



# UPM Biofore – Beyond fossils

Investor presentation  
January 2021

UPM **BIOFORE** - BEYOND FOSSILS





## UPM BIOREFINING

Pulp  
Plantations  
Biofuels  
Sawmills  
Wood Sourcing  
and Forestry

## UPM ENERGY

Hydro-, nuclear-  
and thermal power  
(incl. shares in  
energy companies)  
Electricity generation  
and trading  
Optimisation services

## UPM RAFLATAC

Label materials for  
branding and  
promotion,  
informational labels,  
and labels with  
functionality

## UPM SPECIALTY PAPERS

Labelling materials,  
release liners,  
flexible packaging  
papers, office and  
graphic papers

## UPM COMMUNICA- TION PAPERS

Extensive product  
range of graphic  
papers for  
advertising and  
publishing  
as well as home  
and office uses

## UPM PLYWOOD

WISA® Plywood  
and veneer products  
for construction and  
industrial  
applications

## UPM BIOCHEMICALS

Wood-based biochemicals  
for variety of industrial  
uses

## UPM BIOMEDICALS

Wood-based products for  
biomedical applications

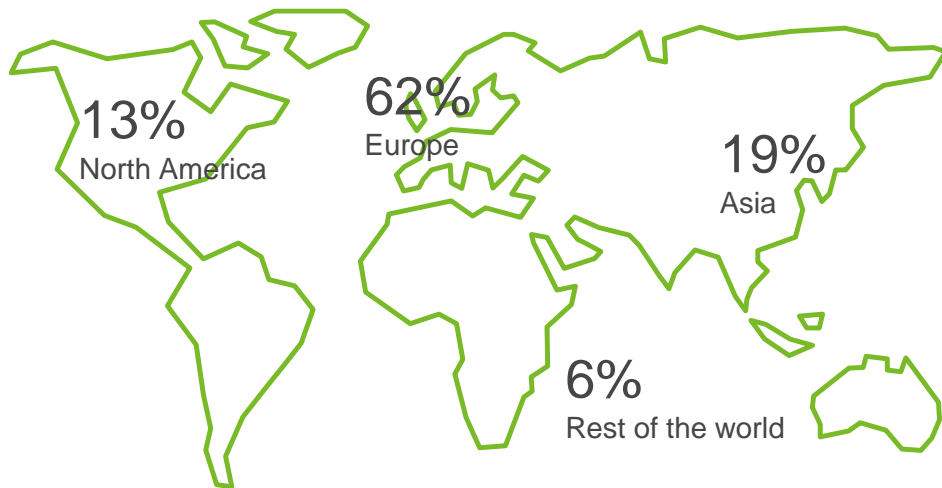
## UPM BIOCOMPOSITES

UPM ProFi decking products  
and UPM Formi granules

## Global businesses – local presence

UPM's sales by market

**EUR 10,238 million**



54	production plants in	12	countries
18,700	employees in	46	countries
12,500	customers in	120	countries
100,700	shareholders in	32	countries
24,000	b-to-b-suppliers in	81	countries

# Biofore strategy

We create value by seizing the limitless potential of bioeconomy



**PERFORMANCE**



**GROWTH**



**RESPONSIBILITY**



**INNOVATION**

Strong long-term fundamentals for demand growth and high barriers to entry



# Our spearheads for growth



# Driving long-term value creation – UPM's climate commitment



## UPM **BIOFORE-BEYOND** FOSSILS



*We act through* **FORESTS**  
**Climate-positive forestry**



*We act through* **EMISSIONS**  
**65% less CO<sub>2</sub> emissions**



*We act through* **PRODUCTS**  
**Innovate novel products**

**BUSINESS AMBITION FOR 1.5°C**   **OUR ONLY FUTURE**





# Industry leader in responsibility



CLIMATE FORESTS WATER

Member of  
**Dow Jones  
Sustainability Indices**

Powered by the S&P Global CSA



Global Compact  
**LEAD**  
2020 PARTICIPANT

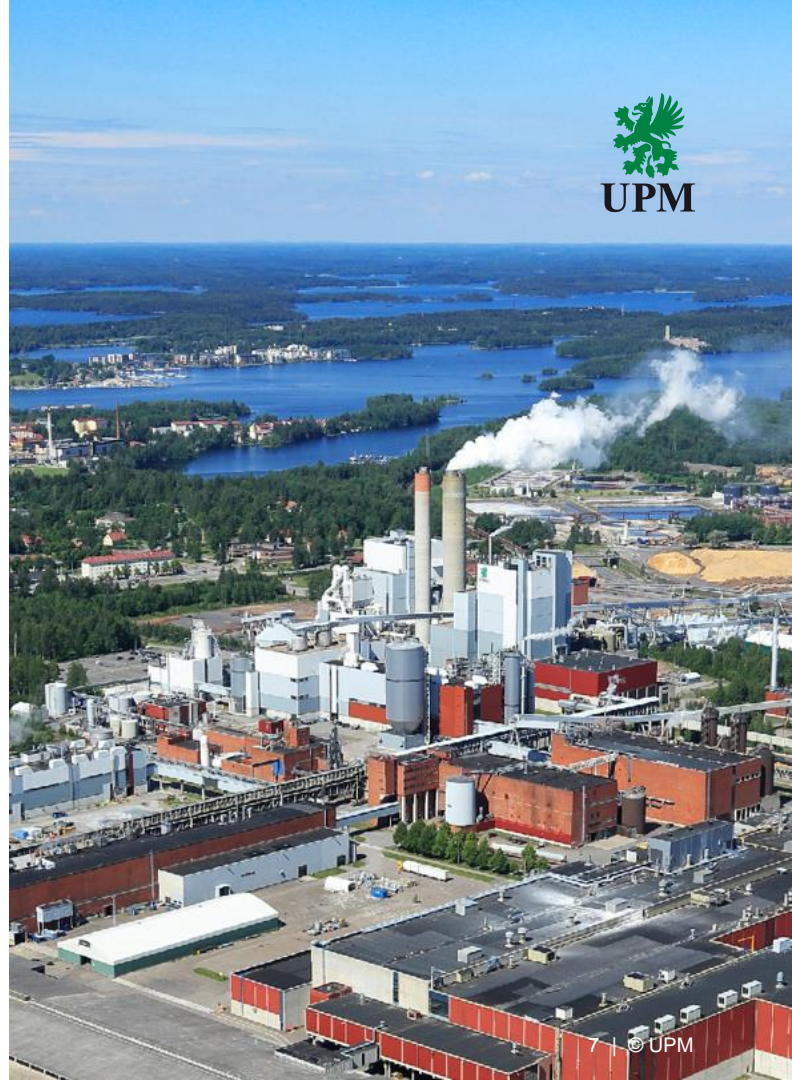
**MSCI**  
ESG RATINGS



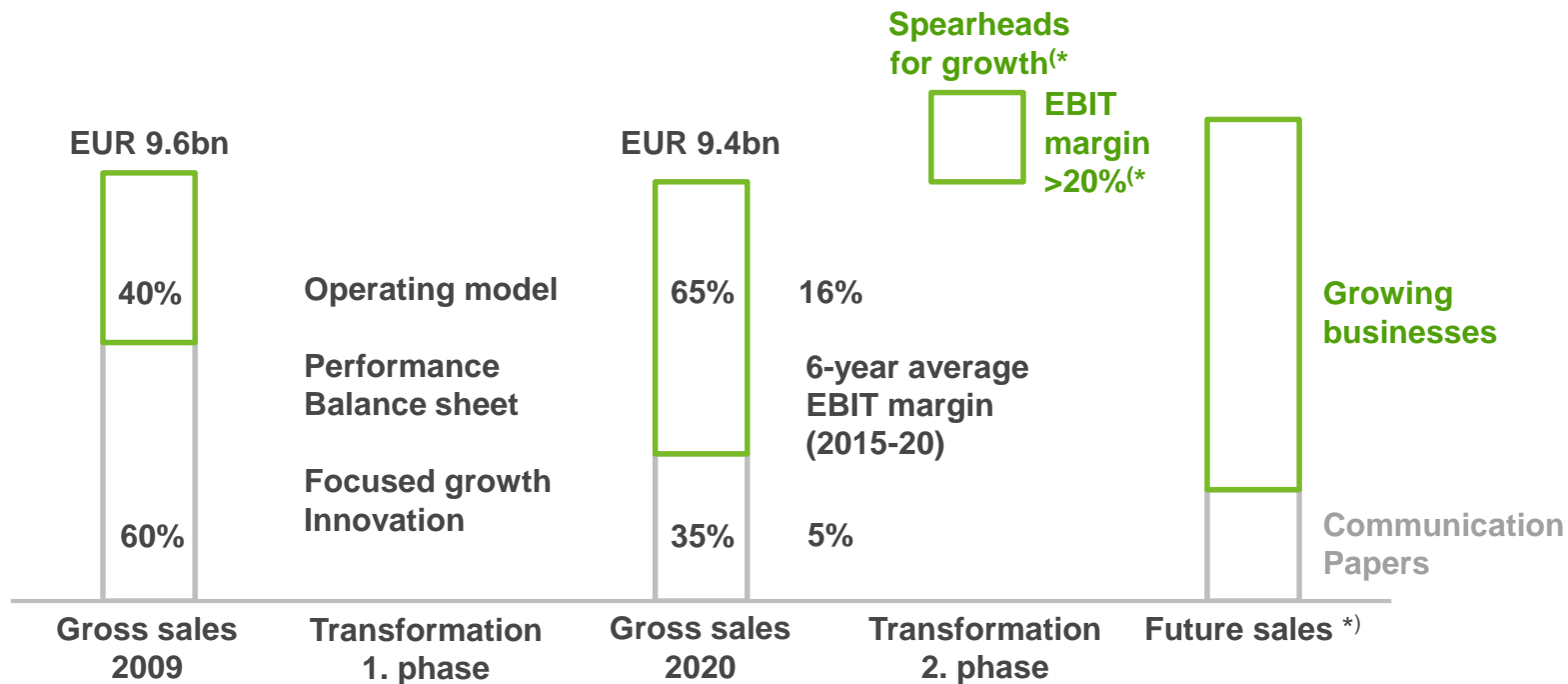
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UPM **BIOFORE-BEYOND** FOSSILS



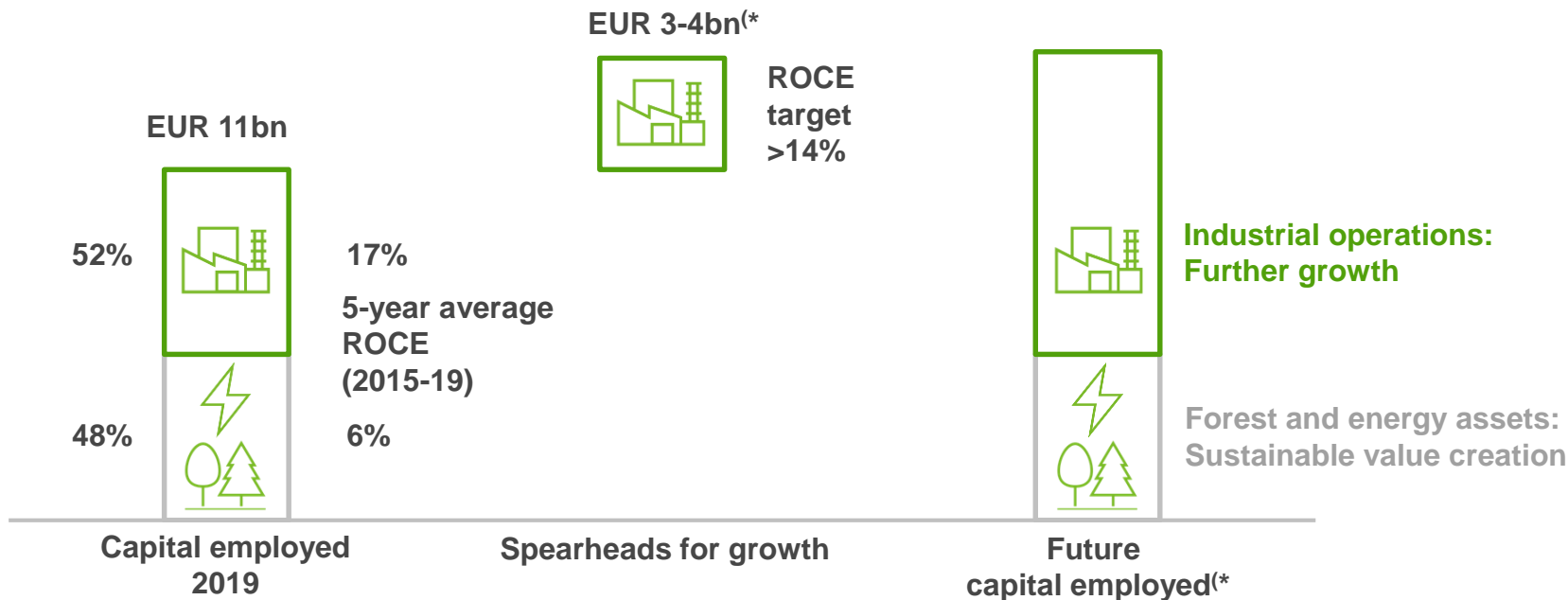
# Spearheads for growth – improving business mix drives earnings, cash flow and shareholder value



<sup>\*)</sup> This is an illustration, not a forecast

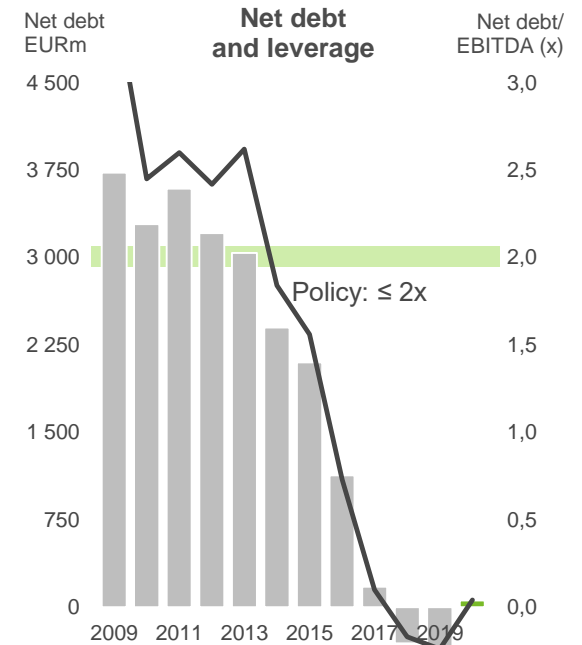
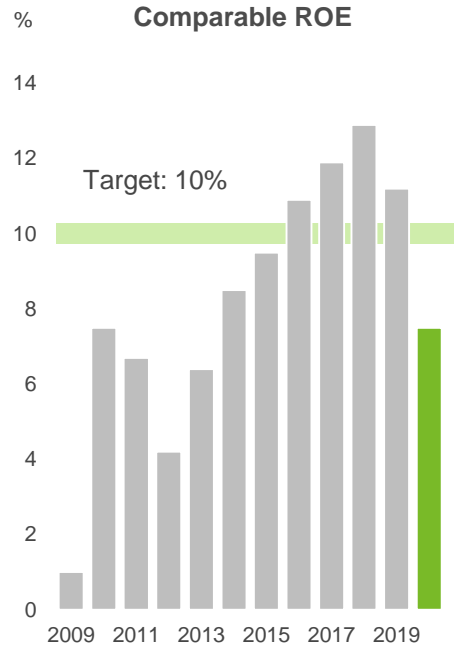
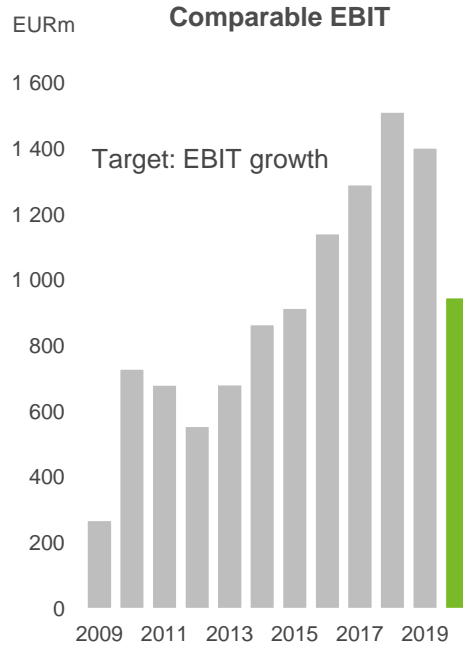


# Transformation improves UPM's asset mix, driving returns



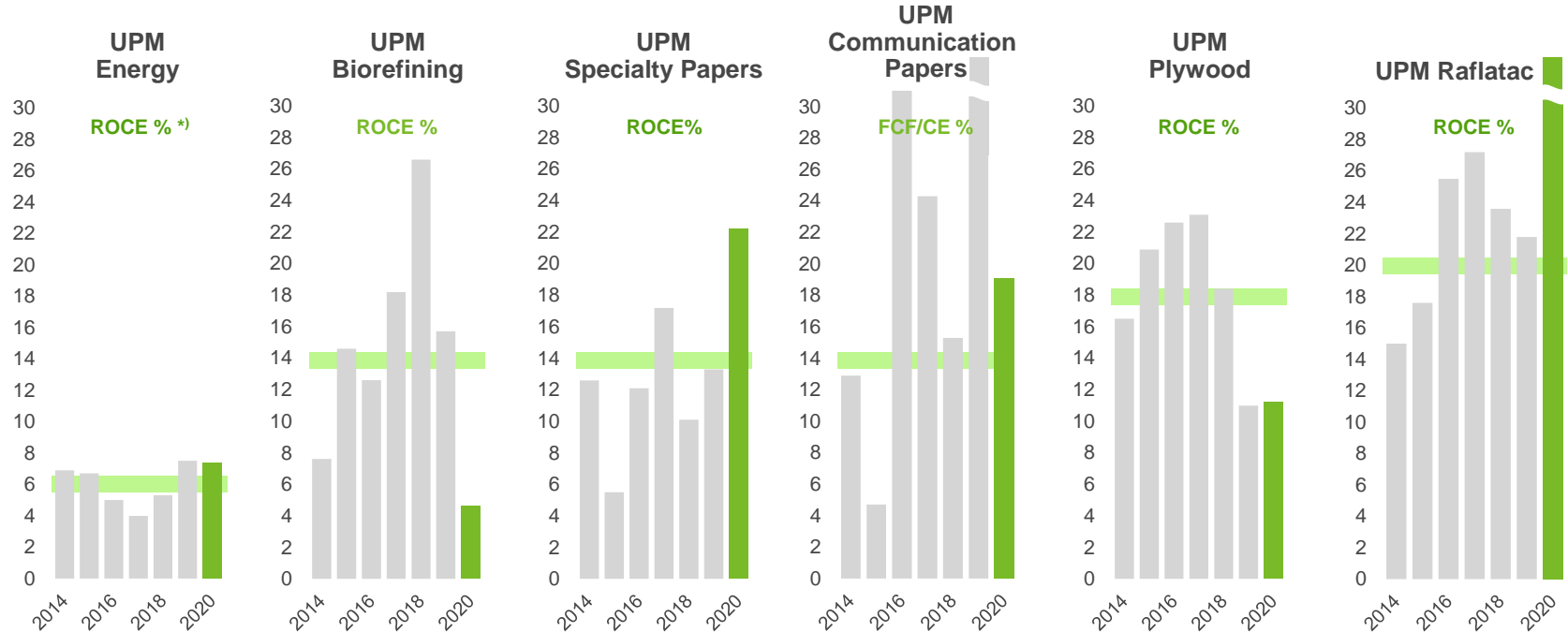
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# Group financial performance





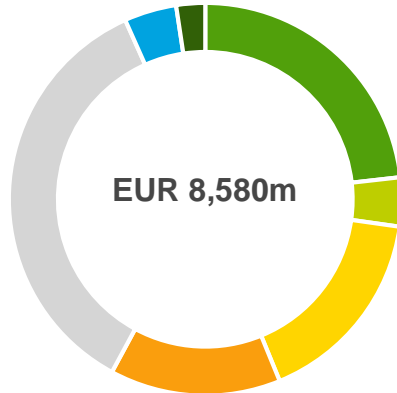
# Business area returns and long-term targets



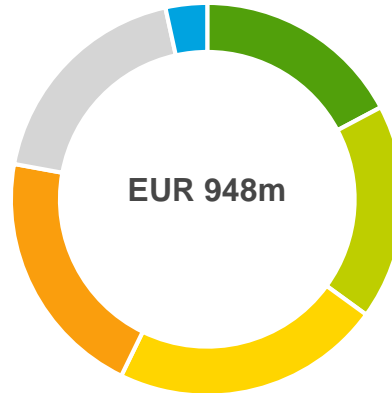
\*) shareholdings in UPM Energy  
valued at fair value

# UPM by business area in 2020

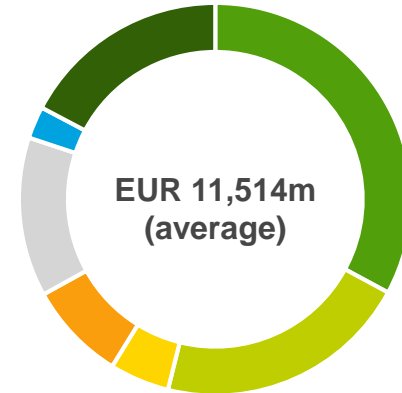
Sales



Comparable EBIT



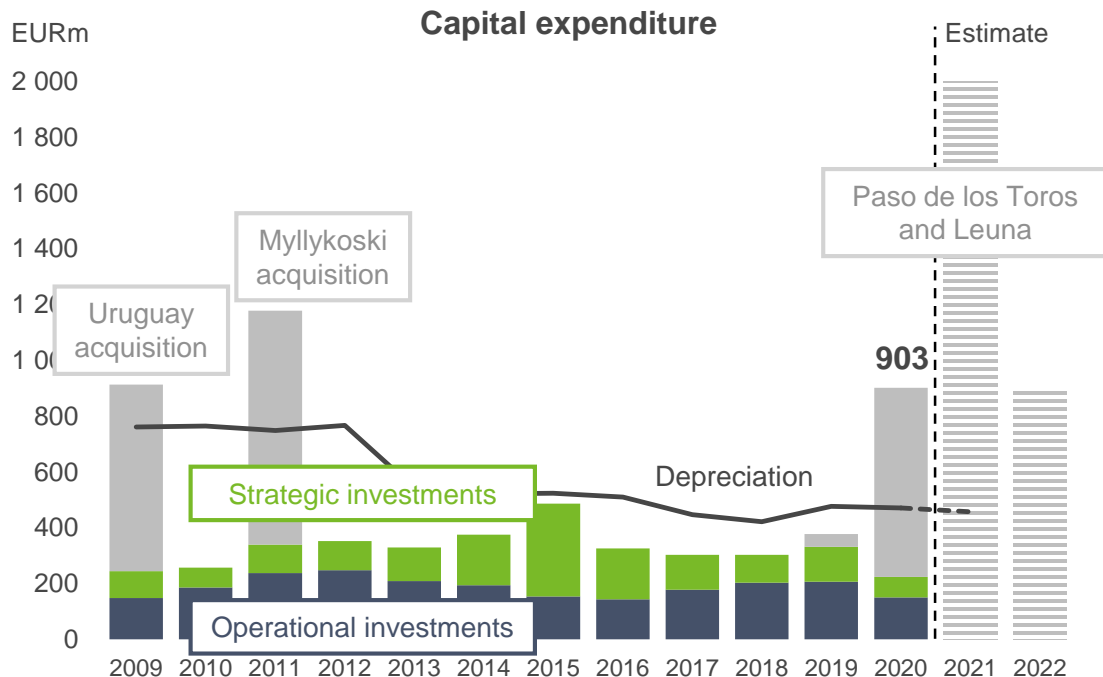
Capital employed



■ Biorefining 
 ■ Energy 
 ■ Raflatac 
 ■ Specialty Papers 
 ■ Communication Papers 
 ■ Plywood 
 ■ Other



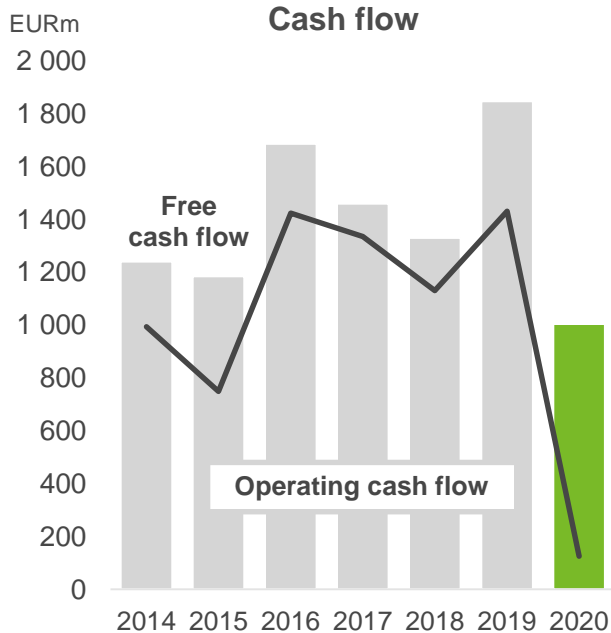
# Transformative growth projects in the most intensive phase in 2021



## Capex estimate for 2021

- Total EUR 2,000m
- Includes EUR 1,800m on the transformative growth projects, pulp in Uruguay and biochemicals in Germany
- Operational investment needs consistently low

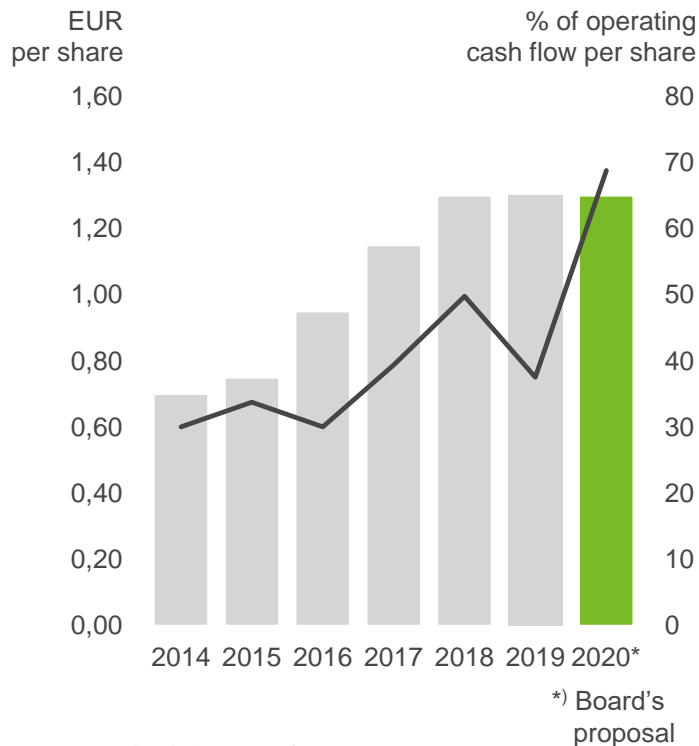
# Robust cash flow



- Q4/20: operating cash flow was EUR 347m (592m in Q4/19)
  - Working capital decreased by EUR 72m (decreased by 227m in Q4/19)
- 2020: operating cash flow was EUR 1,005m (record of EUR 1,847m in 2019)
  - Working capital increased by EUR 93m (decreased by 276m in 2019)



# Dividend proposal: unchanged at EUR 1.30 per share



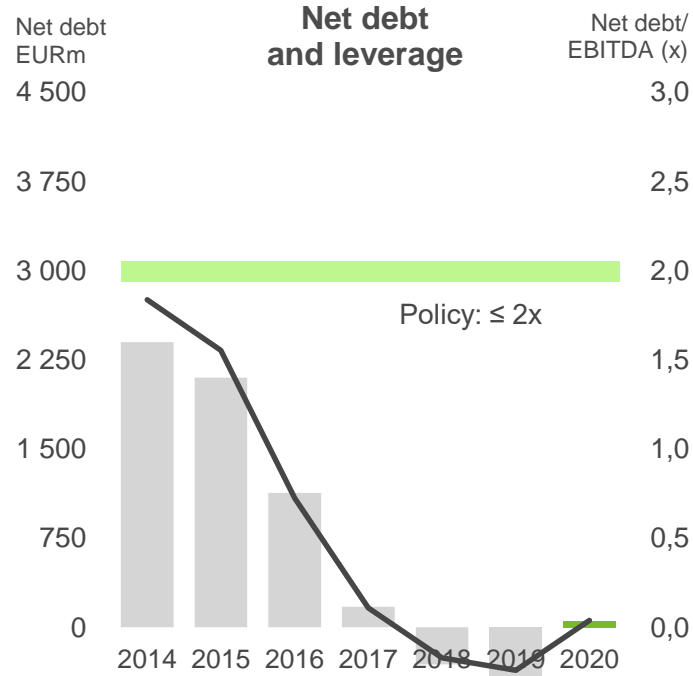
## Long term dividend policy

- UPM aims to pay an attractive dividend, 30–40% of operating cash flow per share

## Dividend proposal for 2020

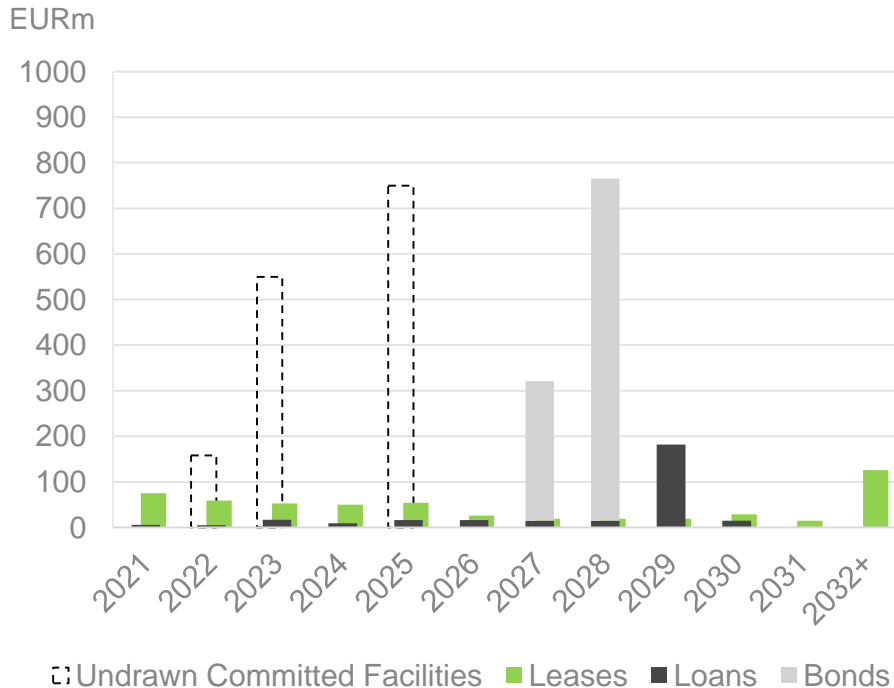
- EUR 1.30 (1.30) per share, totalling EUR 693m
- 69% of 2020 operating cash flow

# Strong financial position



- Net debt EUR 56m at the end of 2020
- Cash funds and committed credit facilities EUR 3.2bn at the end of Q4
- UPM issued a EUR 750m Green Bond in Q4
- Liquidity includes a EUR 750m sustainability-linked revolving credit facility signed in Q1 and bilateral committed credit facilities totalling EUR 550m signed in Q2
- No financial covenants

# Maturity profile and liquidity



Liquidity on 31 December 2020 was EUR 3.2bn (cash and unused credit facilities)

UPM's committed facilities:

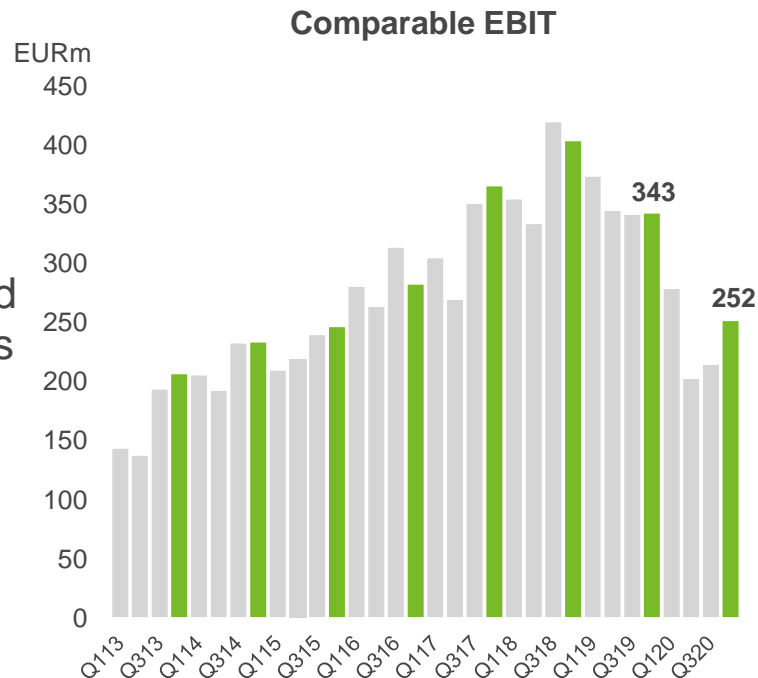
- EUR 158m rolling credit facility maturing 2022
- EUR 550m bilateral facilities maturing 2023
- EUR 750m syndicated facility maturing 2025

No financial covenants

# Q4 2020: positive finish to the exceptional year – transformative projects on budget and on schedule



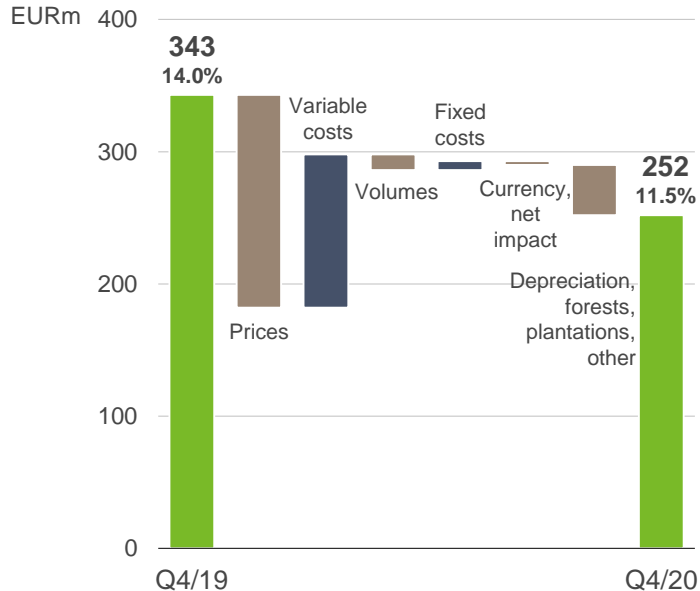
- Sales decreased by 11% to EUR 2,188m (2,447m in Q4 2019)
- Comparable EBIT was EUR 252m, 11.5% of sales, down 27% from last year (343m)
- Successful health and safety measures enabled uninterrupted business operations and progress in transformative growth projects
- The year ended on a positive note, with good demand for UPM's products



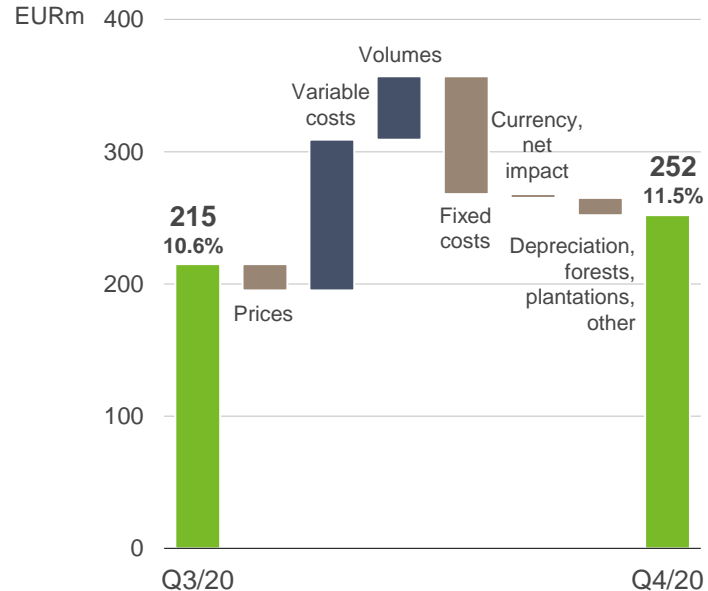


# Comparable EBIT in Q4 2020

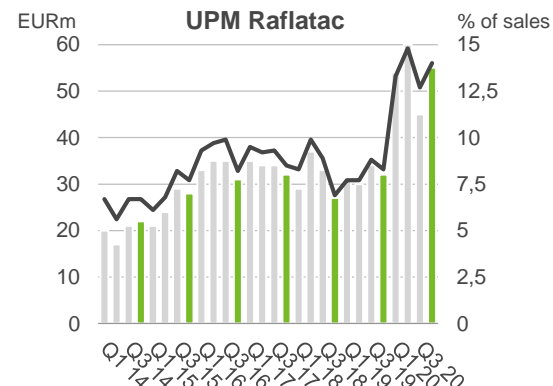
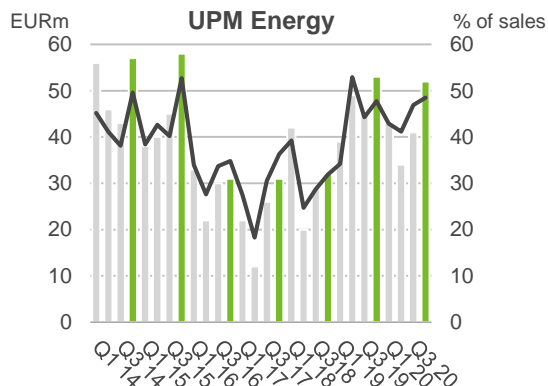
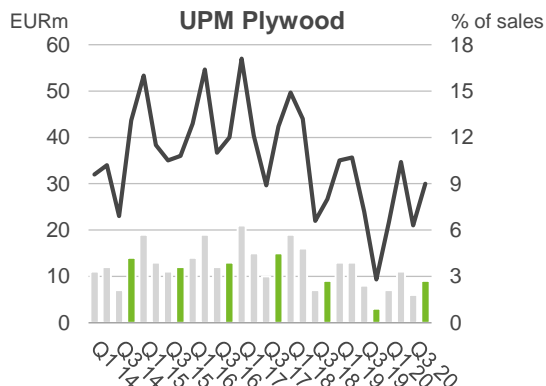
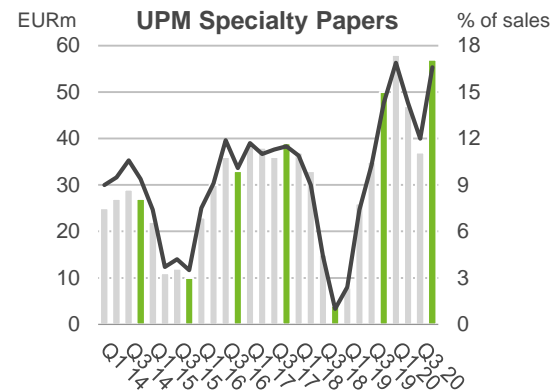
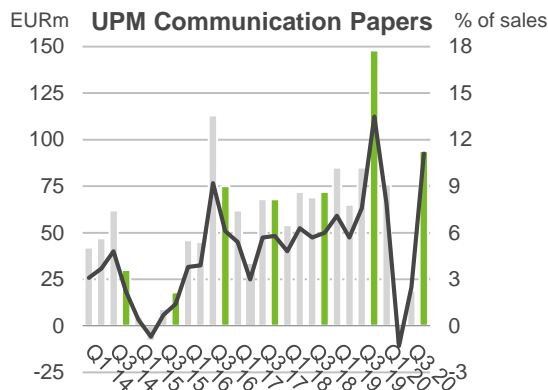
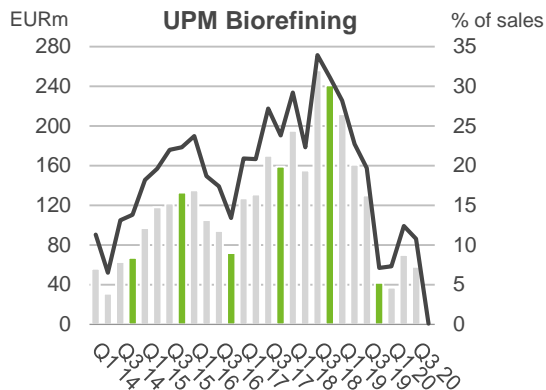
Sales prices decreased, outweighing the impact of lower variable costs. Deliveries decreased for Communication Papers but grew for other businesses.



Variable costs decreased and deliveries increased, both partly seasonally. Fixed costs significantly higher due to high maintenance activity and seasonal reasons.



# Comparable EBIT by business area



# Outlook for 2021



- The global economy is expected to start recovering in 2021 from the deep downturn experienced in 2020. World regions will progress at different pace, and China is leading this development. Demand for most UPM products is influenced by overall economic activity and hence, depends on the shape and rate of the economic recovery.
- The COVID-19 pandemic continues to cause significant uncertainty in 2021. In 2020, lockdowns had a significant negative impact on graphic paper demand but supported the strong demand for self-adhesive labelling materials and specialty papers. Opening of the economies is likely to allow for some normalisation of these demand impacts. However, further waves of the pandemic and related lockdowns remain possible.
- In the beginning of 2021, pulp prices are expected to increase compared with Q4 2020. Paper prices are expected to decrease moderately, compared with Q4 2020.
- UPM will continue to implement measures to decrease fixed and variable costs.
- UPM's comparable EBIT in H1 2021 is expected to be lower than in H1 2020, due to lower paper prices and higher maintenance activity. Comparable EBIT is expected to recover in H2 2021.

# Taking action to ensure performance – expected annual cost savings of approx. EUR 130 million



- UPM Jyväskylä (plywood)  
closed in Q3 2020
  - UPM Chapelle (newsprint)  
-240kt, closed in Q3 2020
  - UPM Kaipola (newsprint, LWC)  
-720kt, closed in Q1 2021
  - UPM Shotton (newsprint)  
-250kt, planned sale
  - Streamlining and cost efficiency actions in  
UPM Biorefining, UPM Specialty Papers, UPM Raflatac  
and global functions
- 
- Growth investment: UPM Nordland PM2 (fine)  
-200kt, conversion to release liner in Q1 2020



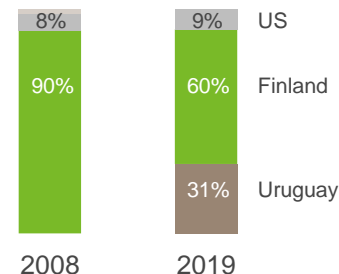


# Developing our forest assets

## UPM forests and plantations

	2008	2019
Forest and plantation land (own and rented) (1,000 ha)	1,012	991
Forest growth (million m <sup>3</sup> )	4.3	8.9
Wood sourced from UPM forests and plantations (million m <sup>3</sup> )	2.2	3.7
Value of forests and plantations, including land (EURm)	1,270	2,864

## Area distribution



Investing in strategic forest assets in Uruguay  
 Releasing capital from forests far from our mills  
 Productivity with active management and nurseries  
 Strong commitment to sustainability

UPM Biochemicals

## UPM invests in next generation biochemicals

- EUR 550 million investment in an industrial scale biorefinery at Leuna, Germany
- 100% wood-based biochemicals provide alternatives to fossil materials in various consumer-driven end-uses
- Total annual capacity of 220,000 tonnes
- Scheduled to start up by the end of 2022
- Safety and sustainability of the value chain based on UPM's high standards



UPM BIOCHEMICALS

## UPM creates a totally new sustainable business with large growth potential



- Major milestone in UPM's transformation
- UPM biochemicals respond to the customers' increasing needs for renewable alternatives
- Current supply is limited and high-quality biochemicals are priced at a premium
- Sustainable wood supply, unique technology, existing infrastructure and proximity to customers enables a good cost position
- Attractive returns: ROCE target of 14% once the facility is fully ramped up and optimized





## Renewable product range

- **Bio-monoethylene glycol (bMEG)**  
for textiles, PET bottles, packaging, deicing fluids
- **Renewable functional fillers**  
for rubber applications as a sustainable, light-weight and high-purity alternative to carbon black and silica
- **Bio-monopropylene glycol (bMPG)**  
for composites, pharma, cosmetics, detergents
- **Industrial sugars**  
for various applications in chemicals industry





## Large growth markets – unique sustainability value



- The global glycols market is more than 30 million tonnes, with expected annual growth of approx. 4%
- The global market of carbon black and silica is more than 15 million tonnes, with expected annual growth of approx. 3%
- Current market supply based on non-renewable raw materials
- Customers increasingly committed to sustainable solutions
- UPM's renewable raw material and new technologies provide significant reduction in carbon footprint
- UPM biochemicals fit directly into customers' processes and the existing recycling infrastructure

## UPM invests in a world class pulp mill in Uruguay



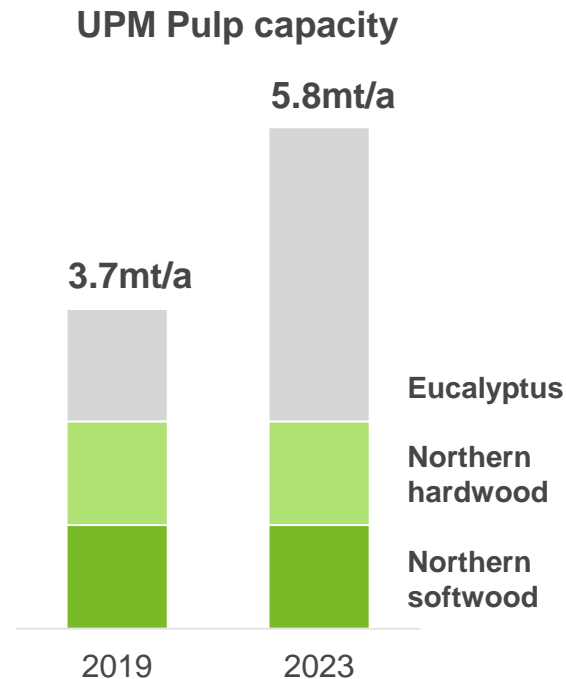
- A highly competitive new pulp mill with annual production capacity of 2.1 million tonnes of eucalyptus pulp
- Mill investment of USD 2.7 billion
- Investments in port operations in Montevideo, local facilities in Paso de los Toros of USD 350 million
- Scheduled start-up in H2 2022
- Industry-leading safety and sustainability performance of the value chain from plantations to customers



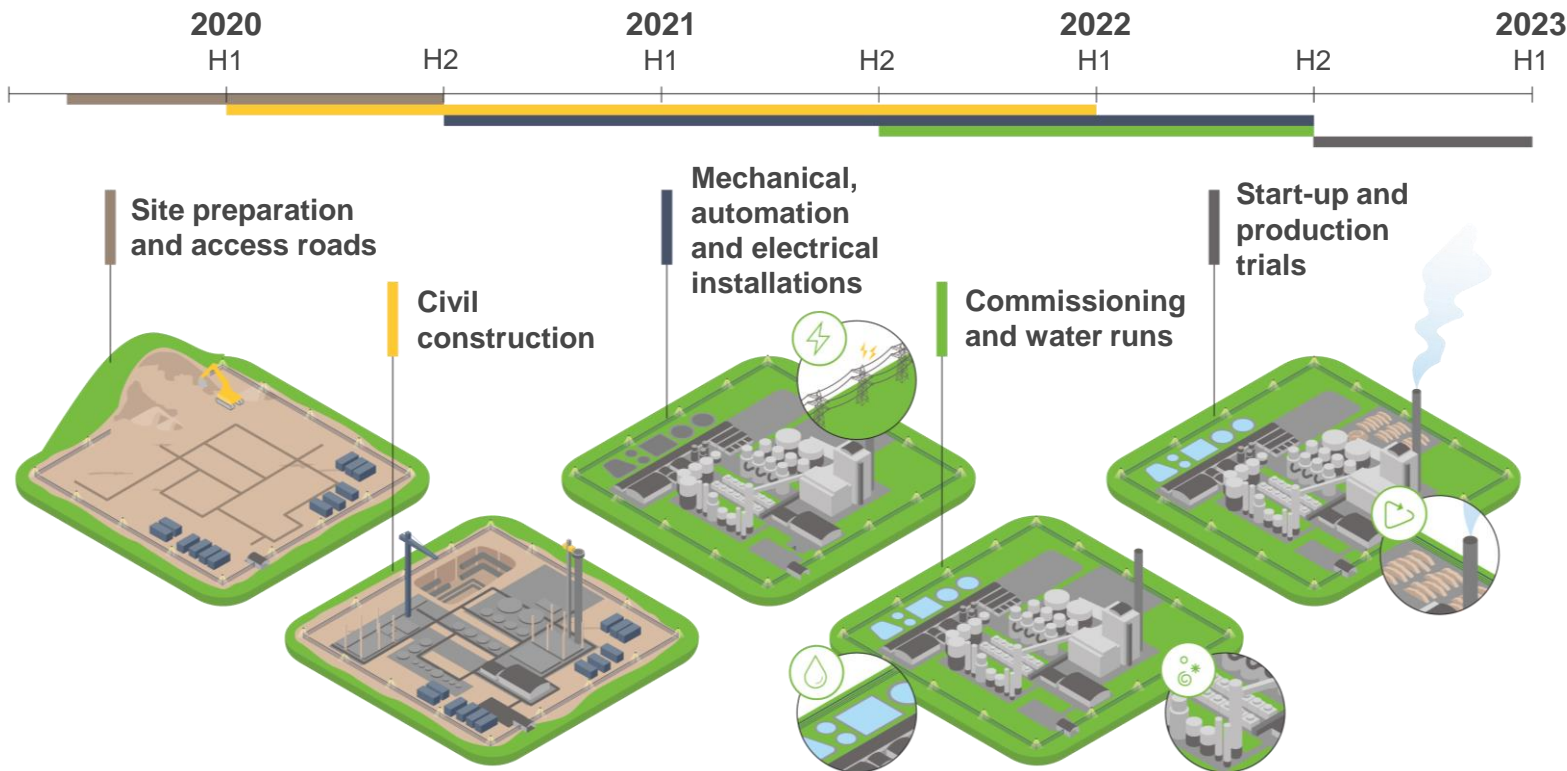
# Transformative step in UPM's pulp business and in UPM's future earnings



- Significant step for UPM's future earnings
  - One of the most competitive mills in the world
  - Expected cash cost level of USD 280 per delivered tonne of pulp<sup>(\*)</sup>
  - Attractive returns in various market scenarios
  - Carefully prepared to ensure long-term competitiveness and to minimise risks both in the project phase and during continuous operations
- Step change in UPM's pulp business



# UPM Paso de los Toros pulp mill construction schedule





## State of the art mill design



- Initial production capacity of 2.1 million tonnes of eucalyptus pulp, with further potential
- Mill investment USD 2.7 billion, efficient investment level compared with corresponding projects
- 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



## Competitive wood supply



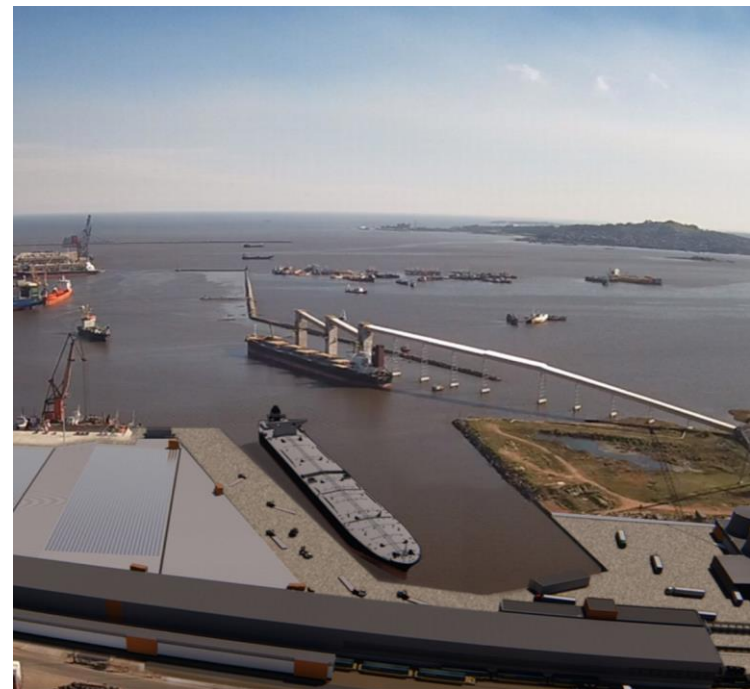
- Eucalyptus availability secured through UPM's own and leased plantations and wood sourcing agreements with private partners
- UPM's own and leased plantations in Uruguay cover 434,000 hectares, supplying both UPM Fray Bentos and the new mill near Paso de los Toros
- 30 years experience of sustainably managed and productive plantations



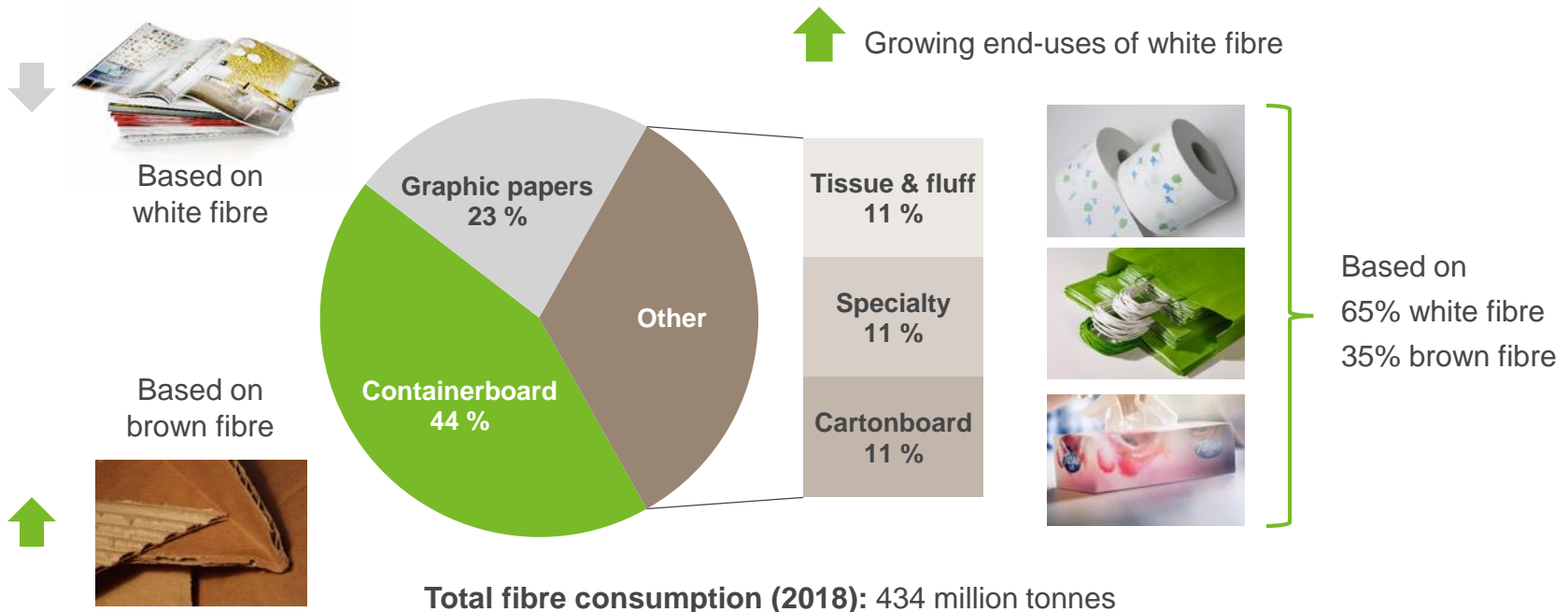
## Efficient logistics set-up



- UPM will invest USD 280 million to construct a deep sea pulp terminal in Montevideo port
  - Direct rail access from the mill to a modern port terminal creates an efficient supply chain to world markets
  - Synergies with the UPM Fray Bentos mill
- Agreed railway modernisation
  - Public-private-partnership agreement between the government and the construction company
- Agreed road improvements



# Market pulp consumed in growing end-uses – supply of alternative white fibres declines

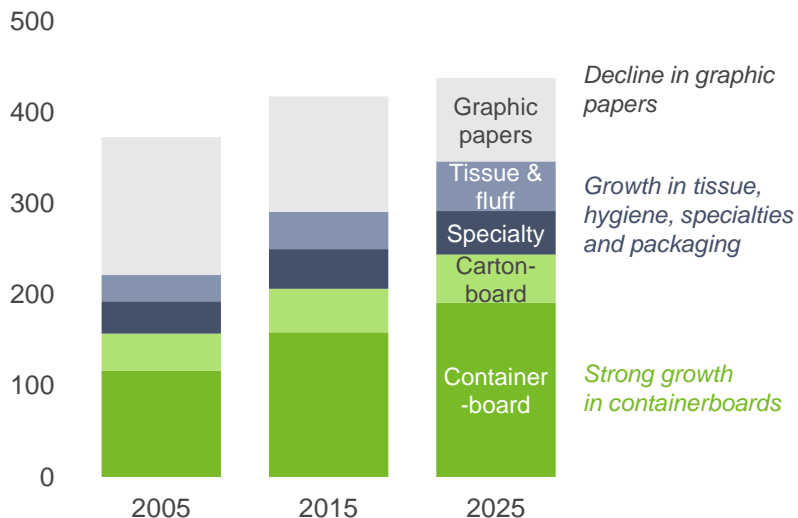


# UPM Biorefining

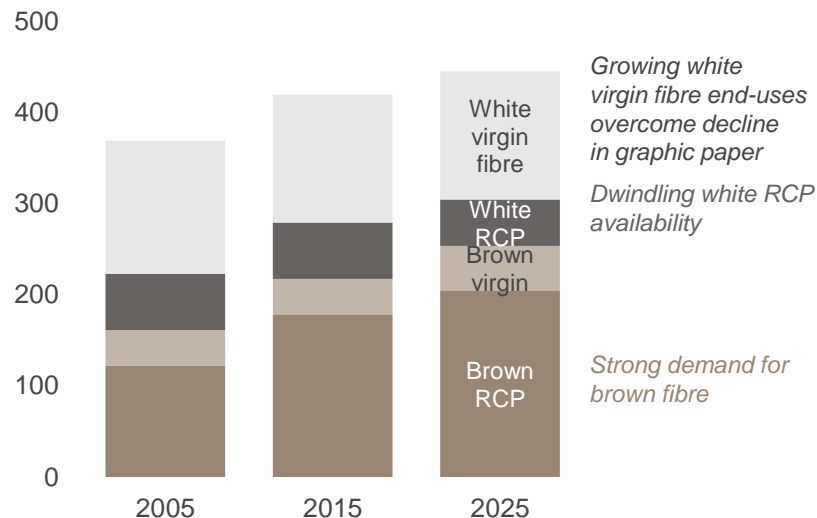
## Pulp demand outlook



**Global consumption of end-uses**  
in million tonnes

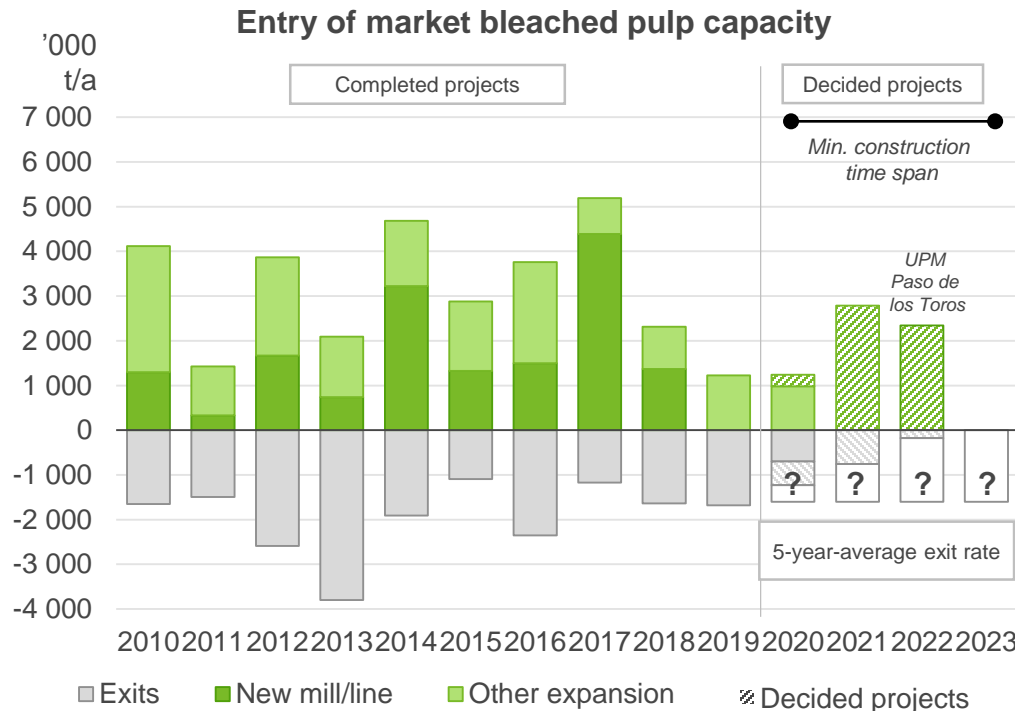


**Global consumption of fibres**  
in million tonnes





# Few decided projects coming on stream in the short-term



**Below-average rate of expansion**

**Exits take place**

Note: bleached chemical wood pulp including fluff pulp, excluding dissolving pulp

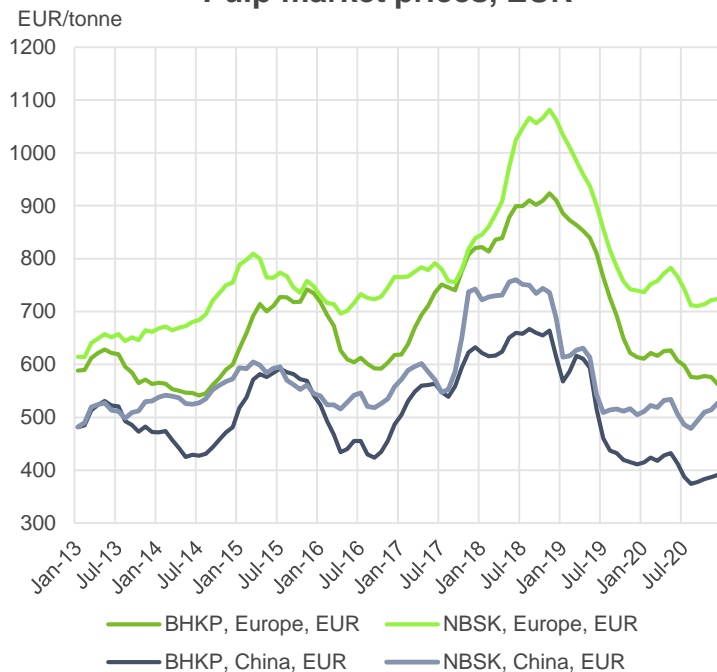
Sources: Afry, UPM

# UPM Biorefining

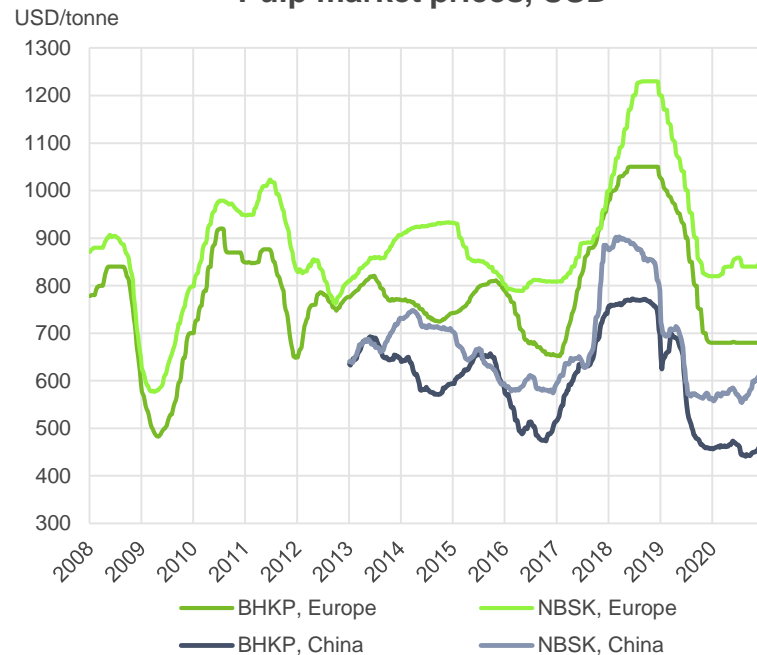
## Chemical pulp market prices



### Pulp market prices, EUR



### Pulp market prices, USD

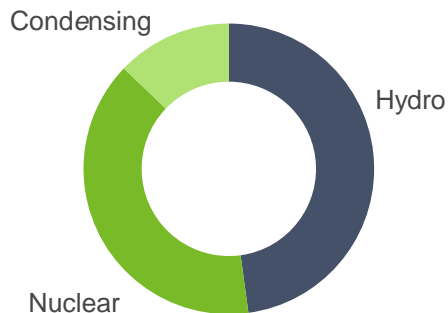


Source: FOEX Indexes Ltd

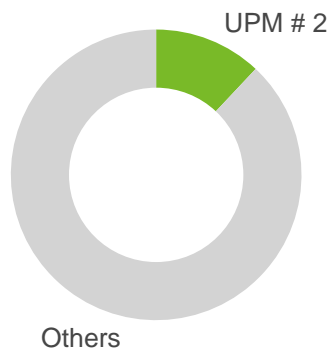
# UPM's power generation – competitive in all market conditions



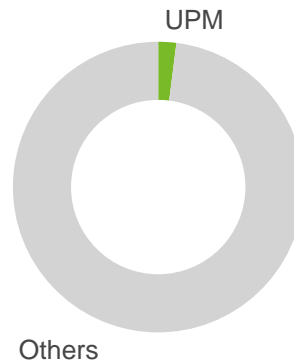
UPM's power  
generation assets



UPM in Finland



UPM in Nordics

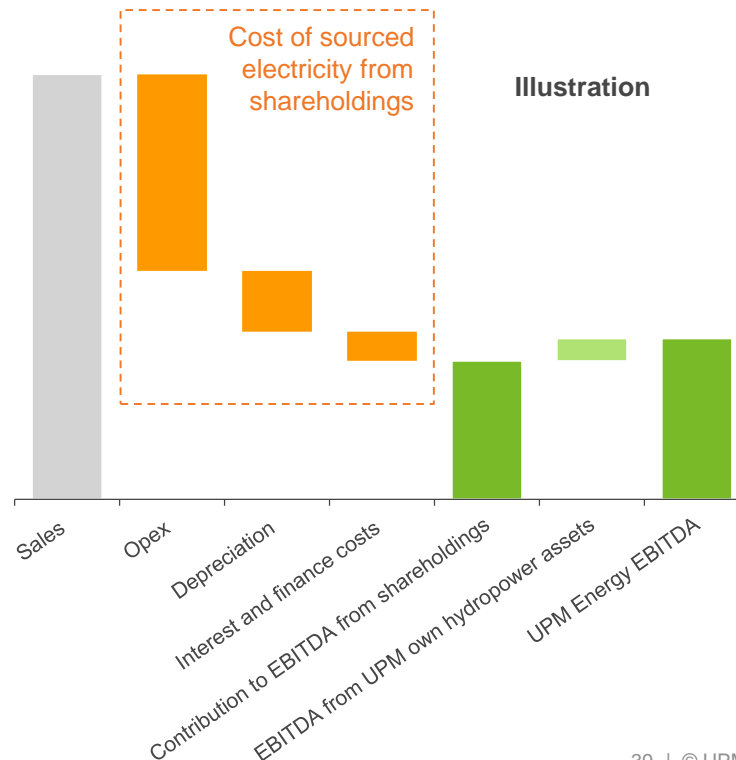


# UPM Energy



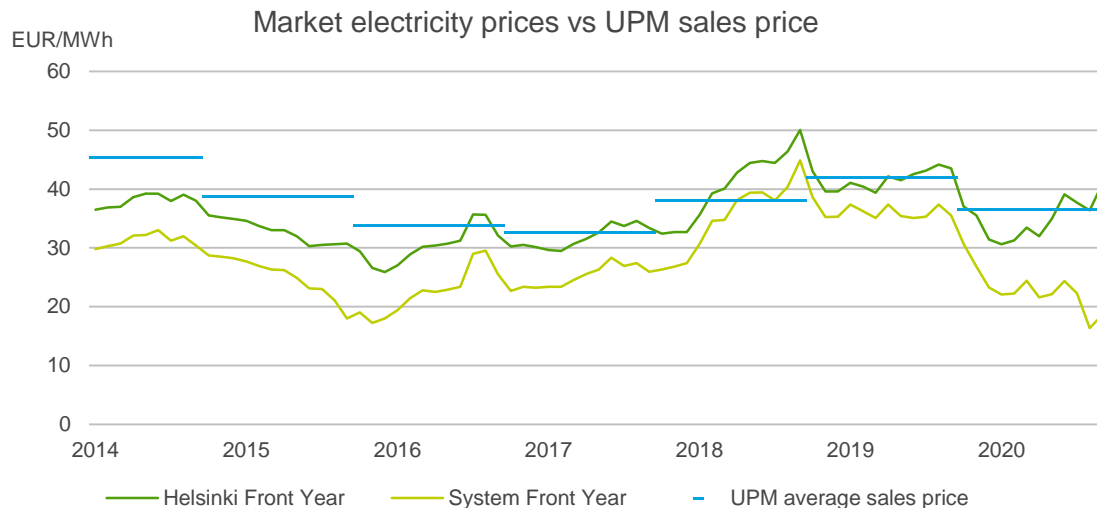
UPM Energy's power generation	MW	EURm
Hydropower holdings	549	748
Nuclear power OL1 and OL2	588	1,145
Nuclear power OL3 under construction	(494)	189
Condensing power	95	1
UPM Energy's shareholdings in total, valued at fair value	1,232	2,082
UPM own hydropower assets	166	
UPM Energy's in total (excl. OL3)	1,398	
UPM Energy capital employed		2,365

UPM Energy sources electricity from part owned energy companies at full cost (cost-price principle, mankala principle)





# Cost efficient generation enables robust profitability in changing market environment



UPM Energy profitability	2015	2016	2017	2018	2019	2020
Comparable EBIT, EURm	181	116	91	123	185	171
% of sales	43.6	32.7	28.8	31.5	44.4	45.0

# UPM Raflatrac

## Self-adhesive labels in end-use



**Pharmaceuticals**



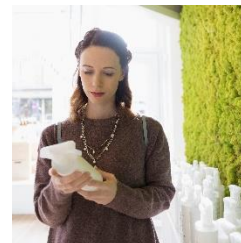
**Wine, spirits & craft beverage**



**Food**



**Personal care**



**Home care**



**Durables**



**Transport & logistics**



**Industrial Chemical**



**Retail**



**A4 & cut-size**



**Security & brand protection**



**Tyre**

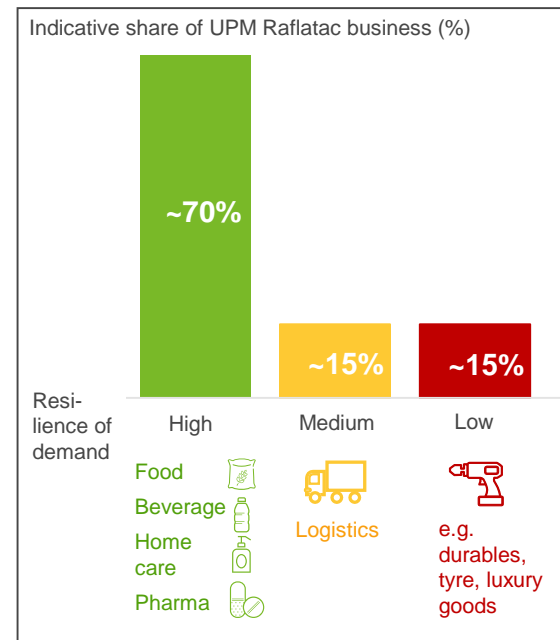
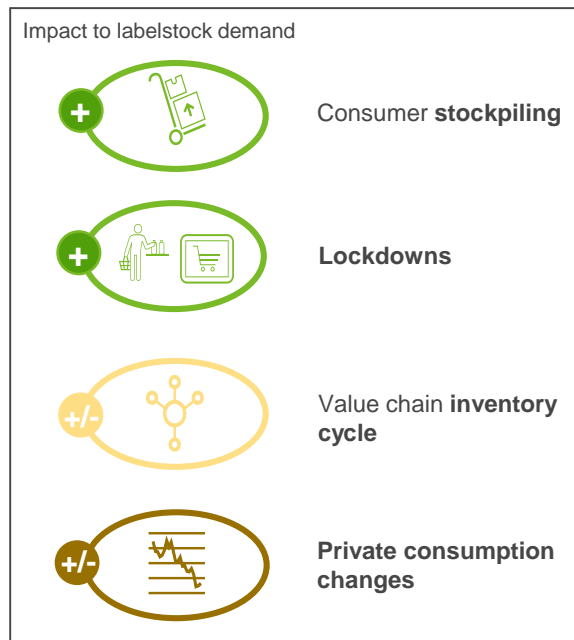
# The labelstock markets have solid long term demand growth trends – short term can be more volatile



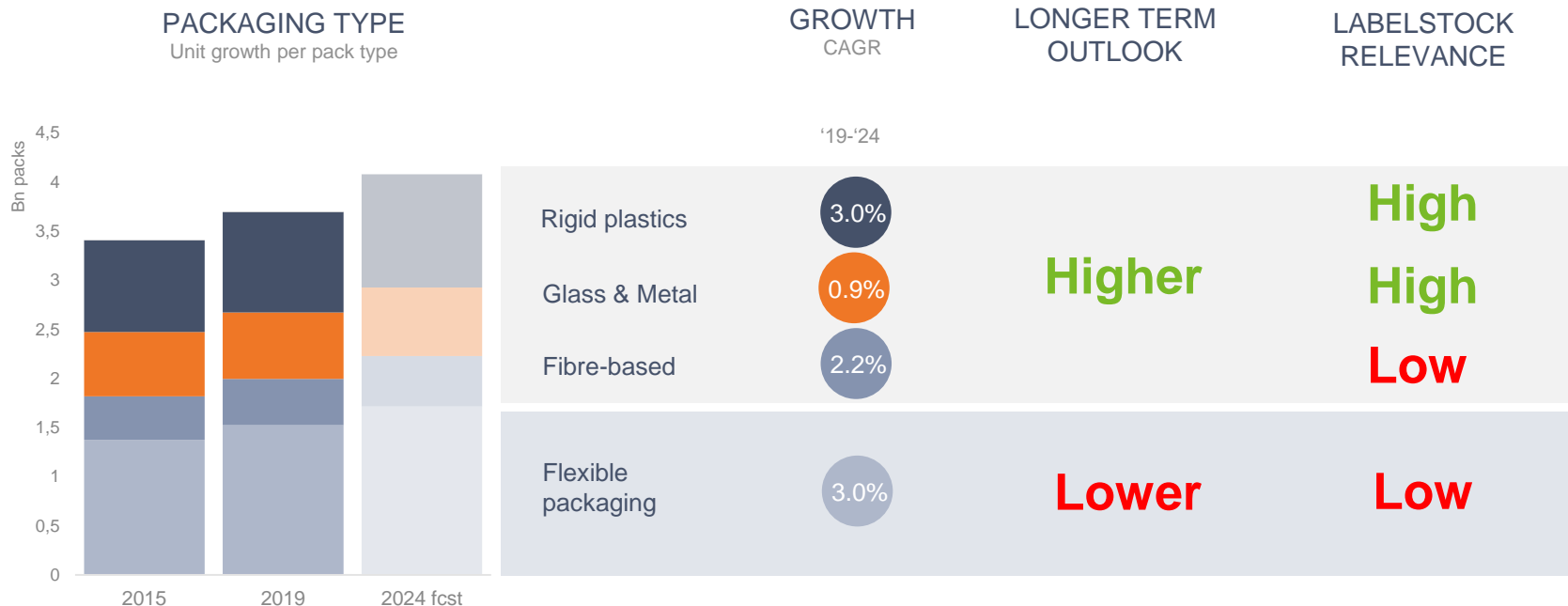
The long term demand growth outlook remains a solid 3-4% p.a.

However in the short term the demand changes can be more dynamic

The demand of UPM Raflatac's end use portfolio is relatively resilient



# Early signs of recycling impacts: Packaging decisions to favour labelstock



Source: Euromonitor September 2020; UPM Raflatrac perspective

# Focus on global Labelling materials, Packaging in Europe and Office paper in APAC





# UPM Specialty Papers is well positioned for growth in the selected markets



## LABEL & RELEASE

Leading position in growing global label and release paper markets



## PACKAGING PAPERS

Selective approach in consumer packaging area. Well positioned for future growth.



## APAC FINE PAPERS

One of the leading players in office papers, focused niche player in graphic papers



Market growth forecast, CAGR 2020-2025

Global  
release liner  
**3-4%**

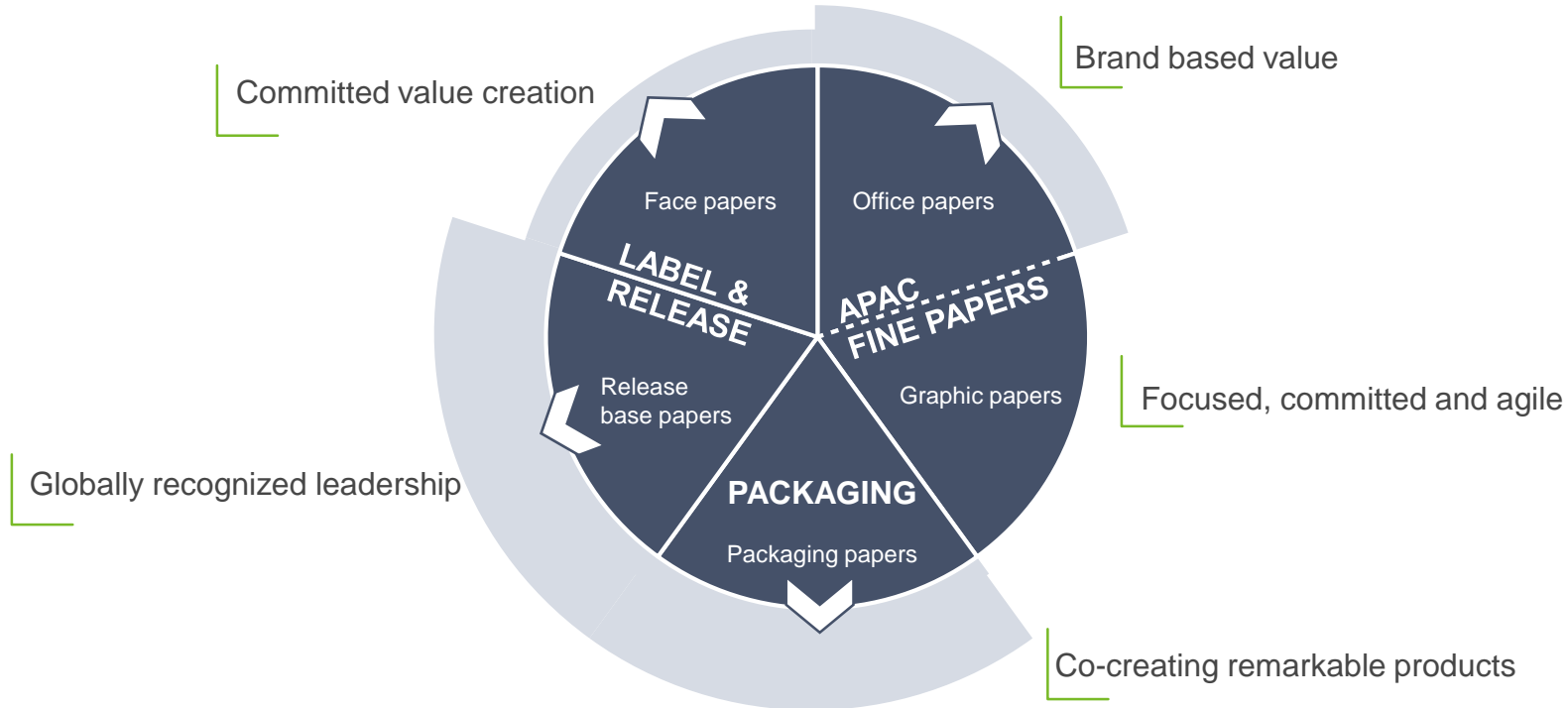
Global  
flexible  
packaging  
**2-4%**



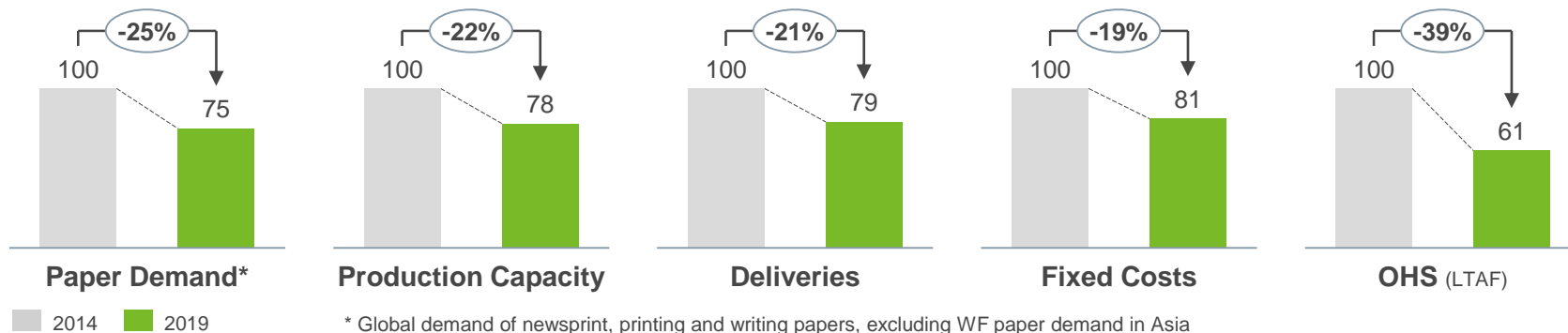
APAC office  
papers  
**1-2%**

# UPM Specialty Papers **GROWTH STRATEGY**

We co-create a future beyond fossils with  
renewable, recyclable and remarkable papers



# We have continued to deliver according to our strategy with uncompromising cost competitiveness



## ... building the basis for continued profitable performance

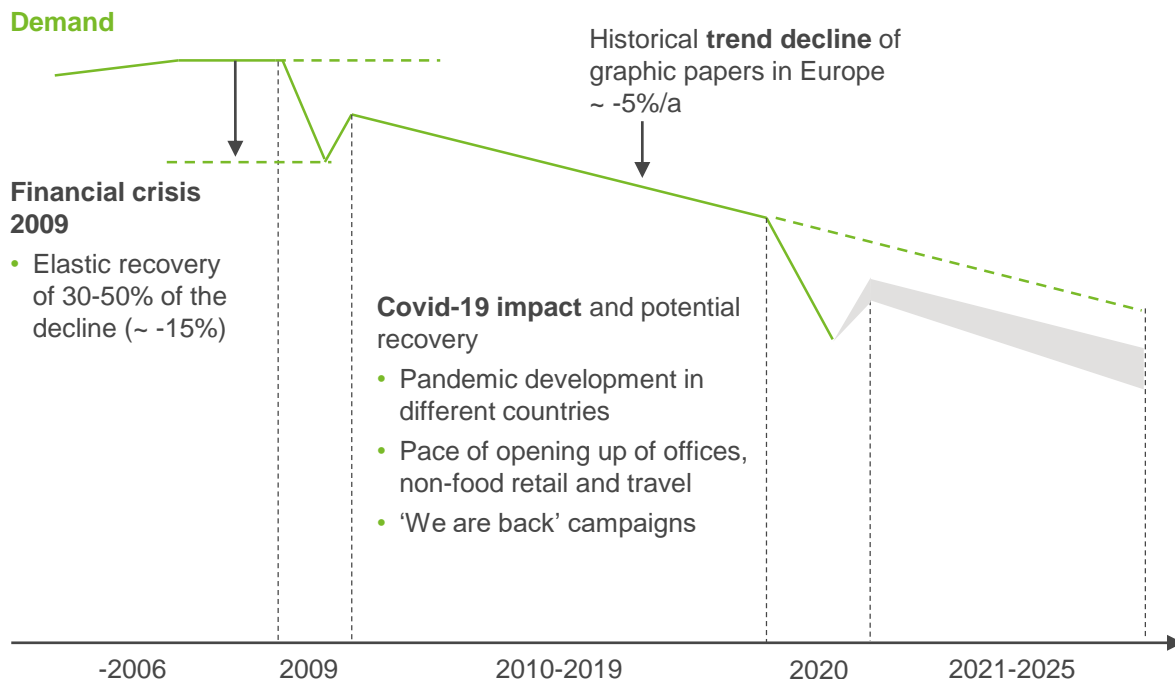
- ✓ Efficient and modern assets & high asset utilization
- ✓ Tight grip on costs
- ✓ Broad product portfolio
- ✓ Strong geographical footprint
- ✓ Commercial focus

5-year (2015-19)  
cumulative free cash flow

**EUR 1.9bn**

Source: Internal calculation and analyses based on data from Euro-Graph, PPPC, AFRY

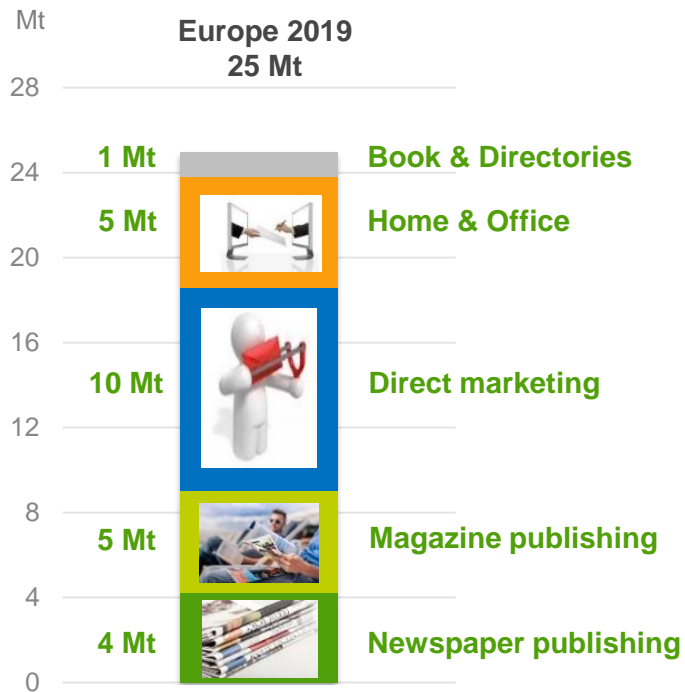
# Paper demand impacted by the lockdowns, economic activity and structural changes<sup>\*)</sup>



## Uncertainties for demand recovery and drivers in demand decline trend

- Uncertain economic recovery
- Perpetuation of “new” consumption and digitalization trends
- Trend towards digital publishing and subscription models, cost of distribution
- Growth of e-commerce, digital customer engagement and promo in retail
- Adaption of digital records and work flows in administration, business and education
- Paper as ‘chill media’ for healthy offline time
- Trust in media, effectiveness of print promo

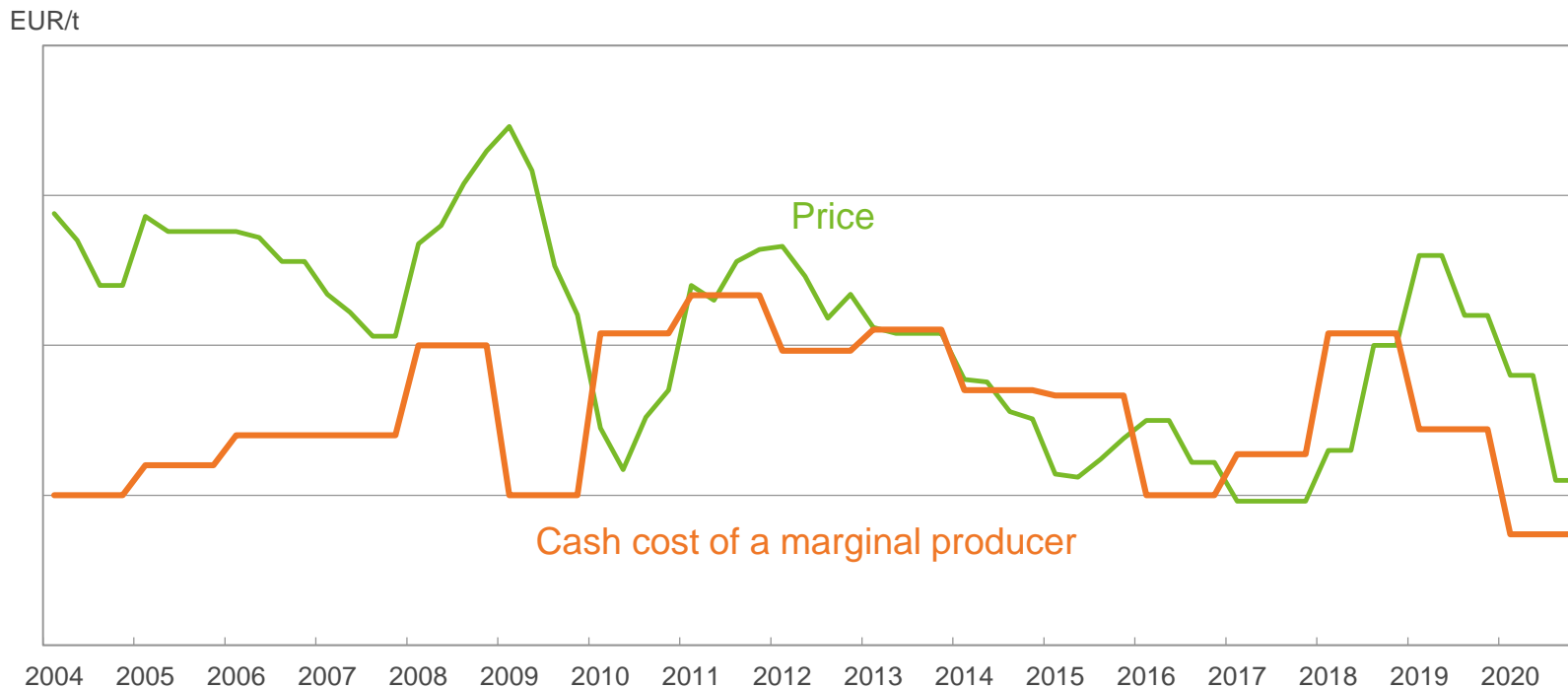
# Paper demand by end use



Source: Euro-Graph, UPM



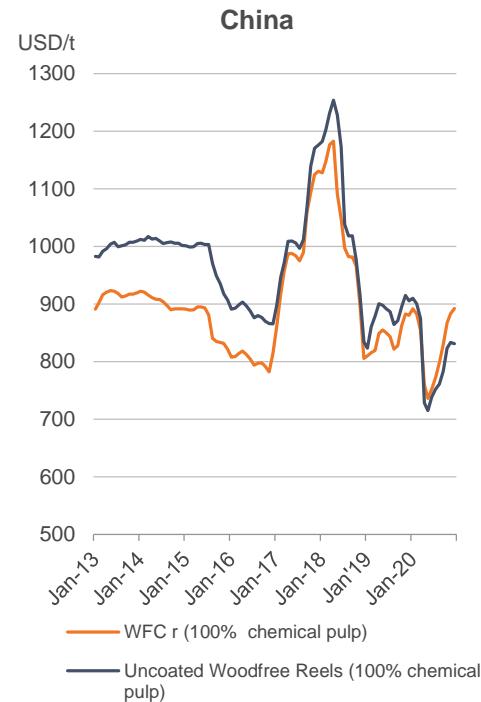
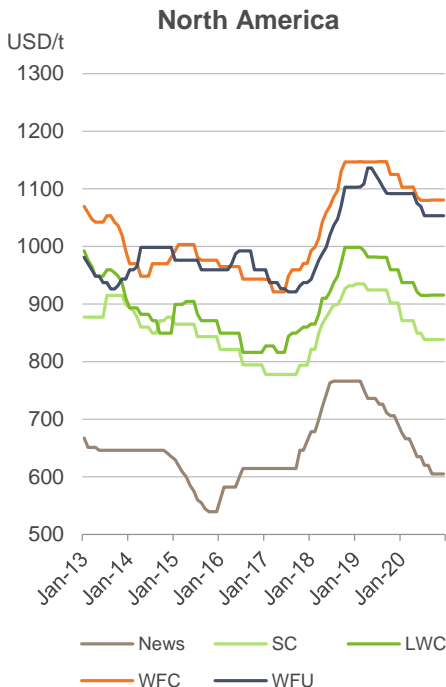
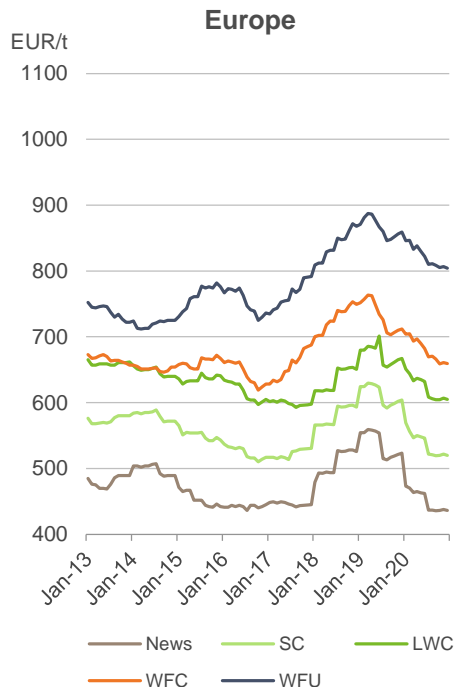
# Paper price vs. cash cost of marginal cost producer



Sources: PPI, RISI, Pöyry

# UPM Communication Papers

## Graphic paper prices



Sources: PPI, RISI

# UPM Plywood focuses on three end use segments



## Construction



### UPM's position and direction

- Leading position in high and medium range standard products in Europe through well established distribution network providing easy access to WISA® plywood
- Uncompromised sustainability, certified products and operations
- New growth sought by strengthening position in selected emerging markets

## Vehicle flooring



### UPM's position and direction

- Leading position in Europe
- Competitive edge built on smoothly running operations and needs-based product design creating value to both vehicle manufacturers and operators
- Growth sought by expanding to new markets and related end use segments

## LNG shipbuilding



### UPM's position and direction

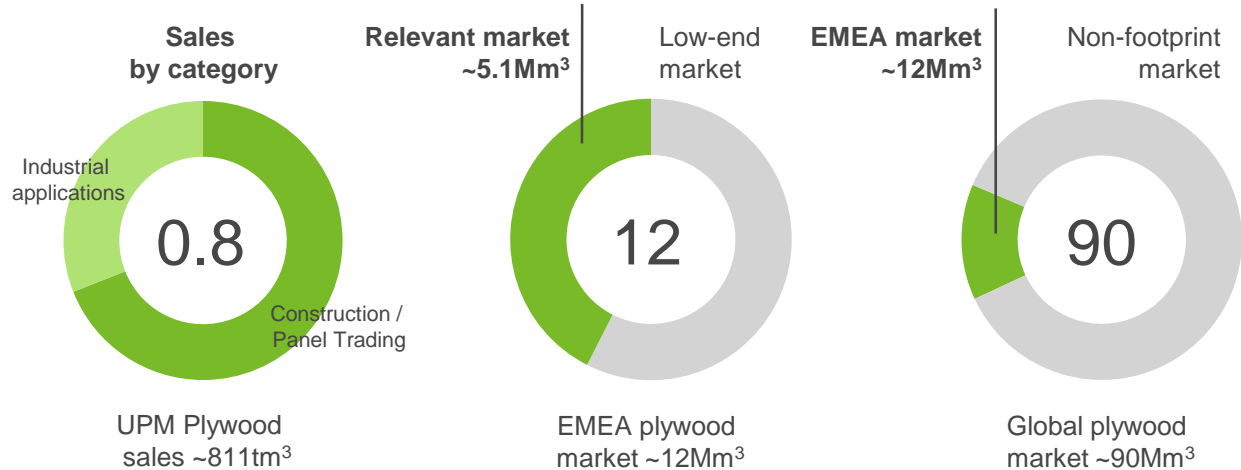
- Global leader in LNG plywood
- Competitive edge based on right quality and accurate on-time deliveries
- Long term commitment and benchmark service level
- Focus to secure leading position in LNG carriers and to extend offering into related applications using the same technologies (e.g. land storage tanks)

# UPM's key markets are in the high and mid segments primarily in EMEA region



## Strategic choices

1. Demanding industrial applications
2. High and medium range standard products
3. Selected customers
4. EMEA region and LNG business globally



# UPM's growth plans in biofuels progress to the next stage



UPM starts the basic engineering phase of a potential next generation biorefinery, with annual capacity of 500,000t of high-quality renewable fuels, including sustainable jet fuel.

The products would significantly reduce carbon footprint in road transport and aviation, as well as replace fossil raw materials with renewables in chemicals and bioplastics.

The planned biorefinery would scale up UPM's successful biofuels business. It would further improve long term competitiveness and sustainability performance of UPM Biofuels by introducing several sustainable feedstocks and achieving uniquely high CO<sub>2</sub> reduction compared to biofuels currently on the market.

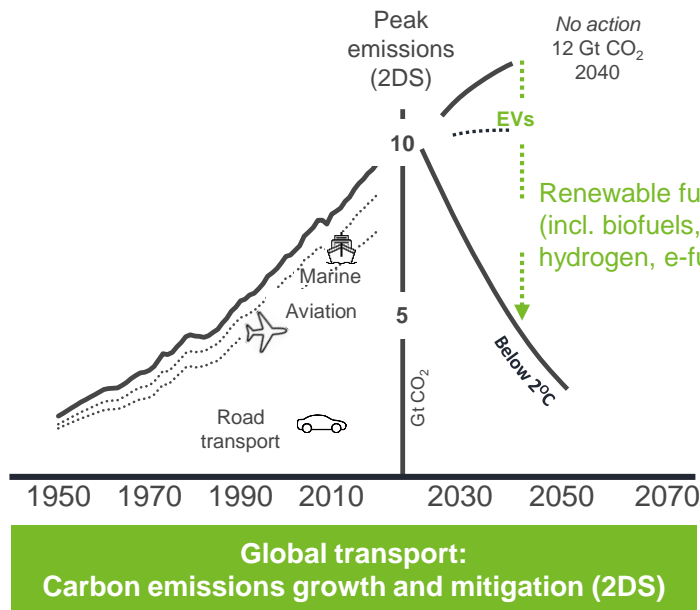
Primary locations: Kotka, Finland and Rotterdam, the Netherlands

The estimated duration of the basic engineering phase: minimum 12 months

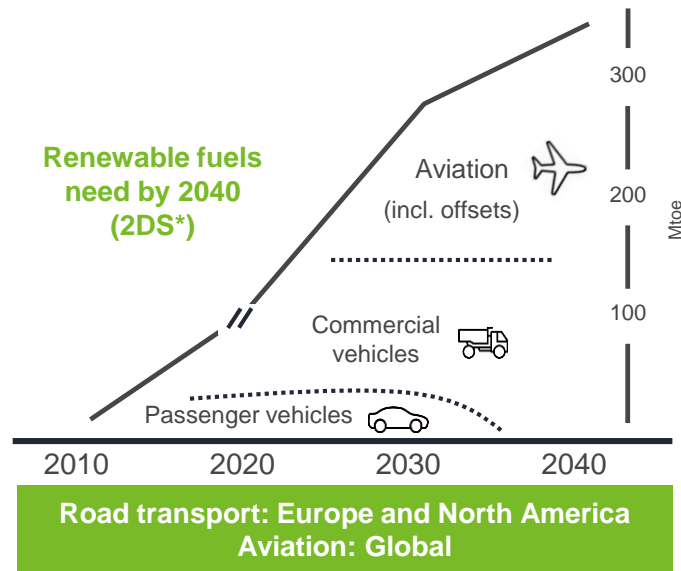




# Carbon mitigation in transport is dependent on renewable fuels despite recent decline in fuel consumption



Source: UPM based on IEA, EIA, Bloomberg



\*The two degree scenario (2DS) is calculated vs. 2005 reference per sector (-30% 2030, -40% 2040, -50% 2050)

Source: UPM based on WoodMackenzie, Bloomberg, ICAO, EIA

# UPM Biofuels' competitive edge to be built on resilient ecosystem and agility to select markets



## NEW SUSTAINABLE BIOMASS

Sustainable and uniquely upstream integrated feedstock pool

- Additionality
- Climate positive land use



Carbon stored to soil in each cycle

## CLIMATE-POSITIVE FUELS

Efficient carbon neutral production



Cellulosic fuels

Renewable diesel, gasoline and jet

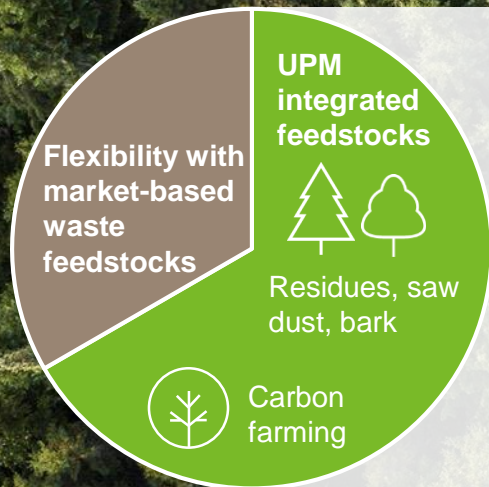
E-fuels future potential

## DECARBONIZED TRANSPORT AND PETROCHEMICALS

Flexibility to create maximum value from several end uses and market geographies



# UPM's sustainable biofuel feedstock concept founded on wood based and climate positive feeds



## INTEGRATED WOOD BASED AND CLIMATE POSITIVE FEEDS

complemented with sustainable market based feedstocks



UPM Lappeenranta biorefinery  
130,000t



Planned biorefinery  
500,000t



## VALUE FROM SEVERAL END-USES

Road transport, petrochemicals and aviation

UPM **BIOFORE**  
**BEYOND** FOSSILS

