



# Norske Skog

## Company presentation

January 2021

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

# Leverage quality assets and fibre competence towards green growth

## I High-quality publication paper mills with competitive cost position and significant cash generation

- **NOK 1,000m over-the-cycle EBITDA** and continuous work to improve and optimise publication paper cash flows
- **Cost reduction of NOK ~200-250m from 2021** due to machine closures, efficiency investments and cost programmes
- **Industry low CO<sub>2</sub> footprint** enabling annual CO<sub>2</sub> emission allowance surplus

## II Entry into high-margin and growing containerboard market through conversion of paper machines

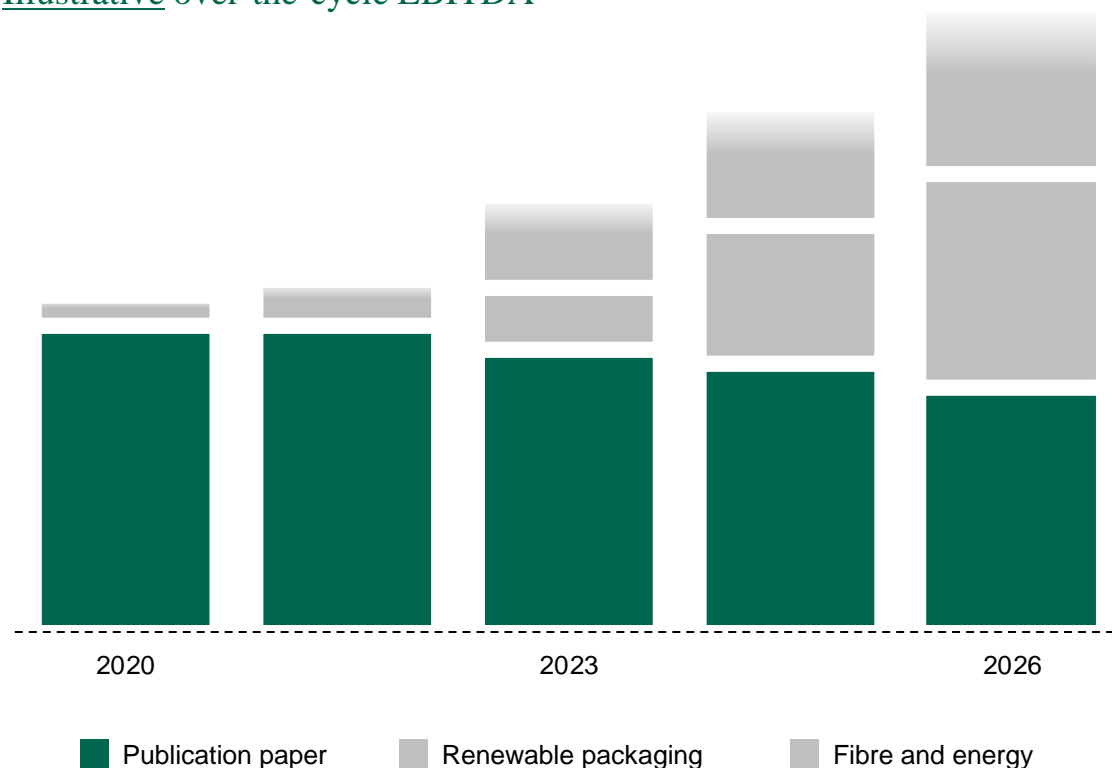
- Containerboard projects on track for start up in 2023 with expected **EBITDA contribution of NOK ~700-800m from 2025-26**
- Containerboard financing commitments **expected to cover 70-80% of EUR 350m conversion capex** with long tenor
- Expect debt commitments during Q1 2021 and **final agreements in H1 2021**

## III Promising green growth investment opportunities with significant earnings impact

- Bruck waste-to-energy plant on track for start up in H1 2022 with **expected EBITDA contribution of NOK ~200m**
- Nature's Flame pellets facility performing excellently with **EBITDA contribution of NOK ~30-35m**
- Circa<sup>1</sup> is leading a consortium towards construction of a **1,000 tonne bio chemicals plant in France**
- **First sales of CEBINA in Q4 2020** with ambition for international distribution agreement during 2021

# Publication paper will continue to generate significant cash flows as strategic focus shifts towards growth projects

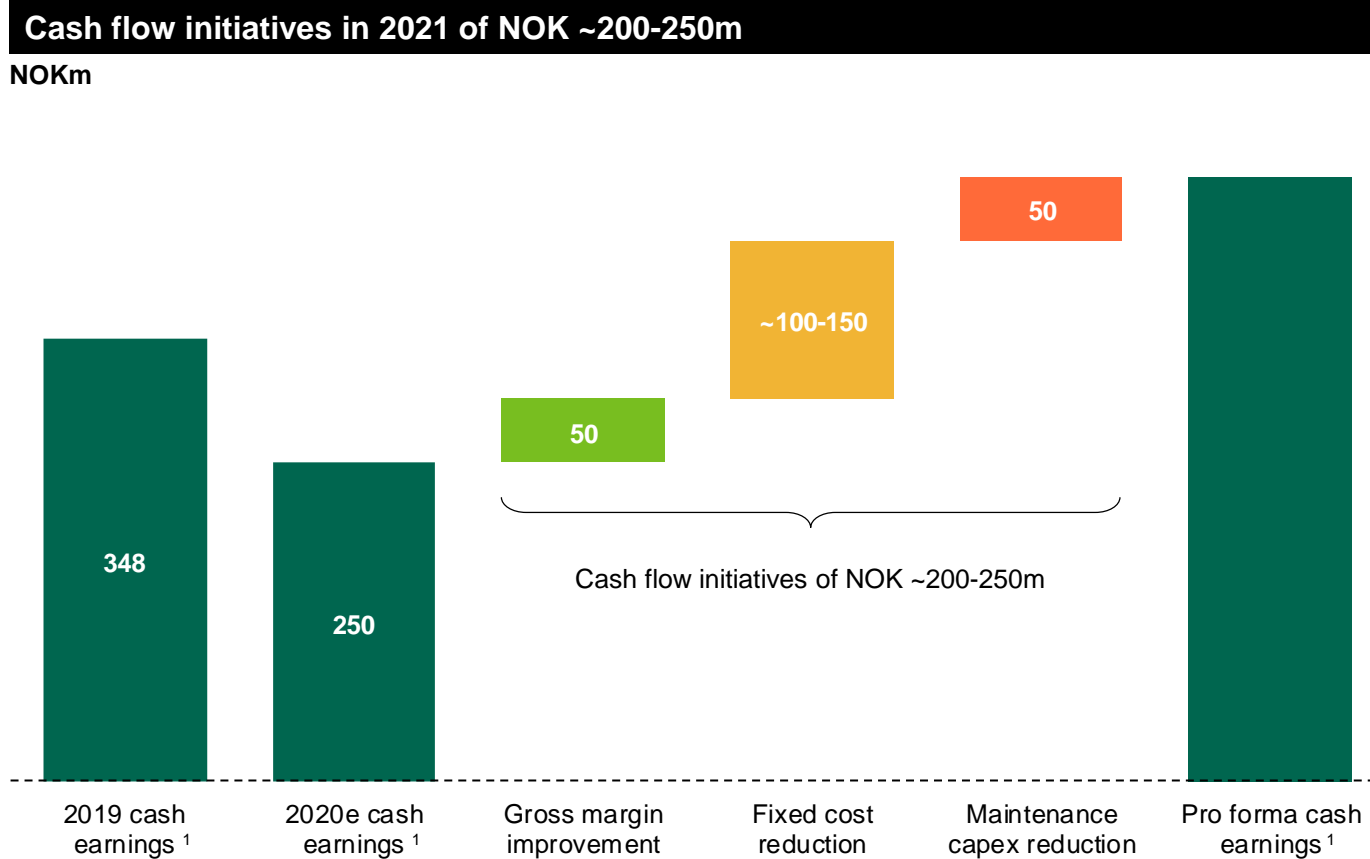
## Illustrative over-the-cycle EBITDA



- Remain a producer of all publication paper grades
- Publication paper capacity of ~2.1m tonnes<sup>1</sup>
- Five paper mills with 11 paper machines combined<sup>2</sup>
- Over-the-cycle publication paper EBITDA of NOK 1,000m
- Cash flow improvement initiatives of NOK ~200-250m



# Safeguarding cash flows with active cash conversion management



## Gross margin improvement

- Efficiency investment at Saugbrugs and optimisation of Australasian operations with repositioning of Tasman into pulp-on-reel production
- Favourable variable unit costs (energy and fibre) seen in 2020 due to the economic slow down

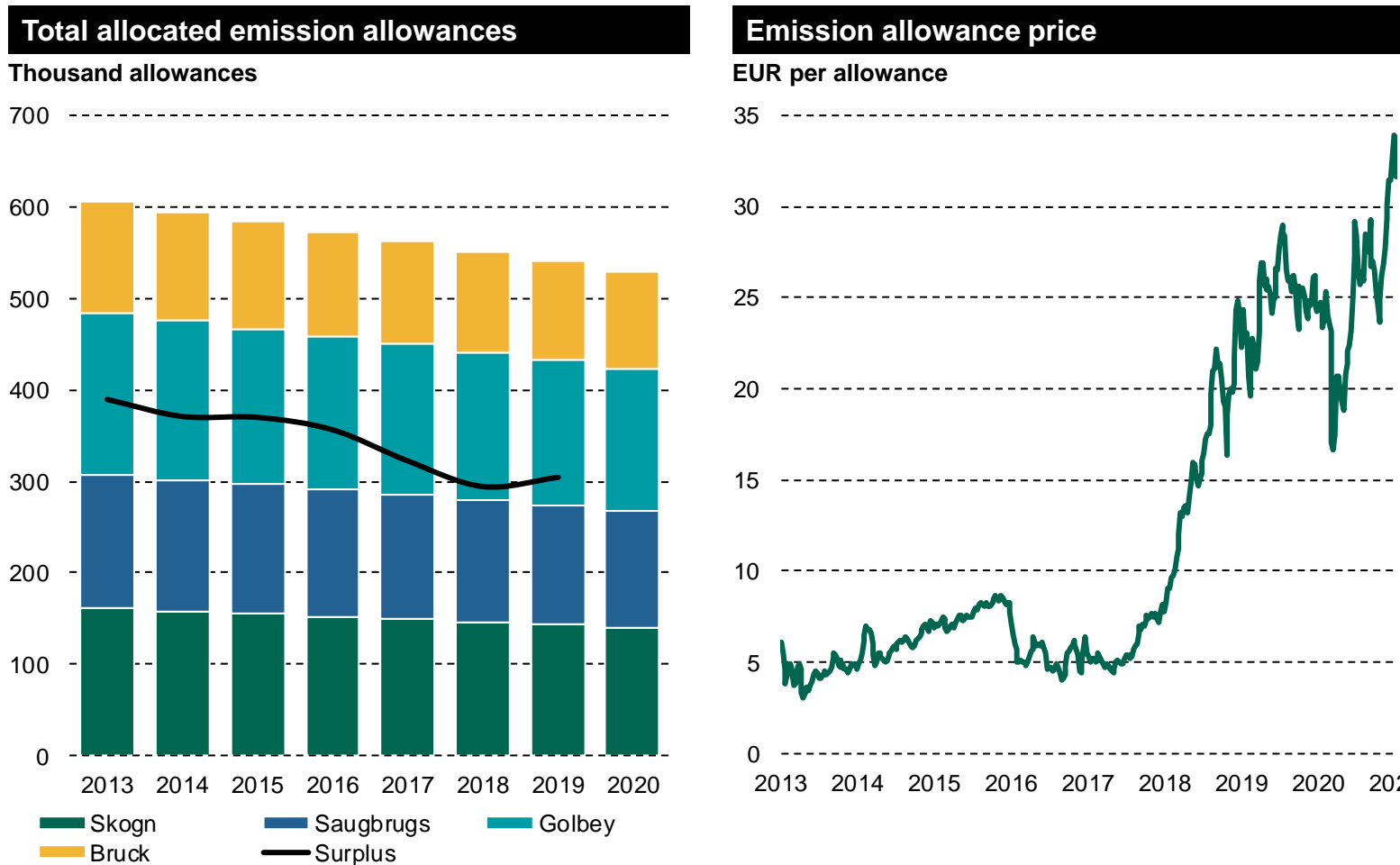
## Fixed cost reduction

- Fixed cost reduction of NOK ~100-150m following closure of Saugbrugs PM5 and company wide cost reduction programme introduced from 2021
- Sales volume down ~450-500k tonnes in 2020, resulting in a negative margin impact from fixed costs

## Maintenance capex reduction

- Annual maintenance capex revised from NOK 175-225m to NOK 150m reflecting capacity adjustments and cash conversion focus

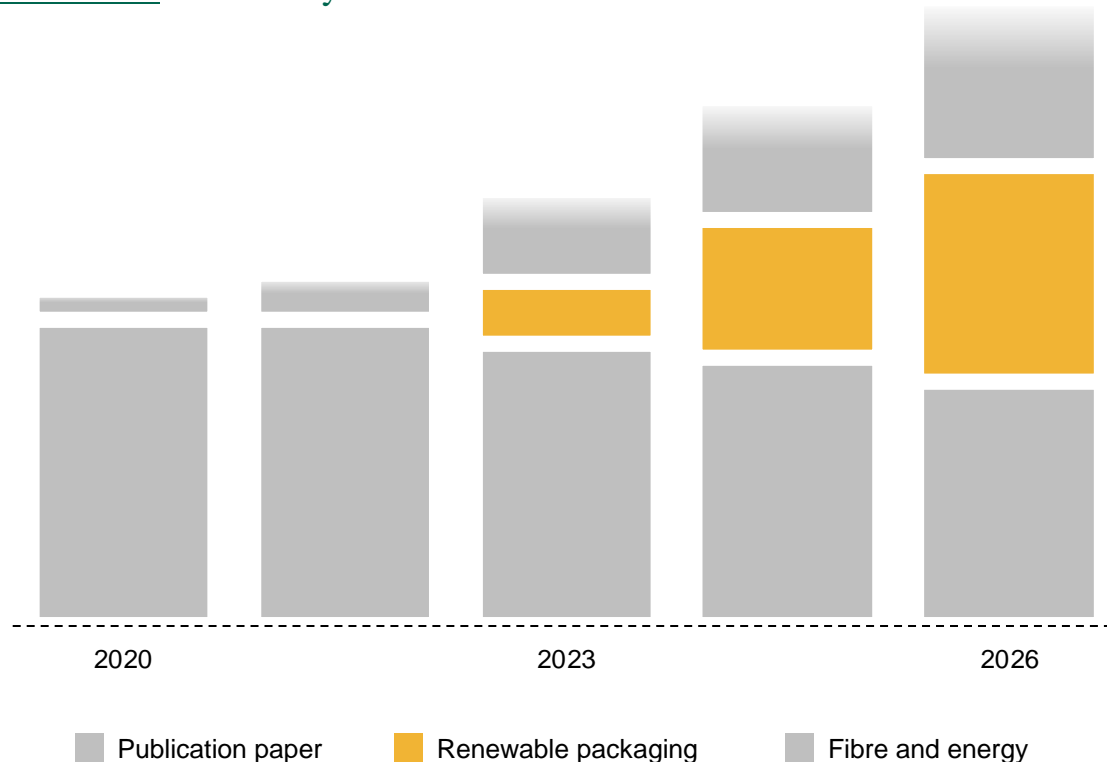
# Industry low CO<sub>2</sub> footprint enabling annual CO<sub>2</sub> emission allowance surplus



- Industry low CO<sub>2</sub> footprint basis for annual emission allowance surplus
- Waste-to-energy plant at Bruck will reduce CO<sub>2</sub> footprint with 150k tonnes annually, start H1 2022
- Surplus allowances can be sold in the market, recent pricing of EUR +30 per allowance
- Cost compensation received to cover increase in electricity prices resulting from the EU ETS<sup>1</sup>
- 2020 emission allowance sales of NOK ~80-85m and cost compensation of NOK ~300-350m<sup>2</sup>

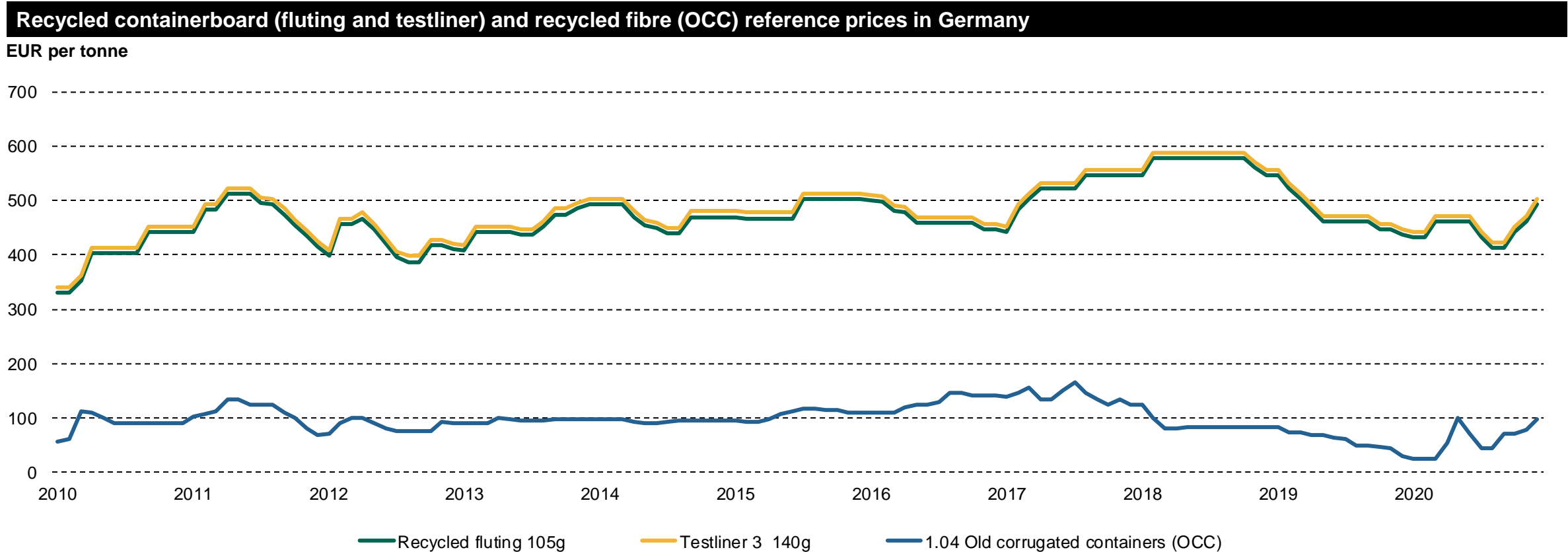
# Norske Skog to become a leading European renewable packaging player

## Illustrative over-the-cycle EBITDA



- Containerboard projects in Bruck and Golbey
- Replace newsprint with 765,000 tonnes of containerboard
- Annual European demand growth +600,000 tonnes<sup>1</sup>
- Enable recyclable logistics for e-commerce boom
- Capitalise on packaging moving away from plastics
- Financing agreements expected in place during H1 2021
- Expected EBITDA of NOK ~700-800m from 2025-26

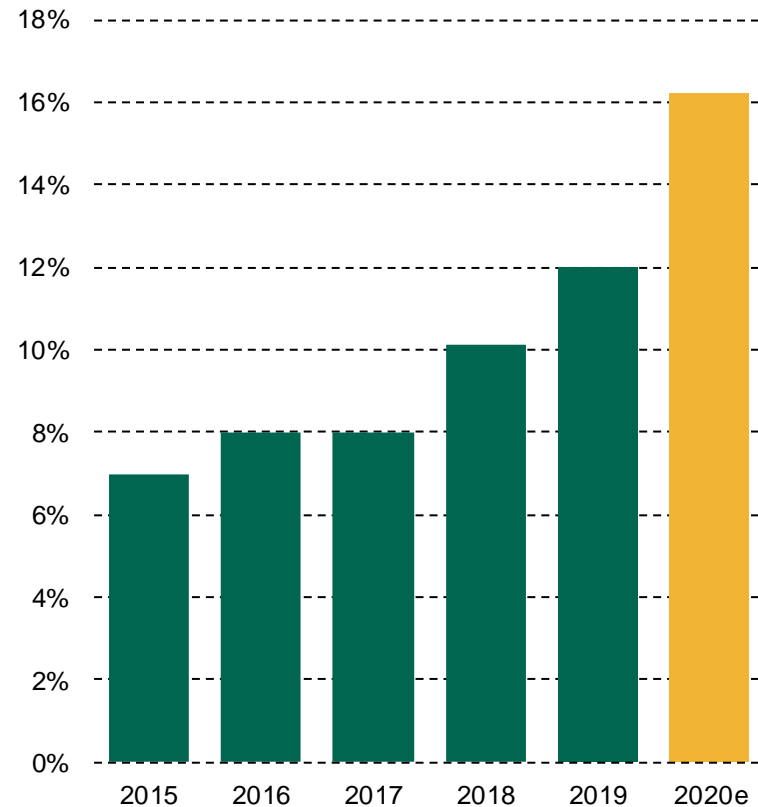
# Strong price development within renewable containerboard



# Industry trends favouring sustainable and light weight packaging

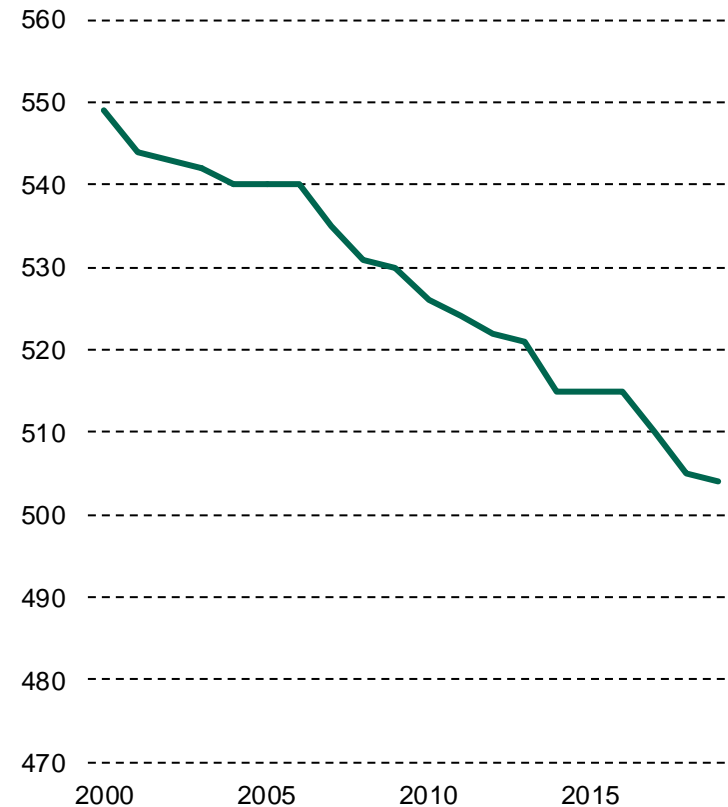
## European e-commerce boom

E-commerce share of retail sales in Western Europe



## High demand for light weight board in Europe

Avg. weight of corrugated board<sup>1</sup>, grams per square metre



*“By 2025 we will halve the amount of virgin plastic we use in our packaging”*



*“Our commitment is that 100% of our packaging is recyclable or reusable by 2025”*



*“Target to design our packaging to minimize waste and eliminate single-use plastics by 2023”*



*“Goal of ensuring that all plastic packaging is reusable or recyclable in a cost-effective manner by 2030”*



# Norske Skog will be a containerboard producer in 2023



Norske Skog Golbey – France

- PM1 to become a producer of 555,000 tonnes of recycled containerboard
- Current PM1 capacity of 235,000 tonnes newsprint<sup>1</sup>
- Capex estimate of EUR ~250m



Norske Skog Bruck – Austria

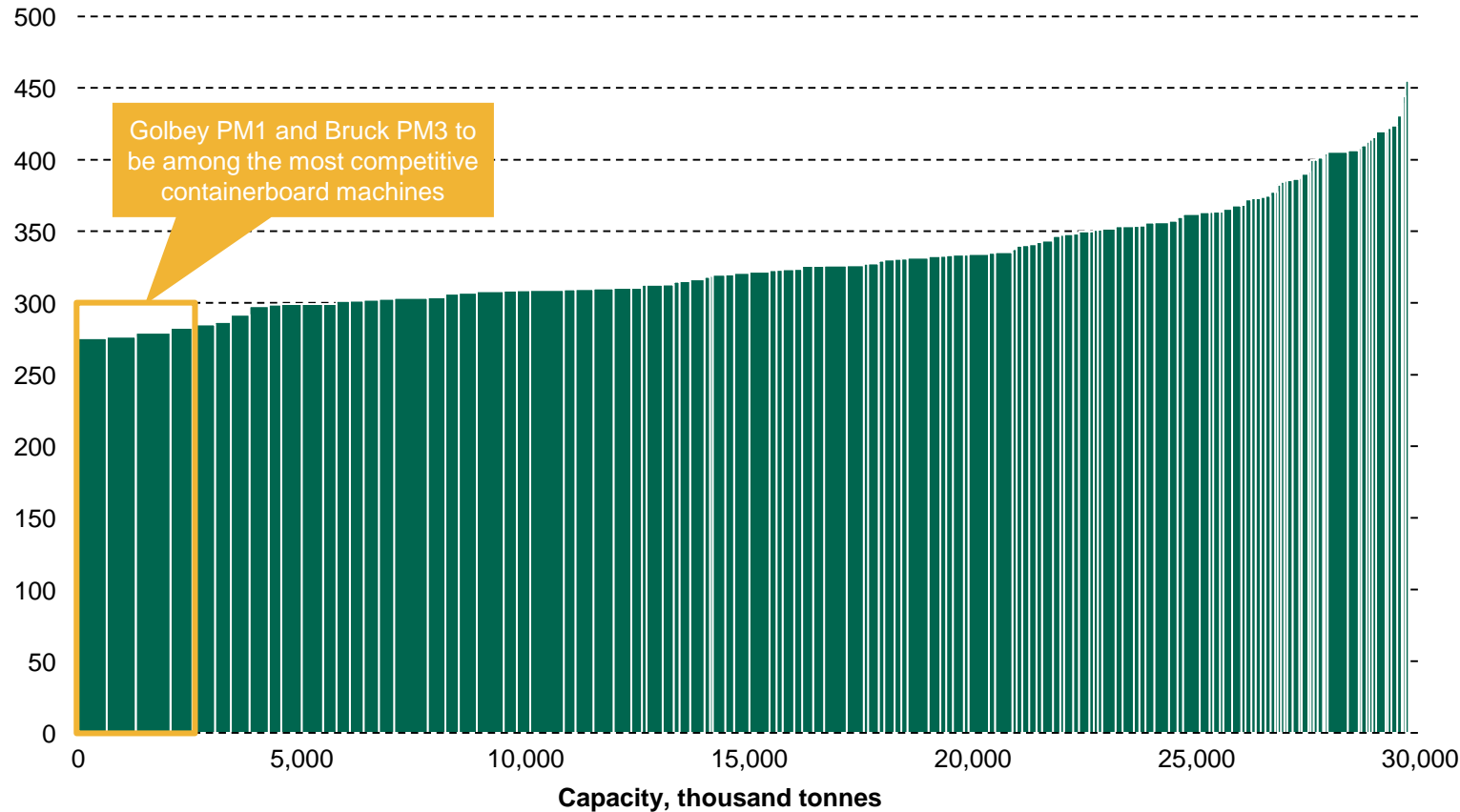
- PM3 to become a producer of 210,000 tonnes of recycled containerboard
- Current PM3 capacity of 125,000 tonnes newsprint<sup>2</sup>
- Capex estimate of EUR ~100m

- ✓ Strong process and project competence locally at the mills
- ✓ Leading competence on pulp & paper highly relevant in packaging
- ✓ In-house personnel with experience from previous and similar projects
- ✓ Working with multiple experienced and best-in-class suppliers
  - Specialised and competitive suppliers with strong reputations
  - Targeting the best solutions from the most experienced suppliers
- ✓ Support from experienced technical consultants
  - Engineering and design services also covering delivery interfaces

# Entering the containerboard market with first-quartile capacity

Cash cost delivered Frankfurt for all recycled containerboard machines in Europe<sup>1</sup>

EUR per tonne

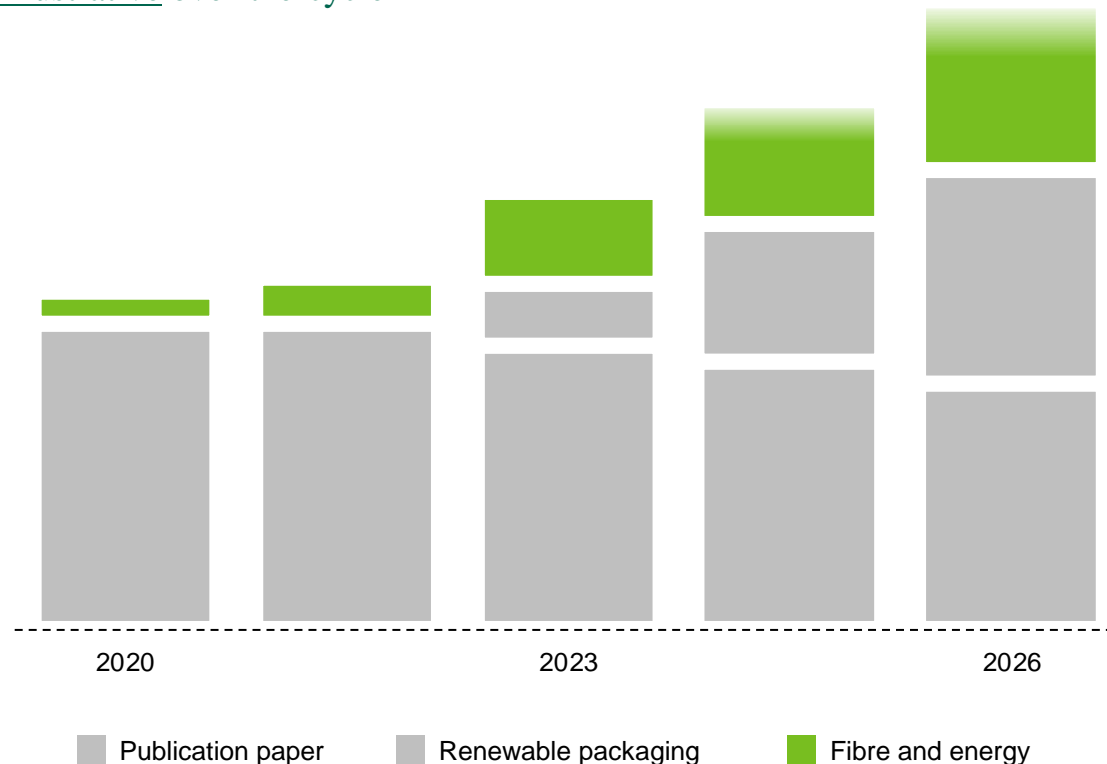


- Centrally located in continental Europe
- Established presence in recycled fibre markets
- Among the top brownfield opportunities in Europe
- Large industrial sites with scale advantages
- Boilers secure sustainable and competitive steam supply
- Machine specifications enable cost-leadership position

# Norske Skog's promising portfolio of fibre and energy projects enable diversification and innovation opportunities



## Illustrative over-the-cycle EBITDA



- **Waste-to-energy plant:** Sustainable energy production of +400 GWh(th) and EBITDA of NOK ~200m, start-up in H1 2022
- **Pellets:** Producing 85,000 tonnes of renewable energy pellets in New Zealand with annual EBITDA of NOK ~30-35m
- **Circa:** Bio chemicals company planning a 1,000 tonnes plant in France with EUR ~12m EU grant (ReSolute<sup>1</sup>), start-up end 2022
- **CEBINA:** First commercial sales in Q4 2020 and ambition to secure international distribution agreement in 2021
- **Bio Composites:** Decision on installation of pilot taken in Q4 2020 to enable further commercial development and qualification testing

# Waste-to-energy plant

## 50 MW(th) of sustainable energy capacity being installed in Bruck

Waste-to-energy plant being installed in Bruck, Austria



- Progressing according to plan with start-up expected in H1 2022
- Proven technology from Valmet with a turnkey installation contract
- Replace gas consumption with energy produced from regional waste
- Significant demand for waste offtake in Austria and surrounding areas
- Increasing landfill regulation to further drive demand for waste offtake
- Reducing the CO<sub>2</sub> footprint of the Bruck mill with 150,000 tonnes
- Revenue generation from waste gate fees and electricity production
- Expected EBITDA contribution of NOK ~200m
- EUR 72m investment of which EUR ~22m invested as of Q4 2020
- EUR ~10m of EUR 54m in local debt drawn as of Q4 2020



# *Pellets facility*

## Sustainable production of premium quality pellets

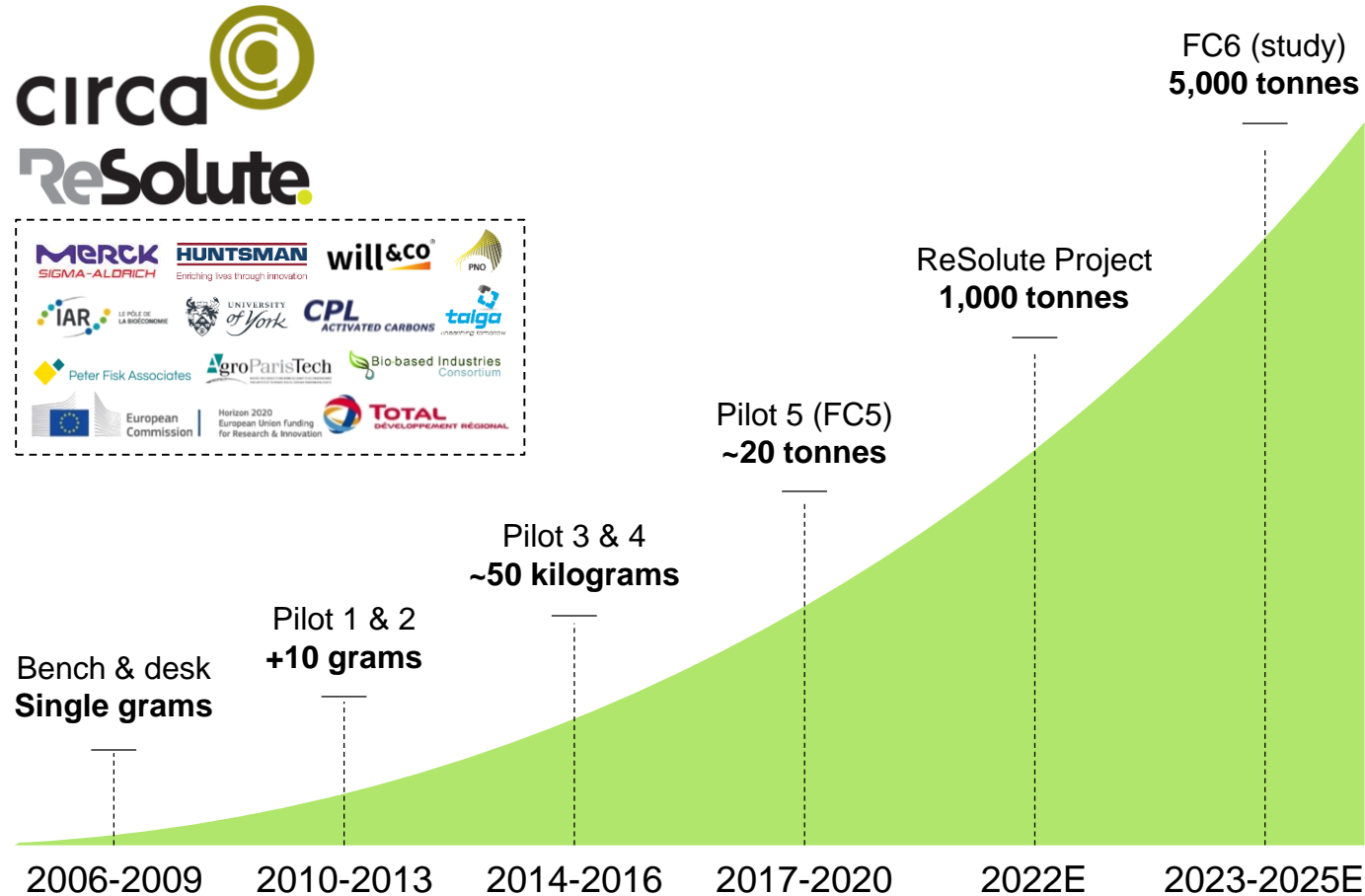
Nature's Flame modern and state-of-the-art wood pellet production facility in Taupo, New Zealand



- NZD ~45m invested in state-of-the-art facility
- NOK ~30-35m EBITDA contribution
- Acquired by Norske Skog in July 2015
- FSC certified fibre supply
- Renewable geo-thermal energy supply
- DinPlus certification for premium pellets
- BioGro New Zealand organic certification
- Current production around 90,000 tonnes
- Expansion opportunities of ~120,000 tonnes
- Equivalent to thermal energy of +425 GWh(th)<sup>1</sup>
- Fonterra offtake agreement for 50,000 tonnes



## Produces and sells valuable bio chemicals with patented technology



- Circa<sup>1</sup> targets the bioeconomy ambition of replacing fossil and toxic chemicals with bio chemicals
- Built on +50 years of bio chemical research and more than 10 years of technology verification
- Unique ability to produce large amounts of the platform chemical LGO<sup>2</sup> using its patented Furacell™ process
- LGO is used to derive (among other) Cyrene™, a biobased solvent replacing toxic and fossil solvents NMP and DMF
- Such solvents are essential for the production of medicines, electronics, agrochemicals and more
- More than 1,000 tests with researchers and companies, and currently selling through Merck KGaA and directly
- Recent EU Horizon2020 grant of EUR ~12m to support a 1,000 tonnes plant in France for the production of LGO and Cyrene™
- Contemplated capital raise (IPO) during Q1 2021 to raise the remaining funding required for construction of the plant

## Proof of concept following first commercial sales in Q4 2020

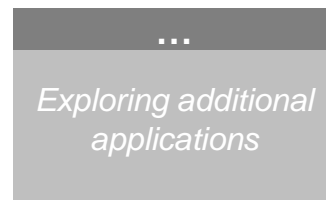
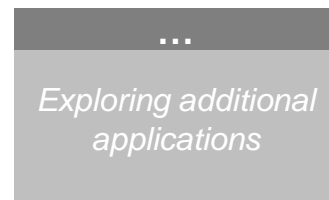
CEBINA is an environmentally friendly input factor relevant in a range of applications



*Produced from renewable  
fibre and hydro energy*

*CEBINA product portfolio  
comprises among other:*

- CEBINA MB
- CEBINA 4%
- CEBINA 20%



- CEBINA developed by Norske Skog since 2006
- Originally developed as strength enhancer in paper
- Qualities relevant in a wide range of other applications
- Significant commercial work during 2019 and 2020
- Collaboration with technical partners and customers
- First commercial sales in Q4 2020 (proof of concept)
- Target international distribution agreement in 2021
- Pilot plant with capacity of up to 500 tonnes
- Reviewing capacity upscaling opportunities





# Outlook

## **Clear priorities in the short term**

- Focus on cash conversion
- Reposition Australasian operations
- Maintain a robust balance sheet

## **Execute on strategy in the long term**

- Become a leading producer of renewable packaging
- Develop and commercialise fibre and energy projects
- Remain a producer of all publication paper grades



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