



Norske Skog

Q1 2021 presentation

23 April 2021



[Follow us on LinkedIn](#)

www.norskeskog.com

Sustainable and innovative industry

- Global and **sustainability focused industrial company**
- **Best-in-class industrial assets** within fibre processing and sustainable energy
- **Leading process industry knowledge** and fibre refining competence
- Diversifying across **fibre-based materials, energy and chemicals**
- **Strong commitment to the green shift** and sustainable production

Chemicals & materials

CIRCA

Norske Skog holds ~26% of Circa Group AS

CEBINA

Current ~500 tonnes (pilot)

CEBICO

Introducing ~300 tonnes (pilot)

Sustainable energy

Waste-to-energy plant

Introducing +400 GWh(th) of energy production

nature's flame

Current ~425 GWh(th) of pellets production

Biogas

Current ~28 GWh(th) of energy production

Renewable packaging

STRATO

Introducing ~765k tonnes of Recycled Containerboard

Interliner

Current ~200k tonnes of interliner

Publication paper

NOR|News

Current ~1 350k tonnes of Newsprint

NOR|Cote

Current ~400k tonnes of LWC

NOR|SC

Current ~360k tonnes of SC

Agenda

*Update on
packaging projects*

FID in Bruck

*Update on
financials*

Q1 results

Head start for Bruck containerboard project

FID

Bruck project approved by the board of directors

EUR 70m

Committed term sheet signed subject to documentation

Q4 2022

Start-up expected ahead of initial timeline

EUR 100m

Total project investment unchanged

210 000 tonnes

Recycled containerboard production capacity



Introducing STRATO recycled containerboards



 STRATO|Liner

 STRATO|Fluting

- **Lightweight and strong** fluting and testliner board
- Inevitably circular from **100% recycled fibre (OCC)**
- Supporting e-commerce with **sustainable packaging**
- **Replacing plastic** where and when possible
- Production capacity of **765 000 tonnes in 2023**
- Annual European **demand growth +600 000 tonnes¹**

Source: External industry consultant (third-party)

1) European demand of ~26m tonnes with annual growth rate of 2-3%

Establishing a leading independent European containerboard business

Norske Skog Bruck – Austria



PM3 (FID completed)

- 125k tonnes newsprint capacity
- Convert to 210k tonnes containerboard
- Three-month machine stop from Q3 2022
- Capex estimate of EUR ~100m

PM4 (future candidate)

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



Norske Skog Golbey – France



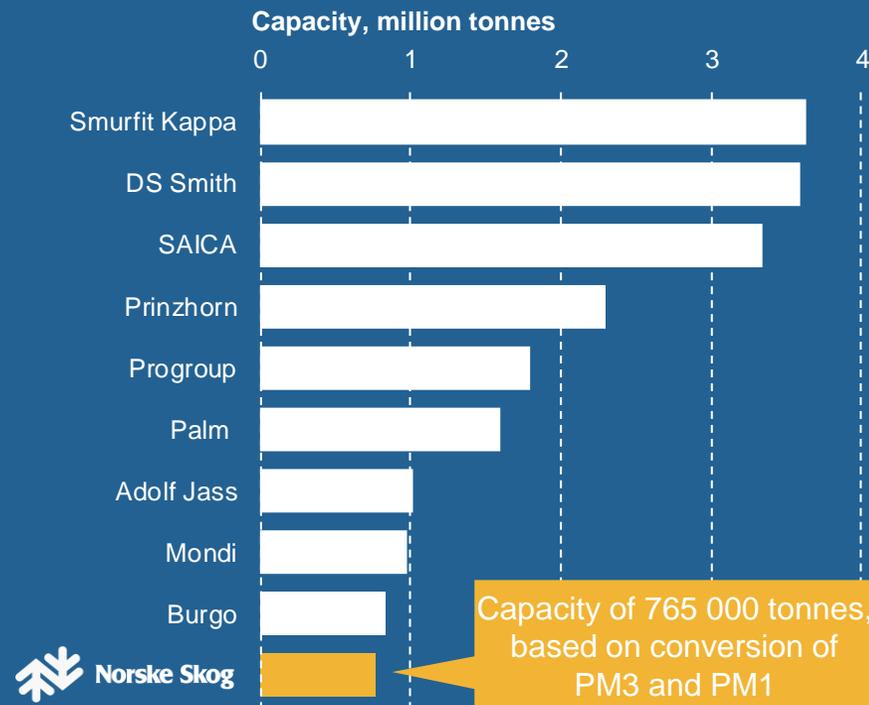
PM1 (FID expected Q2 2021)

- 235k tonnes newsprint capacity
- Convert to 555k tonnes containerboard
- Three-month machine stop 2023
- Capex estimate of EUR ~250m

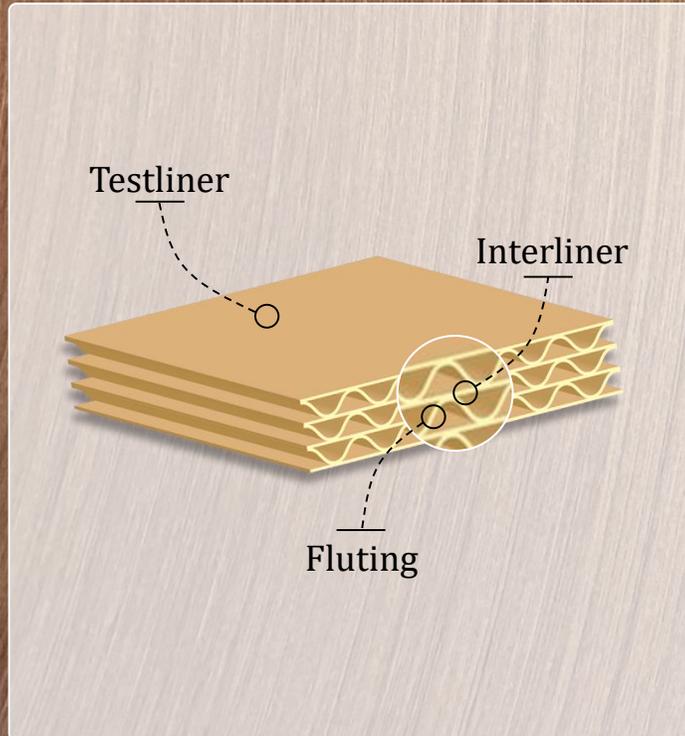
PM2 (future candidate)

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

Top 10 recycled containerboard suppliers in Europe



Early packaging market entry through interliner production at Skogn



- Early interliner production tests at Skogn during Q1 2021
- Sustainable product that is 100% recyclable and repulpable
- Complementary to testliner and fluting
- Plan to increase production through H2 2021
- Production switch requires no capital expenditures
- Competitive production cost due to fibre, energy and logistics access

Agenda



*Update on
packaging projects*
FID in Bruck

*Update on
financials*
Q1 results

First quarter in brief

Final investment decision and financing commitment secured for Bruck containerboard project

- FID and financing for Bruck project with start-up brought forward to Q4 2022 (Golbey announcement expected Q2 2021)
- Early entry into packaging market with interliner production tests at Skogn and planned increases during H2 2021

Bruck waste-to-energy plant start-up in 12 months with expected annual EBITDA impact of NOK 200m

- The sustainable energy plant will absorb 160 000 tonnes of regional waste¹ and reduce Norske Skog's CO₂ footprint with 150 000 tonnes
- Remaining EUR 38m capex of total project investment of EUR 72m to be drawn on local debt facility

Successful listing of Circa Group at Euronext Growth Oslo

- Circa is fully financed to embark on its biochemical growth journey with strong industry and regulatory support
- Norske Skog holds ~26% of Circa Group

EBITDA of NOK 112m (no adjustments) and net debt of NOK 401m following successful capital market transactions

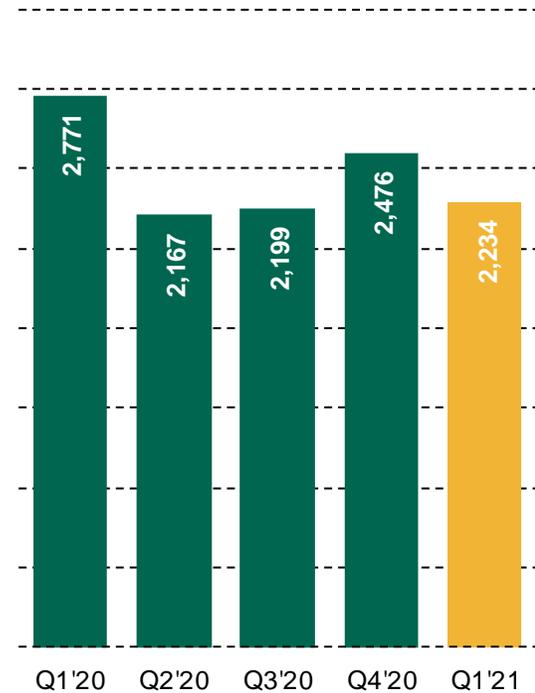
- Successful NOK 400m equity issue and EUR 150m bond refinancing, supporting strategic and green growth projects

Publication paper market tightening during Q1 2021

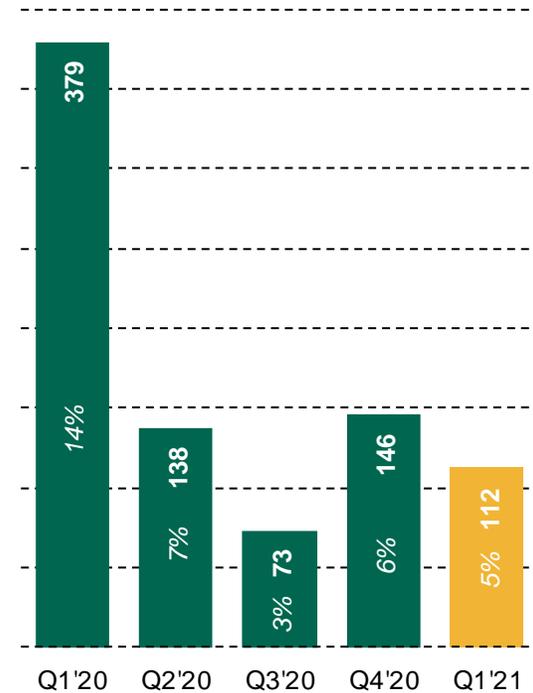
- Upwards price pressure in Europe, driven by price increases in Asia and North America, and limited supply of recycled fibre
- Additional capacity cuts in Europe of ~0.8 million tonnes announced in Q2 2021, further strengthening outlook for H2 2021

Weak EBITDA in challenging price environment

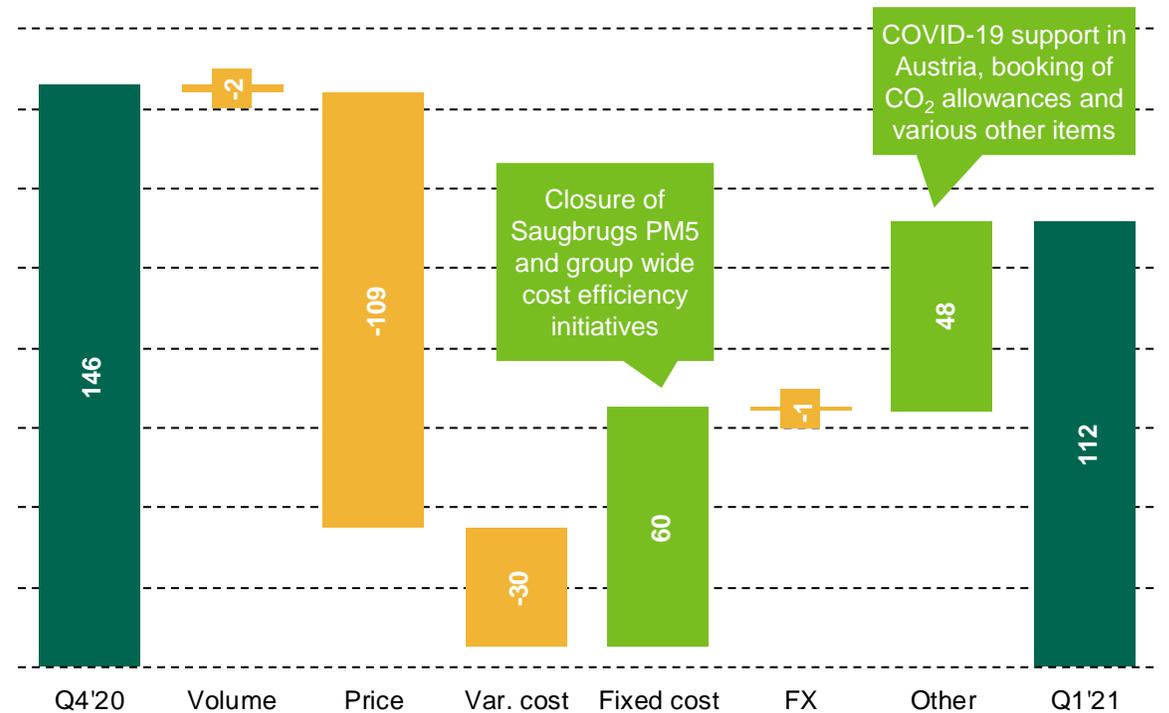
Revenue
NOKm



EBITDA
NOKm (and margin in %)



EBITDA bridge Q4 2020 to Q1 2021
NOKm



Segment financials for Q1 2021

Segment financials

NOKm	Q1 2021	Q4 2020	Q1 2020
------	---------	---------	---------

Europe

Total operating income	1,711	1,899	2,131
EBITDA	106	171	329
EBITDA margin	6.2%	9.0%	15.4%
Production (1 000 tonnes)	392	382	411
Deliveries (1 000 tonnes)	382	403	396
Production / capacity (%)	88%	80%	86%

- Utilisation of 88% up from 80% (volumes returning)
- Lower realised prices in the quarter (down 7-8%)
- Limited change in raw material prices (covered by contracts)

Australasia

Total operating income	489	526	620
EBITDA	-8	-13	63
EBITDA margin	-1.7%	-2.5%	10.2%
Production (1 000 tonnes)	89	94	92
Deliveries (1 000 tonnes)	90	97	99
Production / capacity (%)	79%	87%	85%

- Utilisation down to 79% from 87% (utilisation includes Tasman capacity)
- Boyer supplies domestic market under long-term price contracts
- Minor EBITDA improvement

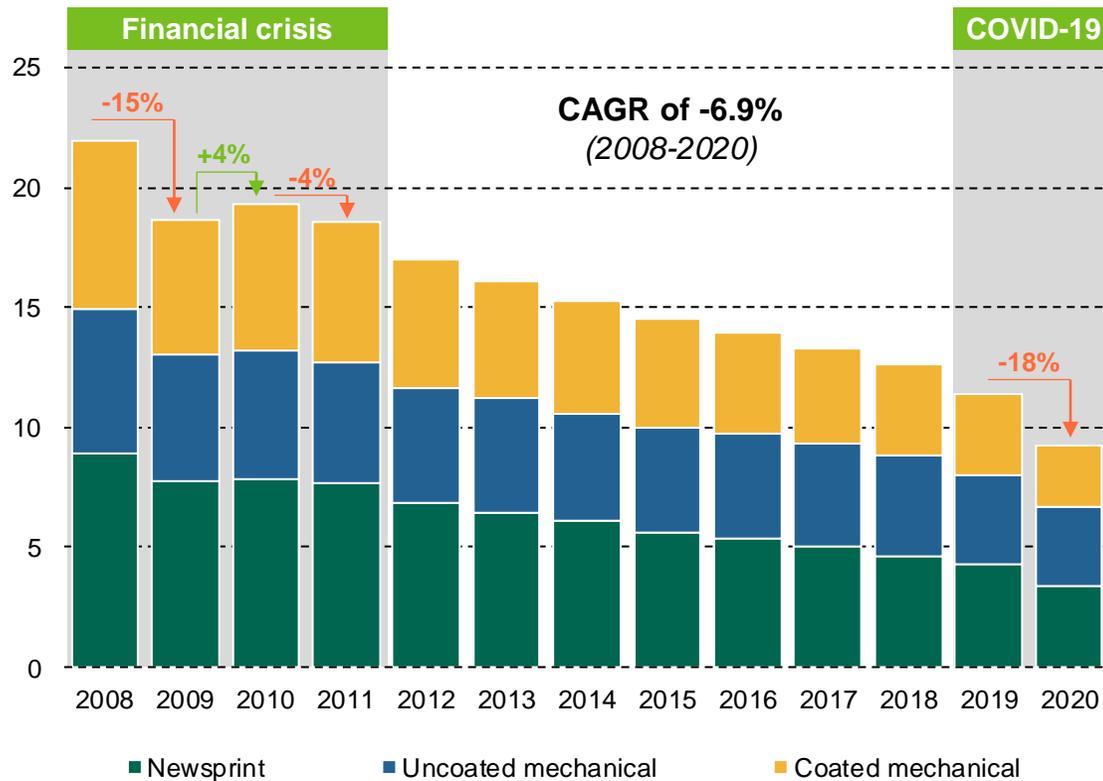
Other activities

Total operating income	60	68	48
EBITDA	14	-12	-13

Industry reacting to the COVID-19 market impact and operating rates expected to increase going forward

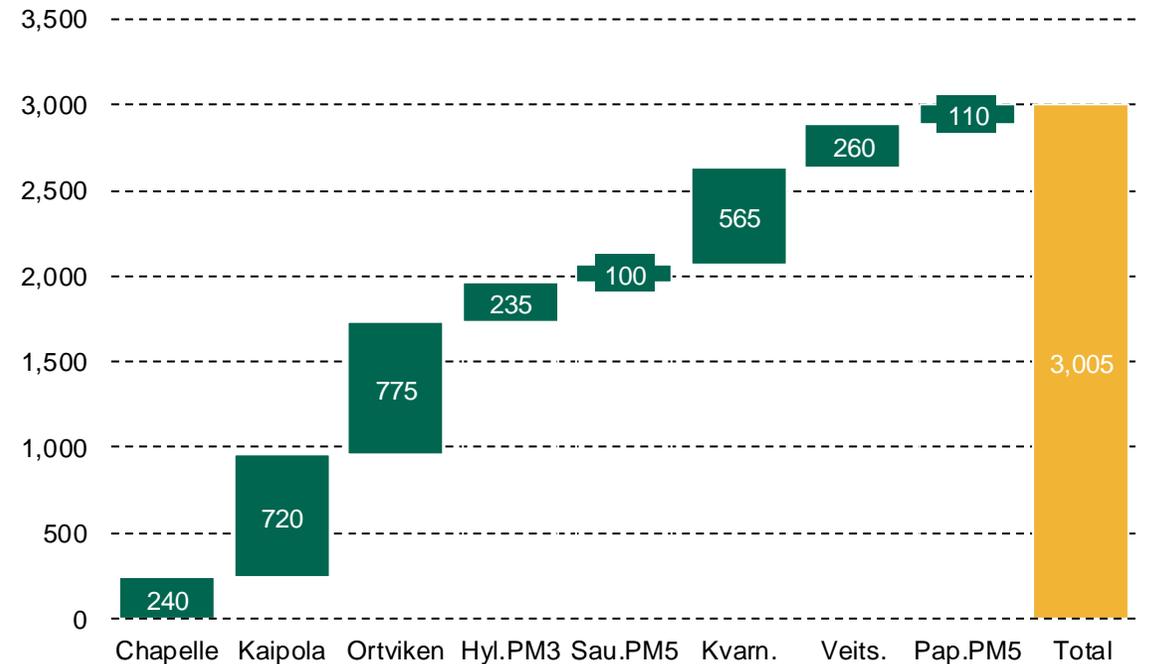
Western European demand down ~2.1m tonnes in 2020

Million tonnes



Publication paper capacity closures of ~3.0m tonnes

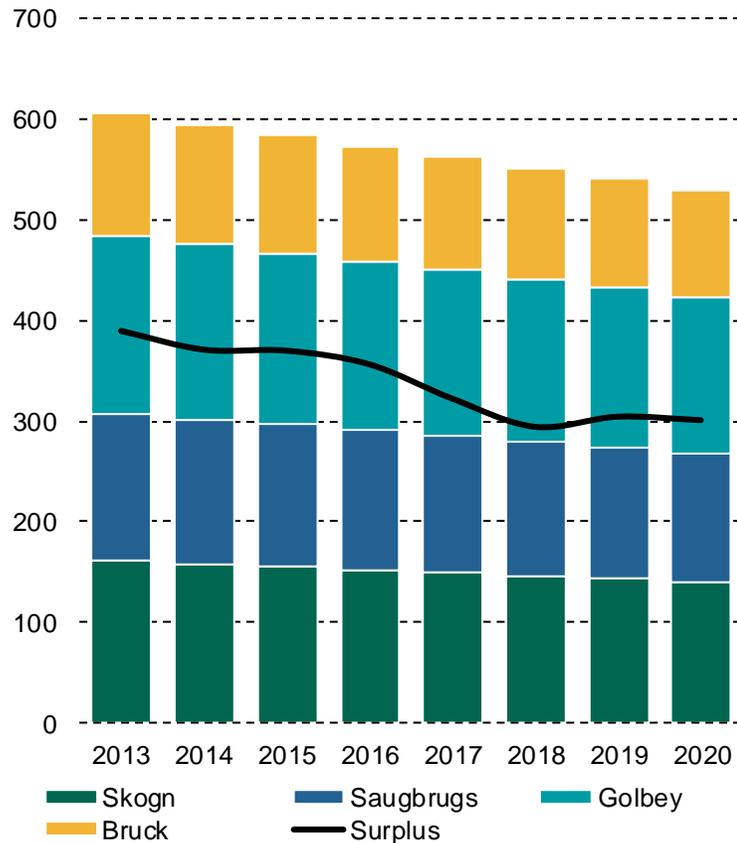
Capacity closures in Western Europe, thousand tonnes



Industry low CO₂ footprint enabling annual CO₂ emission allowance surplus

Total allocated emission allowances

Thousand allowances



Emission allowance price

EUR per allowance



- Industry low CO₂ footprint basis for annual emission allowance surplus
- Waste-to-energy plant at Bruck will reduce CO₂ footprint with 150k tonnes annually, start H1 2022
- Allowance sale income booked each quarter in 2021, but expected to be received in H2 2021
- Cost compensation booked each quarter in 2021, but cash proceeds to be received in H1 2022

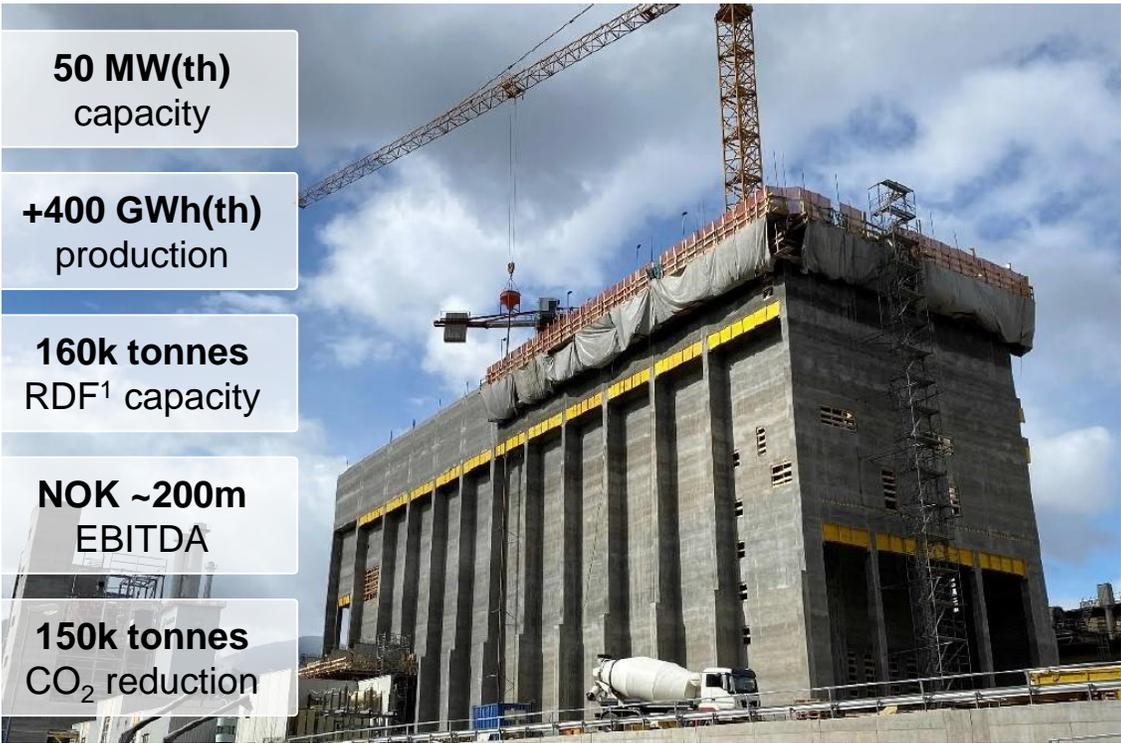
Saugbrugs energy efficiency initiatives

- **Industry leading energy efficiency**
- Continuous efficiency improvements are essential to **support the green shift**
- Enables **less than 0.1% fossil-based** thermal energy use at Saugbrugs
- Projects targeting energy consumption and recovery from **TMP¹ production**
- NOK 165m investment **supported by Enova and NOx-fondet** with NOK 66m
- Projects expected to have a **payback around three years** net to Norske Skog



On schedule for start-up in 12 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
RDF¹ capacity

NOK ~200m
EBITDA

150k tonnes
CO₂ reduction

- **Increasing landfill and waste exports restriction** drive demand for waste offtake
- Few viable alternatives for waste that cannot be reused, recycled or recovered
- **Huge positive environmental impact** by diverting RDF¹ from landfills
- Basis for increasing **need for further waste-to-energy (WtE) capacity** in Europe
- WtE plant with proven technology turnkey installation contract from Valmet
- Will replace current gas consumption with **energy produced from regional RDF¹**
- RDF¹ to be sourced from within 200km from 10-15 customers
- **Revenue generation from gate fees and electricity production**
- EUR 72m investment of which EUR ~34m invested as of Q1 2021
- EUR ~16m of EUR 54m in local debt drawn as of Q1 2021

EU Green Deal: Circular Economy Action Plan

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

Circa fully financed to embark on biochemicals growth journey

- **Toxic and fossil-based chemicals** have become integral to the production of essential pharmaceuticals and other products
- Circa can produce biochemicals at scale using patented production technology, offering **safe and environmental alternatives**
- Strong regulatory tailwinds and **Horizon 2020 grant from EU** to enable scale production of chemical alternatives
- The production technology has been verified through 15 years of research and **five pilot plants**
- In March, **Circa raised NOK ~500m to finance the ReSolute project** in France to construct a first-of-its-kind 1,000 tonnes production plant
- **LOI with chemical distribution giant**, Merck KGaA, for offtake of the full 1,000 tonne volume
- **Listed on Euronext Growth Oslo** and **Norske Skog holds ~26%** and will continue as long-term partner and shareholder



circa 

Continued strong commercial traction for CEBINA

- **CEBINA improves sustainability** of coatings and adhesives by replacing fossil-based and/or harmful substances
- **CEBINA can replace such fossil and harmful substances** in multiple applications where few alternatives are available today
- **Produced from renewable wood fibre** and hydro power, and developed at Saugbrugs industrial site since 2006
- Current pilot **capacity of 500 tonnes**, and planned capex-efficient upscaling on back of potential distribution agreements
- **First commercial sales in Q4 2020** for epoxy floors, and commercial development ongoing within other applications
- **Working closely with range of potential customers** and technical partners to establish downstream demand



Developing CEBICO as an alternative to plastics

- Plastics improve quality of life, but are mainly fossil-based and takes **500 years to degrade** in nature
- Landfills contain over **6bn tonnes of plastics** and only 9% of all plastics produced have been recycled
- **CEBICO substitutes plastics with fibre** in the recycling process to create a stronger composite
- Works closely with end-customers to develop fibre-based plastic products for **closed loop recycling**

Replacing one kilo of plastics with fibre
saves six kilos of CO₂ emissions

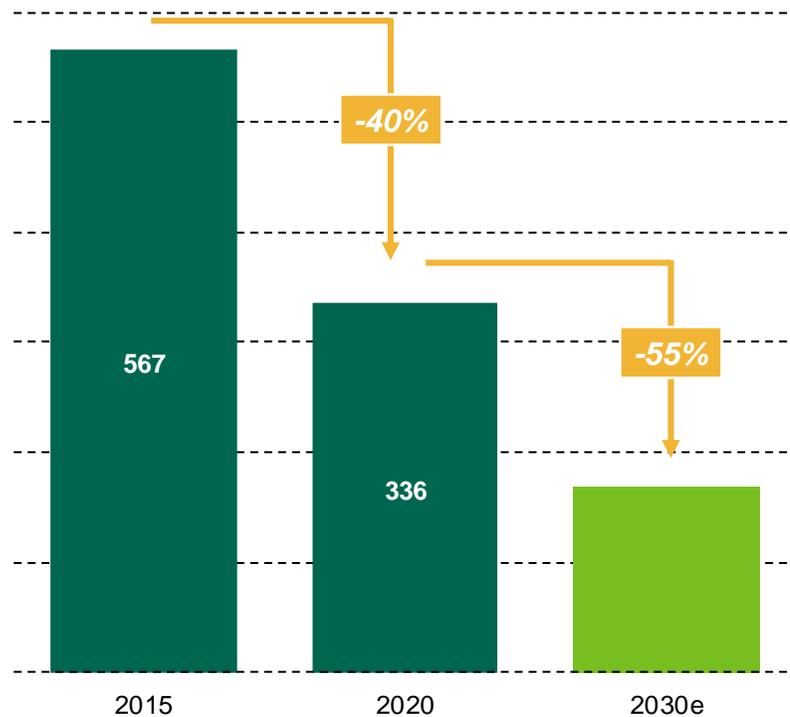


- ✓ **Improves strength** in virgin and recycled plastics
- ✓ **Increases value and lifetime** of recycled plastics
- ✓ **Reduces product costs** by replacing plastic with fibre

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

Carbon footprint development and ambition

Kg CO₂ direct and indirect (scope 1 and 2) emissions per tonne produced¹



- ✓ Industry low CO₂ intensity under the EU ETS² in 2020
- ✓ New energy efficiency initiatives being introduced in 2021³
- ✓ Waste-to-energy boiler reducing CO₂ 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 will come on stream in 2021 and further improve the energy efficiency of Norske Skog, the projects are supported by the NOx Fund and Enova

Outlook

Market

- Improving operating rates in the industry
- Sharp price increases for recycled fibre and other input factors
- Unsustainable margins in short-term
- Considerable paper price increases expected and needed in H2 2021

Strategy

- Final investment decision for Golbey conversion project in Q2 2021
- Update on repositioning of Australasian operations in Q2 2021
- Enter international distribution agreement for CEBINA in 2021
- Remain a reliable supplier of all publication paper grades



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

Email: ir@norskeskog.com



This presentation contains statements regarding the future in connection with Norske Skog's growth initiatives, profit figures, outlook, strategies and objectives. All statements regarding the future are subject to inherent risks and uncertainties, and many factors can lead to actual profits and developments deviating substantially from what has been expressed or implied in such statements.