

UPM's growth in pulp

Investor webcast

13 December 2022

Agenda

- Pulp market and demand growth
- UPM growth project in Uruguay
- Commercial strategy driving growth

Pulp market and demand growth

Bernd Eikens

Executive Vice President






UPM Fibres

Growth outlook for pulp is based on solid, long-term megatrends

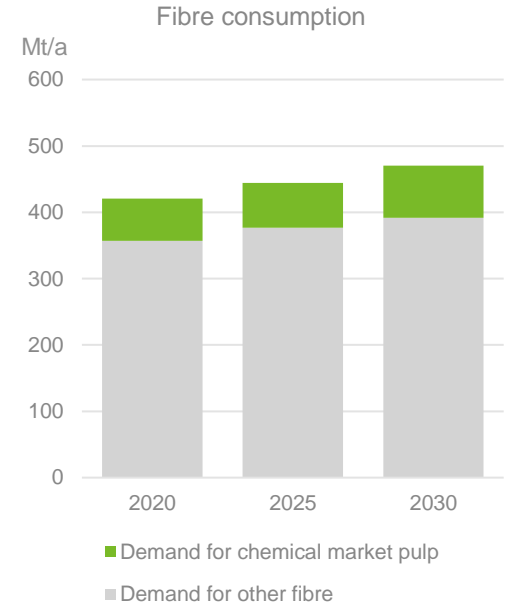
Global megatrends...

		Impact on pulp demand
	Population growth, urbanization, middle class expansion	+++
	Resource scarcity, role of renewables	++
	Digitalisation, e-commerce	+++
	Wood-based textiles	++

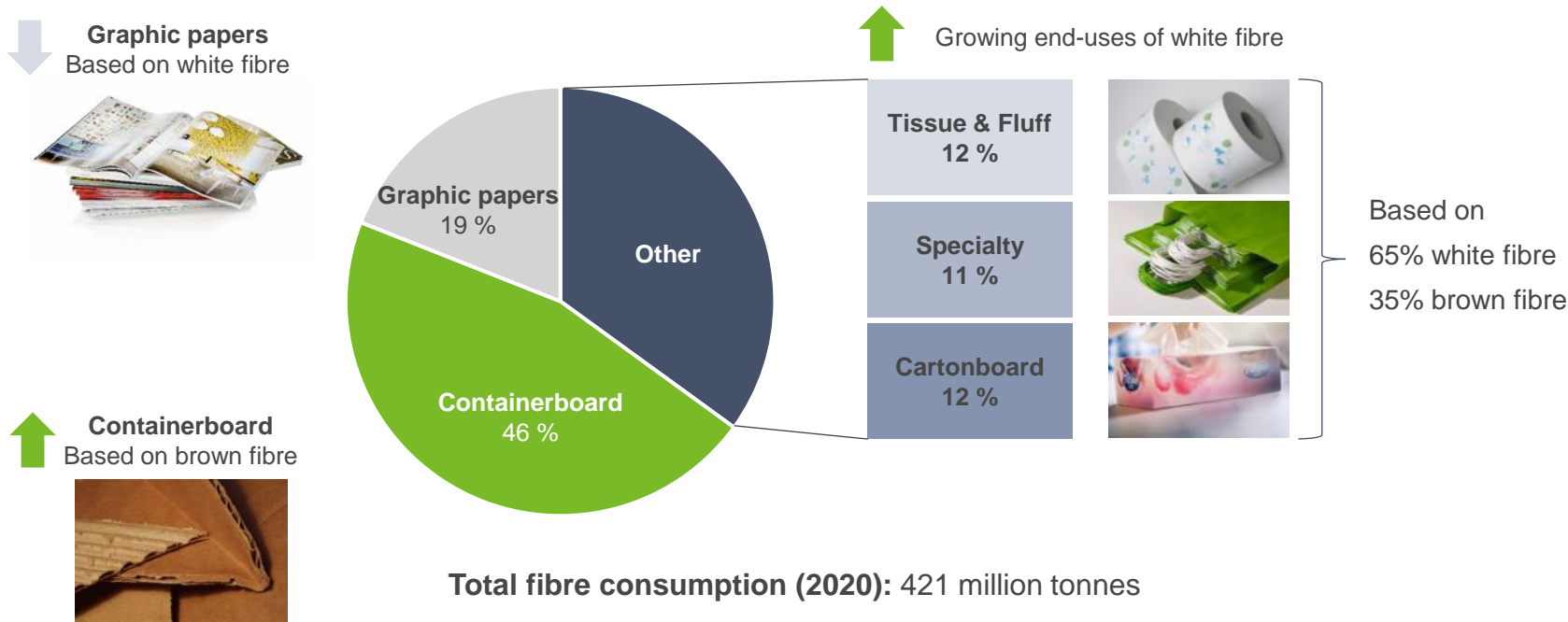
...will outlast transient disruptions and shocks...

		Impact on pulp demand
	Decline in graphic paper demand	-
	Virgin pulp replacing recycled fibre in growing end-uses	+
	Improved hygienic standards	++
	New adopters of e-commerce	+
	General impact on incomes	-

...and drive the demand for pulp



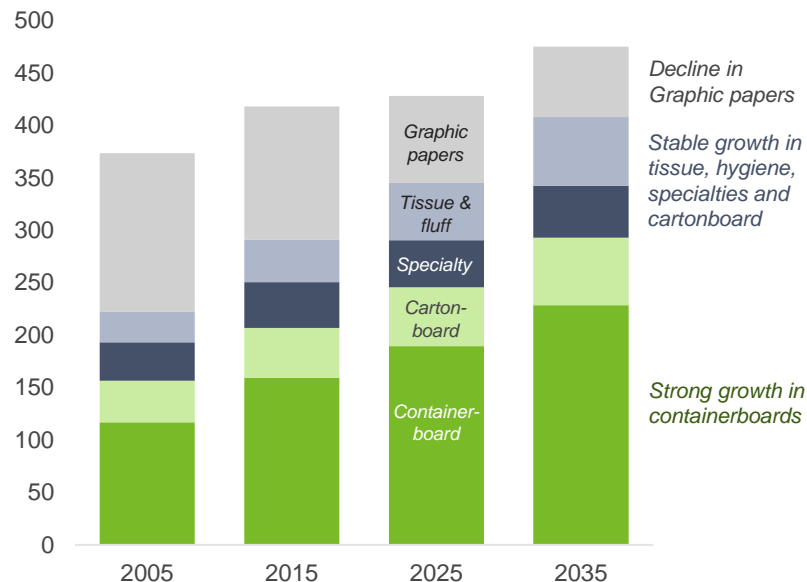
Market pulp consumed in growing end-uses – alternative white fibre demand overcoming graphical paper decline



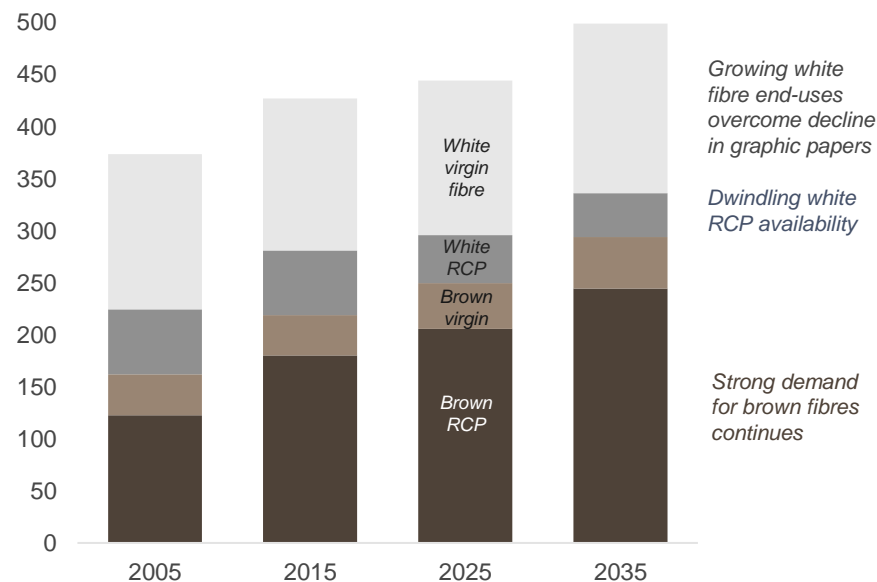
COVID-19 shocked the world, but fibre consumption growth has resumed and will continue in years to come



Global consumption of end-uses
in million tonnes



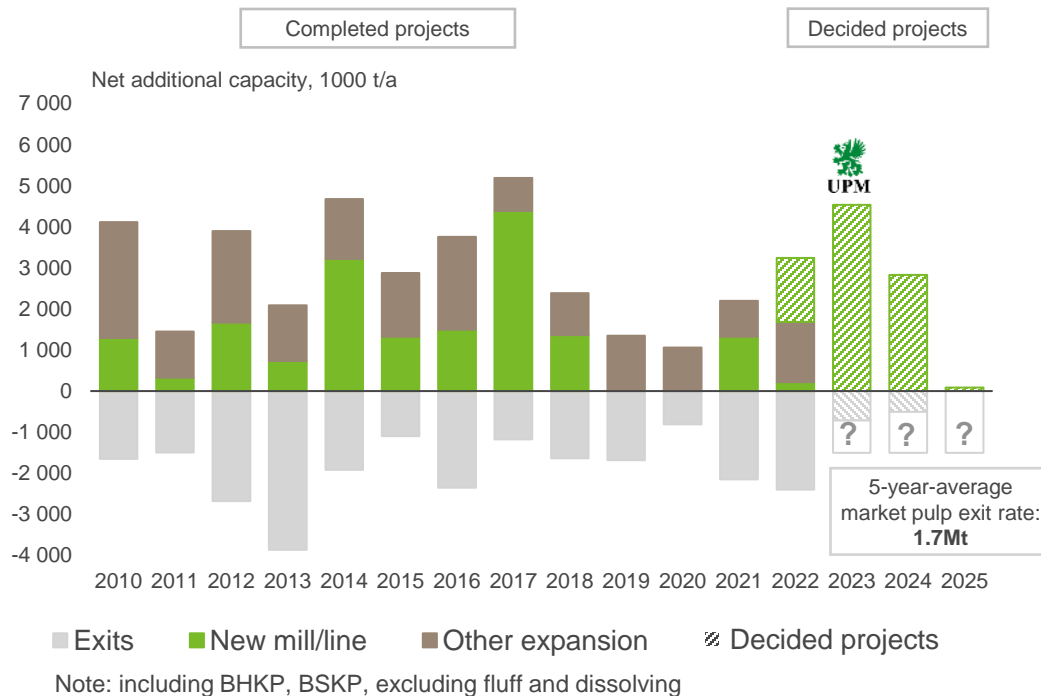
Global consumption of fibres
in million tonnes



Moderate numbers of decided projects in the short-term and expansion mainly in BHKP



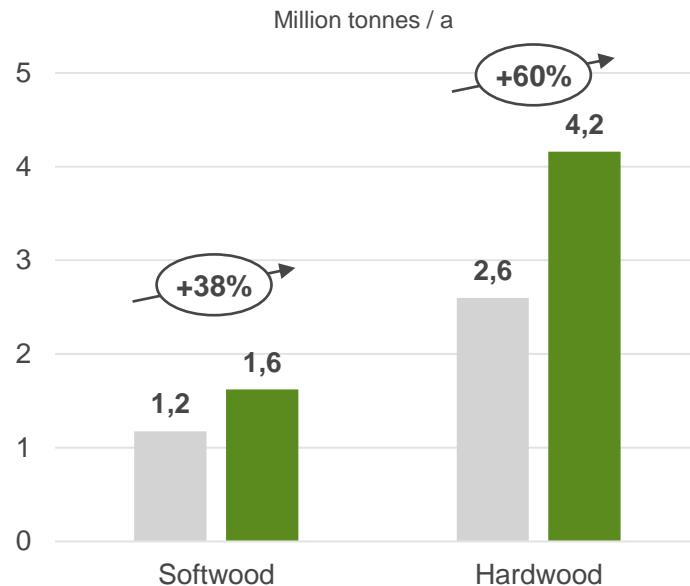
Entry of bleached market pulp capacity



Product mix development

- Increased share of softwood in the Finnish pulp mills
- Demand for softwood is solid, driven by its performance in furnish and increasing overall demand for fibre-based products
 - Birch hardwood becoming specialty product for applications which benefit from its functionalities
- Hardwood capacity increase through the UPM Paso de los Toros mill

UPM Pulp operations product mix change*



*Including UPM Paso de los Toros volumes

Balanced production



FRAY BENTOS

- 1.3 million t/a Eucalyptus
- 8% of energy generation in Uruguay
- 800+ people working at mill



KAUKAS

- 700 000 t/a Nordic softwood
- Unique integrated bio-forestry unit consisting of pulp mill, sawmill, biorefinery and energy & paper production



PASO DE LOS
TOROS

- 2.1 million t/a Eucalyptus
- Start-up Q1/2023
- State-of-the-art machinery and processes



KYMI

- 870 000 t/a Nordic softwood and birch
- Modern integrated mill consisting of bleached pulp and fine paper production



FOREST
OPERATIONS

- >500 000 ha of plantations In Uruguay
- 10-12 years per rotation
- 30 years experience of sustainable managed and productive plantations



PIETARSAARI

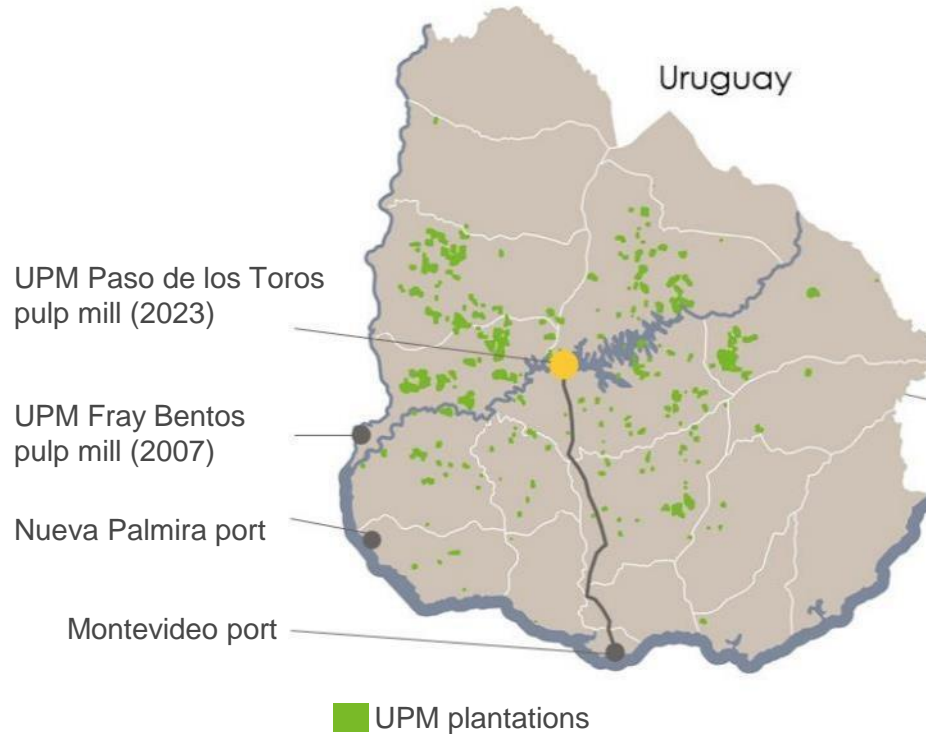
- 800 000 t/a Nordic softwood and birch
- Mill area houses pulp mill, sawmill and Alholmens Kraft power plant

(UPM Paso de los Toros update video)

Uruguay growth investment

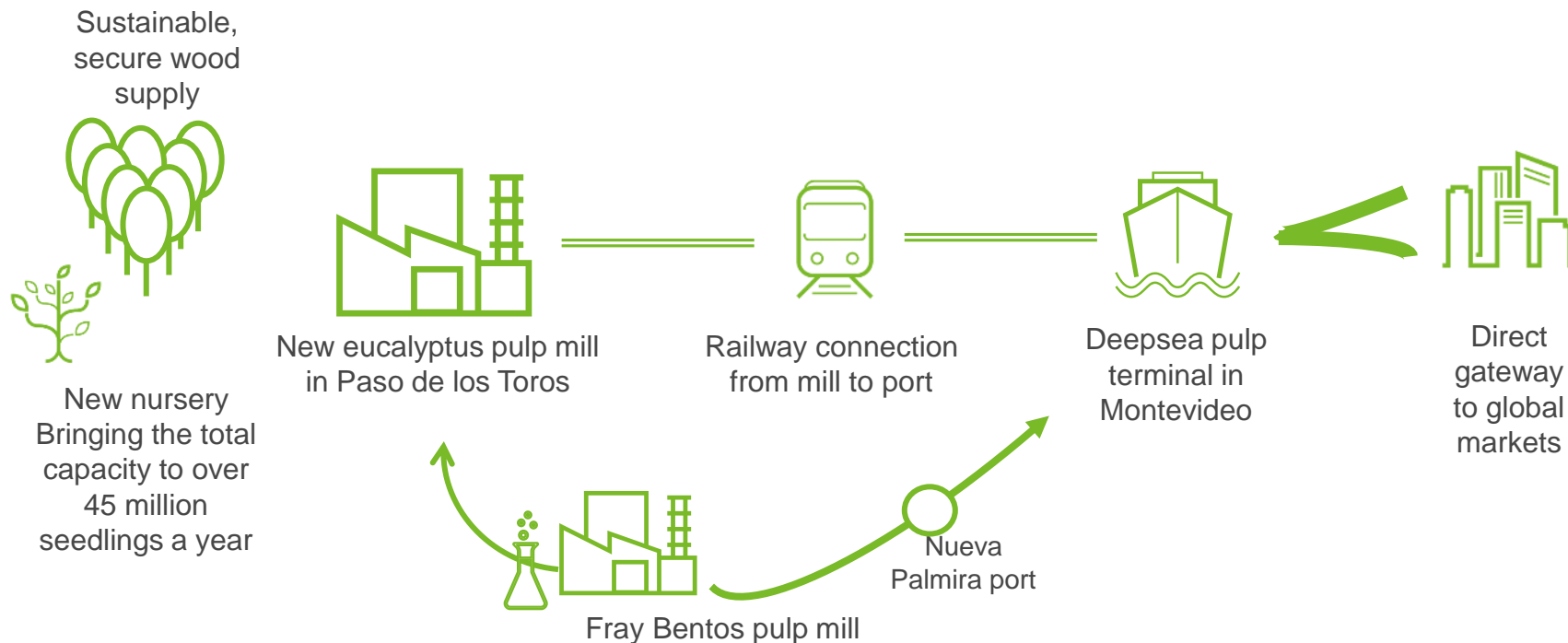
Petri Hakanen
Senior Vice President
Uruguay Development Project

UPM in Uruguay



- UPM in Uruguay **since 1997**
- **4, 000 people***
10,000 employed in total through the value chain**
- **1st pulp mill** started in 2007 in Fray Bentos
- **2nd pulp mill** scheduled to start up in Q1 2023 in Paso de los Toros
- 3 eucalyptus tree nurseries
- >500,000 ha of plantations

A new highly competitive industrial platform with secure wood supply and efficient logistics



Competitive wood supply

Eucalyptus availability secured through UPM's own and leased plantations and wood sourcing agreements with private partners

UPM's own and leased plantations in Uruguay cover over 500,000 hectares, supplying both UPM Fray Bentos and the new Paso de los Toros mill

30 years experience of sustainably managed and productive plantations



Status: Expansion ready

State of the art mill design

Initial production capacity of 2.1 million tonnes of eucalyptus pulp scheduled to start up in Q1 2023

World-class single line pulp mill and Best Available Techniques (BAT)

- Excellent safety
- Proven high environmental performance
- High availability and maintainability
- High energy output, surplus renewable electricity 110 MW
- Low costs

Status: in final stages



Efficient logistics set-up

USD 280 million investment to a **deep sea pulp terminal** in Montevideo port

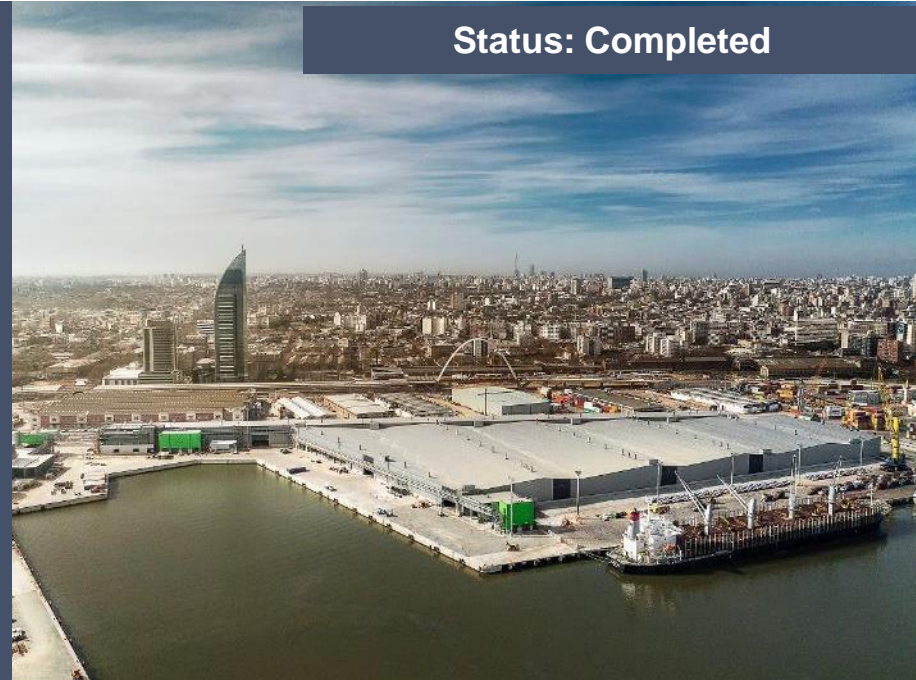
- Direct rail access from the mill with 4-6 trains/day + 1 chemical train/day to the mill
 - Operating 24/7
 - >50,000 m warehouse for ~2 million pulp tonnes
 - Deep sea port with 100 pulp ships a year
- ➔ **Direct, efficient access to global markets**

Railway modernisation

- Public-private-partnership agreement by the government and the construction company

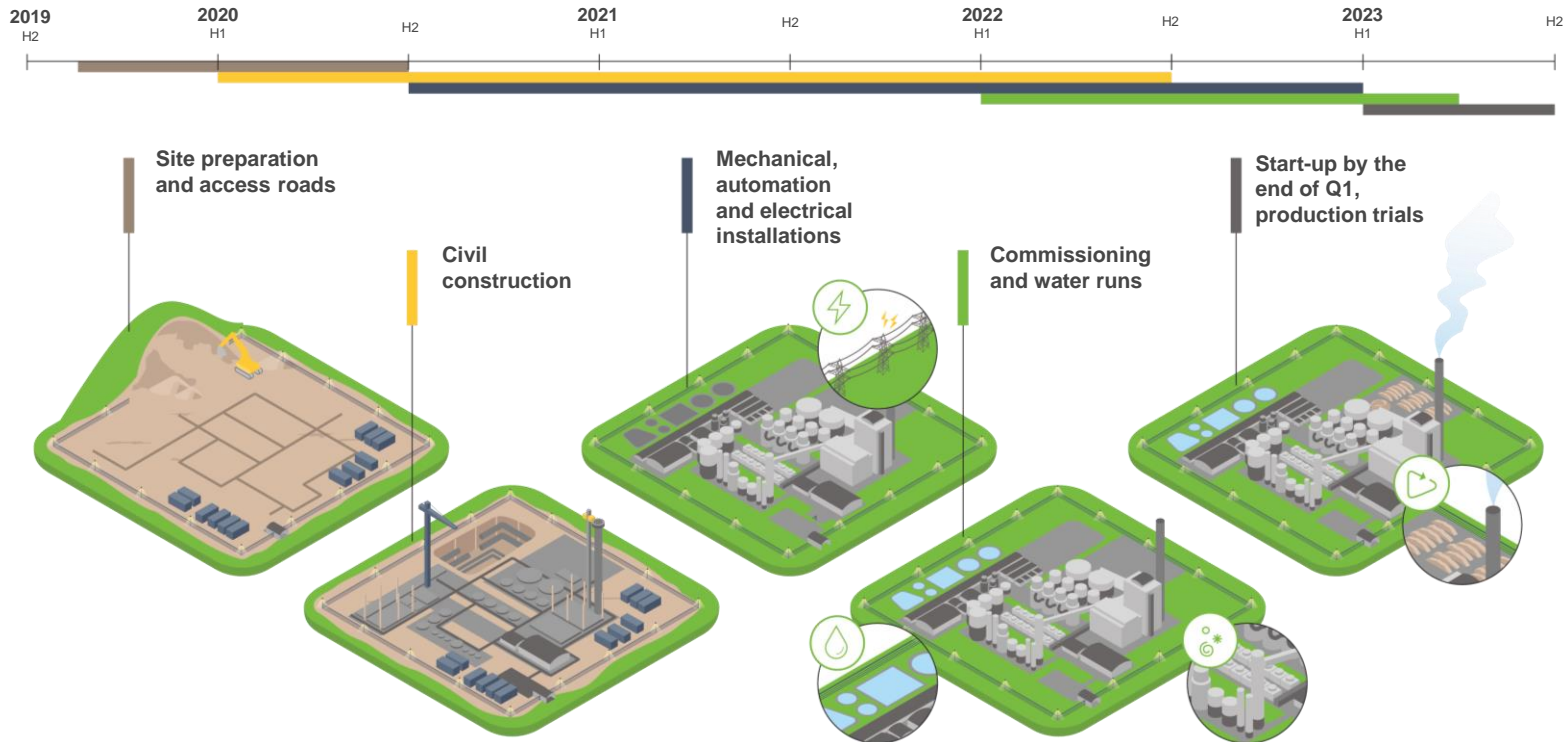
Road improvements

Status: Completed



(Pulp terminal video with the first ships)

UPM Paso de los Toros mill: Commissioning proceeds at intense pace while construction works taper down



UPM Paso de los Toros mill construction site



Water intake

Effluent treatment

Wood handling area

Water treatment

Recovery boiler

Turbines

Fibre line

Drying machines

Personnel gate

Mill entry

Loading area



UPM Paso de los Toros mill construction site



Loading area

In commissioning

Water treatment

In use

Drying machines

In commissioning

Fibre line

In commissioning

Turbines

In commissioning

Recovery boiler

In commissioning

Wood handling area

In commissioning

Water intake

In use

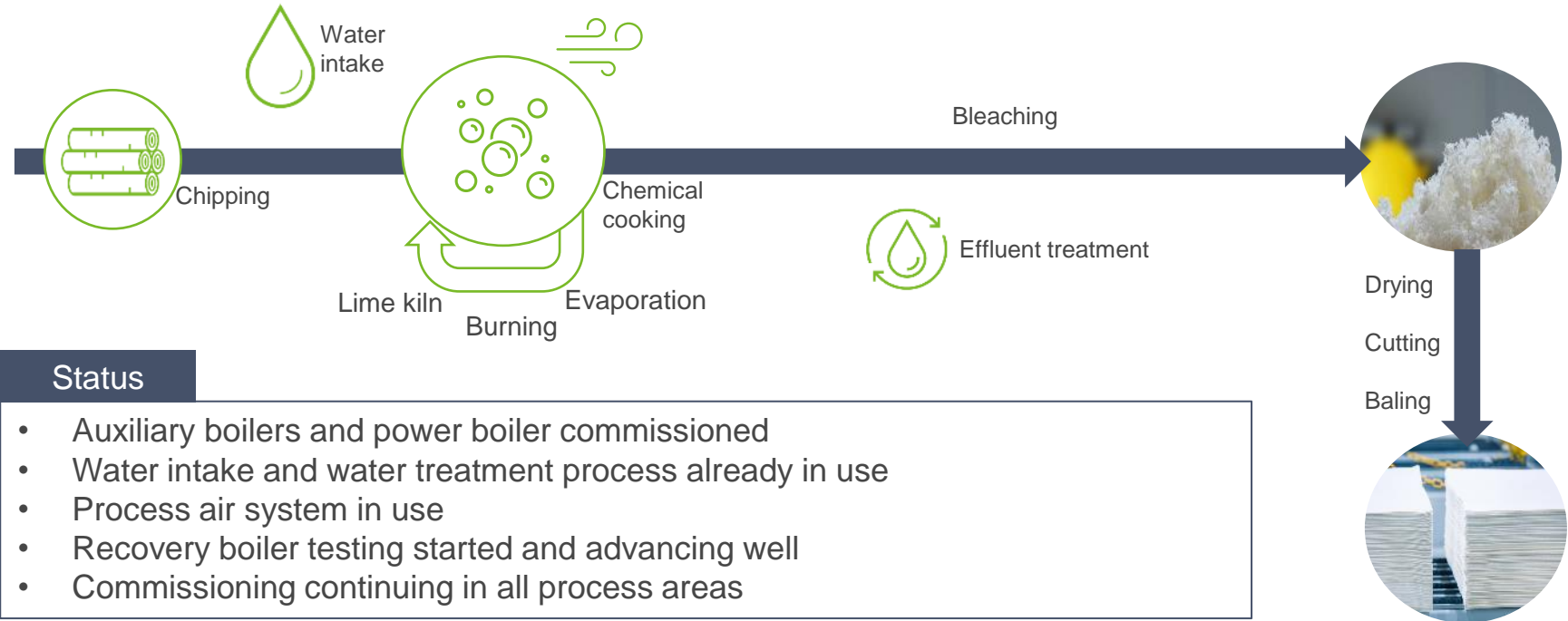
Effluent treatment

In commissioning

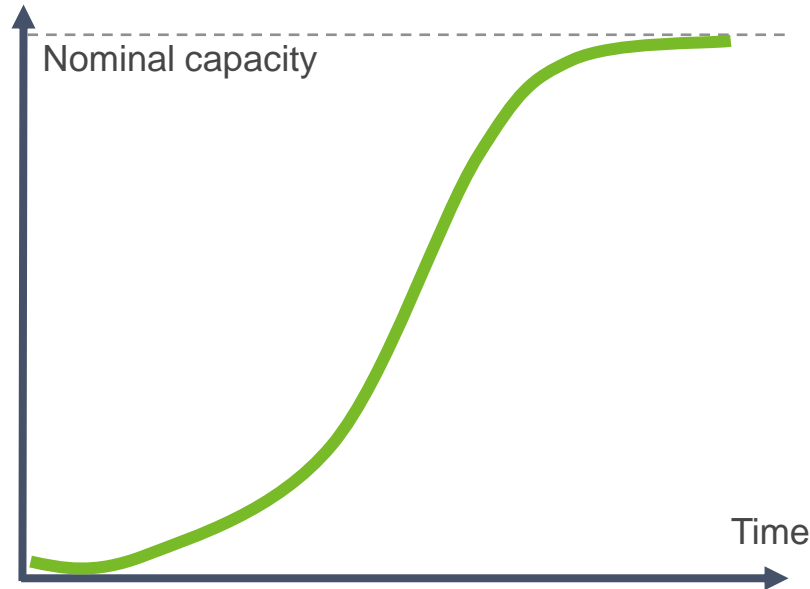
Mill status

- Machinery installation completed
- Mechanical erection in the final stages
- Electrical, instrumental and automation works in progress
- Commissioning started and ongoing in all process areas

Commissioning process tests and secures all stages of pulp production before the start-up



Start-up phase has a solid foundation



- Pulp production process creates a steep ramp-up curve
- Key objective is to achieve stable production and quality
- Successful start-up supported by
 - Experienced team
 - Known technology and supplier
 - Proven raw material base

World class cost competitiveness with expected cash cost level of \$280

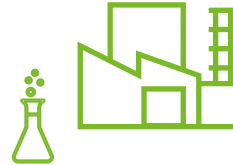


Cash cost structure*

Indicative cost structure of new pulp mill, delivered to Shanghai, China



- Average yield by hectare
- Distance/transportation cost to mill



- Economies of scale
- Sourcing
- Energy cost and revenue
- Long-term contracts



- Direct train connection
- Deep sea port
- Long-term contracts

Wood cost

Production and logistics costs

*per delivered tonne of pulp, including variable and fixed costs of plantation operations, wood sourcing, mill operations and logistics delivered to the main markets
Source: UPM

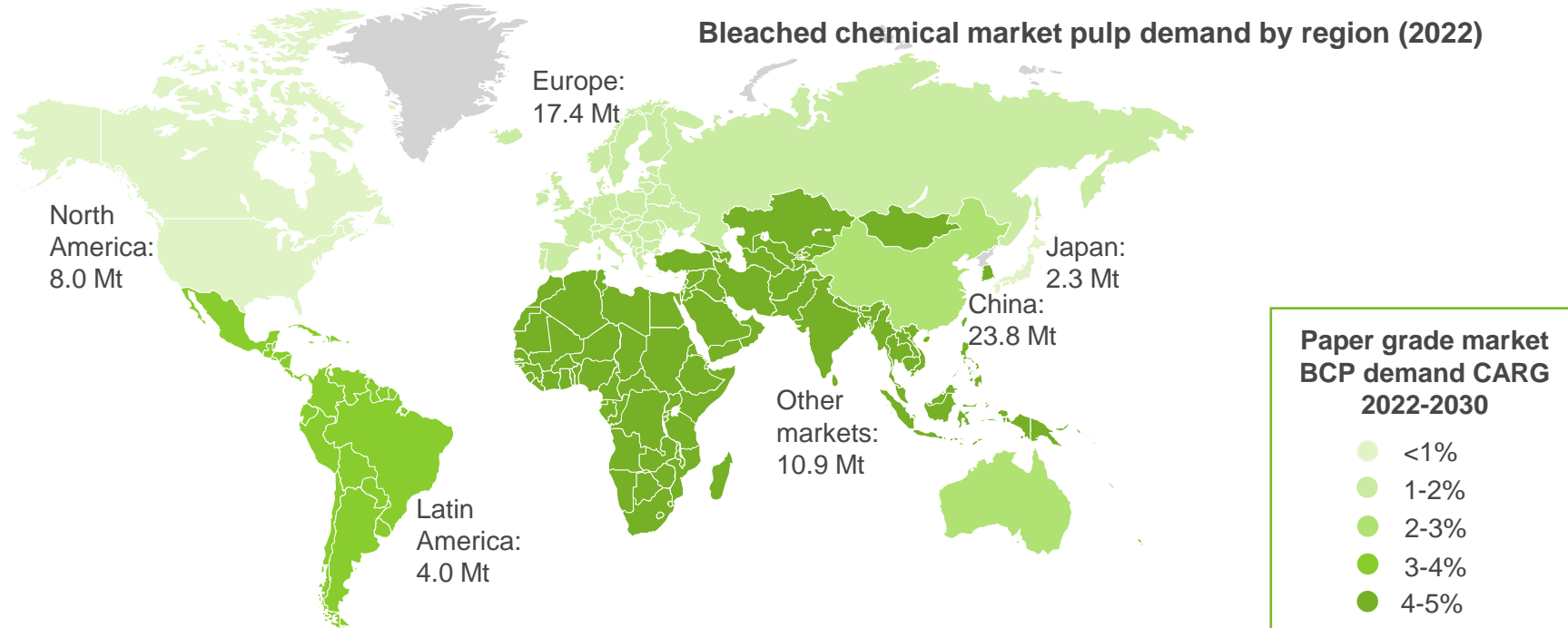
Commercial strategy for driving growth

Bernd Eikens

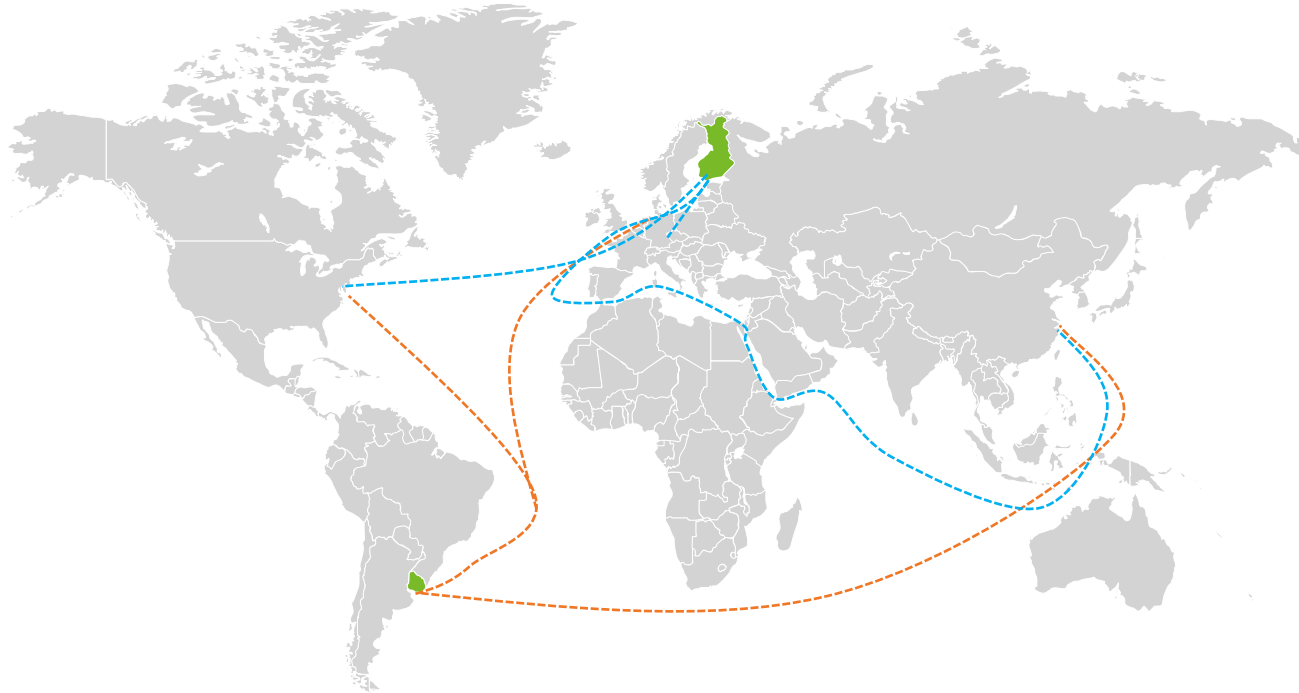
Executive Vice President

UPM Fibres

The global south is the engine for pulp demand growth –rise of other APAC enables diversification of sales



UPM has built a world-class global pulp supply network originating from Uruguay and Finland



Pulp commercial strategy



+2 Mt



**SOLID VALUE
PROPOSITION**

SERVING FUTURE WINNERS

**STRONG VALUE
CREATION**

QUALITY TO TRUST

**SERVING MULTIPLE
END-USE SEGMENTS**

**GLOBAL APPROACH
WITH FOCUS ON APAC,
EUROPE & NA**

**READINESS FOR 6MT
SALES**

**LONG TERM
PROFITABILITY**

UPM **BIOFORE**
BEYOND FOSSILS

