



# Norske Skog

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## Q3 2021 presentation

22 October 2021

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# Sustainable and innovative industry

- Leading publication paper producer with **five industrial sites globally**
- Ongoing transition into **higher growth** and **higher value** markets
- Becoming a leading independent European **recycled containerboard company in 2023**
- Packaging market **growth and margin outlook strengthened** since announcement
- **High return waste-to-energy project** improving green energy mix in Q2 2022
- Promising biochemicals and materials projects with **CEBINA, CEBICO and Circa**
- Industrial sites portfolio provide foundation for **further industrial development**



# Third quarter in brief

## Considerable price increases for all product grades in Q3 2021 and into Q4 2021

- Publication paper market tightening following significant capacity closures over past 18 months, further closures announced for 2022-23
- Further price increases required both in Q4 2021 and Q1 2022 to compensate for continued increases in energy and raw material prices

## EBITDA of NOK 111m in the quarter

- EBITDA improvement from previous quarter, but margins remain at low and unsustainable levels
- Significant negative impact from energy and raw material costs

## Tasman sales process

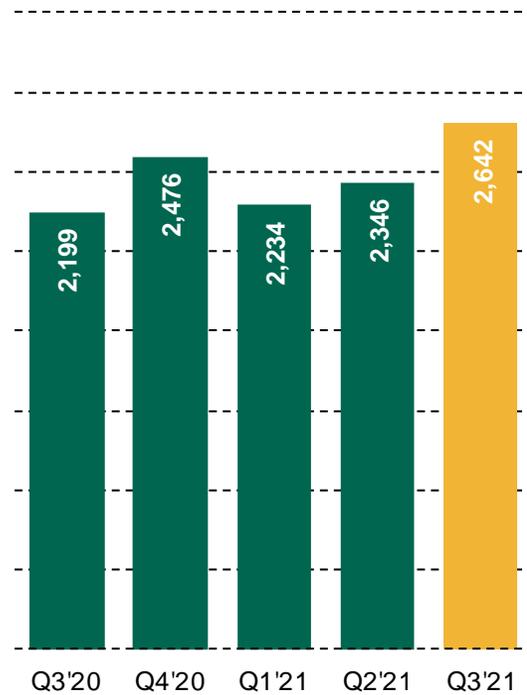
- Sale of energy contract and employee redundancy payments settled in the quarter
- Net positive cash impact in the quarter of NOK 70 million

## Entered into credit facilities for conversion projects following end of quarter

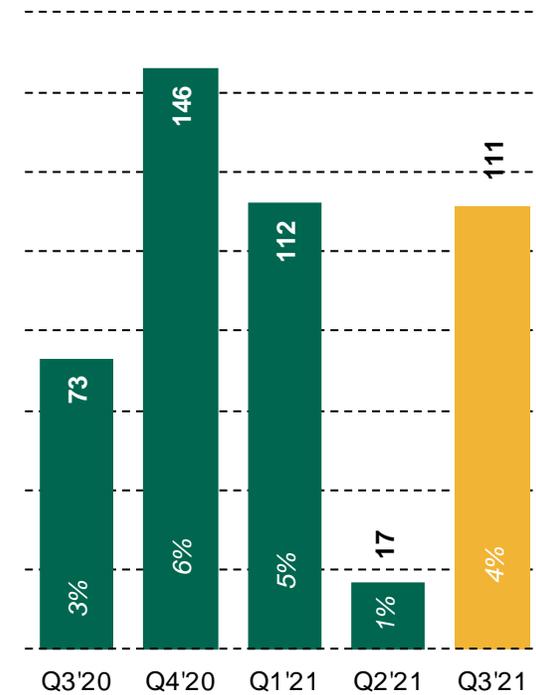
- Attractive terms for EUR 265 million debt financing with average maturity towards the end of 2030

# Margins impacted by volatile and uncertain cost environment

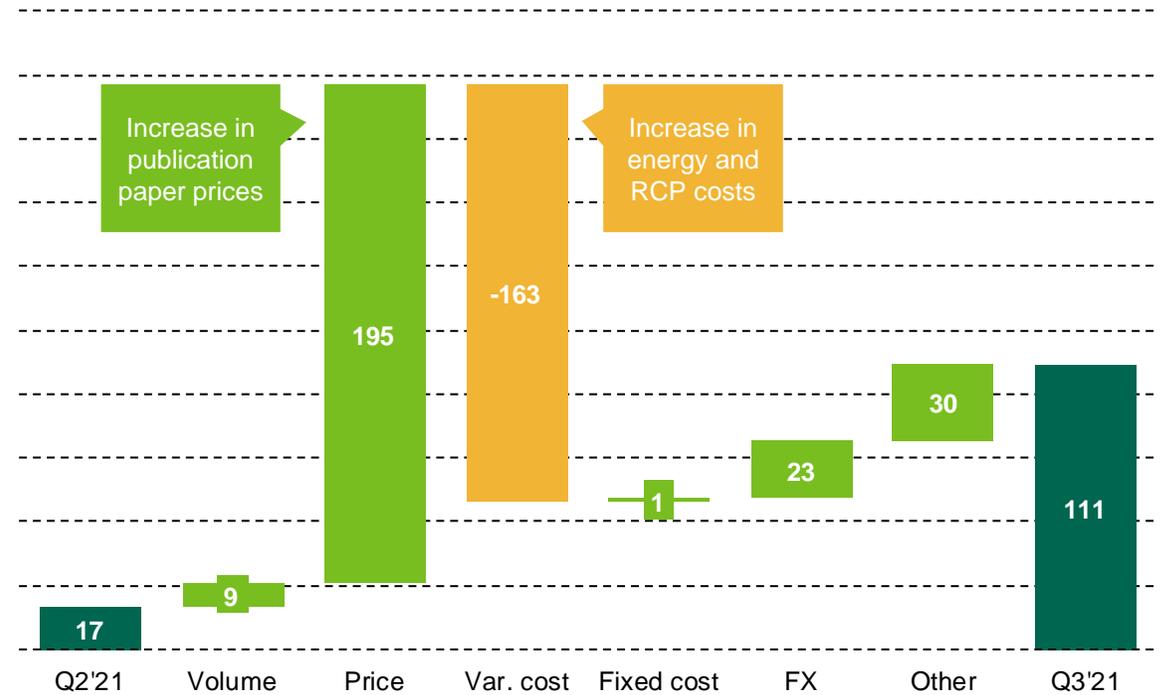
**Revenue**  
NOKm



**EBITDA**  
NOKm (and margin in %)



**EBITDA bridge Q2 2021 to Q3 2021**  
NOKm



# Segment financials for Q3 2021

## Segment financials

NOKm                      Q3 2021                      Q2 2021                      Q3 2020                      YTD 2021                      YTD 2020

### Europe

Total operating income	2,183	1,872	1,727	5,765	5,513
EBITDA	113	14	84	233	488
EBITDA margin	5.2%	0.8%	4.9%	4.0%	8.9%
Production (1 000 tonnes)	428	381	341	1201	1086
Deliveries (1 000 tonnes)	433	403	362	1218	1080
Production / capacity	96%	85%	72%	90%	76%

- Utilisation of 96% (equivalent to full utilisation)
- Realised prices in the quarter up ~15% to previous quarter
- Significant increase in raw material prices (energy and recovered paper)

### Australasia

Total operating income	426	482	447	1,397	1,580
EBITDA	0	7	-7	-2	119
EBITDA margin	0.0%	1.4%	-1.6%	-0.1%	7.5%
Production (1 000 tonnes)	62	79	75	230	238
Deliveries (1 000 tonnes)	68	87	79	246	246
Production / capacity	87%	69%	69%	77%	73%

- Utilisation of 87% (Tasman no longer part of paper capacity)
- Tasman closed on 30 June 2021
- Boyer is the only domestic publication paper supplier

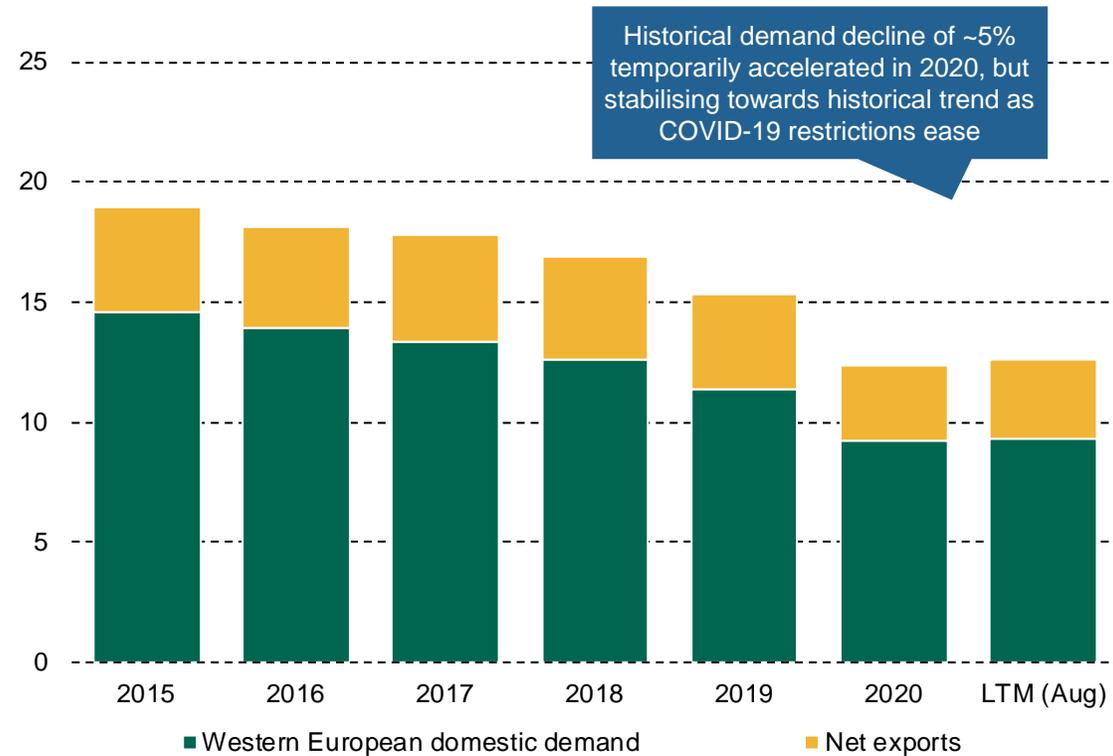
### Other activities

Total operating income	61	36	50	157	136
EBITDA	-2	-4	-4	9	-18

# Western European publication paper market tightening as capacity closures surpass COVID-19 demand loss

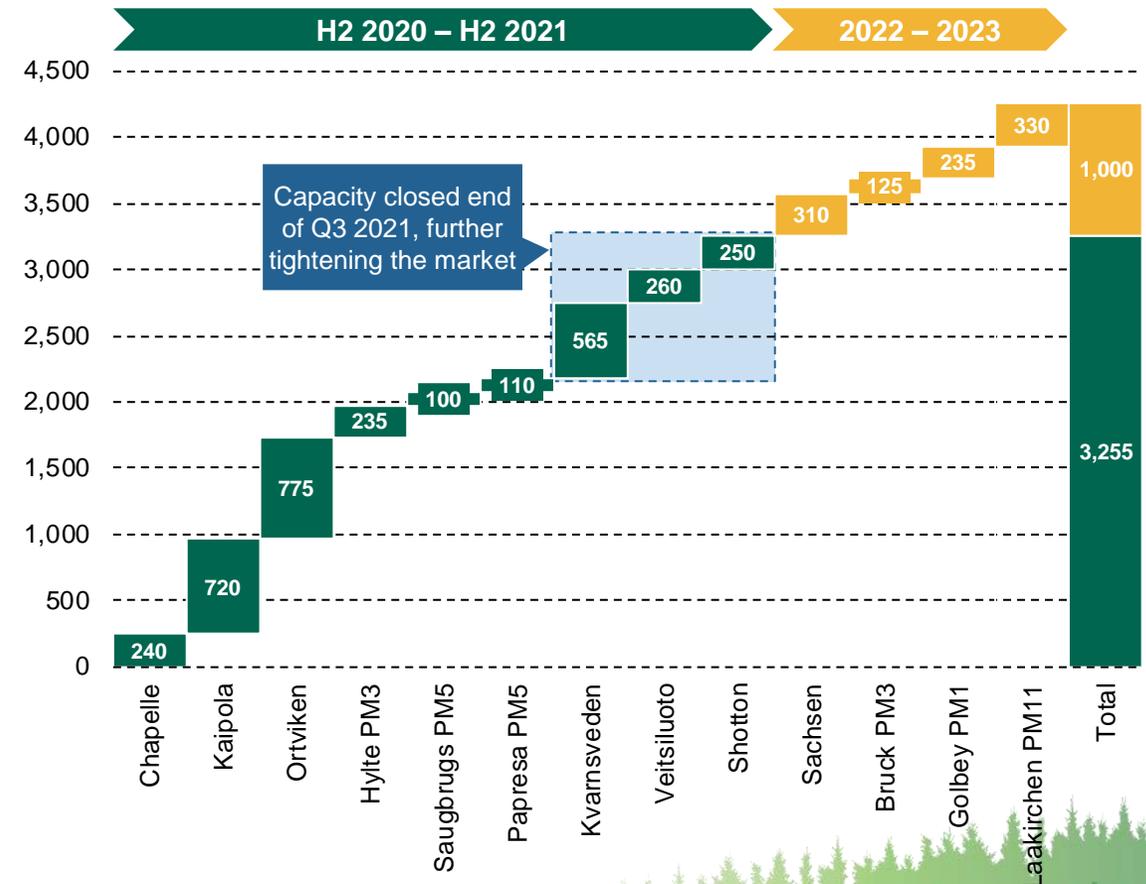
## Publication paper demand stabilising as COVID-19 restrictions ease

Publication paper demand Western Europe, million tonnes



## Publication paper capacity closures since H2 2020

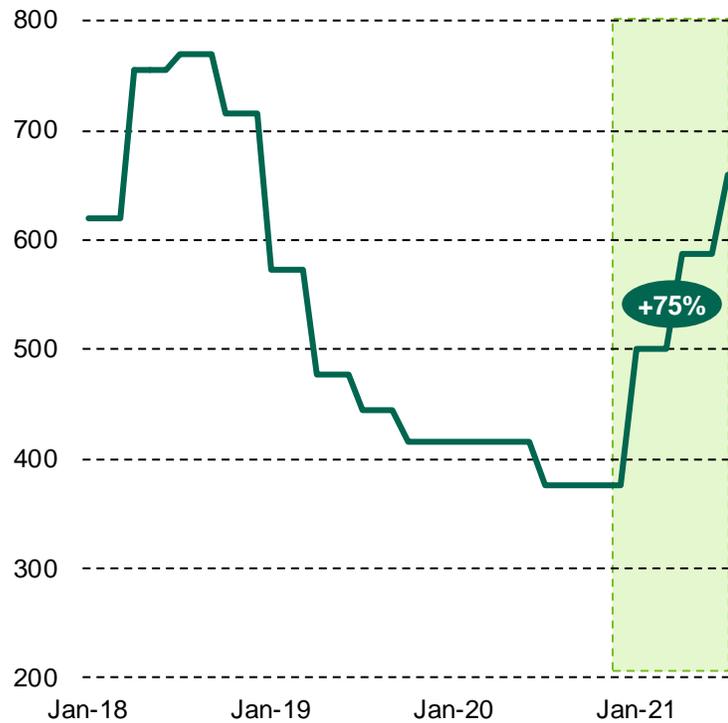
Capacity closures in Western Europe, thousand tonnes



# Price increases in Q3 2021 and into Q4 2021, with significant further increases required and expected

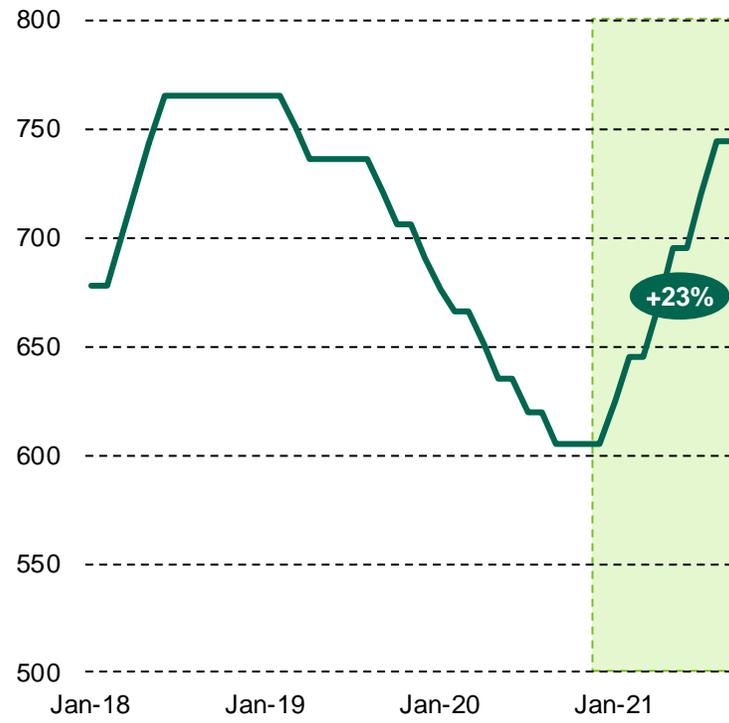
**Newsprint 45g CIF Hong Kong**

USD per tonne



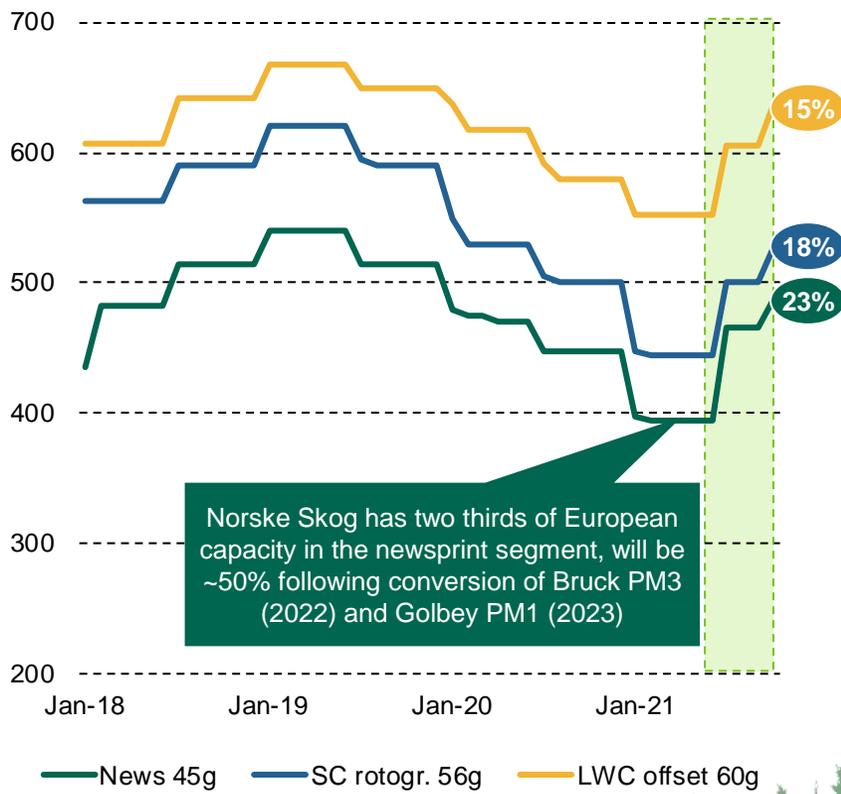
**Newsprint 45g US East**

USD per tonne



**Publication paper prices Germany**

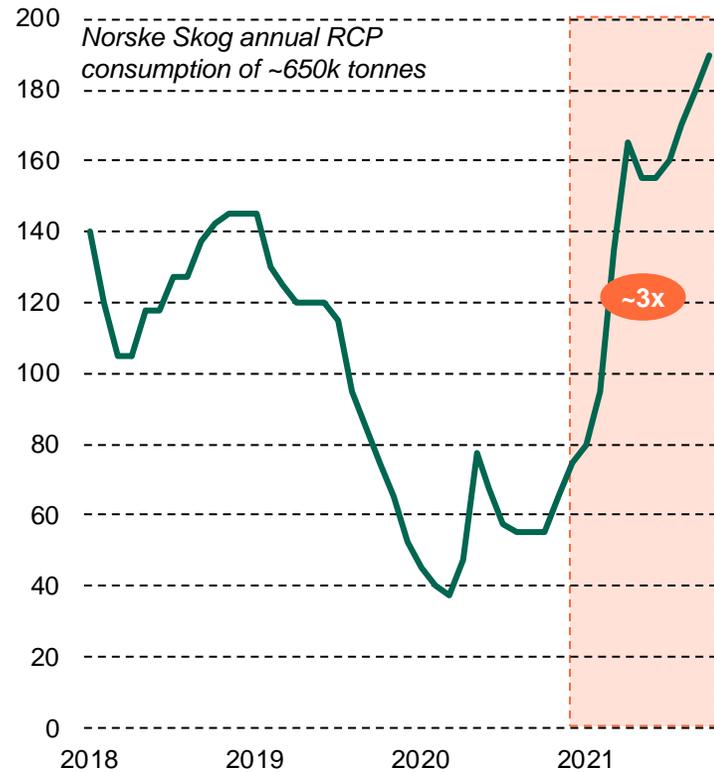
EUR per tonne



# Energy and fibre costs squeezing industry margins to unsustainable levels

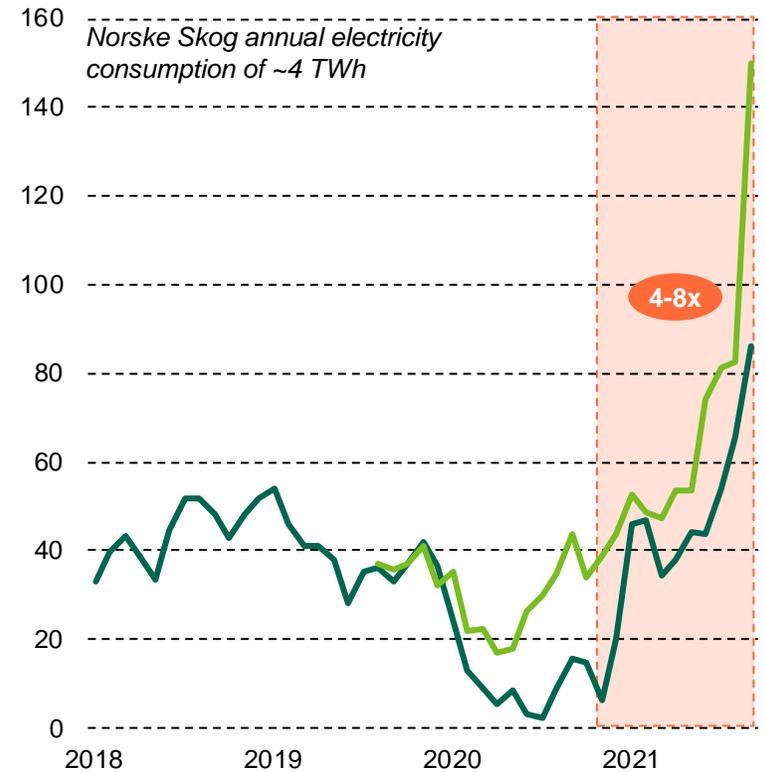
## Recovered paper (RCP) price<sup>1</sup>

EUR per tonne



## Electricity prices

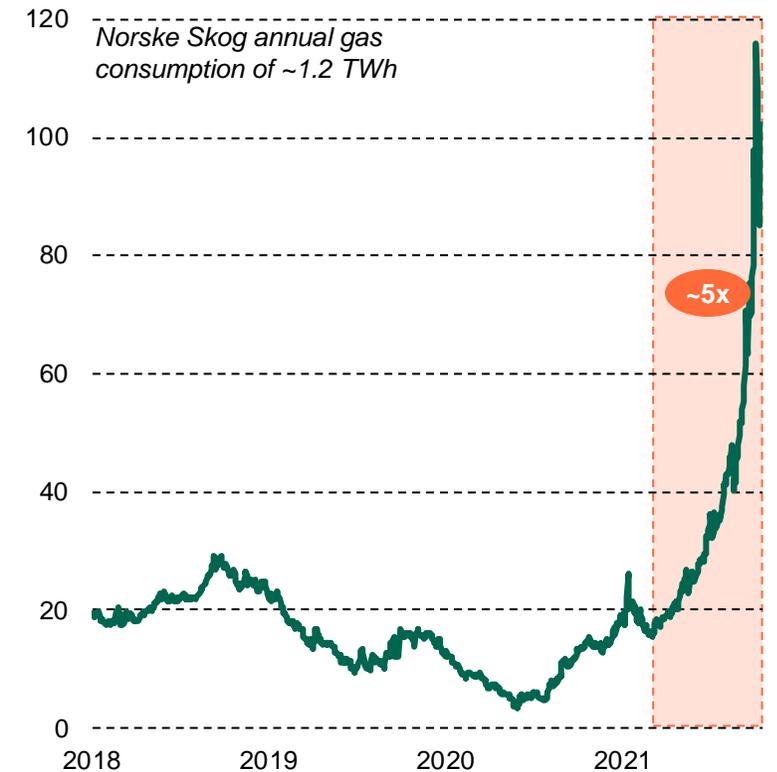
EUR per MWh



■ Nordic system price ■ German price

## Gas price<sup>2</sup>

EUR per MWh



# On schedule for start-up in six months of +400 GWh sustainable energy production

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



50 MW(th)  
capacity

+400 GWh(th)  
production

160k tonnes  
RDF<sup>1</sup> capacity

NOK ~200m  
EBITDA<sup>2</sup>

150k tonnes  
CO<sub>2</sub> reduction

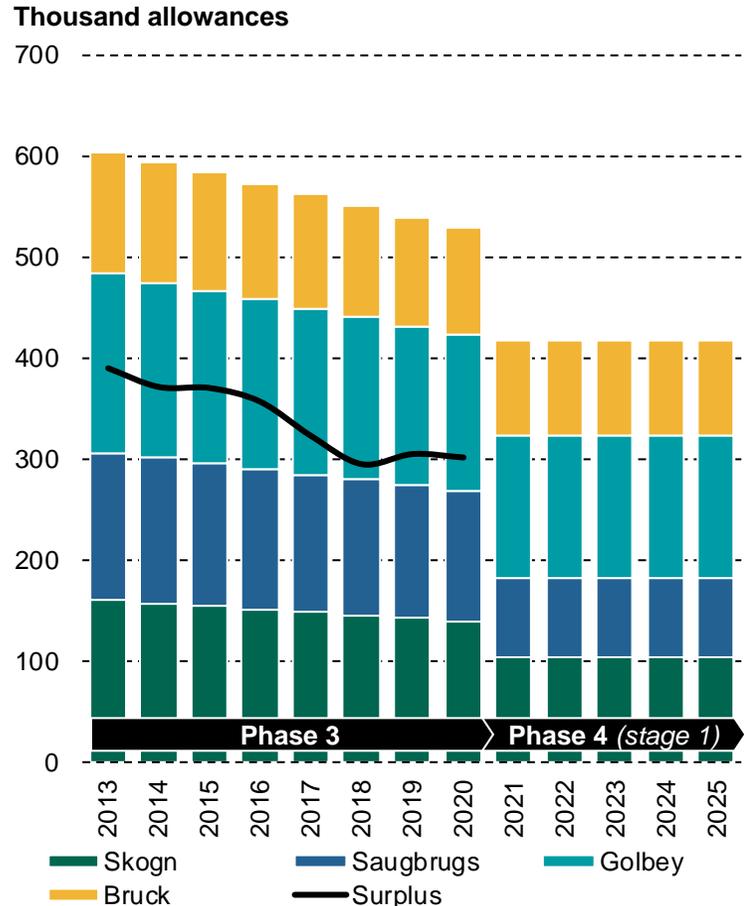
- Waste-to-energy plant with proven technology and **turnkey installation** contract from Valmet
- **On time and on budget** for start-up in Q2 2022
- **Invested EUR 55m to date** of total EUR 72m investment (EUR 17m remains)
- **Drawn EUR 38m to date** of EUR 54m loan facility (EUR 16m remains)
- Significant positive environmental impact by diverting 160k tonnes of RDF<sup>1</sup> from landfills
- Replace ~0.7 TWh of gas consumption and reduce CO<sub>2</sub> emissions with 150k tonnes

### EU Green Deal: Circular Economy Action Plan

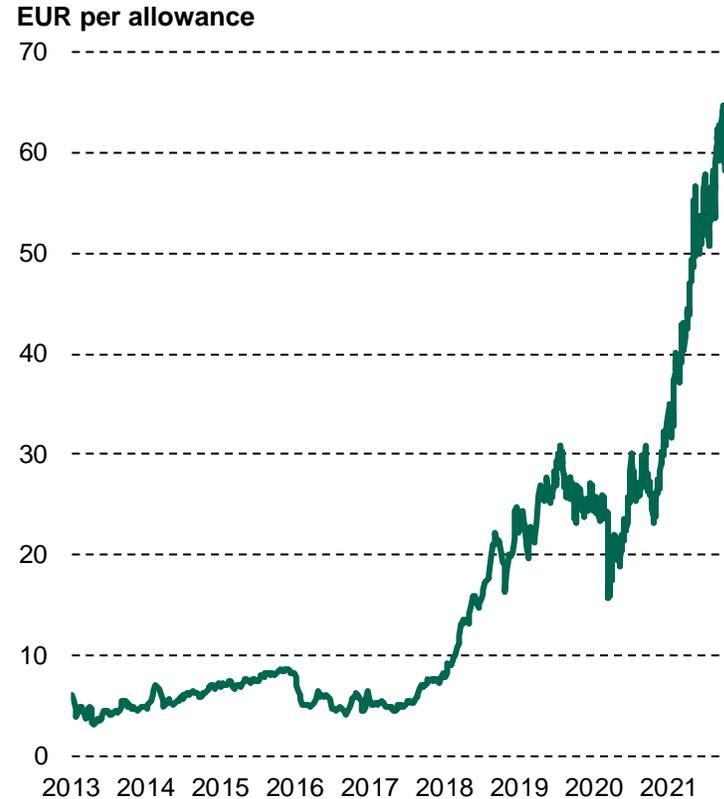
*Reduce landfill to a maximum of 10 % of municipal waste generated by 2030*

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

## Total allocated emission allowances



## Emission allowance price



- Net surplus 2021 expected at ~200k allowances, however additional ~60k allowances purchased through the year and no allowances sold
- Indication to receive gross ~420k allowances annually in period 2021-2025. Annual fossil CO<sub>2</sub> emissions of ~220k tonnes (prior to waste-to-energy plant)
- Waste-to-energy plant at Bruck will reduce CO<sub>2</sub> footprint with 150k tonnes annually, start Q2 2022
- Allowance sale income booked quarterly based on annual expected surplus, but cash proceeds received upon sale
- Cost compensation booked quarterly, cash proceeds received the year after booking

# Full steam ahead into the containerboard market

## Containerboard projects in progress

Site preparations and equipment orders underway

## Invested EUR ~20m as of Q3 2021

Project investment of EUR 350m (large share on contract)

## Expected EBITDA of EUR 70-80m

Based on historical trend prices and full utilisation in 2025-26

## EUR 265m debt financing

ECA<sup>1</sup>-backed debt financing of ~75% of investment amount

## Q4 2022 first production

Stepwise commercial introduction

## 760 000 tonnes

Recycled containerboard production capacity



# Becoming a leading independent supplier of recycled containerboard



Norske Skog Golbey – France

- PM1 (FID completed)** ✓
- 235k tonnes newsprint capacity
  - Convert to 550k tonnes containerboard
  - Start-up in Q4 2023
  - Capex estimate of EUR ~250m

- PM2 (future conversion candidate)**
- 330k tonnes newsprint capacity
  - Ongoing production during PM1 conversion
  - Strong candidate for future conversion
  - Feasibility studies concluded

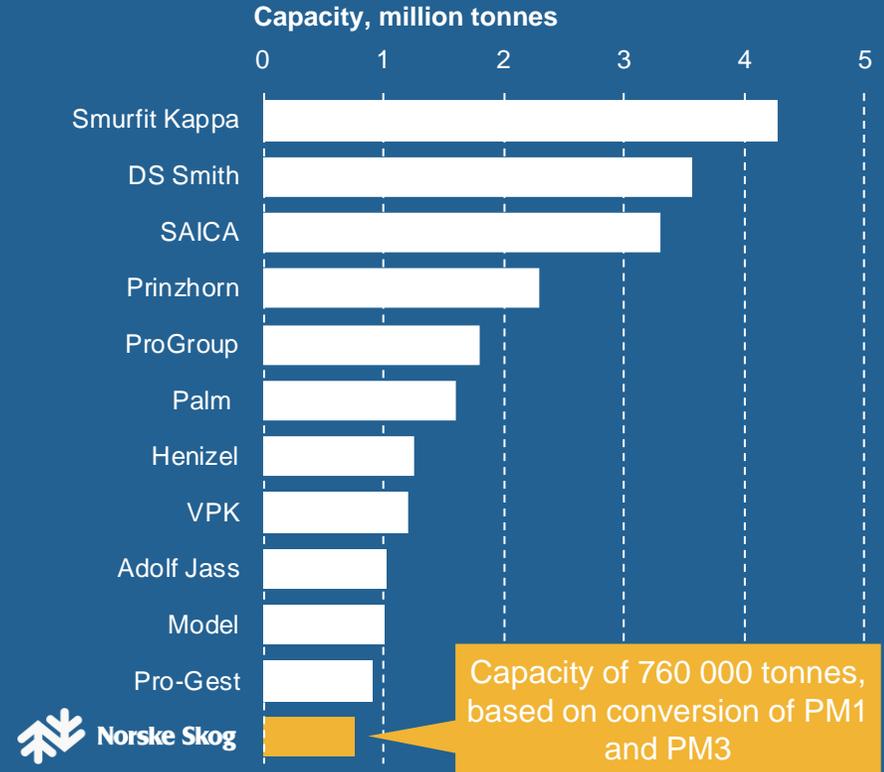


Norske Skog Bruck – Austria

- PM3 (FID completed)** ✓
- 125k tonnes newsprint capacity
  - Convert to 210k tonnes containerboard
  - Start-up in Q4 2022
  - Capex estimate of EUR ~100m

- PM4 (future conversion candidate)**
- 265k tonnes LWC magazine capacity
  - Ongoing production during PM3 conversion
  - Strong candidate for future conversion
  - Feasibility studies concluded

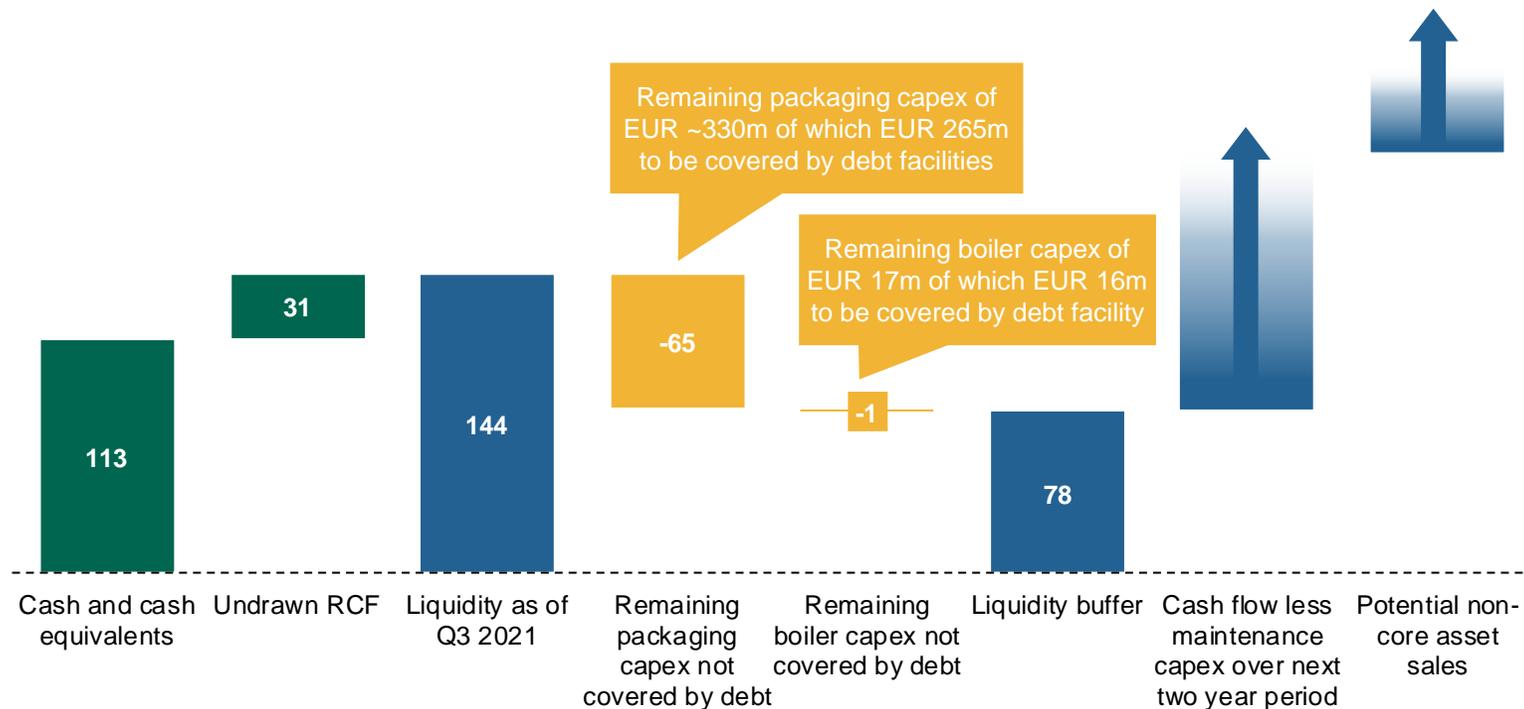
Top recycled containerboard suppliers in Europe  
(includes announced capacity)



# Liquidity and financing in place to meet capital expenditure commitments over next two years

## Liquidity position as of Q3 2021 and remaining capital expenditure commitments

EURm



- EUR ~66m of remaining expansion capex that is not covered by debt facilities, well within existing liquidity of EUR ~144m
  - Additional liquidity expected from operational cash flow less maintenance capex over next two-year period
  - Potential for further liquidity from asset sales, including Nature's Flame pellets facility, property projects and Tasman mill assets
- 
- Current net debt of EUR ~100m to increase as remaining expansion capex of EUR ~350m<sup>1</sup> is incurred over next two years
  - Capex driven increase in net debt expected to be alleviated by operational cash flows less maintenance capex in the same period
- 
- EUR 265m conversion financing (EUR 193m in Golbey and EUR 72m in Bruck), ~75% of investment amount
  - Repayment expected to commence upon completion, with average maturity towards the end of 2030

# Norske Skog will enter the large, growing and established recycled containerboard market in Q4 2022

## Three main segments of fibre-based packaging products

**Containerboard**  
Regional and bulk commodity product



End-product examples



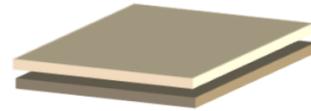
**Cartonboard**



**Other packaging paper products**



## Focus on recycled containerboard



**STRATO|Liner**  
Weight range: 90-160g per sqm  
Fibre: 100% recovered fibre  
Use: Liner in corrugated sheets



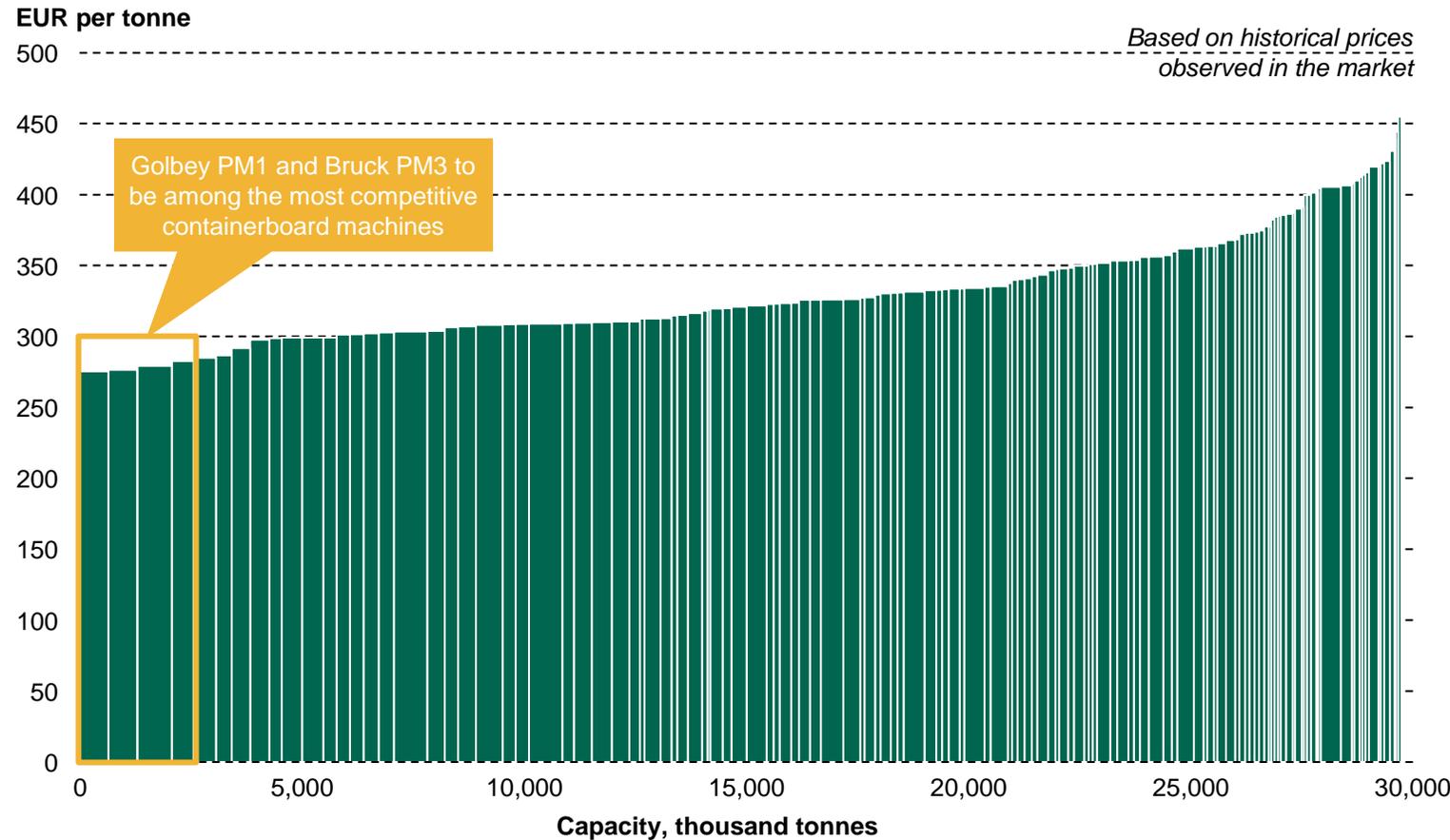
**STRATO|Fluting**  
Weight range: 70-160g per sqm  
Fibre: 100% recovered fibre  
Use: Fluting in corrugated sheets

- ✓ Well-suited machines for light-weight containerboard
- ✓ Publication paper experience highly relevant
- ✓ Fast growing market in need of additional capacity

- **Lightweight and strong** fluting and testliner board
- Inevitably circular from **100% recycled fibre**
- Supporting e-commerce with **sustainable packaging**
- **Replacing plastic** where and when possible

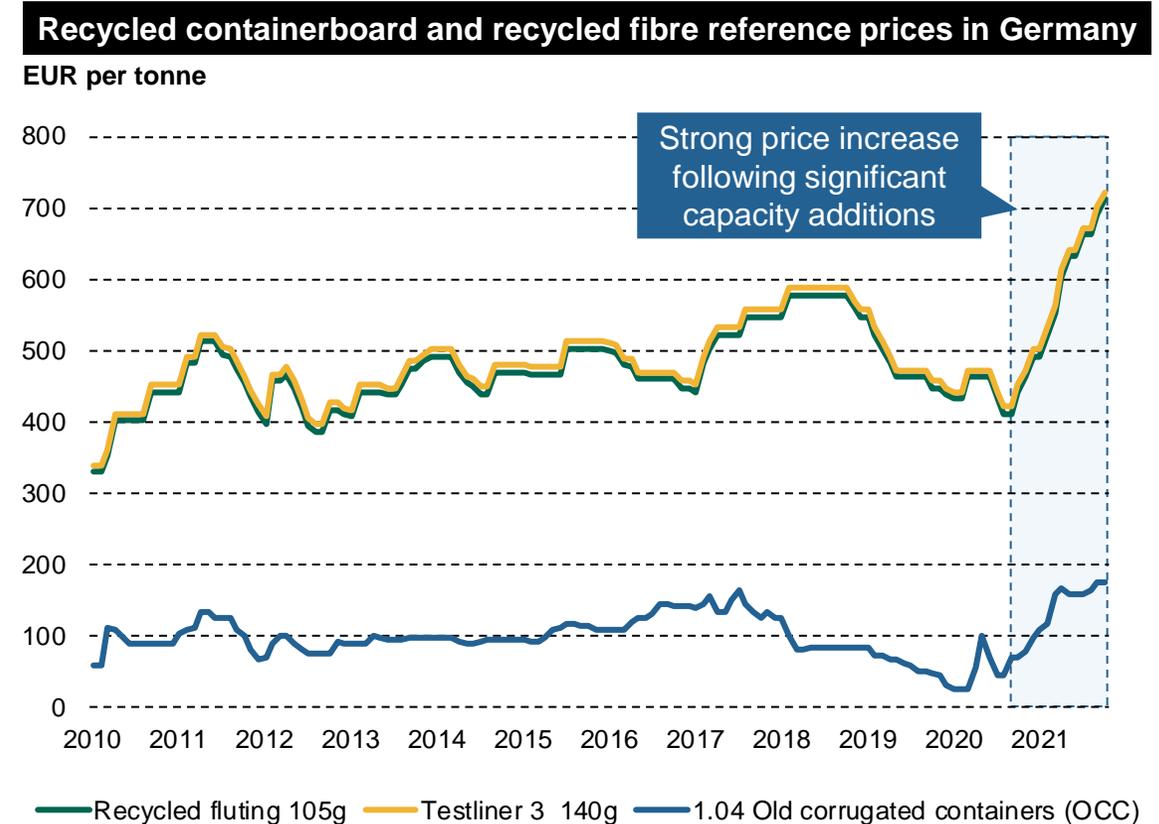
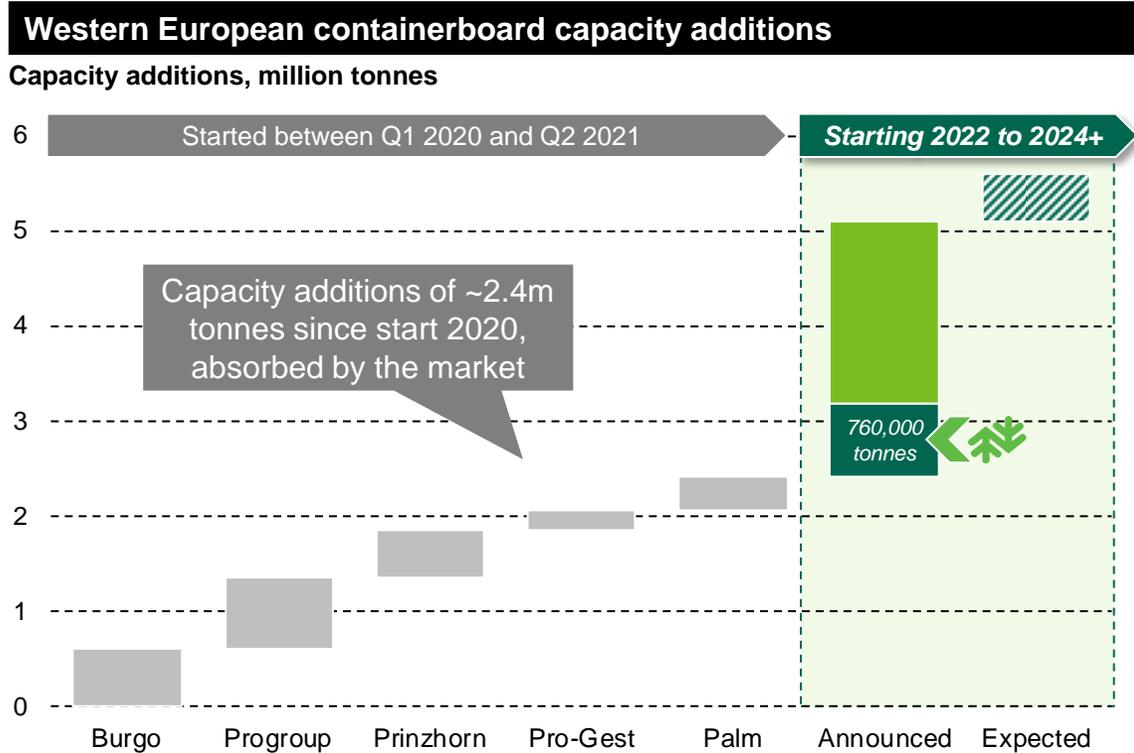
# Projects chosen on basis of first quartile cash cost position enabled by fundamental properties of the machines

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



- ✓ Centrally located in Europe enables low inbound and outbound **transportation costs**
- ✓ Large industrial sites with **scale advantage** and established presence in raw materials markets
- ✓ Biomass boiler in Golbey and Waste-to-Energy boiler in Bruck secure sustainable and **competitive steam supply**
- ✓ Top brownfield opportunities in Europe, with machine specifications that enable **cost-leadership position**

# Recent capacity additions absorbed by the market as containerboard prices continue to increase



# Circa sees strong headwinds from volatile global markets, but company potential remains intact

- Capex for Circa's ReSolute demonstration plant up from **EUR 32m to EUR 50-55m** and **6 months delay** driven by unprecedented increase in raw material prices
- Circa will **work to remain fully financed on capital raised** by discussing with suppliers, optimising scope, exploring vendor financing and grant opportunities

## Promising market opportunity remains intact

- Patented process for scale production of high-value biochemicals
- Process verified through 15 years of research and five pilot plants
- Core product, Cyrene, is a high-performance sustainable alternative to toxic solvents
- Lol<sup>1</sup> with Merck KGaA and direct discussions with brand owners regarding Cyrene
- Increasing regulatory restrictions for use of fossil and harmful solvents
- Support from the EU through a EUR ~12m grant under Horizon 2020

**Norske Skog holds ~26% and will remain a long-term partner and shareholder**



# CEBINA enters a new product segment with first commercial sales for use in water-based paints

## CEBINA applied to water-based paints

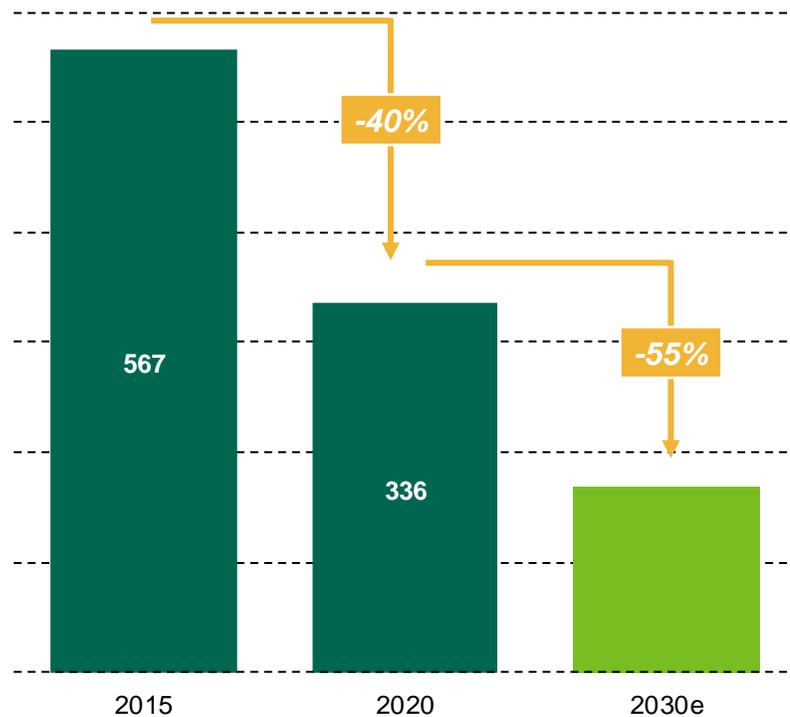


- First commercial sales in Q4 2020 for epoxy floors
- Recently entered into water-based paints as a new commercial application area
- Contract encompasses regular volume sales at an annual size of NOK ~500 000 with potential for further growth
- Demand currently within existing capacity of 100-500 tonnes depending on grade
- Several commercial discussions ongoing and potential for entry into international sales agreements
- Capacity expansions will be considered depending on demand development
- Potential expansions will be modular and utilise existing facilities and infrastructure

# Reducing the environmental impact is at the forefront of all business decisions

## Carbon footprint development and ambition

Kg CO<sub>2</sub> direct and indirect (scope 1 and 2) emissions per tonne produced<sup>1</sup>



**A-** Excellent reporting in line with best practice. Good description of material issues and relevant results. Clear strategy and specific, quantifiable targets.



- ✓ Industry low CO<sub>2</sub> intensity under the EU ETS<sup>2</sup> in 2020
- ✓ New energy efficiency initiatives being introduced in 2021<sup>3</sup>
- ✓ Waste-to-energy boiler reducing CO<sub>2</sub> footprint with 150 000 tonnes from H1 2022
- ✓ Reduced electricity consumption and steam from new biomass boiler in Golbey following conversion project
- ✓ Detailed 2020 CSR report issued applying the Global Reporting Initiative Guidelines

1) Scope 1 includes direct emissions from stationary fuel combustion, transportation and mobile sources. Scope 2 includes indirect emissions from steam and power imports; 2) ETS = Emission Trading Scheme, Norske Skog is a net receiver of carbon emission allowances, indicating that Norske Skog is among the top 10% of producers employing the Best Available Techniques from a sustainability and environmental perspective; 3) The NEXT and Thermanator energy efficiency projects announced at the Norske Skog Saugbrugs mill in March 2020 came on stream in 2021 and further improved the energy efficiency of Norske Skog, the projects are supported by the NOx Fund and Enova

# Outlook

## Publication paper markets

- Improving operating rates in the industry
- Considerable paper price increases in H2 2021 and into 2022
- Continued high prices for energy, recycled fibre and other input factors
- Remain a reliable supplier of all publication paper grades

## Strategic shift into new markets

- Enter into international sales arrangements for CEBINA in **Q4 2021**
- Semi-industrial CEBICO pilot of 300 tonnes starting in **Q4 2021**
- Bruck waste-to-energy facility start-up **Q2 2022**
- First containerboard production to start in **Q4 2022**

**CMD**

25 November

09:00 – 12:00



**Norske Skog**

Norske Skog ASA

Postal address: P.O. Box 294 Skøyen, 0213 Oslo, Norway

Visitors: Sjølyst Plass 2, 0278 Oslo, Norway

Phone: +47 22 51 20 20

Email: [info@norskeskog.com](mailto:info@norskeskog.com)

Email: [ir@norskeskog.com](mailto:ir@norskeskog.com)



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