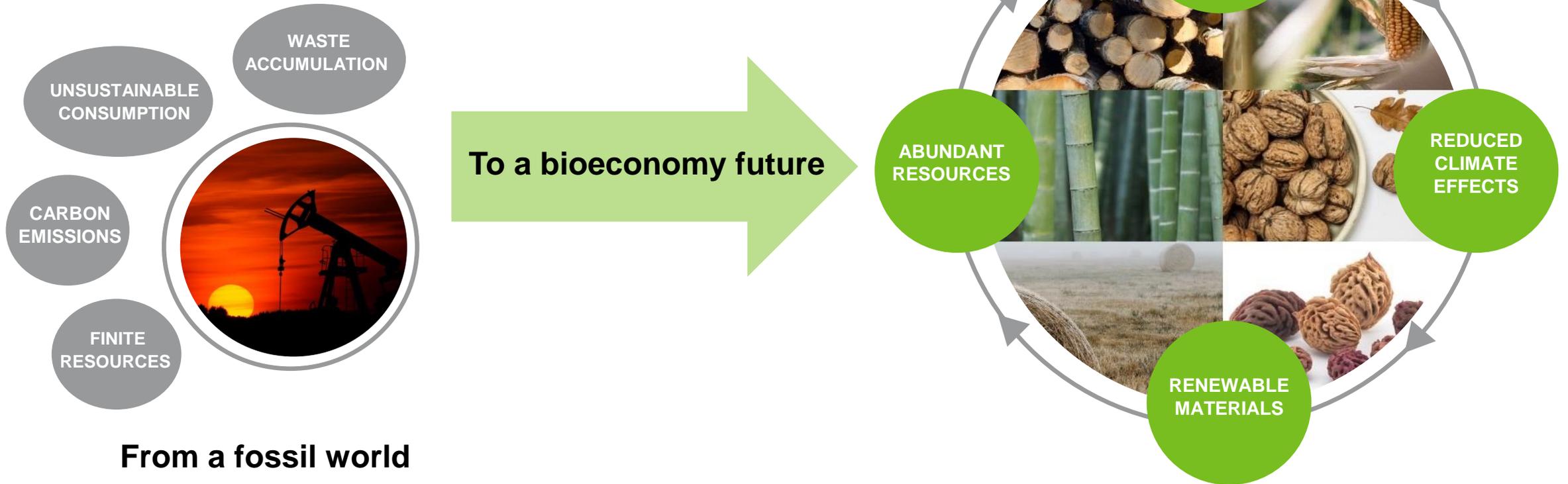




Taking the lead in the bioeconomy

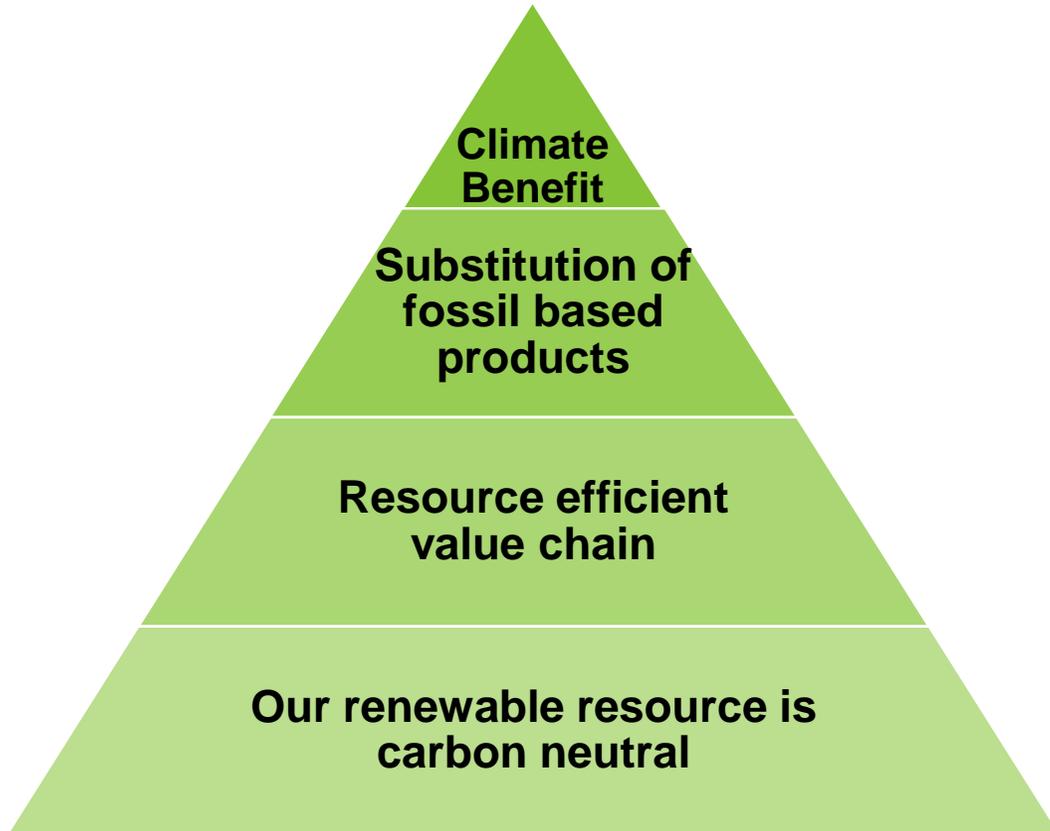
CEO Karl-Henrik Sundström

We are leading the way in the growing bioeconomy



Our business is a net contributor to prevent global warming

13 Mt CO₂ = 325 MEUR per year



Substitution is our key competitive advantage

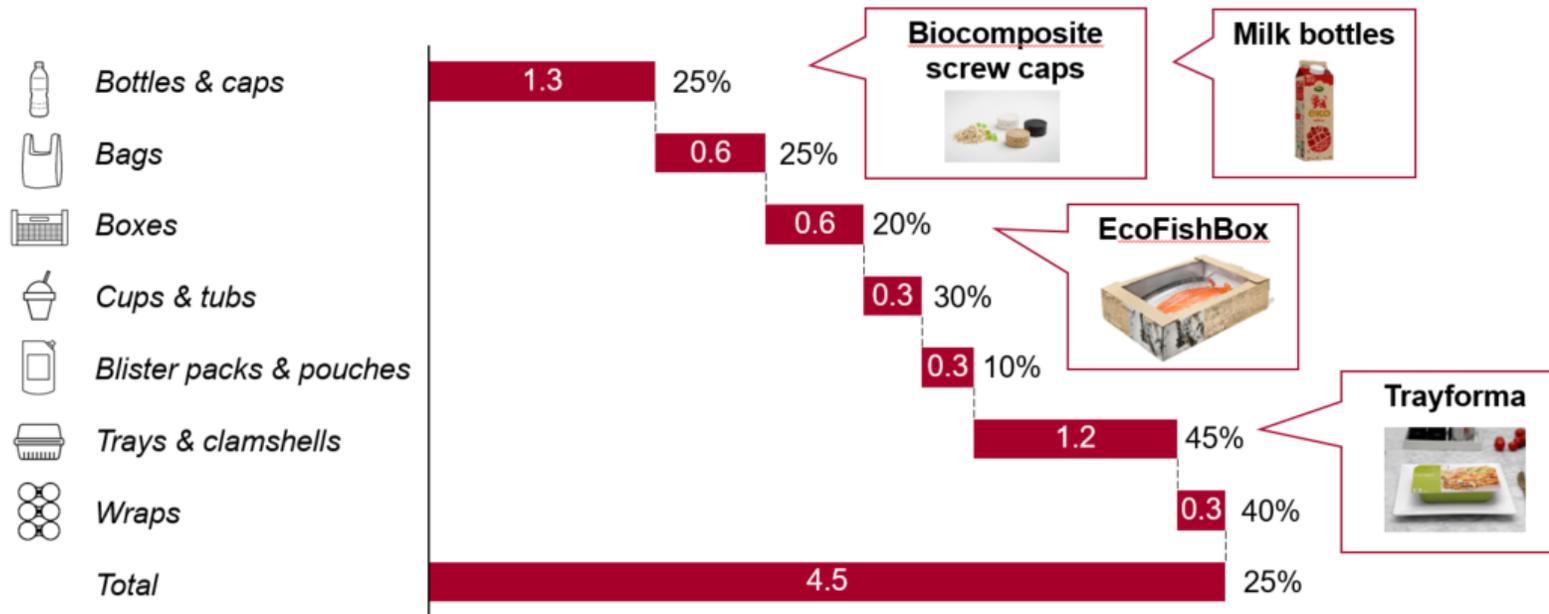
2018	Mt CO ₂
Forests	+ 3**
Value Chain	- 11
Substitution	+ 21
Total climate benefit	+ 13*

*of CO₂e per year. Source: internal calculations, value chain emissions fully adopted to the GHG protocol including Scopes 1, 2 and 3 According to the current estimates. Data year 2018 ** Accounted as an average between 2008-2018.

25% of plastics in packaging can be replaced today...



Plastics packaging substitution potential Mt plastic packaging, net potential



Source: Material Economics 2018

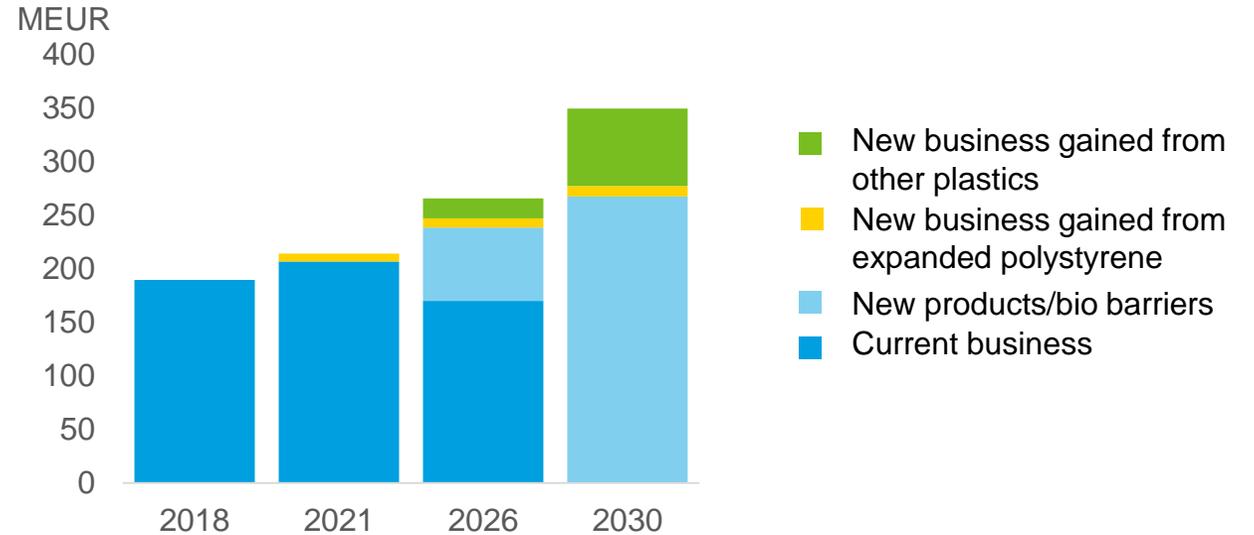
... and EU Single Use Plastic Directive is a huge opportunity

Innovation to focus on bio-based (natural) polymers

Impacted markets of relevance to Stora Enso



Food Service Board Sales scenario*, as an example



*Board for food containers of immediate consumption and cups for beverages in the EU

Accelerating the replacement of fossil-based materials



- Investing 10 MEUR to build a pilot facility for producing bio-based carbon materials based on lignin
- Wood-based carbon utilised as a crucial component in batteries
- Applications: consumer electronics, the automotive industry and large-scale energy storage systems
- The pilot plant will be located at the Sunila Mill in Finland

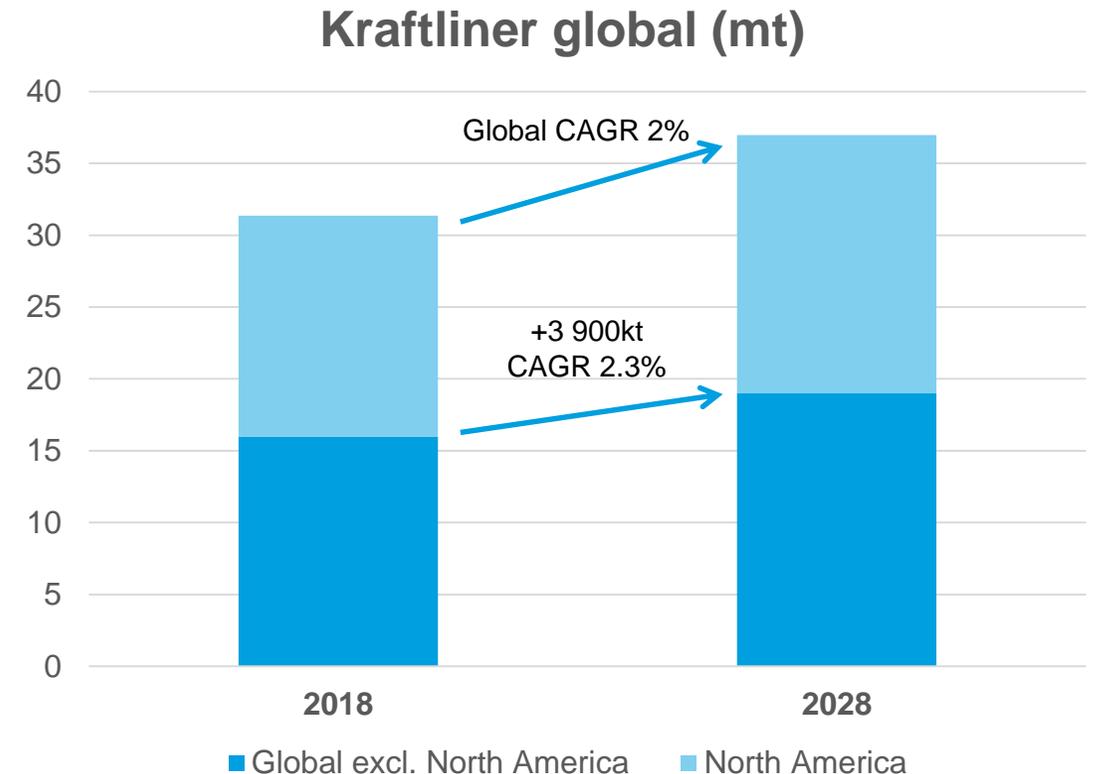


Oulu paper mill is converting to packaging board

Reducing our paper capacity by 20%



- 450 000 t/a high-quality virgin-fibre-based kraftliner
- 530 000 t/a unbleached softwood pulp
- Expected to meet Packaging Solutions division's operational target of 20%
- Oulu Mill's EBITDA margin expected to improve by 15–20 percentage points
- 350 MEUR investment in 2019–2022
- Production on the converted machine to start by the end of 2020



Source: Pöyry, Risi, ICCA, Stora Enso analysis

Demand for all pulp grades is growing by 2%



➔ **Textiles, nonwovens**
 107 Mt market, growing 3%/y
 6.8 Mt market pulp (dissolving)

➔ **Carton board**
 48 Mt market, growing 2.0%/y
 5.3 Mt market pulp

➔ **Tissue**
 36 Mt market, growing 4%/y
 23 Mt market pulp

➔ **Hygiene**
 590 billions of converted unit, growing 3.5%/y
 6.2 Mt market pulp (fluff)

➔ **Paper**
 Specialty: 29 Mt market,
 growing 2%/y
 9 Mt market pulp

➔ **Graphic:** 101 Mt market,
 declining -1%/y
 17 Mt market pulp

Pulp (hardwood & softwood) demand grows 2% CAGR by 2023

2018	➔	2023
59	Demand, Mt/a	65
89	Market balance, %	94*)

*) without UPM new mill

Pulp average capacity growth

2007-2018: + 1.6 Mt/y (90% operating ratios)
 2019-2024: + 1.0 Mt/y (confirmed projects,
 incl. UPM new mill)

Source: Pöyry Consulting Group, Hawkins Wright, Smithers Pira, RISI

Our portfolio is further strengthened with integrated forest assets



		Sales 2018 EUR and % of group's sales	Market growth	Position
Consumer Board	+	2.6 BEUR  25%	2016–2030 for virgin board: Europe 1.8%, North America 1.2%, Latin America 3.3%, China 4.3%, Rest of Asia 3.4%, Africa 2.5%	#1 in LPB, FSB and CUK in Europe or the world
Packaging Solutions	+	1.3 BEUR  13%	High quality SC fluting 1-3%; Kraftliner 2–3% excl. North Am; Testliner 3–4% Eastern Europe	#6 in containerboard in Europe
Biomaterials	+	1.6 BEUR  16%	Market pulp 2%; Fastest growth in tissue (4%)	Widest pulp grades portfolio #1 in Europe in fluff
Wood Products	+	1.6 BEUR  15%	Global sawn softwood 2–3%, European new construction 3.5%	#1 in Europe and #4 in the world in supplying wooden construction material
Paper	-	3.1 BEUR  29%	Declining 3–5% annually	#2 in Europe
Forest	+	0.75 BEUR*  7%	Annual growth of 4%, increased harvesting potential by 10–15% in our Swedish forests	#2 biological assets in the world

* Only external sales

Forestry management is a core part of our sustainable business...



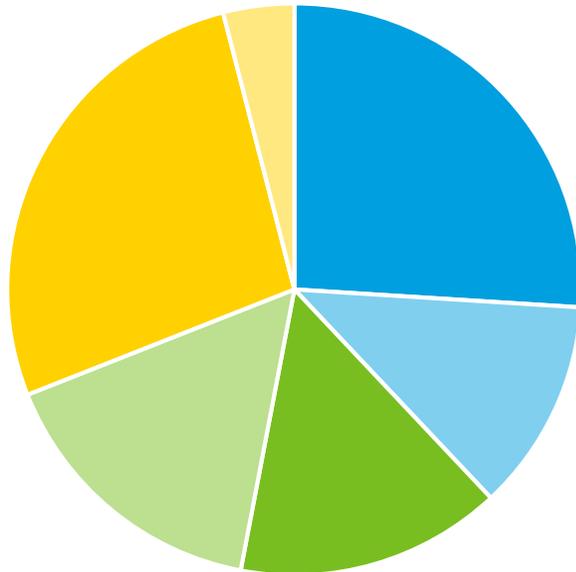
- Increased harvesting by 10–15% in our Swedish forest and +10% additional yield initiatives from innovations
- Strengthening our competitiveness and self-sufficiency
- Fair value of biological assets 3.6 BEUR
 - 2.6 BEUR in Sweden, 1 388k ha
 - 595 MEUR through Tornator in Finland, Estonia and Romania, 250k ha, 24k ha and 5k respectively
 - 440 MEUR in plantations (Brazil, Uruguay, China), 112k ha, 126k ha and 82k ha respectively
- Total forest (land and biological assets) book value per hectare
 - 2 000 EUR (gross) in Sweden
 - 2 200 EUR (gross) in Finland



...with total CAGR potential of 6–8% per year

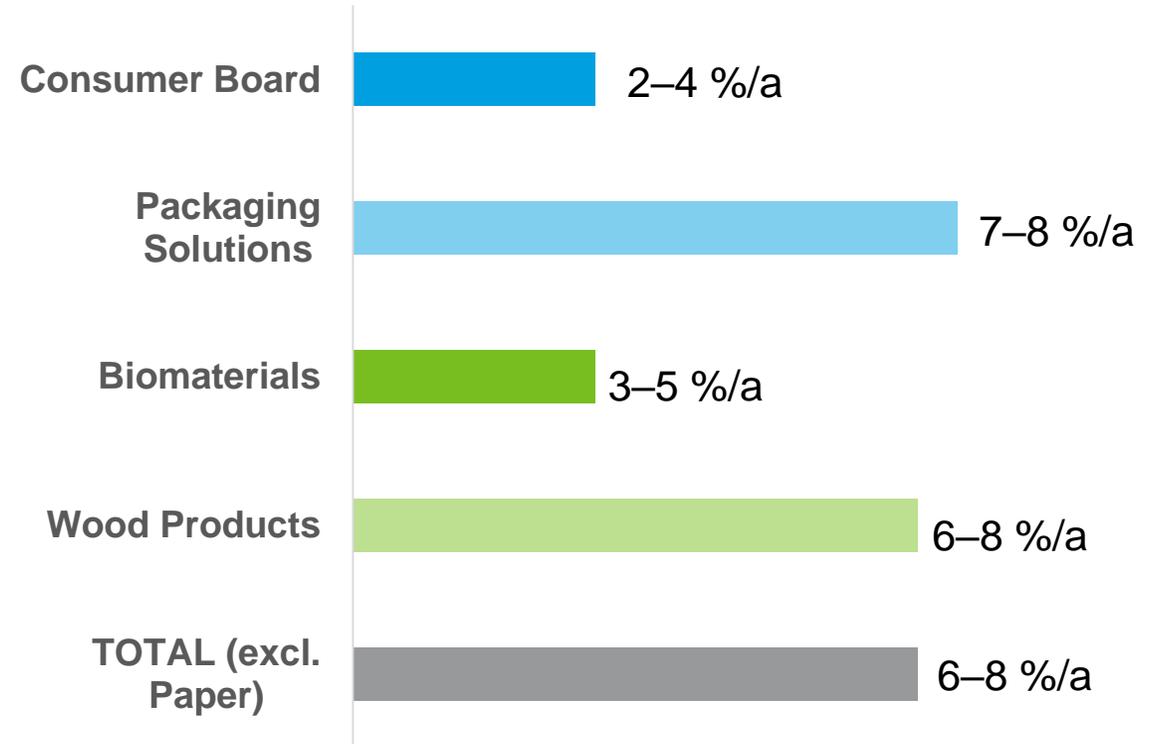


Sales in Q2 2019



■ Consumer Board ■ Packaging Solutions ■ Biomaterials
■ Wood Products ■ Paper ■ Other

CAGR potential 2019–2024
(excluding paper)



Our formula for success continues to deliver results



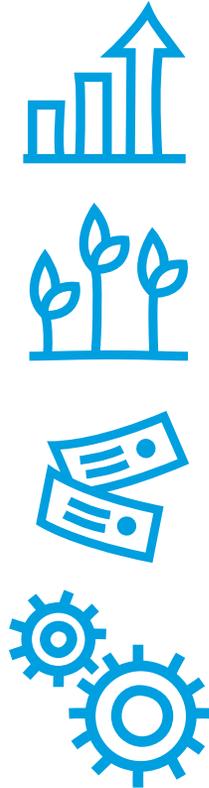
Sustainable profitable growth 6–8%*

Strong cash flow generation

Capex ~3.4 BEUR**

Dividend ~50% of EPS

Net debt to operational EBITDA <2.0x
Debt to equity <60%



* Excluding Paper ** Next five years

An aerial photograph of a vast, dense forest. The trees are a mix of green and dark green, with sunlight filtering through the canopy, creating a hazy, golden glow in the center. The forest extends to the horizon under a clear sky.

**Control of forest assets is a
competitive advantage in the
bioeconomy**

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