



# Packaging tomorrow

**Hannu Kasurinen**  
**SVP, Liquid Packaging and Carton Board,**  
**Consumer Board**

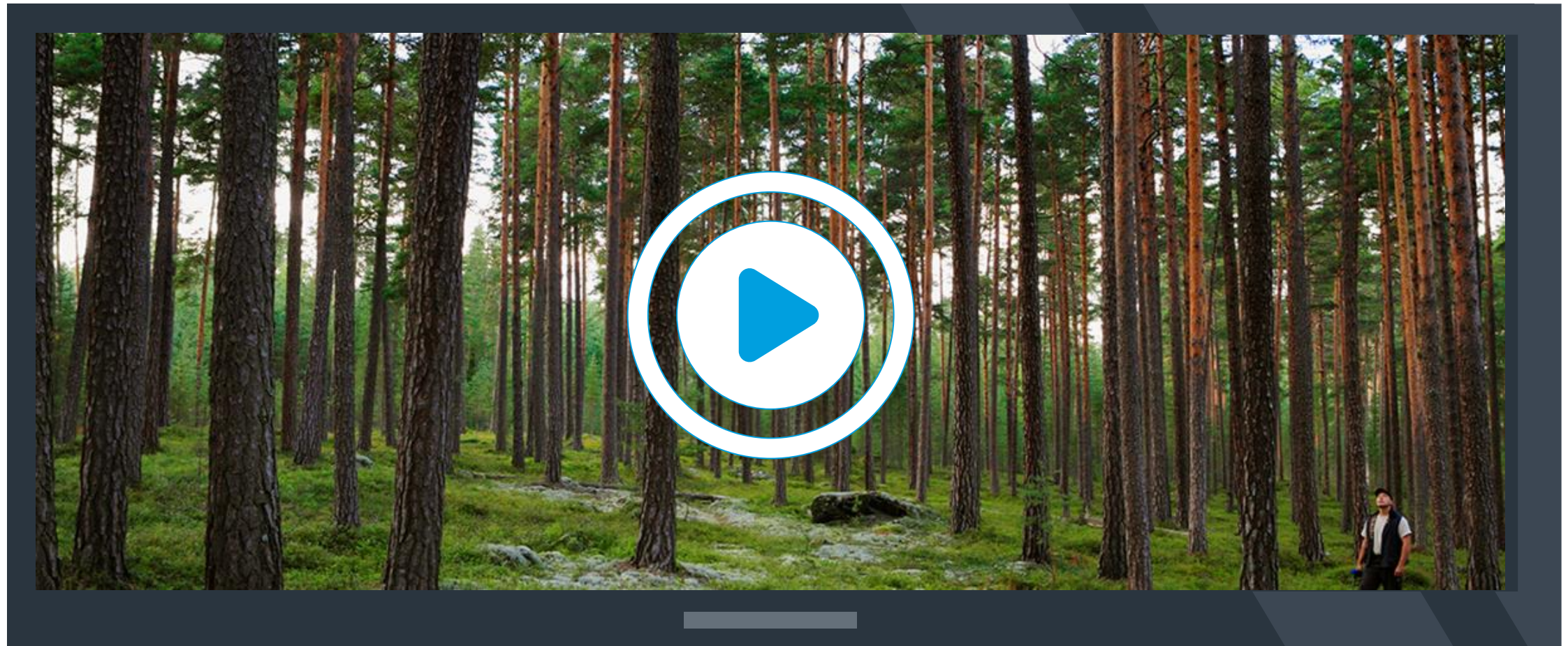
**21 March 2019**

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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.

# What a tree can do



# Stora Enso in brief

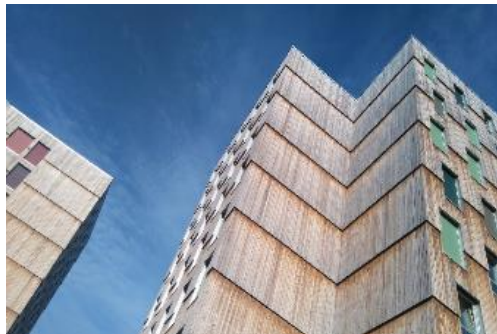


Leading provider of renewable solutions

Some 26 000 employees in 30 countries

Sales in 2018 EUR 10.5 billion

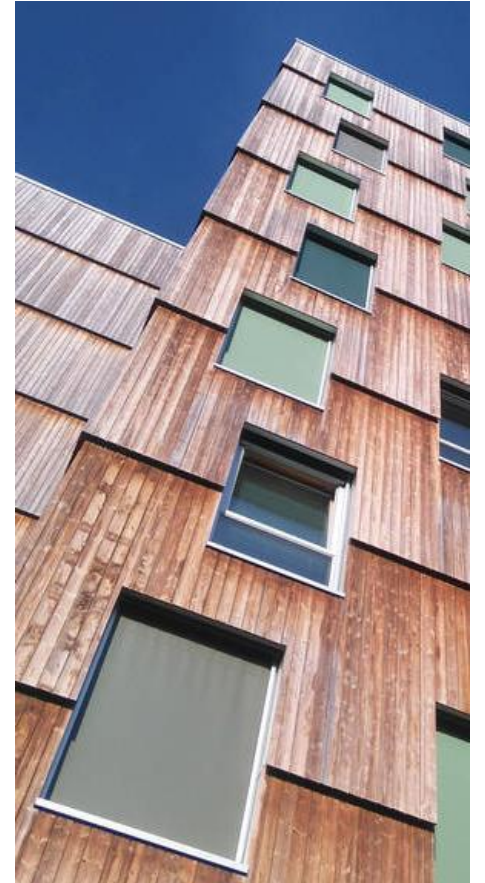
Shares listed in Helsinki and Stockholm



# We are a solution for how to respond to consumers new demands – We are The Renewable Materials Company



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



# Our renewable products



**Biocomposites**



**Bio-based chemicals**



**Bio-based materials**



**Wood Products**



**Intelligent packaging**



**Lignin**



**Paperboard materials**



**Packaging solutions**



**Paper**



**Market pulp**



**Pellets**



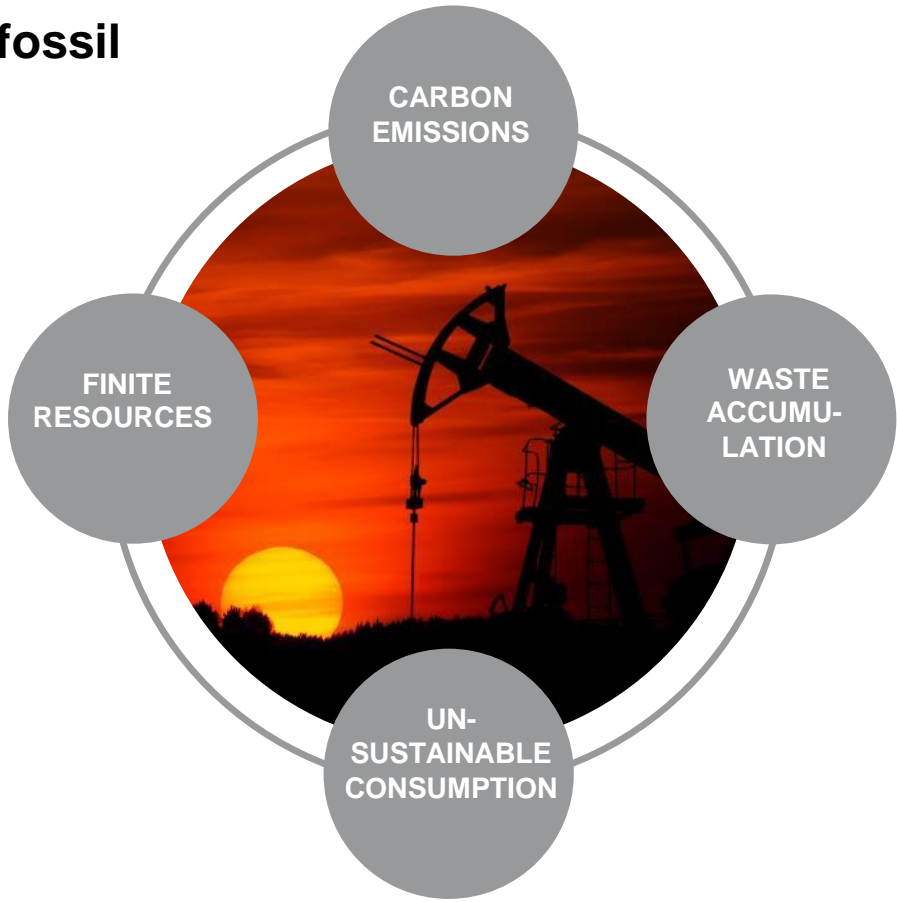
**Speciality papers**



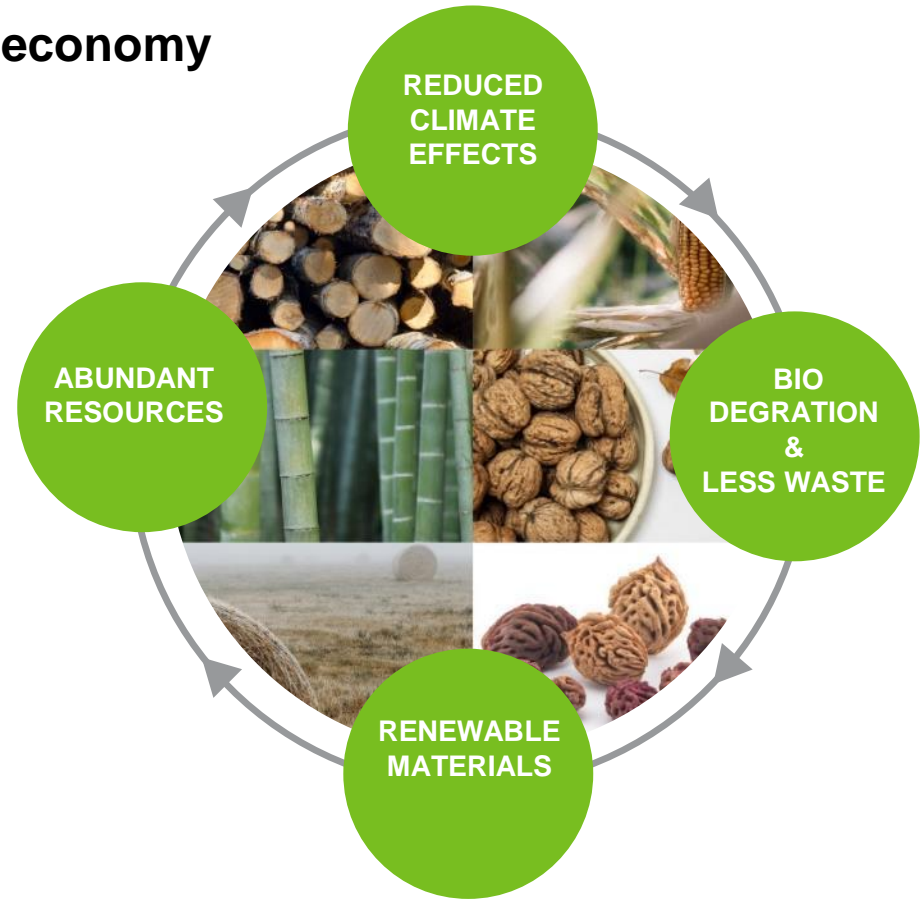
# Stora Enso's mission is to support customers in meeting consumers demand for eco friendly solutions



## From a fossil world



## To a bioeconomy future



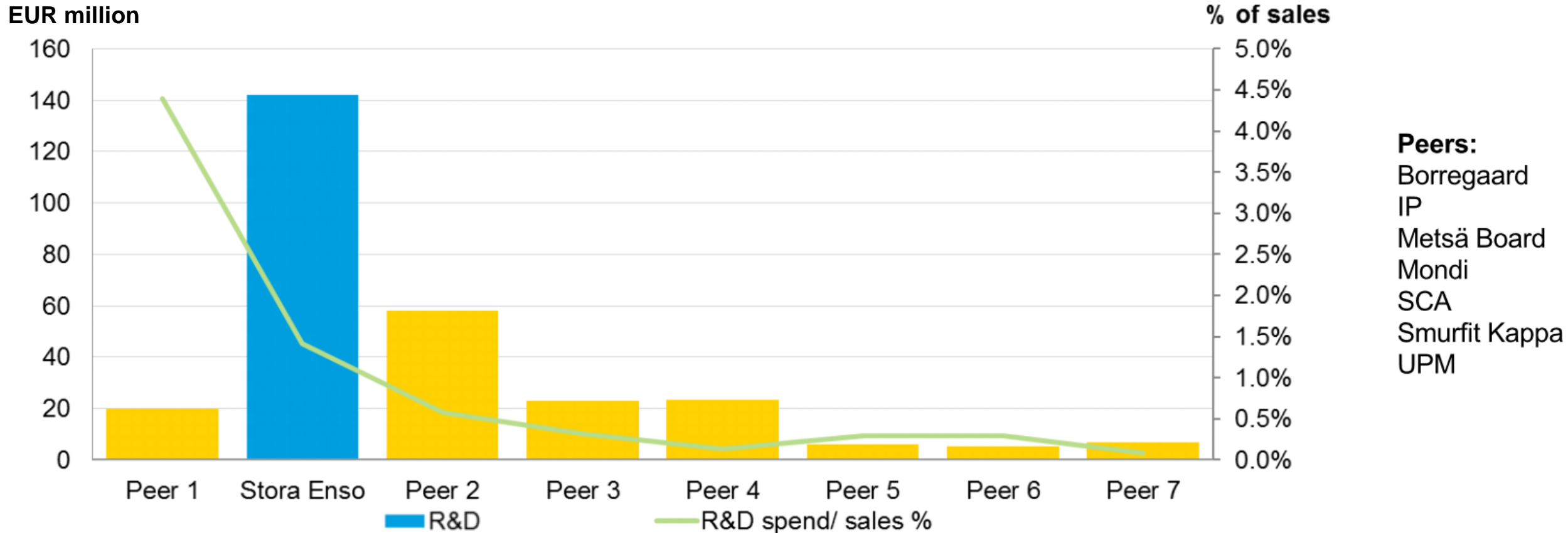
A close-up photograph of a hand wearing a blue nitrile glove holding a clear glass test tube. The test tube contains a small amount of purple liquid. The background is blurred, showing a person's face and other laboratory equipment.

**In 2018, Stora Enso's expenditure on research and development was EUR 149 million, which was equivalent to 1.4% of sales.**

**56 priority founding patent applications filed and  
over 324 patents granted worldwide**



# We take the lead in innovation in our industry



- Peers:**  
 Borregaard  
 IP  
 Metsä Board  
 Mondi  
 SCA  
 Smurfit Kappa  
 UPM

Source: Stora Enso, annual reports 2017

# These are our drivers for accelerating renewable growth



In 2018

**9%**

of our sales came from new products and services

Long-term target

**15%**

of our sales is expected to come from new products and services





# Increasing regulation related to circular economy

## Europe as driver



**Packaging &  
Packaging  
Waste  
Directive**

**Circular  
Economy  
Package**

**Single Use  
Plastics  
Directive**

# Governments and companies are taking action



News > World > Asia

## India just banned all forms of disposable plastic in its capital

National tribunal prohibits use of cutlery, bags and other plastic items amid concern over pollution of the sea and air

Ian Johnston | Environment Correspondent | @montaukan |  
Wednesday 25 January 2017 14:32 | 279 shares | 22 comments



## China moves to tackle 'white' pollution

Shares 21



MONEY NEWS JANUARY 31, 2019 / 12:33 AM / 2 DAYS AGO

## Ikea commits to phase out single-use plastic products by 2020

Global retailer with 363 stores says it wants to help customers live more sustainably



## Ben & Jerry's pledges to ban all single-use plastics by 2020

Ice cream brand Ben & Jerry's has pledged to remove all single-use plastic items and packaging from its products and stores by the end of 2020, replacing them with biodegradable or compostable alternatives.



The commitment will cover all of Ben & Jerry's 600+ scoop shops

BBC NEWS

## 50 nations 'curbing plastic pollution'

## Goldman Sachs ditches single-use plastic products



## Starbucks to Eliminate Plastic Straws Globally by 2020

## Hilton hotels vow to ban plastic by end of 2018

An estimated 25 million single use plastic items a year will be removed from hotels across Middle East, Europe and Africa



## Leading the cycle – Finnish road map to a circular economy 2016-2025

# Our vision is to replace fossil based materials with renewable ones



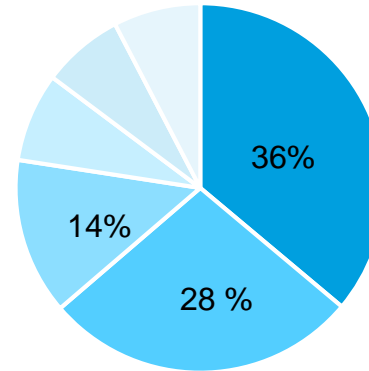
# Consumer Board - well positioned in the bioeconomy



**70** countries  
**2622 MEUR** sales 2018  
**+4.2%** y-o-y

## Sales by product

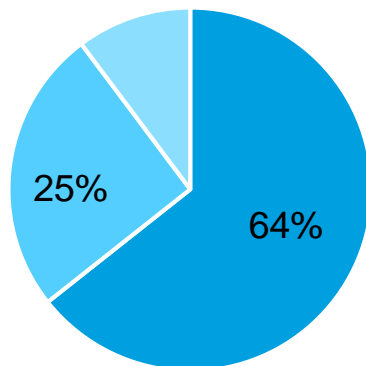
- Liquid Packaging Board
- Folding Boxboard
- Food Service Board
- Coated Unbleached Kraft
- Solid Bleached Sulphate
- Others



**Nr 1** in LPB globally  
**Nr 1** in LPB, CUK and SBS in Europe

## Sales by region

- Europe
- Asia-Pacific
- Others



## Renewable material from certified forests and plantations



**15%** share of new products  
**40+** joint customer projects  
**30+** digitalization projects

**+2.5%**

**Global market growth**  
 - premium consumer boards



**231 MEUR EBIT**  
**11.9% ROOC**

# Our strategy provides a solid platform for profitable growth

## Grow faster than the global packaging market (>5% p.a.)



Global leader in attractive end-use segments



Customer driven innovations based on renewable materials



Competitive and well-positioned assets

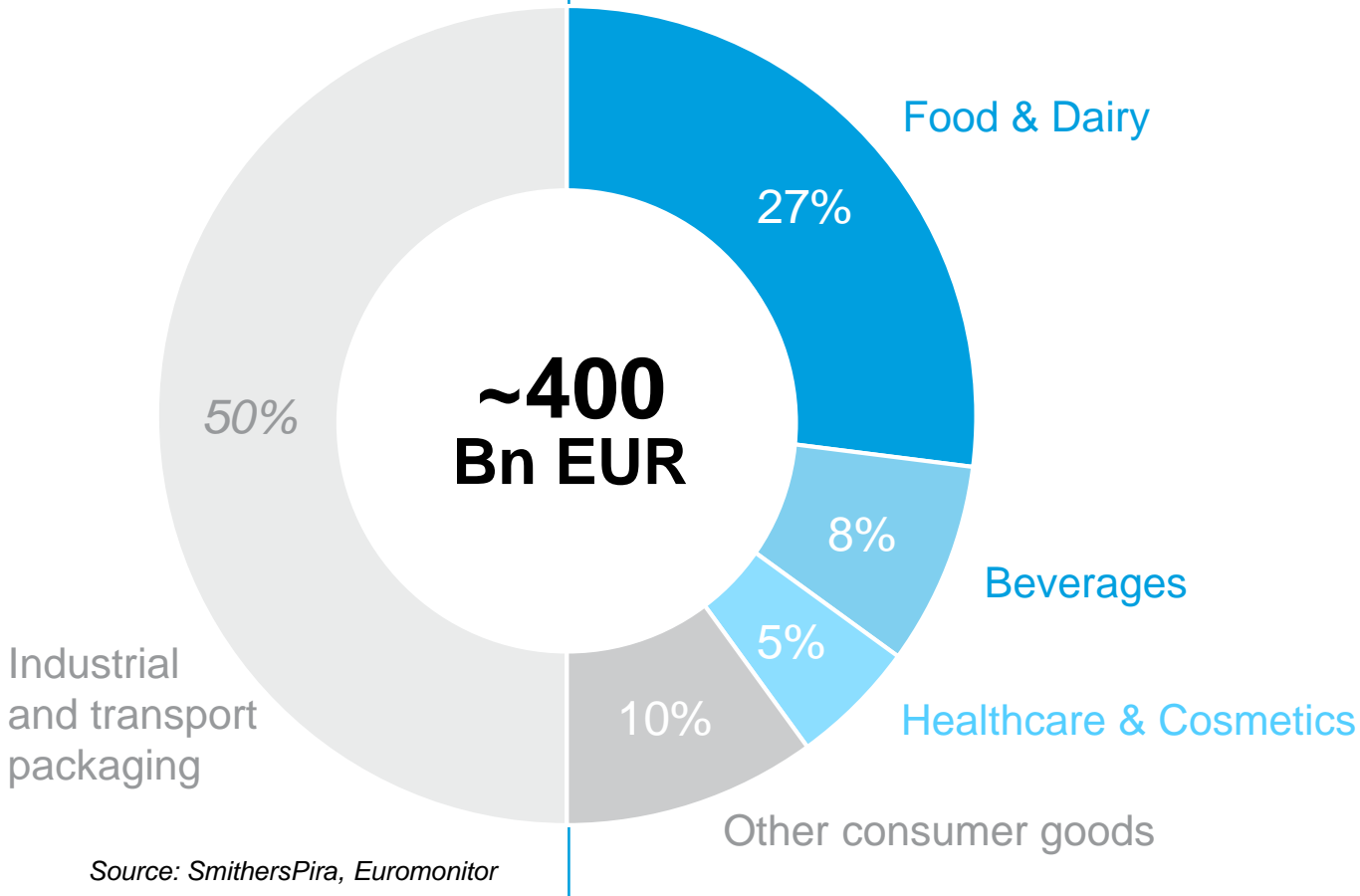
Diverse teams and motivated employees



# Our addressable market offers significant growth opportunities in attractive end-use segments

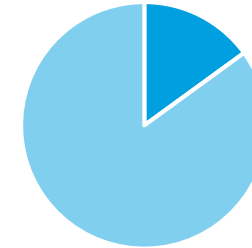


GLOBAL PACKAGING MATERIALS MARKET



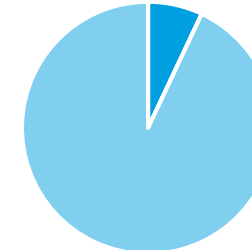
PAPER BOARD'S SHARE OF TOTAL PACKAGING

Food & Dairy



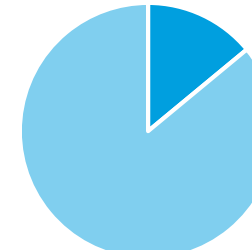
**+2.3%**

Beverages



**+2.6%**

Healthcare & Cosmetics



**+2.8%**

SEGMENT GROWTH  
(p.a. – 2022)

Source: SmithersPira, Euromonitor

# Design for circularity - the Single Use Plastic directive creates significant growth opportunities



European parliament adopted the **Single Use Plastic Directive** on October 24<sup>th</sup>

The aim is to **reduce plastic littering** by targeting the 10 most frequently found single-use plastic items in the marine environment

A range of **different measures** to reduce single use plastic waste and littering are proposed, including:

- Market restrictions
- Consumption reductions
- Product design requirements
- Extended Producer Responsibility

Measures become legally effective in the EU Member States earliest mid-2021. However, markets are evolving already – brand owners and retailers make decisions on phasing out single use plastic items in their portfolio

A great opportunity to accelerate the substitution of plastics with board in Europe

60%



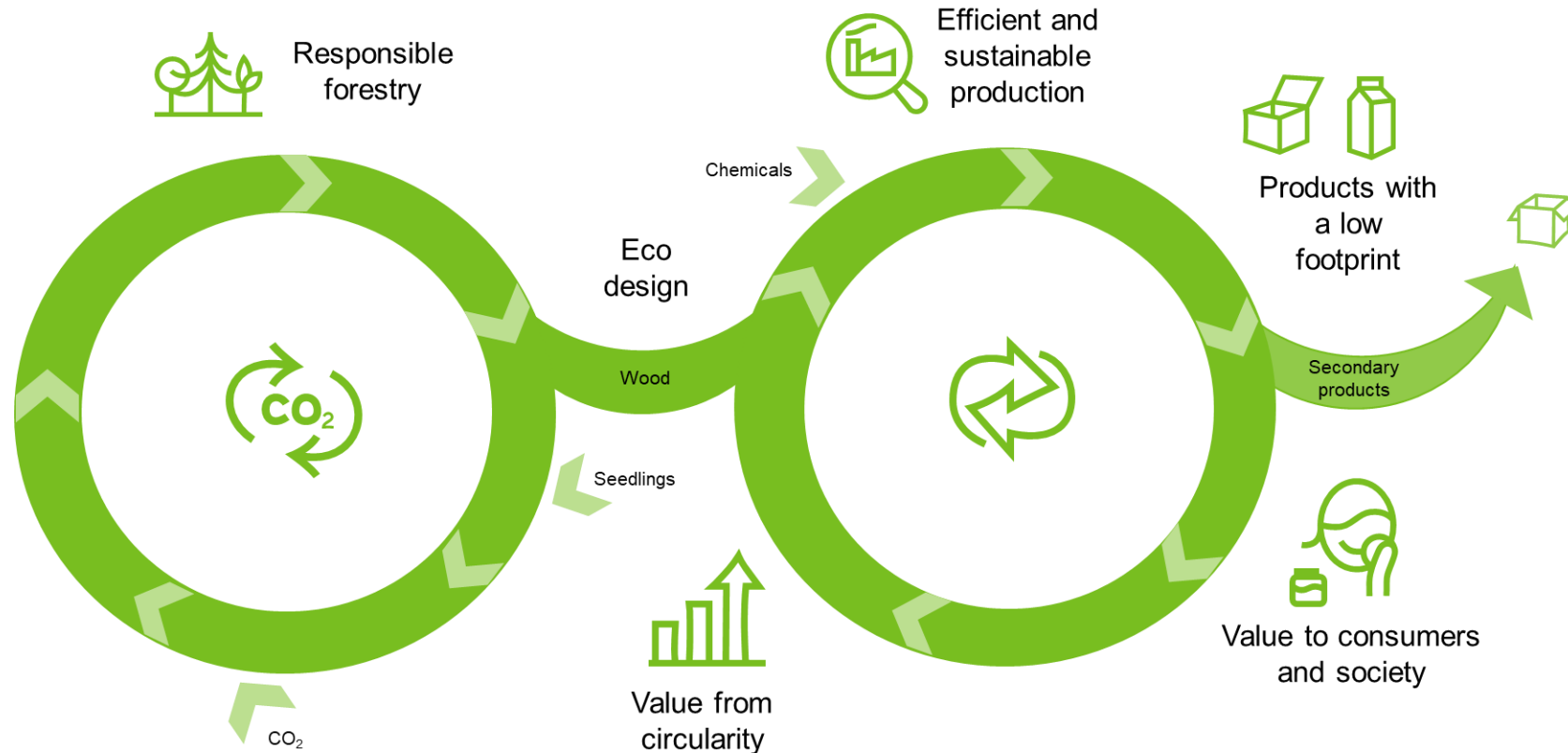
*share of plastic in single use food & beverage containers and cups in Europe*

....but also a potential threat to barrier boards



*Polymer coated paper board is currently in the scope of the directive, extent and consequences are unclear*

# Our packaging materials are renewable and circular



# Circular design covers the whole value chain



No plastic substrate: 100% paper-based

Clean and green manufacturing

Low carbon footprint

Recyclable

ECO RFID Tag Technology by Stora Enso

# Accelerating change with customers, partners and start-ups



## Customer insights



Forestry



New technologies



Research and innovation centres



Operations



Products and applications

# Our target is 25% of sales from new products and services

2018 level is 15%



BIO-BARRIERS AND FILMS

REPLACING PE-FILMS IN CUPS



POUCHES FOR LOW TO MEDIUM SHELF LIFE



LIDS



REPLACING ALUMINIUM FOIL



POUCHES WITH HIGH BARRIER PROPERTIES



GLOBAL MARKET SIZE

~80 Bn EUR

2019-2021

2021-2023

2023-2025

BIO-COMPOSITES

STRAWS



CAPS, CLOSURES & PACKAGING COMPONENTS



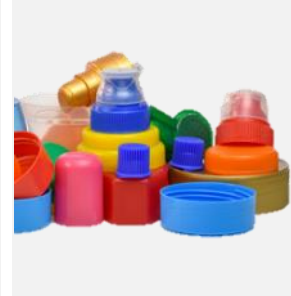
RIGID CONTAINERS



TRAYS



CAPS WITH HINGES



TUBES



~25 Bn EUR

Source: SmithersPira, internal analysis

# Close collaboration with Customers

## Replacing plastic in ready meal trays with Iceland Foods



# Renewable innovations with long term partner

## Source reduction with Elopak





# Replacing plastic straws

## Agile development with start-up companies



The New York Times

### *Finnish Firms to Tackle Plastic Pollution With Renewable Straws*

By Reuters

Dec. 4, 2018



HELSINKI — Finland's Stora Enso, one of the world's largest pulp and paper makers, said on Tuesday it had joined forces with local startup Sulapac to develop renewable and biodegradable straws to combat the global plastic waste problem.

# We deliver sustainable and profitable growth

## Grow faster than the global packaging market (>5% per year)





**Thank you!**