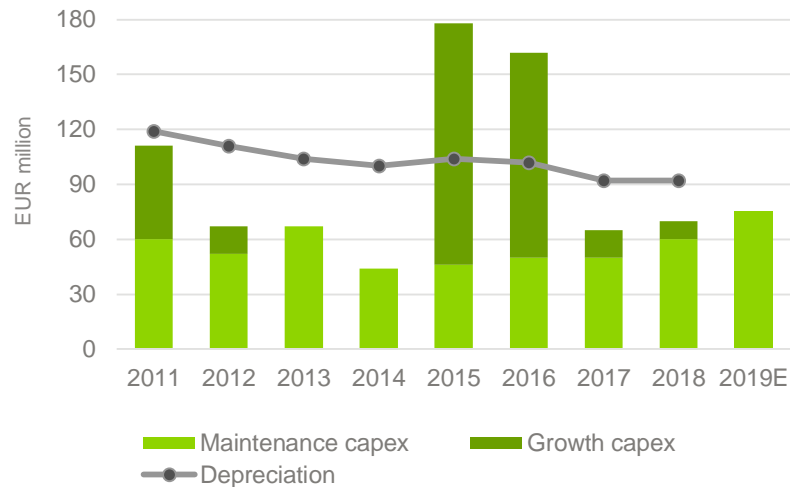
## Metsä Board's annual paperboard deliveries, CAGR 2013–2017: 12%



Source: Metsä Board's own research

# ...driven by capacity increases

## Capital expenditure and depreciation



## Investments in growth during 2011–2018:

**2018** New baling line in Kaskinen BCTMP mill: 30,000 new BCTMP capacity

New sheeting line in Äänekoski (to be in production 9/2019)

**2017** New extrusion coating line in Husum: 100,000 t/a PE coating capacity

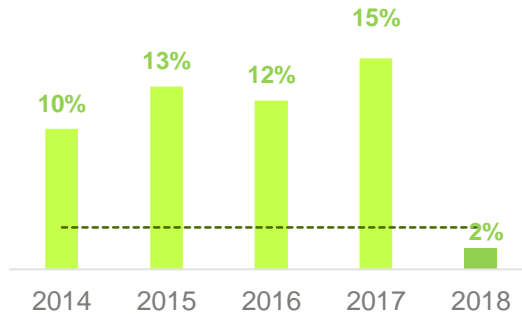
**2015–16** New folding boxboard production line in Husum: 400,000 t/a of FBB and linerboard production line conversion: 250,000 t/a of WKL

**2011–12** Debottlenecking in Simpele, Äänekoski and Kyro mills: total 150,000 t/a of FBB

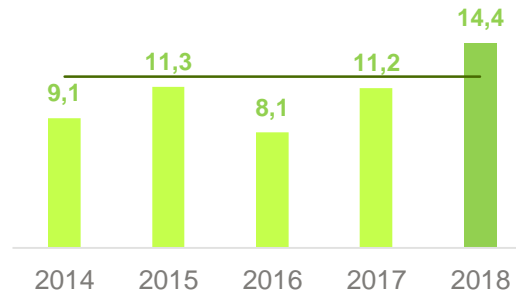
# In medium term, we aim for moderate growth with a strong focus on profitability

## Financial targets:

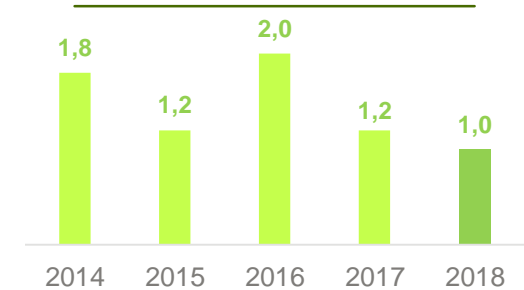
Annual growth in total paperboard deliveries, %  
*Target is to exceed the relevant market growth, 3% / year*



Comparable ROCE, %  
*Target > 12%*



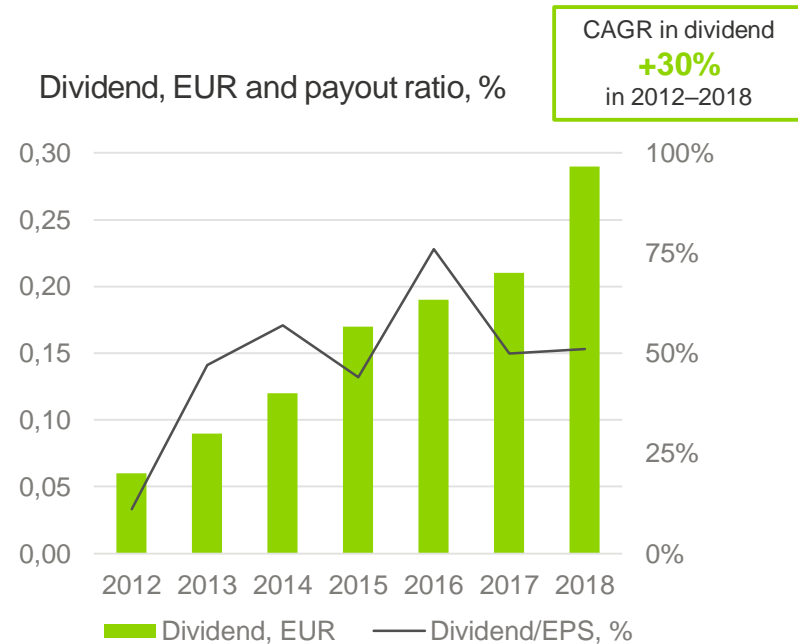
Net debt / comparable EBITDA  
*Target < 2.5x*



### Dividend policy

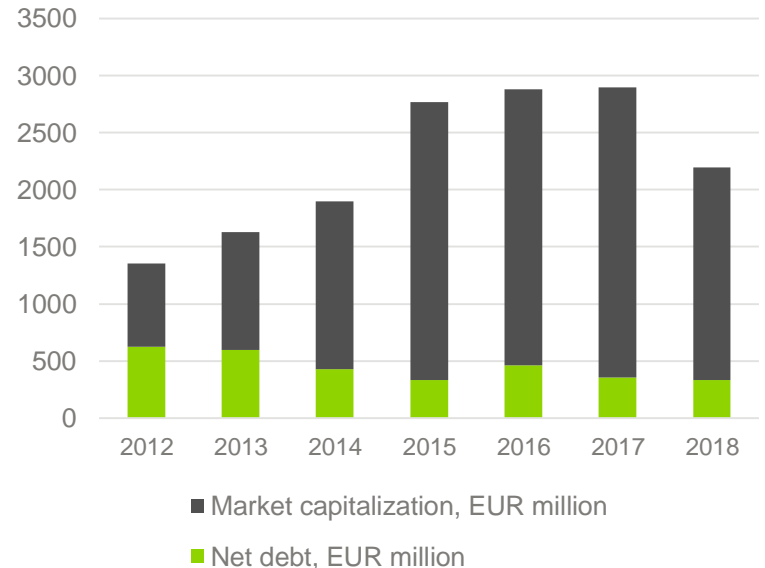
We aim to distribute at least 50% of our result for the financial period in annual dividends

# We have created shareholder value with focused strategy



Note! Year 2018 is a Board's proposal to AGM to be held on 28 March.  
Total distribution consists of a dividend of 0.10 and other distribution of equity of EUR 0.19

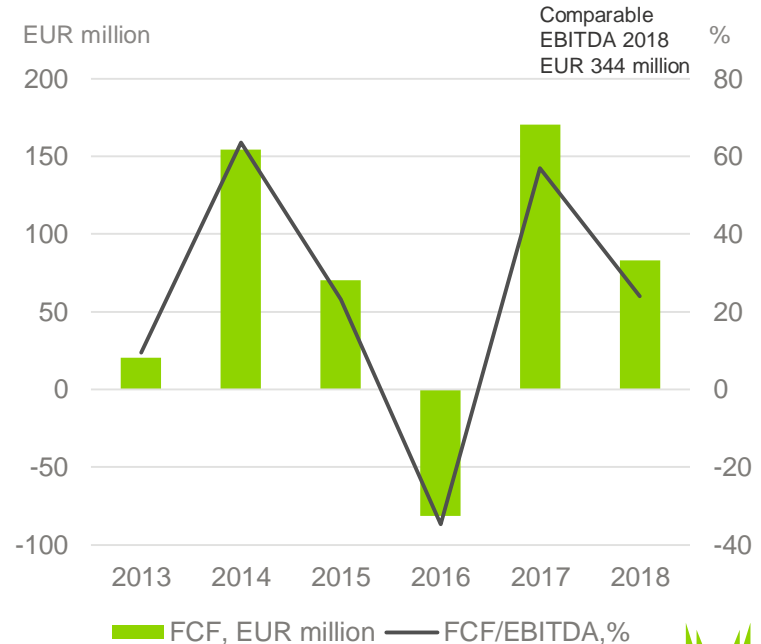
Enterprise value, EUR million



# Our free cash flow weakened towards end of 2018

- Free cash flow
  - Since 2016 improved FCF as a result of improved profitability, decreased capex and good working capital discipline
  - FCF weakened towards end of the 2018 as a result of higher capex in Q4 and increased inventories
  - Result share from Metsä Fibre is a non-cash item
- Our capital allocation in the near future
  - Dividend: supported by good performance
  - Capital structure: deleveraging continues to levels below 1.0x
  - CAPEX: return-based allocation (ROCE above 12%)

Free cash flow in EUR million and % of EBITDA



FCF=Cash flow from operations after investments

## Main contributors in Metsä Board's profitability



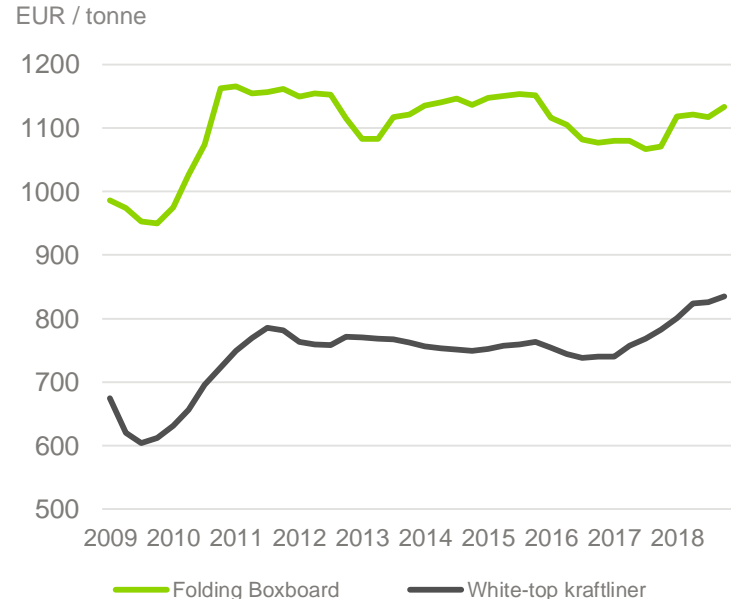


# Favourable price development in paperboards

- Strong demand and limited supply in fresh fibre paperboards have led to increased price levels
- Metsä Board's announced price increases in 2018
  - FBB: Europe EUR 80/tonne, effective mainly from 2019.
  - WKL: Twice in Europe and once in the Americas

## Market price development in Europe

Sources: Fastmarkets RISI & Fastmarkets FOEX



# Strong pulp market supported profitability in 2018

- Higher production and delivery volumes from Metsä Fibre supported Metsä Board's result in 2018
- In the long-term, pulp demand is supported by
  - Limited new capacity in the coming years
  - Restrictions on recycled paper imports in China
- Metsä Board's annual net position in pulp is roughly 600,000 tonnes long in 2019

## Pulp price (PIX) development in Europe

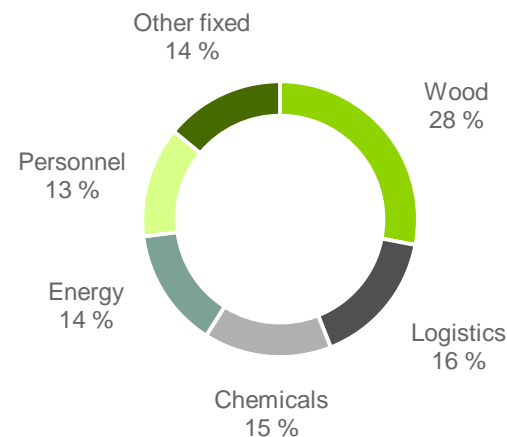
Source: FOEX Indexes Ltd



# We see cost inflation slowing down

Cost component	Near-term outlook
Wood	Prices in Finland and Sweden are expected to remain stable. In the Baltics, the price level will depend on the demand in export markets
Logistics	In line with general cost inflation
Chemicals	In line with or below general cost inflation
Energy	Stabilisation following the oil and electricity price hikes in 2018
Personnel	Approximately +2% y-on-y, mainly based on collective agreements
Other fixed	In line with or below general cost inflation

**Metsä Board's cost split in 2018**  
incl. 24.9% share from Metsä Fibre's costs



**Total costs in 2018: EUR 1.7 billion**  
(2017: EUR 1.6 billion)

# We estimate that profit improvement from Husum is slightly higher than our previous estimates

## Estimated profitability improvement in 2019 vs. 2016

Original estimate in  
2019 vs. 2016:  
EUR 100 million

Achieved in  
2018 vs. 2016:  
EUR 90 million

New estimate in  
2019 vs. 2016:  
EUR 110–120 million

### Our estimate is based on

- Changed market environment since 2017
  - Positive from market pulp prices and SEK/EUR
  - Negative from wood costs and USD/EUR
- Estimated potential in 2019 through paperboard pricing of EUR 20–30 million
- Gradual improvement potential also after 2019

### Initial estimate communicated in 2017



# Our main profit components and sensitivities

Component		Change	Impact on EBIT
Folding boxboard	Price	+/- 10%	> EUR 100 million
White kraftliners	Price	+/- 10%	> EUR 50 million
FX	USD/EUR	+/- 10%	EUR 74 million
	SEK/EUR	+/- 10%	EUR 50 million
Pulp	Pix price of SW/HW per tonne	+/- 10%	EUR 25 million
Wood	Price per m <sup>3</sup> in Finnish mills	+/-10%	EUR 30 million*
	Price per m <sup>3</sup> in Husum	+/-10%	EUR 20 million

Annual FX net transaction exposure is approximately EUR1.35 bn, of which 55% USD, 37% SEK and % GBP

In 2018, Metsä Board sourced 5.5 million m<sup>3</sup> wood, of which 37% from Sweden, 28% Finland, 20% Baltics and 15% Russia. Including the 24.9% share from Metsä Fibre, the total sourcing was 8.5 million m<sup>3</sup>

\* incl. ownership in Metsä Fibre



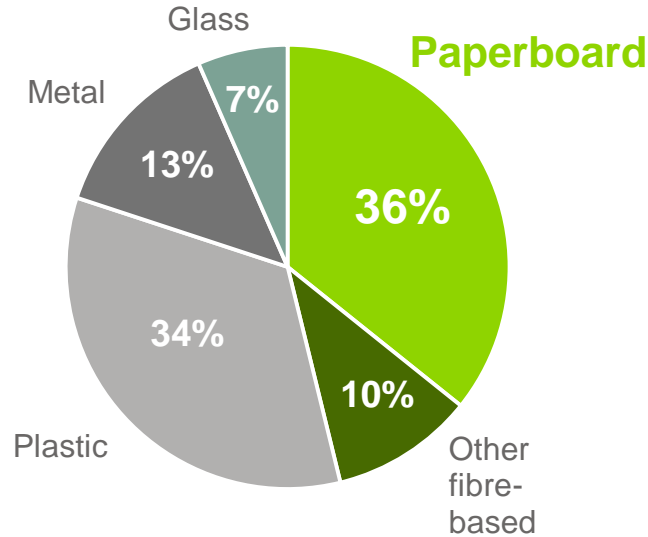


**Operating environment  
and demand drivers**

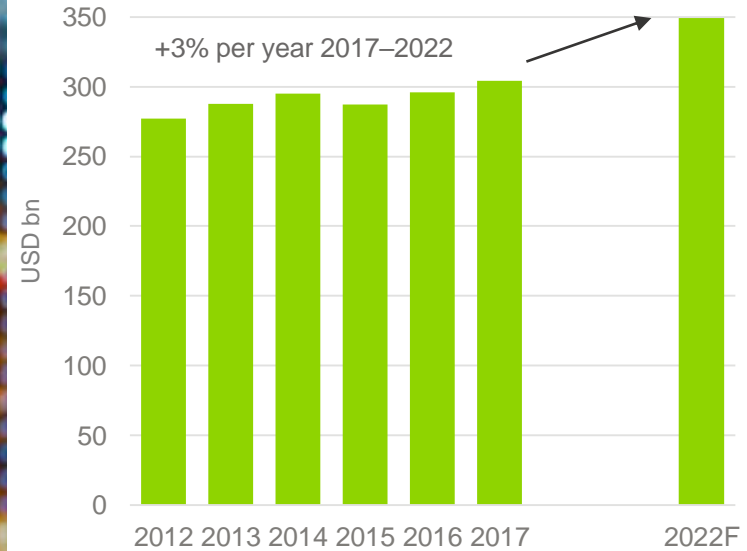
# Paperboard is the packaging material of the future

Growing by 3% per year

The total packaging market is USD 850 billion



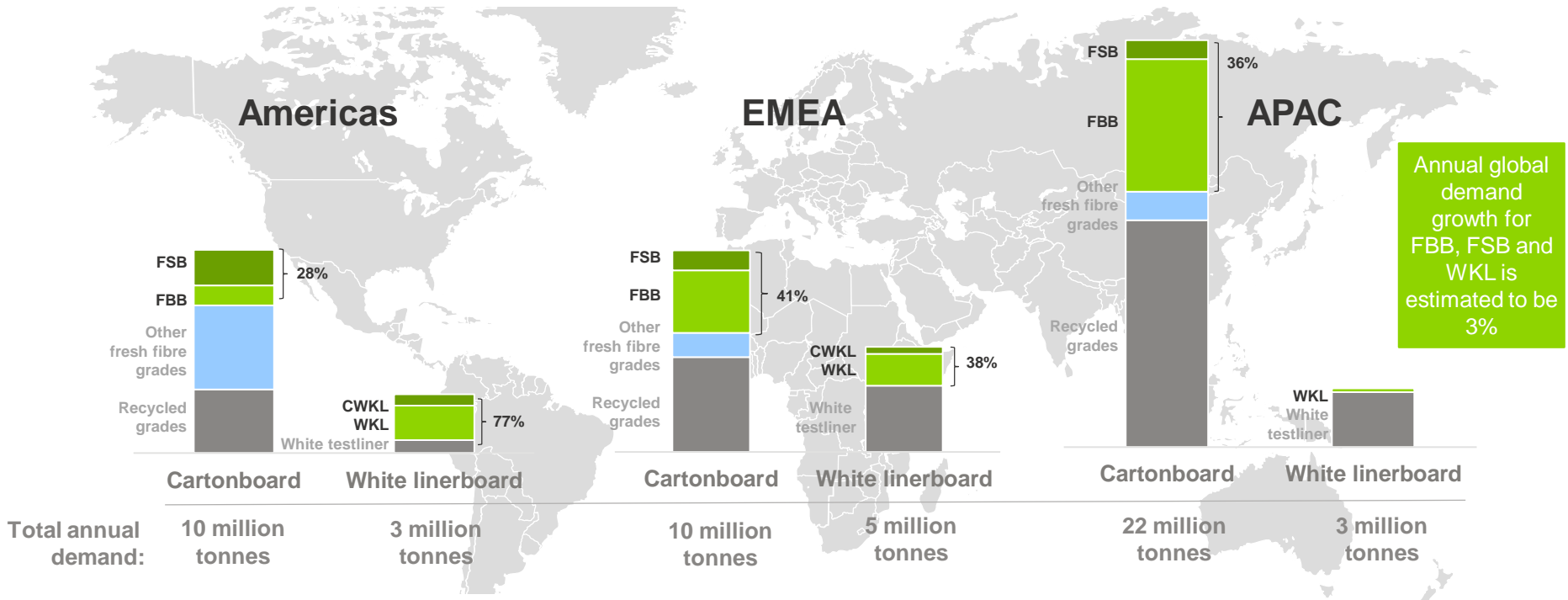
Average annual growth rate of paperboard packaging



Source: Smithers Pira



# We have good growth opportunities in premium paperboards



FSB = food service board, FBB = folding boxboard, SBS & CUK = other fresh fibre grades, WLC = recycled grades  
 WKL = uncoated white kraftliner, CWKL=coated white kraftliner

# We sell globally, but have a regional approach

The Americas is the biggest growth area

## AMERICAS

SHARE OF TOTAL PAPERBOARD  
DELIVERIES IN 2018

**23%**

### Demand drivers:

- Emerging environmental considerations
- Trend for lightweight packaging – but limited local capacity in FBB

## EMEA

SHARE OF TOTAL PAPERBOARD  
DELIVERIES IN 2018

**70%**

### Demand drivers:

- Acceleration in environmental commitments and regulations
- Stricter food safety requirements

## APAC

SHARE OF TOTAL PAPERBOARD  
DELIVERIES IN 2018

**7%**

### Demand drivers:

- Growing upper and middle classes, and increased purchasing power
- More brand-aware consumers
- Continued shift to modern retail and mobile commerce

# Branding and personalisation becoming more important in E-commerce

- Functionality, durability and consumer experience are the key words
- Demand for white kraftliner driven by
  - Increasing branding of the packaging
  - Trend towards shipping the product in its own container
  - Personalisation of boxes, supported by advanced technology in digital printing
- The global value of E-commerce is expected to grow by 20% per year on average, increasing its share of the retail trade from 10% to 18% in 2017–2021



**Results for  
Q4 and FY 2018**





# Key financials

		Q4/18	Q3/18	Change Q4/18 vs. Q3/18	2018	2017	Change 2018 vs 2017
Sales	EUR, m	458	475	-4%	1,944	1,849	5%
EBITDA*	EUR, m	81	84	-4%	344	289	19%
Operating result*	EUR, m	60	64	-6%	252	194	30%
<i>% of sales</i>	%	13.1	13.4		13.0	10.5	
Result before taxes*	EUR, m	56	60	-6%	230	157	46%
Earnings per share	EUR	0.14	0.16	-13%	0.57	0.42	36%
ROCE*	%	13.7	15.0		14.4	11.2	
Capex	EUR, m	34	11	219%	70	65	7%
Cash flow from operations	EUR, m	30	54	-44%	151	236	-36%
IB Net debt, at end of period	EUR, m	335	344	-3%	335	358	-7%

\*comparable

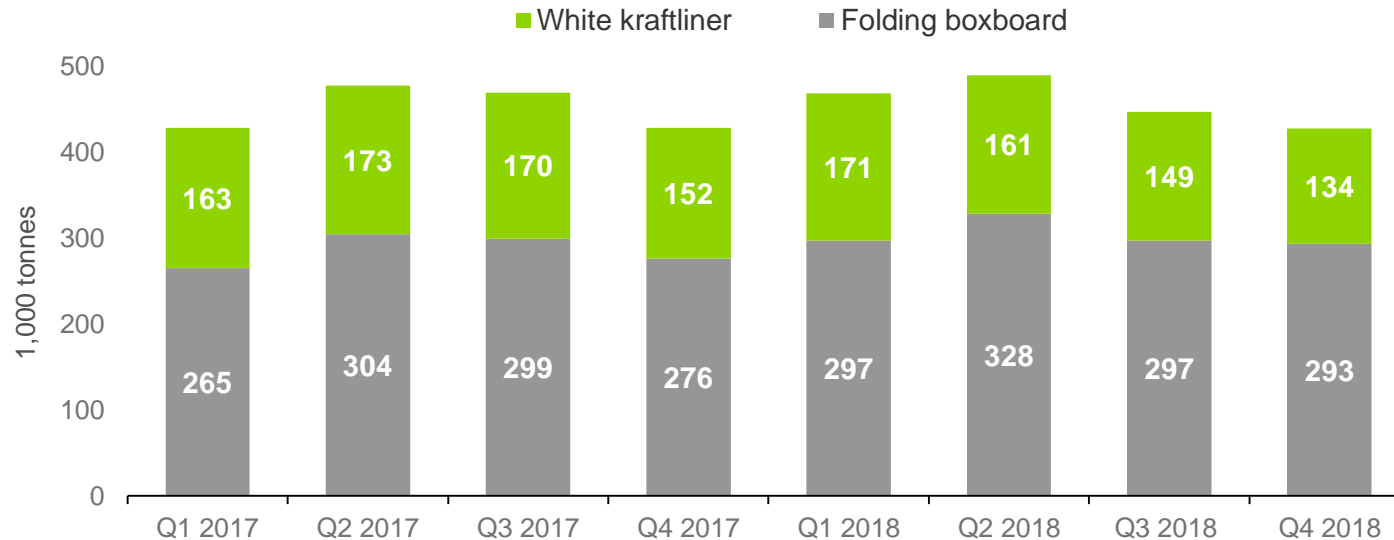
# Q4 2018 in summary

(vs. Q3 2018)

- Paperboard delivery volumes decreased due to seasonality
- Average selling prices of folding boxboard and white kraftliners rose slightly
- Increased uncertainty in the pulp market weakened pulp prices and decreased delivery volumes, particularly in China
- Machinery breakdown in Husum pulp mill had an impact also on paperboard production
- New baling line was taken in use at Kaskinen BCTMP mill



# Seasonality impacted on Q4 paperboard delivery volumes



**1-12/2017:**  
 FBB: 1,144,000 tonnes  
 WKL: 658,000 tonnes  
**Total: 1,803,000 tonnes**

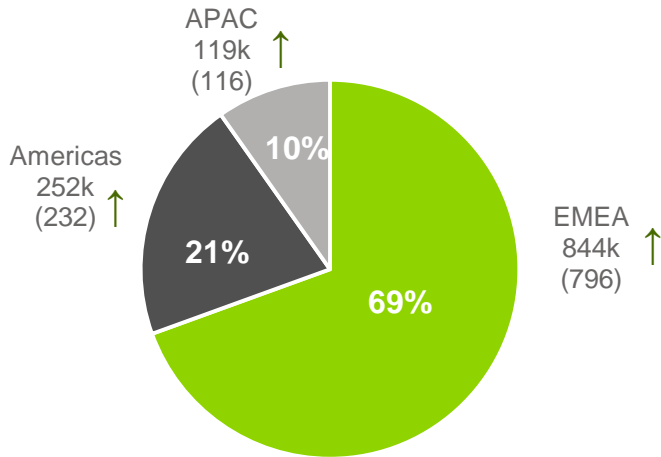
**2018 vs. 2017 :**  
 FBB: +6%  
 WKL: -7%  
**Total: +1.6%**

**1-12/2018:**  
 FBB: 1,215,000 tonnes  
 WKL: 615,000 tonnes  
**Total: 1,830,000 tonnes**



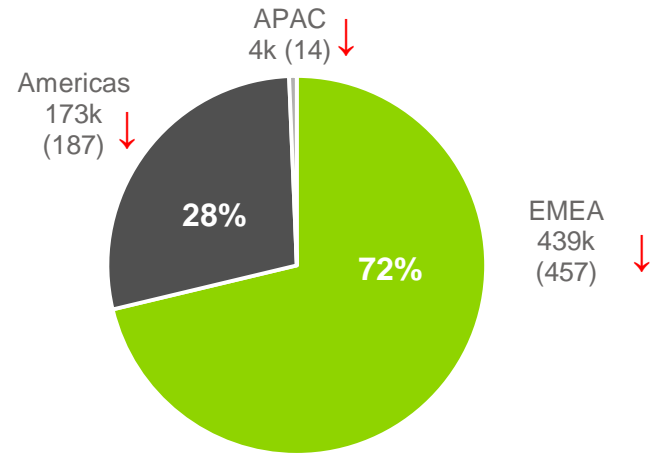
# Delivery volumes in folding boxboard increased year-on-year

**Folding boxboard (FBB) deliveries in 2018 (2017)**  
tonnes



Total FBB deliveries  
1,215,000 (1,144,000) tonnes

**White kraftliner (WKL) deliveries in 2018 (2017)**  
tonnes



Total WKL deliveries  
616,000 (658,000) tonnes

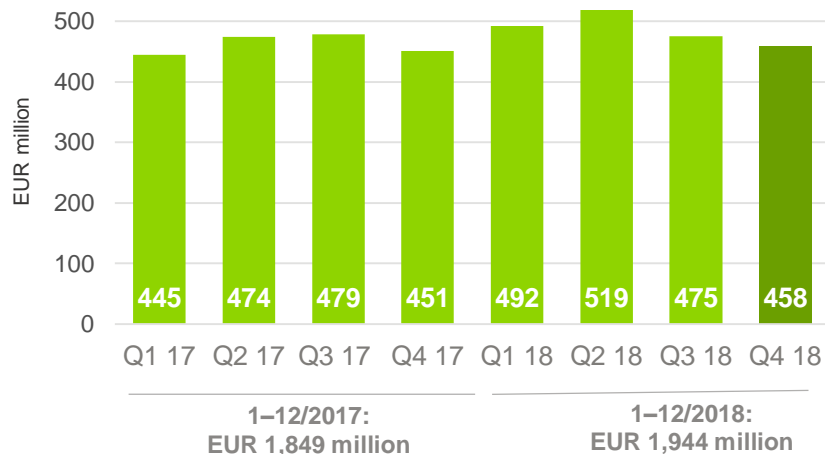
Total FBB capacity 1,345,000 tonnes in 2019

Total WKL capacity 675,000 tonnes in 2019

# Weakened pulp market impacted negatively on Q4 result

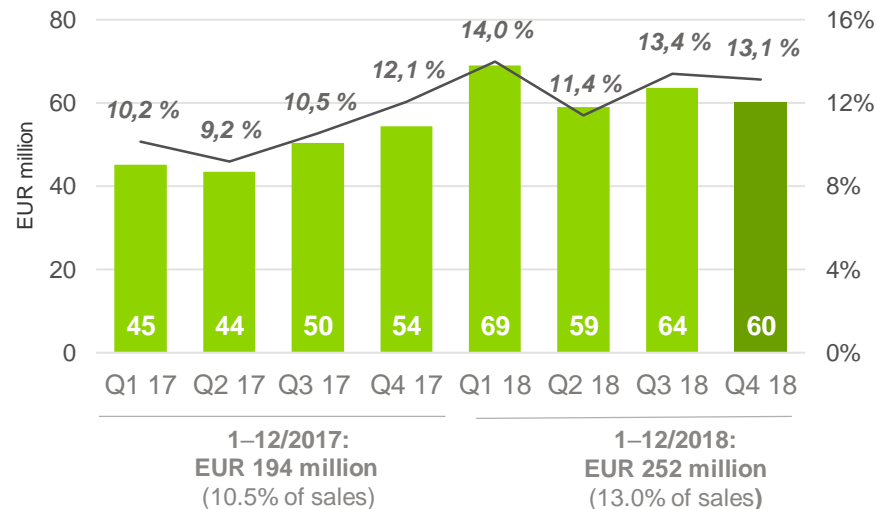
## Sales

EUR million



## Comparable operating result

EUR million and % of sales

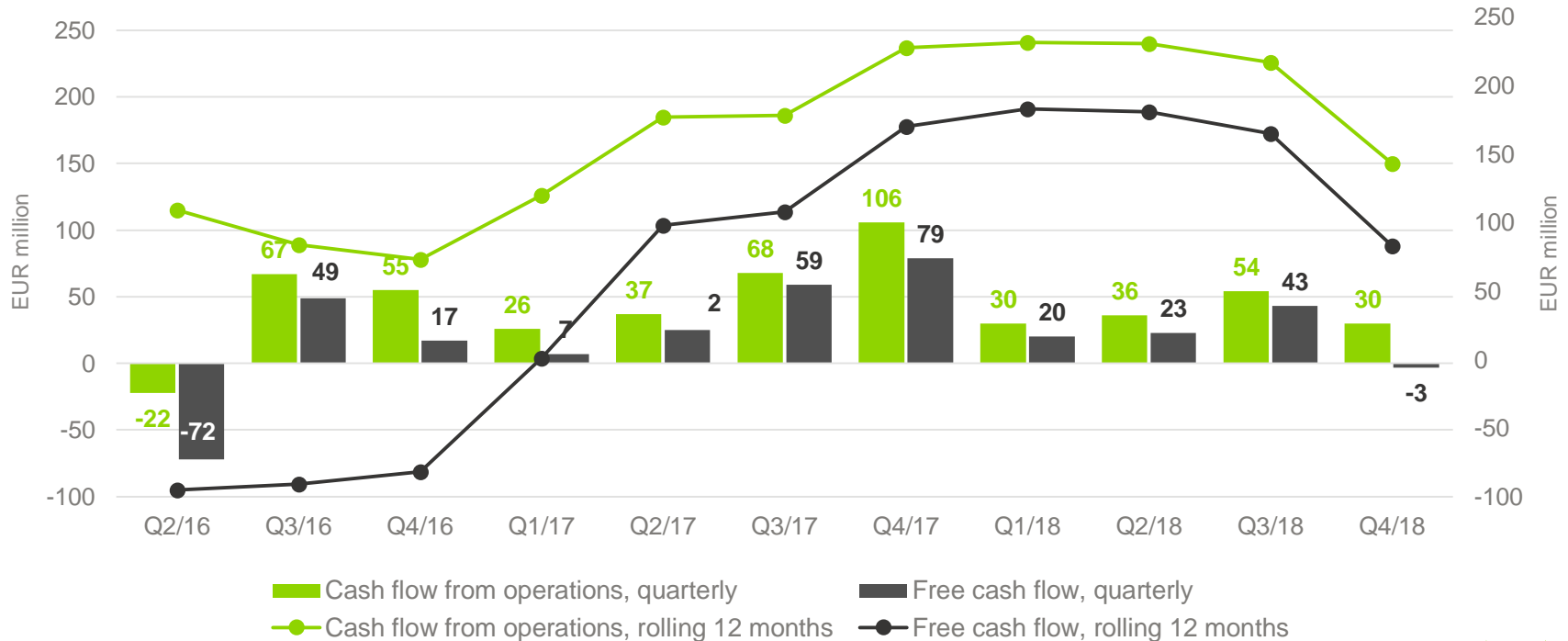


# ROCE is above the target level

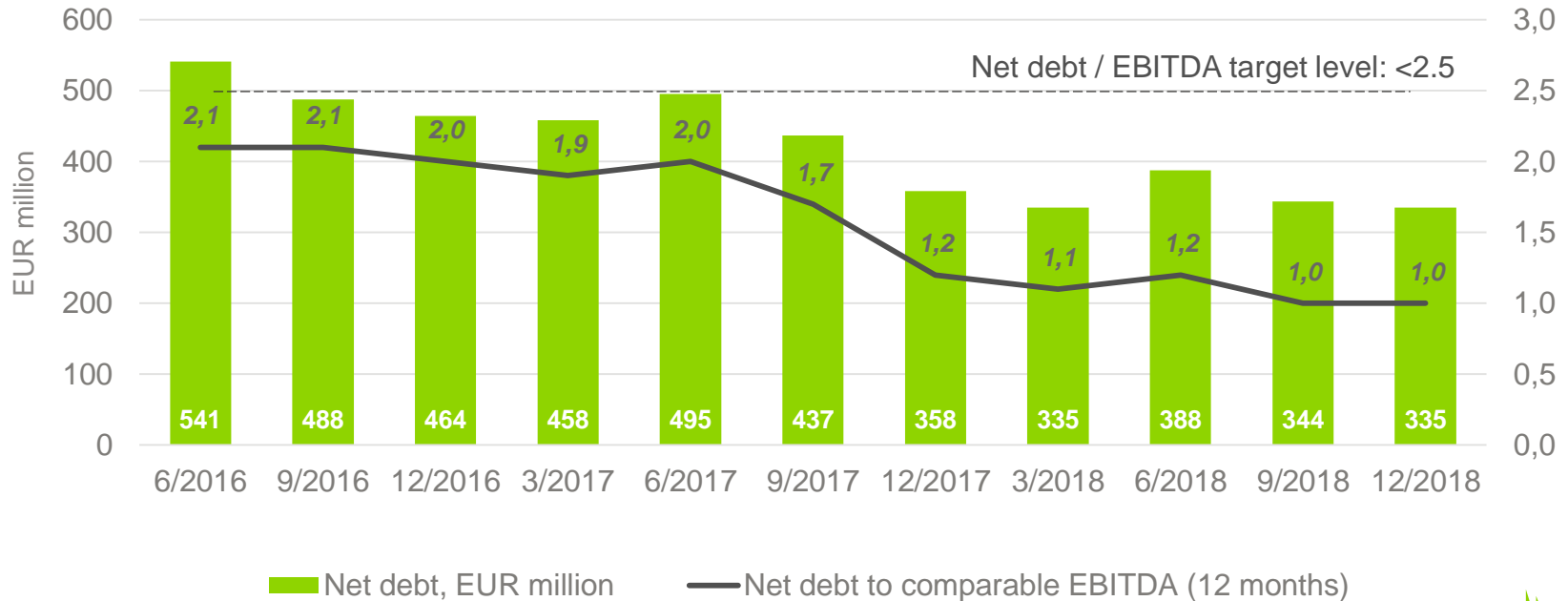
FY 2018 ROCE was 14.4% (2017: 11.2)



# Capex and increased inventories had a negative impact on cash flows in Q4 2018



# Net debt at the year end was EUR 335 million and leverage at 1.0x



# Debt and its maturity

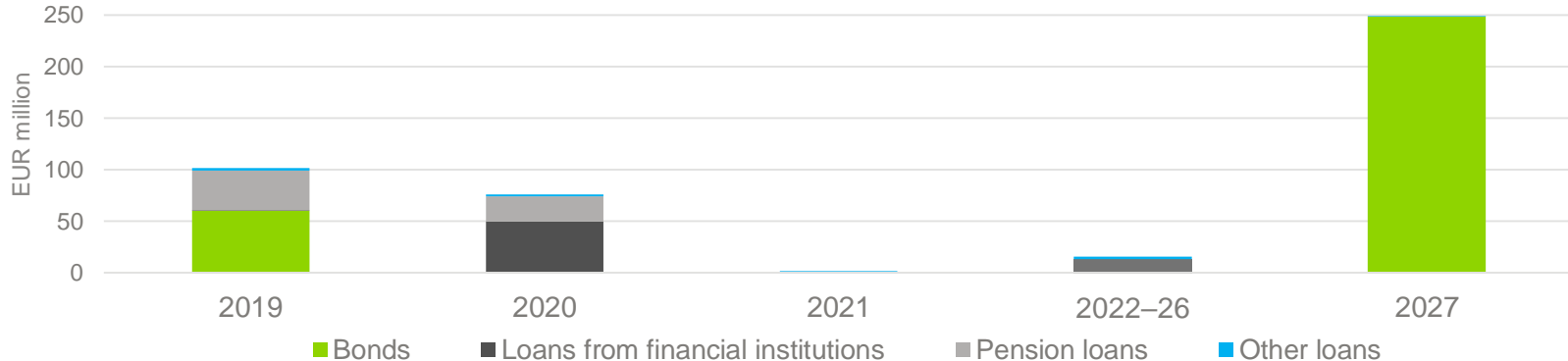
31 December 2018

- Total interest-bearing debt on 31 December was EUR 447 million (12/2017: EUR 577 million)
- On January 2019 Moody's upgraded Metsä Board to investment grade, Baa3, outlook stable

Metsä Board's both credit ratings are investment grade

Rating agency	Rating and outlook	Last update
S&P Global	BBB-stable	02/2018 Upgrade from BB+
Moody's investor services	Baa3 stable	01/2019 Upgrade from Ba1

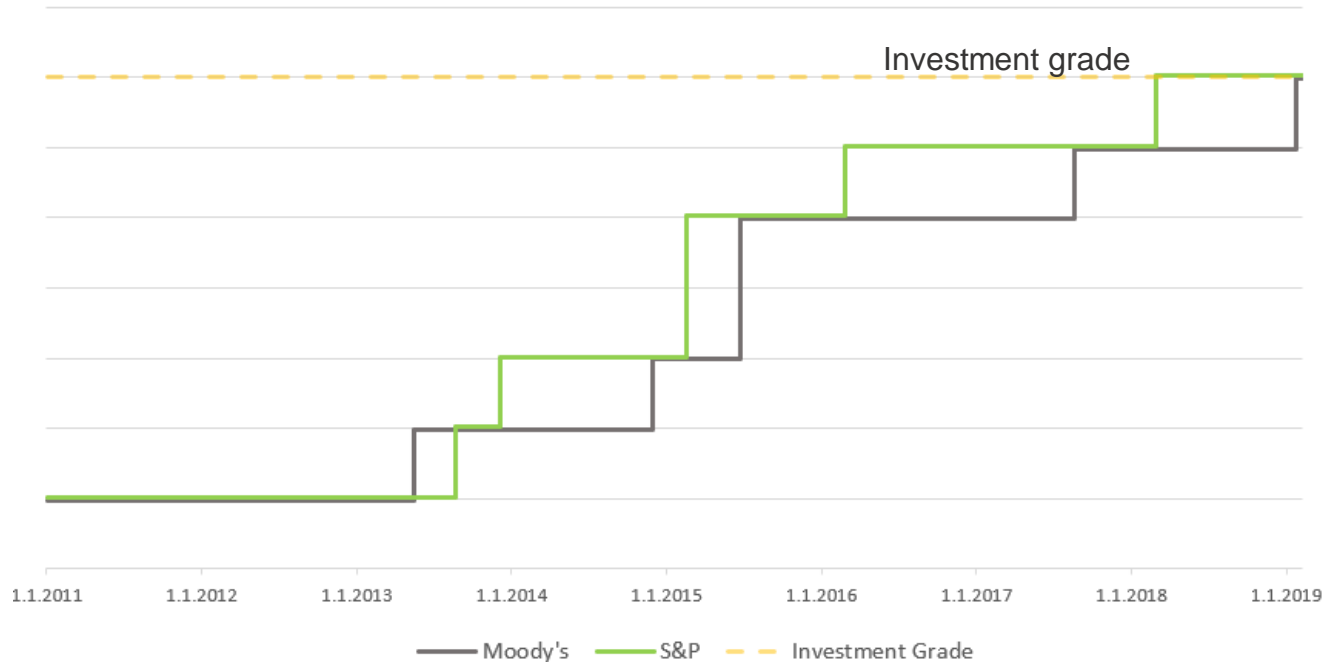
Interest-bearing debt maturity profile 31 December 2018



Company has an undrawn revolving credit facility of EUR 150 million maturing in 2020

# Metsä Board's rating history 2011–2017

Also Moody's upgraded to investment grade in 2019

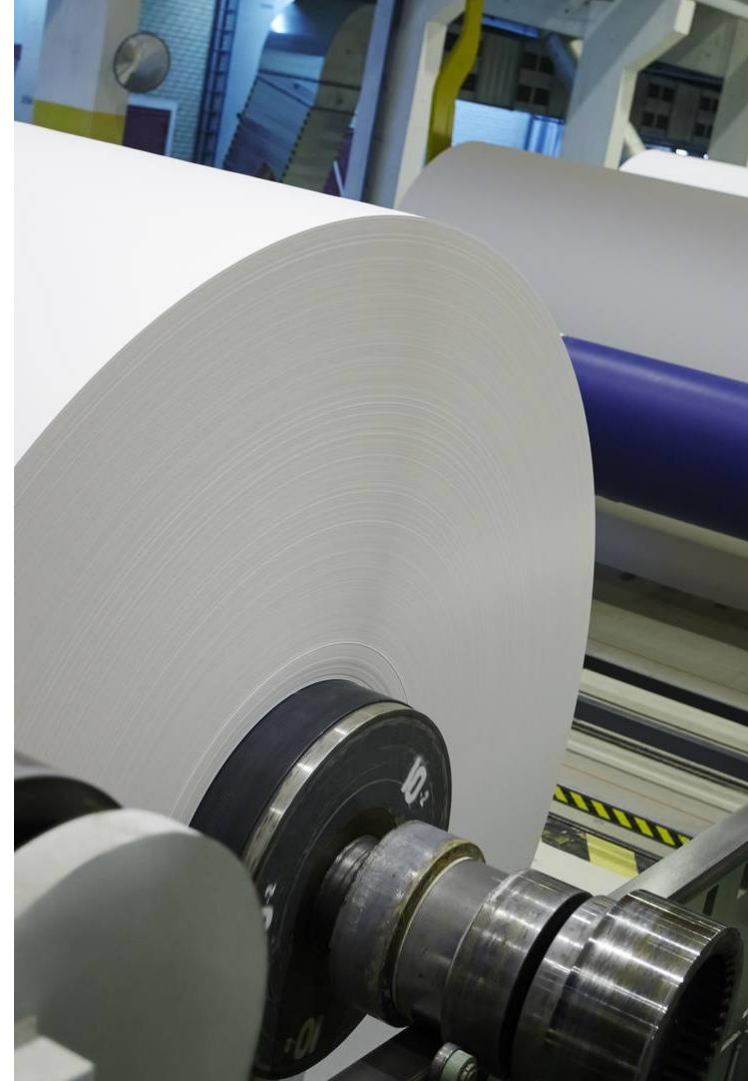




# Near-term outlook

## Q1 2019 vs. Q4 2018

- Paperboard delivery volumes are expected to increase slightly
- FBB prices are expected to rise
- Positive impact from FX
- Lower average pulp prices
  
- Planned maintenance shutdown in Q1 at Metsä Fibre's Bioproduct mill in Äänekoski
- Uncertainty continues in the global economy





## Sustainability and product safety






**By 2030 we  
will be 8.6  
billion  
people on  
this planet**



**Cities cover 2% of  
the land area but  
create 70% of the  
waste globally**



**300 million tons of  
plastic produced  
every year**

## **Outlook for our future?**



**At least 8 million  
tons of plastics  
dumped into  
oceans every  
year**



**Only 14% of  
plastic  
packaging  
collected for  
recycling**



**Curbing global  
warming requires  
a drastic  
reduction in  
emissions**

# Sustainability is on everybody's agenda

- Growing consumer awareness: Origin and transparency of materials, renewability, resource efficiency and recyclability
- Brand owners are committed to reducing their carbon footprints: Lighter packaging reduces CO<sub>2</sub> emissions across the value chain



*“Our comprehensive approach to reducing our environmental impact means looking at all aspects of our business, how they intersect and how we can integrate new solutions to create meaningful and sustained change.”*

– **Starbucks** website

*“We want low-carbon to become the new normal, so we’re taking action to reduce GHG emissions throughout our value chain.”*

– **Unilever** website



# Fresh fibre paperboards offer **solutions** to major challenges




Increased waste generation due to urbanisation

**The solution:**  
Paperboard is recyclable – and widely recycled



Replacing fossil-based materials, i.e. plastics

**The solution:**  
renewable and biodegradable wood fibre



Reducing carbon footprint

**The solution:**  
renewable energy, efficient energy and water usage in production

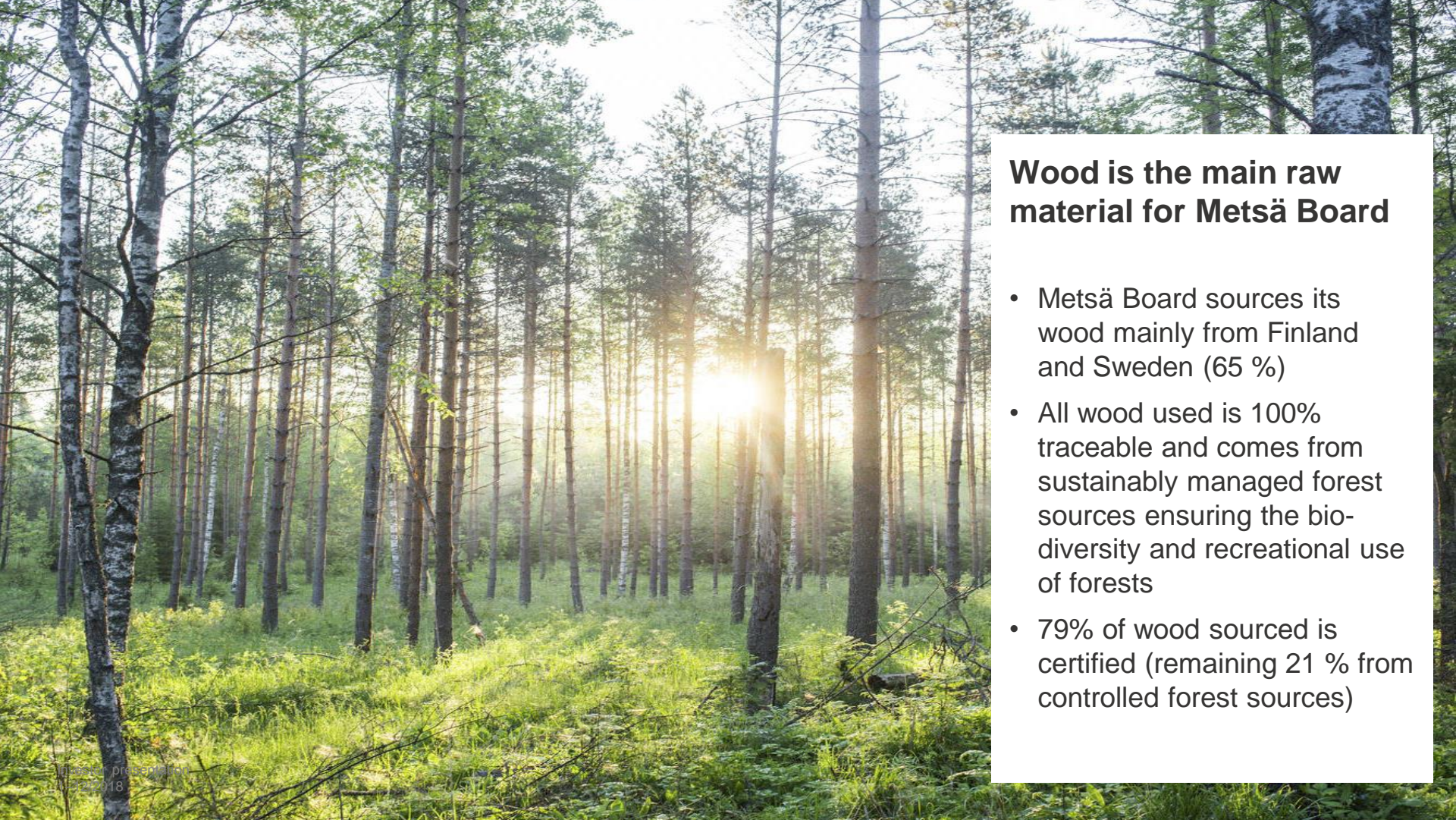


Ensuring food safety

**The solution:**  
pure and safe fresh fibres in food packaging







## **Wood is the main raw material for Metsä Board**

- Metsä Board sources its wood mainly from Finland and Sweden (65 %)
- All wood used is 100% traceable and comes from sustainably managed forest sources ensuring the biodiversity and recreational use of forests
- 79% of wood sourced is certified (remaining 21 % from controlled forest sources)



# Finland – the largest forest cover in Europe

**100+**  
MILLION M<sup>3</sup>

Annual growth of Finnish forests is over 100 million m<sup>3</sup> – more than ever

Forests grow more than they are used, annual harvesting 72 million m<sup>3</sup> (2017)

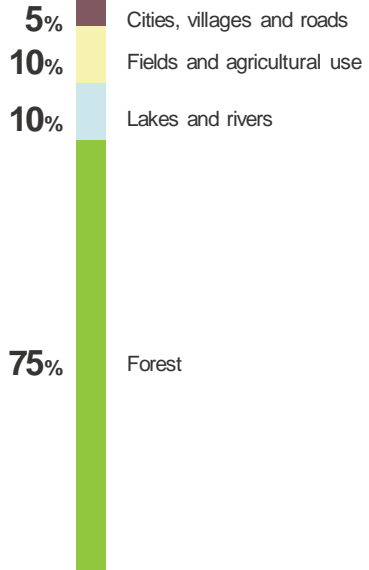


Four seedlings are planted for each harvested tree



Over 20% of the Finnish export comes from forest-based products

The area of Finland



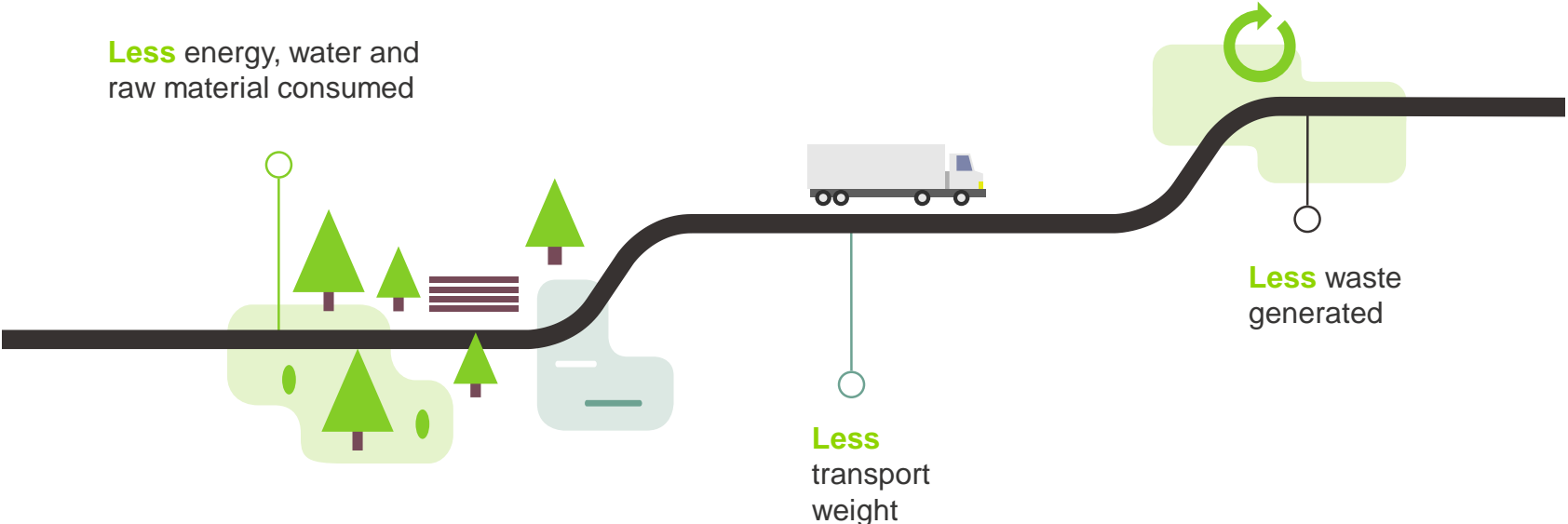


**Metsä Board has decreased its process water use by 20% since 2010**

- Metsä Board uses only surface water in its processes
- Water is been recirculated in processes several times
- 99% of the water used is returned back to the close-by waterways after thorough purification



# Lighter packaging reduces CO<sub>2</sub> emissions across the value chain – Our fossil CO<sub>2</sub> emissions per product tonne have reduced by almost 50% since 2009



# Our energy efficiency has improved by almost 12% during 2009-2018

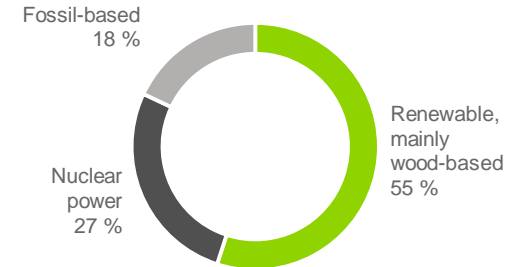
- Over 80% of primary energy we use is fossil free
- After OL3<sup>1)</sup> starts up, we will be nearly self-sufficient in electricity in Finland
  - Including the electricity used in Husum mill, self-sufficiency will be nearly 80%
- Metsä Board's shareholding in PVO<sup>2)</sup> is 3.2%
  - Fair value as per 31 December 2018 was EUR 266 million

<sup>1)</sup> Olkiluoto Nuclear Power Plant

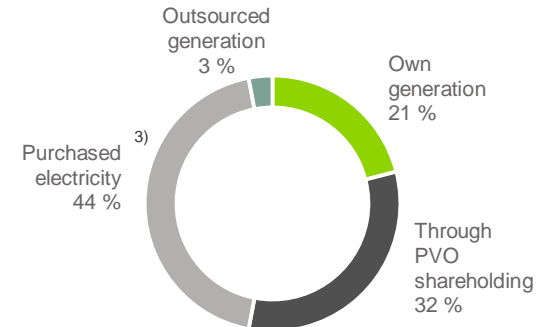
<sup>2)</sup> Pohjolan Voima Oyj is a non-listed public limited liability company. It supplies electricity and heat for its shareholders at cost price

<sup>3)</sup> Out of 44% share of purchased energy, 14% is from Metsä Fibre

**Primary energy used in 2018**  
(total 12.0 TWh)



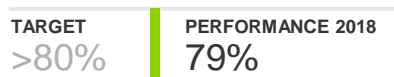
**Electricity sourced in 2018**  
(total 2.4 TWh)



# We are committed to high performance on sustainability

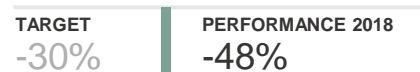
## RAW MATERIALS AND SUPPLY CHAIN

Share of certified wood:



## RESOURCE EFFICIENCY AND ENVIRONMENTAL IMPACTS

Fossil CO<sub>2</sub> emissions per product tonne 2009–2020:



Energy efficiency improvement 2009–2020:

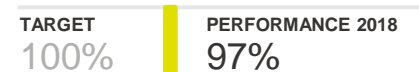


Process water use per product tonne 2010–2020:

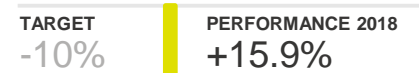


## STAKEHOLDERS AND SOCIAL IMPACTS

Coverage of Code of Conduct training:

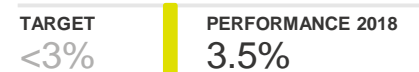


Lost-time accidents frequency annually (LTA1: 7.5): \*



\*Long-term target is zero accidents.

Sickness absenteeism:



## External recognitions in sustainability:



A rating of AAA in the MSCI ESG Ratings assessment in June 2018.



Metsä Board was awarded "Prime" status in ISS-oekom corporate responsibility rating in May 2018

Leader in Sustainalytics' assessment in May 2018.

# Food safety is growing its importance

- Health and safety aspects are strongly emerging in food packaging
- Purity and safety have become critical factors, also for consumers
- Growing worry about e.g. fluorochemicals or mineral oil migration from recycled packaging into foodstuffs set stricter demands on packaging materials
- Packaging's strength and durability are non-negotiables to reduce food waste





## Packaging made from recycled material

Recycled fibre packaging is **suitable for many goods**

**We promote circular economy** providing vital material to the recycling loop

**Recycling would end** in few months without fresh fibre inflow

In food packaging mineral oil migration pose a health hazard in recycled fibre

Global restrictions in the use of recycled fibres in direct food contact

# Paperboard adds value to packaging

*A detailed consumer study with cherry tomatoes was carried out in Finland by Sense N Insight, Luke (Natural Resources Institute Finland) and Metsä Board*

## Results and findings:

- Consumers regard paperboard as a more responsible choice than plastic packaging - willingness to pay more for it
- Paperboard cartons preserved the cherry tomatoes at least as well as the plastic equivalent
- The climate effect of a recycled PET container was calculated at six times higher than the average value for the paperboard cartons





## Research and Development



# Our key product development focus areas

## LIGHTWEIGHTING

- Improved BCTMP
- Microfibrillated cellulose (MFC)
- Strength additives



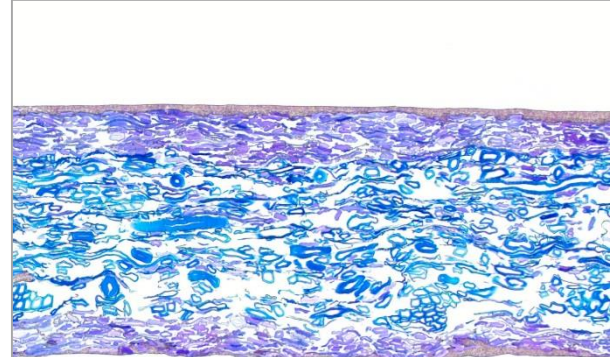
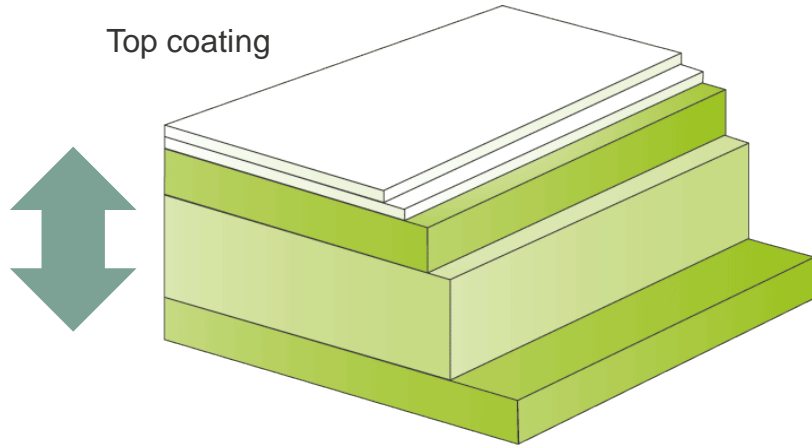
## BARRIER BOARDS

- Dispersion barriers
- Bio-based raw materials



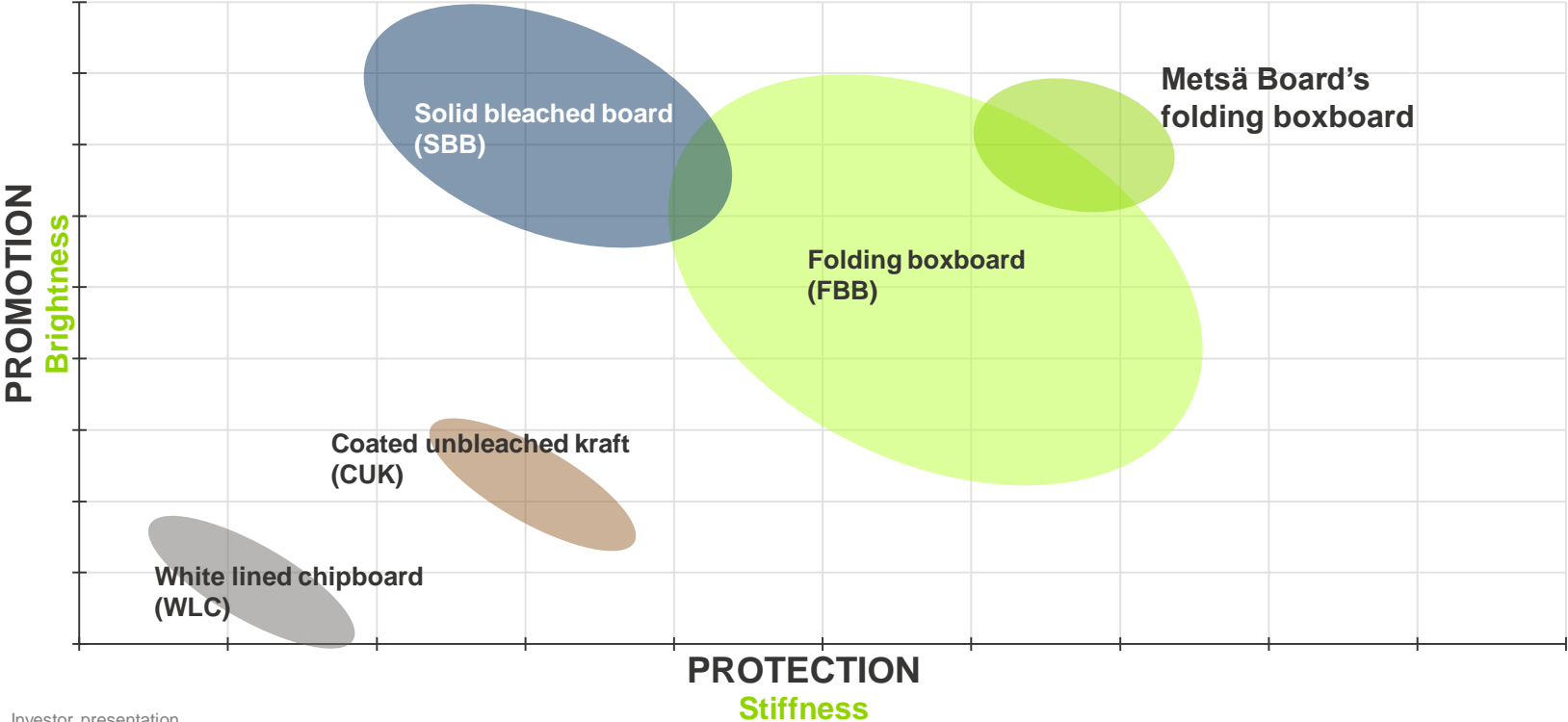


**We achieve high bending stiffness from a strong outer layers and a thick and light inner layer**



100  $\mu$ m

# The role of packaging is to promote the brand and protect the product – in a cost-effective way



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

Light weight  
– better yield  
and sustainability

High strength and  
bending stiffness  
– secure  
protection

High brightness  
and smoothness  
– excellent  
printability

Consistent quality  
– improved  
production  
efficiency



## ... and leave more trees standing

**SBS**

(100% chemical pulp)



5 m<sup>3</sup> of wood per **tonne** of pulp

**Metsä Board FBB**

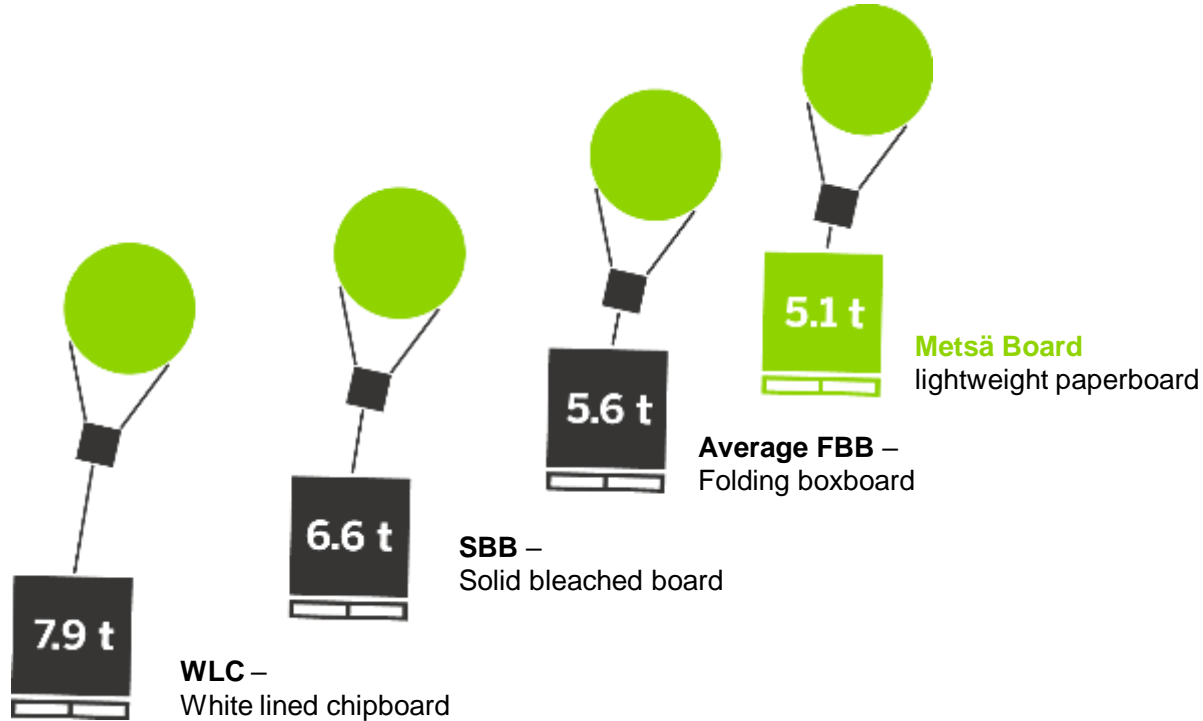
(up to 70% BCTMP,  
30% chemical pulp )



3.4 m<sup>3</sup> of wood per **tonne** of pulp

# Lighter-weight paperboards: **Better with Less**

The weights equal to a print job of 30 000 sheets on a standard size printing press



# Brand-owners seek more sustainable packaging solutions

- Fresh fibre paperboards can help replace non-renewable packaging materials
- Metsä Board launched a new eco-barrier paperboard in 2018
  - Developed especially for food service use with short food contact time and when light grease resistance is sufficient
  - The board recently achieved an industrial compostability certification

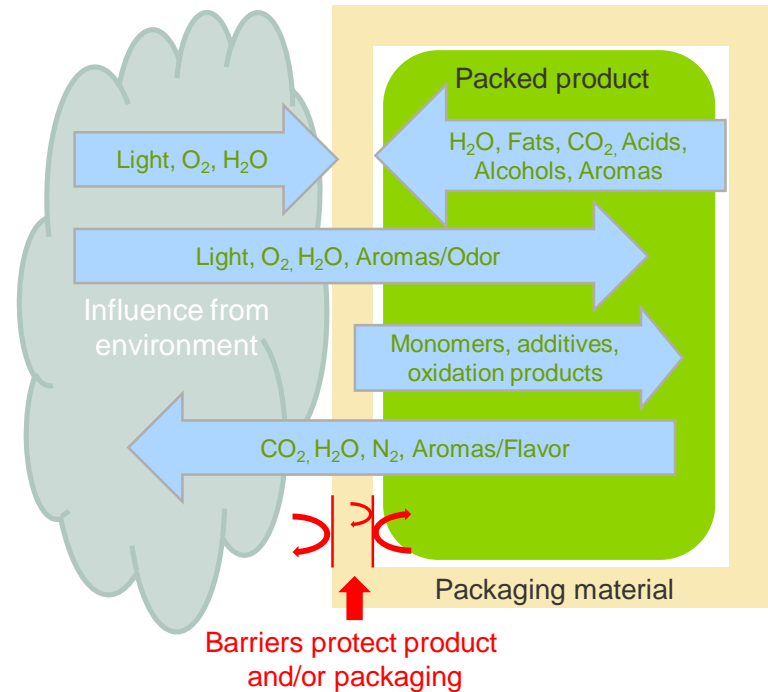


# Barriers preserve packed products and the package

**Barriers reducing waste have a huge positive total effect on environment**

Barriers are inbuilt in many competing materials e.g. plastics, metals but those have other issues

Often needed are water, moisture and grease barriers and they are in the focus of Metsä Board's development



# Getting familiar with terminology:

## Barrier boards types

Examples of materials used in coating

BIODEGRADABLE			
BIOBASED	<b>PLA (polylactide):</b> often based on corn starch	<b>PVA (polyvinyl alcohol) PBS (polybutylene succinate)</b>	NON-BIOBASED
	<b>Green PE:</b> made from biomaterials	<b>PE:</b> made from fossil raw materials, used in extrusion coating	
NON-BIODEGRADABLE			

### Note!

Biobased material  
=  
Renewable material  
≠  
Compostable  
≈  
Biodegradable



# Owners and management

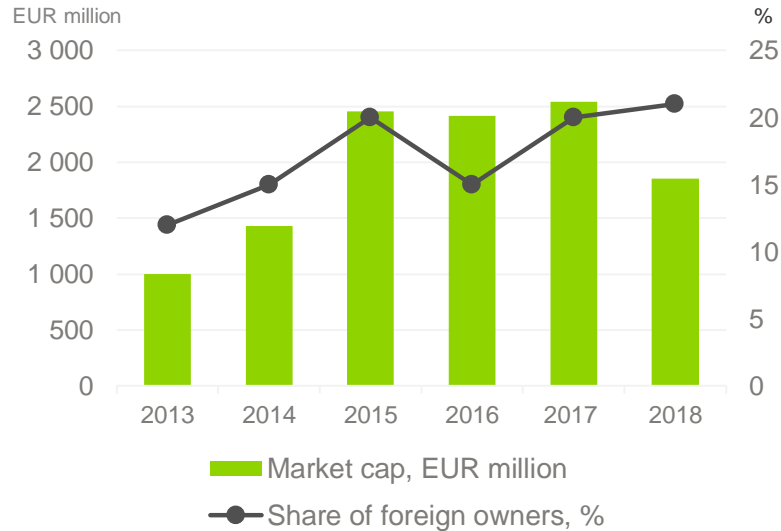


# Market cap and ownership distribution

Metsä Board shares (METSB, METSA) are listed on Nasdaq Helsinki

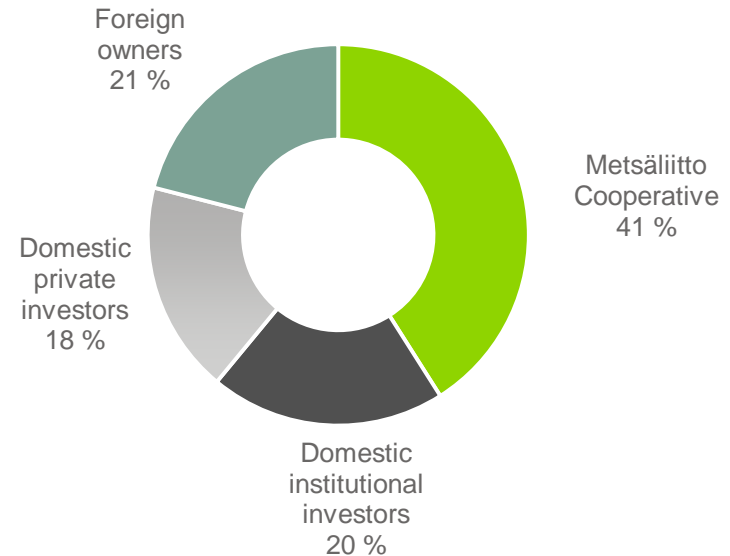
## Market cap and share of foreign owners

31 December 2018



## Ownership distribution

31 December 2018



# Metsä Board Corporate Management Team



**Mika Joukio**  
CEO

Chairman of CMT since 2014  
MG employee since 1990  
Share ownership: 250,000



**Jussi Noponen**  
CFO

Member of CMT since 2016  
MG employee since 2000  
Share ownership: 58,000



**Sari Pajari**  
SVP, Marketing and Sales

Member of CMT since 2011  
MG employee since 2007  
Share ownership: 51,500



**Ari Kiviranta**  
SVP, Development

Member of CMT since 2014  
MG employee since 1993  
Share ownership: 40,000



**Harri Pihlajaniemi**  
SVP, Production

Member of CMT since 2017  
MG employee in 2001-2004  
and since 2017  
Share ownership: no ownership



**Susanna Tainio**  
SVP, HR

Member of CMT since 2015  
MG employee since 2011  
Share ownership: 31,358

Share ownerships are B-shares.  
MG = Metsä Group



# Contact information

## **Katri Sundström**

Vice President, Investor relations

Tel +358 400 976 333

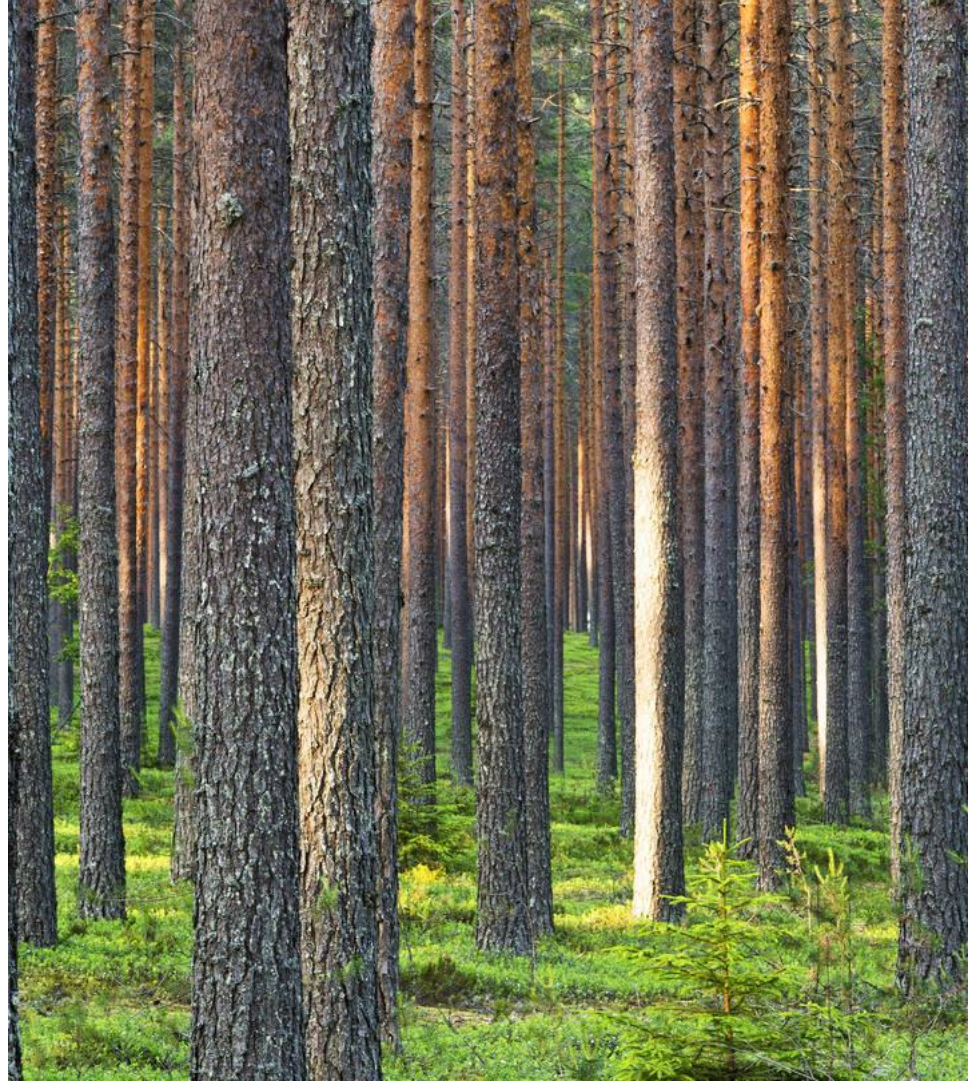
[katri.sundstrom@metsagroup.com](mailto:katri.sundstrom@metsagroup.com)

Metsä Board Corporation

P.O. Box 20

02020 Metsä, Finland

[www.metsaboard.com](http://www.metsaboard.com)





# Disclaimer

This presentation includes forward-looking statements. The words “believe,” “expect,” “anticipate,” “intend,” “may,” “plan,” “estimate,” “will,” “should,” “could,” “aim,” “target,” “might,” or, in each case, their negative, or any similar expressions identify certain of these forward-looking statements. Others can be identified from the context in which the statements are made. By their nature, forward-looking statements are subject to assumptions, risks and uncertainties. Although we believe that the expectations reflected in these forward-looking statements are reasonable, actual results may differ, even materially, from those expressed or implied by these forward-looking statements. We urge presentation participants not to place undue reliance on such statements.

The information and views contained in this presentation are provided as at the date of this presentation and are subject to change without notice. Metsä Board does not undertake any obligation to publicly update or revise forward-looking statements, whether as a result of new information, future events or otherwise, except to the extent legally required.

Viewers should understand that this presentation does not constitute, and should not be construed as, an offer to buy or subscribe for Metsä Board’s securities anywhere in the world or an inducement to enter into any investment activity relating to the same. No part of this presentation should form the basis of, or be relied on in connection with, any contract or commitment or decision to invest in Metsä Board securities whatsoever. Potential investors are instructed to acquaint themselves with Metsä Board’s annual accounts, interim reports and stock exchange releases as well as other information published by Metsä Board to form a comprehensive picture of the company and its securities.

Metsä Board publishes inside information according to Market Abuse Regulation (MAR) and rules of the Nasdaq Helsinki.

**Make the most of Metsä Board**

