UPM in brief

SALES 2020
EUR 8.6 BILLION

Wood based raw-materials

Low carbon energy

BUSINESS AREAS:
- UPM BIOREFINING
- UPM ENERGY
- UPM RAFLATAC
- UPM SPECIALTY PAPERS
- UPM COMMUNICATION PAPERS
- UPM PLYWOOD
- NEW BUSINESSES

51 production plants

18,000 employees in 46 countries

RENEWABLE AND RECYCLABLE PRODUCTS FOR:

PACKAGING
LABELLING
TRANSPORTATION
ELECTRIFICATION
CONSTRUCTION

COMMUNICATION
TISSUE AND HYGIENE PRODUCTS
MANUFACTURING
BIOPLASTICS
BIOMEDICALS

13,400 customers

200 million end-users globally
Our businesses

**UPM BIOREFINING**

**UPM Pulp**
pulp for tissue, specialty and packaging papers.

**UPM Forest**
competitive wood for businesses and management of privately-owned forests.

**UPM Biofuels**
renewable diesel for all diesel engines and renewable naphtha for petrochemical industry.

**UPM Biocombustibles**
composite decking materials based on recycled waste.

**UPM Energy**
cost-competitive, zero-carbon electricity.

**NEW BUSINESSES**

**UPM Biochemicals**
wood-based biochemicals for replacing fossil-based raw materials.

**UPM Biomedicals**
wood-based biomedical products for a variety of uses.

**UPM Communication Papers**
graphic papers for advertising and publishing and home and office uses.

**UPM RAFLATAc**
self-adhesive label materials for branding and information labelling.

**UPM Speciality Papers**
labelling and packaging materials and fine papers for packaging and printing.

**UPM Plywood**
WISA® plywood for construction, vehicle flooring and LNG shipbuilding.
Biofore strategy drives our transformation as the frontrunner of bioeconomy.

A FUTURE BEYOND FOSSILS

**GROWTH**
- We respond to megatrends and meet customers’ changing needs
  - Creating new markets and enabling sustainable choices

**PERFORMANCE**
- Continuous improvement
- Agile operating model

**INNOVATION**
- Creating new business and competitive advantage
- Replacing fossils with biomaterials

**RESPONSIBILITY**
- Renewable & sustainable solutions
- Responsible operations and value chain

**PORTFOLIO**
- Investing in businesses with strong long-term fundamentals for growth and high barriers to entry
  - Effective capital allocation
Our spearheads for growth

SPECIALTY PACKAGING MATERIALS
- Label materials
- Specialty papers

HIGH VALUE FIBRE
- Forests
- Pulp

MOLECULAR BIOPRODUCTS
- Biofuels
- Biochemicals

Communication papers

Plywood

Energy
We deliver positive impact to mitigate climate change and to create long-term value

WE ACT THROUGH FORESTS
We are committed to climate-positive forestry and enhancing biodiversity.

WE ACT THROUGH EFFICIENCY AND EMISSIONS
Our target is to reduce our CO₂ emissions by 65%.

WE ACT THROUGH PRODUCTS
We innovate novel products to provide ever more sustainable alternatives for fossil-based materials.
Leader in responsibility
Spearheads for growth – improving business mix drives earnings, cash flow and shareholder value

<table>
<thead>
<tr>
<th>Operating model</th>
<th>Performance</th>
<th>Balance sheet</th>
<th>Focused growth</th>
<th>Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross sales 2009</td>
<td>60%</td>
<td>40%</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>Transformation 1. phase</td>
<td>5%</td>
<td>6-year average EBIT margin (2015-20)</td>
<td>16%</td>
<td>Spearheads for growth*</td>
</tr>
<tr>
<td>Gross sales 2020</td>
<td>EUR 9.4bn</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Future sales *)</td>
<td>Growing businesses</td>
<td></td>
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*) This is an illustration, not a forecast
Transformation improves UPM’s asset mix, driving returns

<table>
<thead>
<tr>
<th>Capital employed 2019</th>
<th>Spearheads for growth</th>
<th>Future capital employed(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR 11bn</td>
<td>EUR 3-4bn(*)</td>
<td></td>
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<tr>
<td>52%</td>
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<td></td>
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<tr>
<td>17%</td>
<td></td>
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<tr>
<td>5-year average ROCE (2015-19)</td>
<td>6%</td>
<td></td>
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<tr>
<td>48%</td>
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- **Industrial operations:** Further growth
- **Forest and energy assets:** Sustainable value creation

EUR 3-4bn(*)
ROCE target >14%

*) This is an illustration, not a forecast
Transformation is visible in earnings and balance sheet

Comparable EBIT

Target: EBIT growth

Comparable ROE

Target: 10%

Net debt and leverage

Policy: ≤ 2x

Target: EBIT growth

Target: 10%

Net debt/ EBITDA (x)

3.0

2.5

2.0

1.5

1.0

0.5

0.0
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
Business area returns and long-term targets

* shareholdings in UPM Energy valued at fair value
UPM by business area in 2020

- **Sales**: EUR 8,580m
- **Comparable EBIT**: EUR 948m
- **Capital employed**: EUR 11,514m (average)

Legend:
- Biorefining
- Energy
- Raflatac
- Specialty Papers
- Communication Papers
- Plywood
- Other
Robust cash flow

- Q1 2021 operating cash flow was EUR 217m (137m in Q1 2020)
- Working capital increased seasonally by EUR 122m (increased by 212m in Q1 2020)
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 83m at the end of Q1 2021
- Cash funds and committed credit facilities EUR 3.2bn at the end of Q1 2021
- UPM issued a EUR 500m Green Bond in Q1 2021
- No financial covenants
Liquidity on 31 March 2021 was EUR 3.2bn (cash and unused credit facilities)

UPM’s committed facilities:
- EUR 159m rolling credit facility maturing 2022
- EUR 750m syndicated facility of which EUR 50m maturing 2025 and EUR 700m maturing 2026

No financial covenants
Q1 2021: market turn and efficiency improvement boost UPM’s earnings

- Sales decreased by 2% to EUR 2,234m (2,287m in Q1 2020)
- Comparable EBIT was EUR 279m, 12.5% of sales, in line with last year (279m, 12.2%)
- Good demand for almost all UPM products, rapidly increasing pulp prices
- Competitive costs and good asset utilisation following the timely actions taken in H2 2020
- Transformative growth projects on schedule and on budget.
Comparable EBIT in Q1 2021

Paper prices decreased, outweighing the impact of lower variable costs. Most businesses grew deliveries, whereas Communication Paper deliveries decreased. Fixed costs lower.

Prices and volumes increased. Variable costs increased partly seasonally. Fixed costs significantly lower due to high maintenance activity in the comparison period, and seasonal reasons.
Comparable EBIT by business area

- **UPM Biorefining**
  - EURm: 280
  - % of sales: 35

- **UPM Communication Papers**
  - EURm: 140
  - % of sales: 14

- **UPM Specialty Papers**
  - EURm: 70
  - % of sales: 21

- **UPM Plywood**
  - EURm: 70
  - % of sales: 21

- **UPM Energy**
  - EURm: 70
  - % of sales: 70

- **UPM Raflatac**
  - EURm: 70
  - % of sales: 17,5
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 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.

• Pulp demand has continued to be good and pulp prices have increased rapidly. At the same time, strong markets have continued for labelling materials, specialty papers and energy. Demand and pricing for communication papers have materialised as expected, decreasing from the comparison periods.

• With improving global economy, many variable cost items are expected to increase in 2021. UPM will continue to manage margins with product pricing, optimising its product and market mix, efficient use of assets as well as by taking measures to improve variable and fixed cost efficiency.

• UPM’s comparable EBIT is expected to increase both in H1 2021 compared with H1 2020, and in the full year 2021 compared with 2020.
Timely 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

<table>
<thead>
<tr>
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<th>2008</th>
<th>2020</th>
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<tbody>
<tr>
<td>Forest and plantation land (own and leased) (1,000 ha)</td>
<td>1,012</td>
<td>1,025</td>
</tr>
<tr>
<td>Forest growth (million m³)</td>
<td>4.3</td>
<td>7.2</td>
</tr>
<tr>
<td>Wood sourced from UPM forests and plantations (million m³)</td>
<td>2.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Value of forests and plantations, including land (EURm)</td>
<td>1,270</td>
<td>2,854</td>
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### Area distribution

- **US**: 8% (2008), 8% (2020)
- **Finland**: 90% (2008), 50% (2020)
- **Uruguay**: 42% (2008)

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### 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 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
UPM Biorefining

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(*)
  – 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

* including variable and fixed costs of plantation operations, wood sourcing, mill operations and logistics delivered to the main markets
UPM Paso de los Toros pulp mill construction schedule

- **2020**
  - H1: Site preparation and access roads
  - H2: Civil construction

- **2021**
  - H1: Mechanical, automation and electrical installations
  - H2: Commissioning and water runs

- **2022**
  - H1: Start-up and production trials
  - H2: Commissioning and water runs

- **2023**
  - H1
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
UPM Biorefining

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

Based on white fibre

Based on brown fibre

Growing end-uses of white fibre

Total fibre consumption (2018): 434 million tonnes

UPM Biorefining

Containerboard 44 %

Graphic papers 23 %

Tissue & fluff 11 %

Specialty 11 %

Cartonboard 11 %

Other

46% Containerboard

23% Graphic papers

11% Tissue & fluff

11% Specialty

11% Cartonboard

Based on 65% white fibre

35% brown fibre
UPM Biorefining
Pulp demand outlook

Global consumption of end-uses
in million tonnes

- Graphic papers
- Tissue & fluff
- Specialty
- Carton-board
- Container-board

Decline in graphic papers
Growth in tissue, hygiene, specialties and packaging
Strong growth in containerboards

Global consumption of fibres
in million tonnes

- White virgin fibre
- White RCP
- Brown virgin
- Brown RCP

Growing white virgin fibre end-uses overcome decline in graphic paper
Dwindling white RCP availability
Strong demand for brown fibre
UPM Biorefining

Moderate numbers of decided projects in the short-term

Entry of market bleached pulp capacity

Note: including BHKP, BSKP, excluding fluff and dissolving

Source: Afry, UPM estimate
UPM Biorefining
Chemical pulp market prices

Pulp market prices, EUR

Pulp market prices, USD

Source: FOEX Indexes Ltd
UPM Energy

UPM’s power generation – competitive in all market conditions

UPM’s power generation assets

- Condensing
- Hydro
- Nuclear

UPM in Finland

- UPM # 2
- Others

UPM in Nordics

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

Cost efficient generation enables robust profitability in changing market environment

![Market electricity prices vs UPM sales price](chart)

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<tbody>
<tr>
<td>Comparable EBIT, EURm</td>
<td>116</td>
<td>91</td>
<td>123</td>
<td>185</td>
<td>171</td>
<td>50</td>
</tr>
<tr>
<td>% of sales</td>
<td>32.7</td>
<td>28.8</td>
<td>31.5</td>
<td>44.4</td>
<td>45.0</td>
<td>42.4</td>
</tr>
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</table>
UPM Raflatac
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.

Packaging unit growth in Food, Personal Care, Beverage

E-Commerce growth & parcel logistics

Niche segments (e.g. pharmaceuticals)

Further trends benefitting labelstock: sustainability, wet glue substitution

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

Impact to labelstock demand

+ Consumer stockpiling

+ Lockdowns

+/− Value chain inventory cycle

+/− Private consumption changes

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

Indicative share of UPM Raflatac business (%)

Resilience of demand

High ~70%

Medium ~15%

Low ~15%

Food
Beverage
Home care
Logistics
Pharma
e.g. durables, tyre, luxury goods

Growth drivers

Packaging unit growth in Food, Personal Care, Beverage

E-Commerce growth & parcel logistics

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Further trends benefitting labelstock: sustainability, wet glue substitution
Early signs of recycling impacts: Packaging decisions to favour labelstock

Source: Euromonitor September 2020; UPM Raflatac perspective
Focus on global Labelling materials, Packaging in Europe and Office paper in APAC
UPM Specialty Papers

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%

- **Plastics**
  - 2-4%

- **APAC office papers**
  - 1-2%

Source: AWA, Pira, UPM
UPM Specialty Papers GROWTH STRATEGY

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

Committed value creation
Brand based value
Focused, committed and agile
Co-creating remarkable products
Globally recognized leadership
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 (2016-20)
cumulative free cash flow

EUR 2.0bn

* Global demand of newsprint, printing and writing papers, excluding WF paper demand in Asia

Source: Internal calculation and analyses based on data from Euro-Graph, PPPC, AFRY
Paper demand impacted by the lockdowns, economic activity and structural changes

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 workflows in administration, business and education
- Paper as ‘chill media’ for healthy offline time
- Trust in media, effectiveness of print promo

*) schematic/no forecast

Historical trend decline of graphic papers in Europe
~ -5%/a

Demand

Financial crisis 2009
- Elastic recovery of 30-50% of the decline (~ -15%)

Covid-19 impact and potential recovery
- Pandemic development in different countries
- Pace of opening up of offices, non-food retail and travel
- ‘We are back’ campaigns


UPM Communication Papers
Paper demand by end use

Europe 2019
25 Mt

- Newspaper publishing: 4 Mt
- Magazine publishing: 5 Mt
- Home & Office: 10 Mt
- Direct marketing: 5 Mt
- Book & Directories: 1 Mt

Source: Euro-Graph, UPM
UPM Communication Papers

Paper price vs. cash cost of marginal cost producer

EUR/t

Price

Cash cost of a marginal producer

Sources: PPI, RISI, AFRY
Graphic paper prices

Europe

North America

China

Sources: PPI, RISI
UPM Plywood

UPM Plywood focuses on three end use segments

Construction

Vehicle flooring

LNG shipbuilding

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

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

UPM’s position and direction

• Leading supplier 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 Plywood**

**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

- **Sales by category**
  - Industrial applications: 0.8
  - Construction / Panel Trading: 12

- **Relevant market ~5.1Mm³**

- **Low-end market**

- **EMEA market ~12Mm³**

- **Non-footprint market**

- **UPM Plywood sales ~811tm³**

- **EMEA plywood market ~12Mm³**

- **Global plywood market ~90Mm³**
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$_2$ 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.

Global transport: Carbon emissions growth and mitigation (2DS)

- Road transport
- Aviation
- Marine

Renewable fuels (incl. biofuels, green hydrogen, e-fuels)

No action 12 Gt CO₂ 2040

Peak emissions (2DS)

5 10

EVs

Renewable fuels need by 2040 (2DS*)

Aviation (incl. offsets)

Commercial vehicles

Passenger vehicles

2010 2020 2030 2040

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

- **Flexibility with market-based waste feedstocks**
  - Residues, saw dust, bark
  - Carbon farming

- **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