

UPM – THE BIOFORE COMPANY

AIMING HIGHER WITH BIOFORE

Investor presentation
May 2017

UPM today



UPM BIOREFINING

Pulp
Biofuels
Timber

UPM ENERGY

Electricity
generation and
trading

UPM RAFLATAC

Label
materials for
product and
information
labelling

UPM SPECIALTY PAPERS

Label papers,
release liners,
office papers
and flexible
packaging

UPM PAPER ENA

Magazine
papers,
newsprint and
fine papers

UPM PLYWOOD

Plywood and
veneer
products

UPM BIOCOMPOSITES

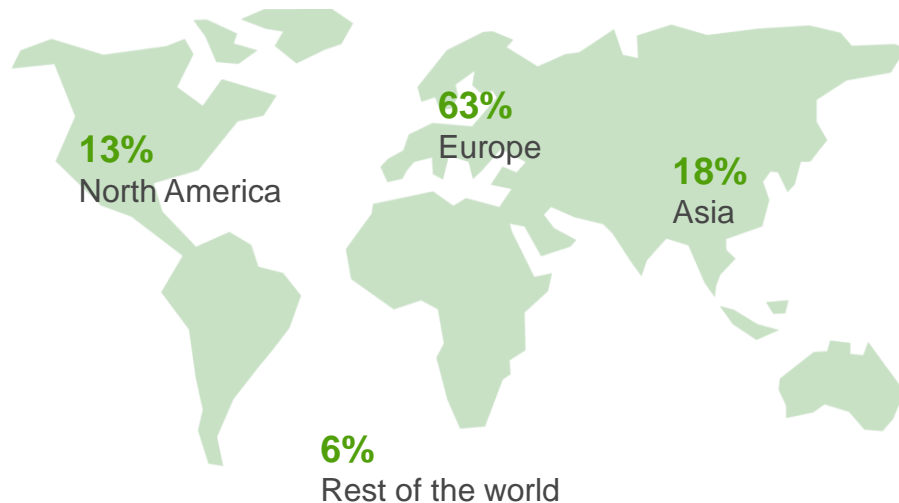
UPM
BIOCHEMICALS

WOOD SOURCING
AND FORESTRY

Global businesses – local presence

UPM's sales by market 2016

EUR 9,812 million



54
production plants
in **12** countries



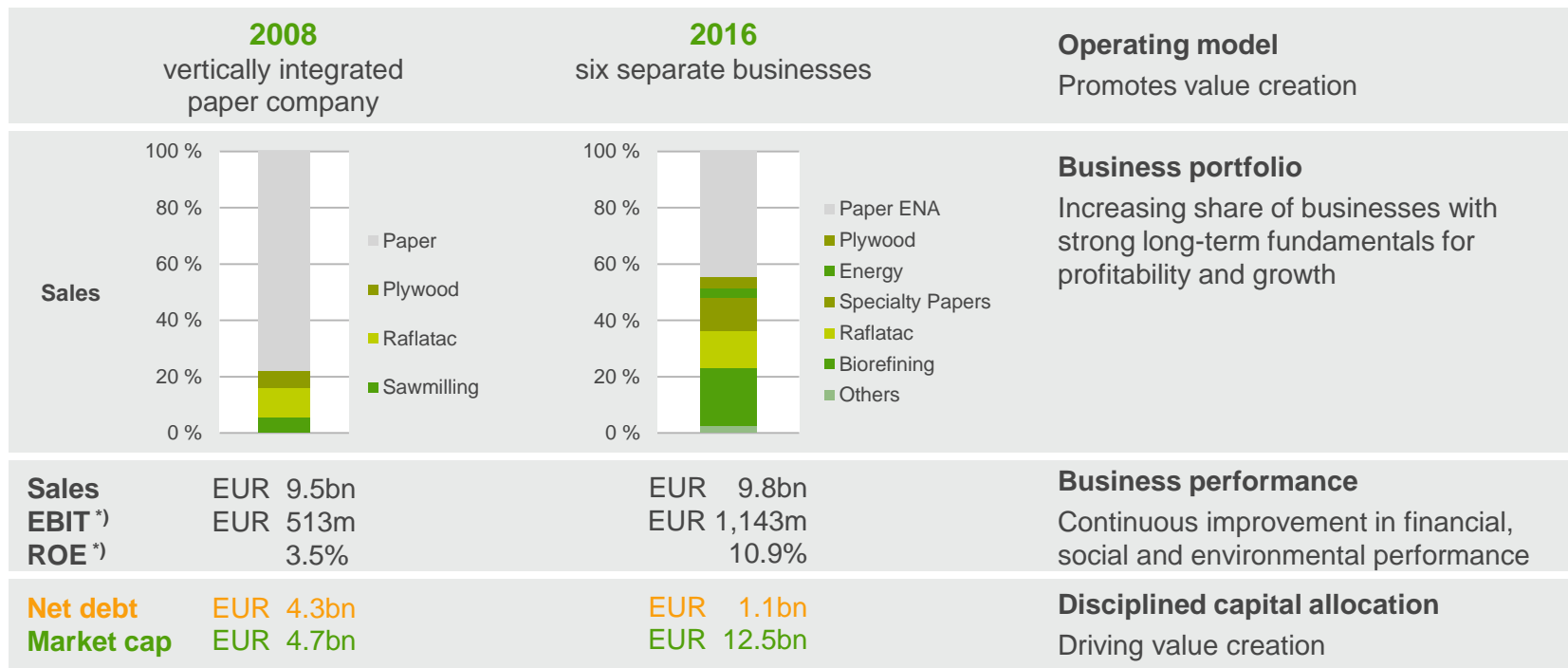
19,300
employees
in **45** countries

12,000
customers
in **120** countries

85,000
shareholders
in **40** countries

55,000
suppliers
in **70** countries

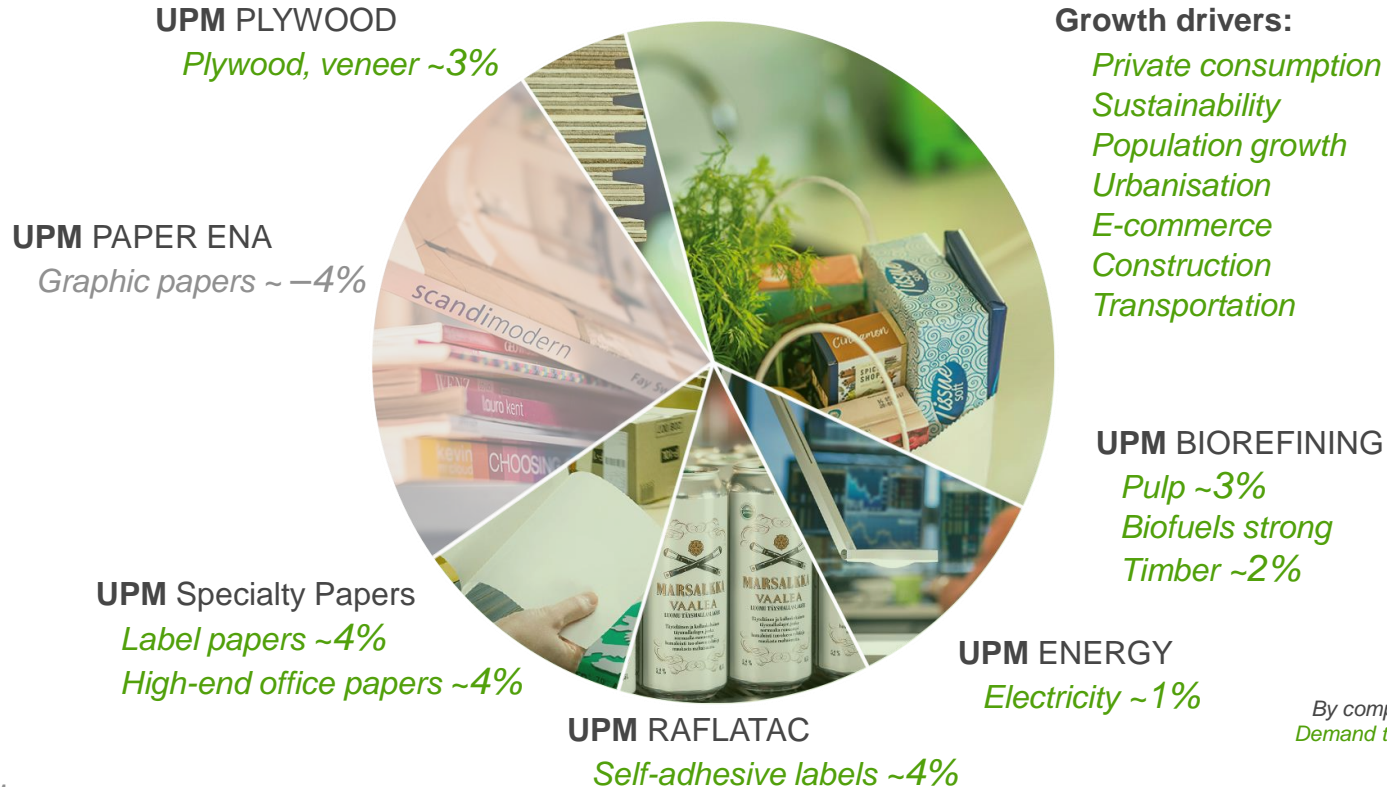
UPM in transformation



*) excluding special items for 2008, comparable figures for 2016

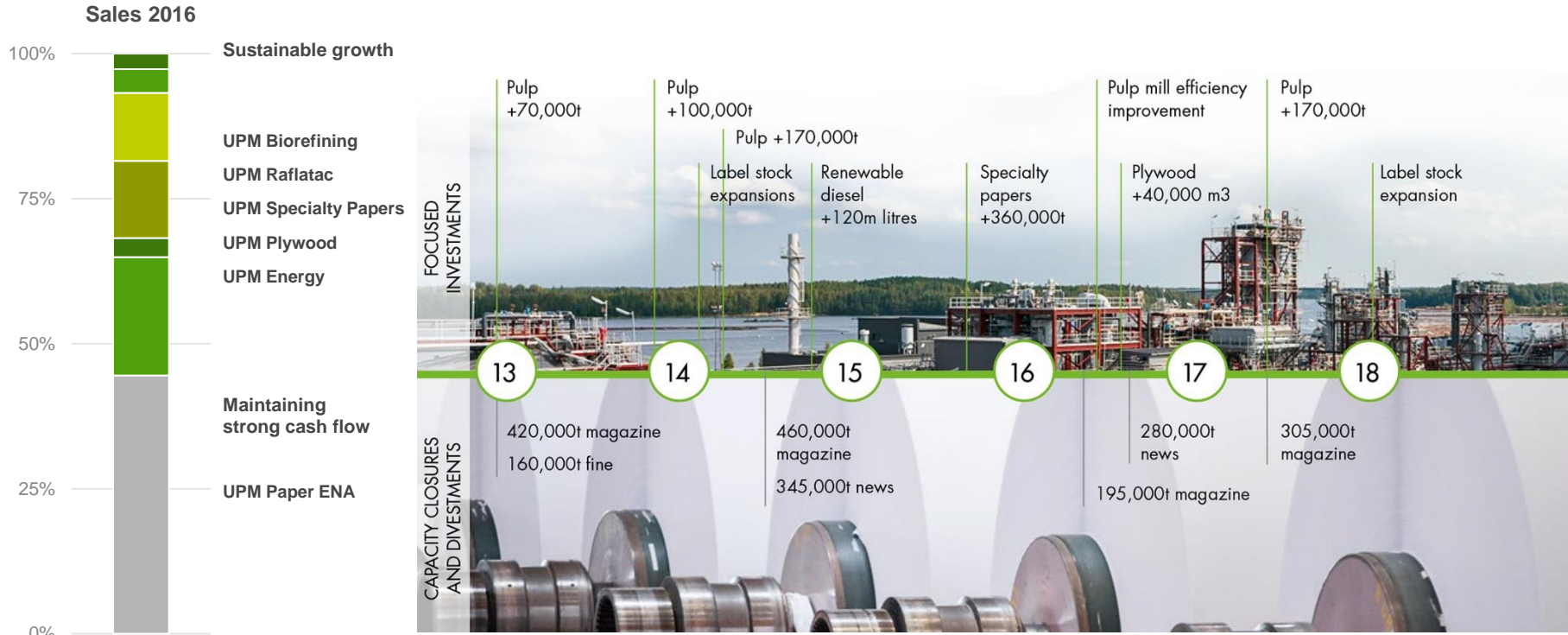
Competitive businesses with strong market positions

Operating on healthily growing markets

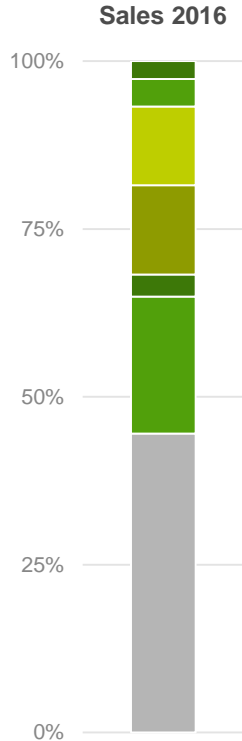


By comparable EBIT 2016
Demand trend growth, % pa

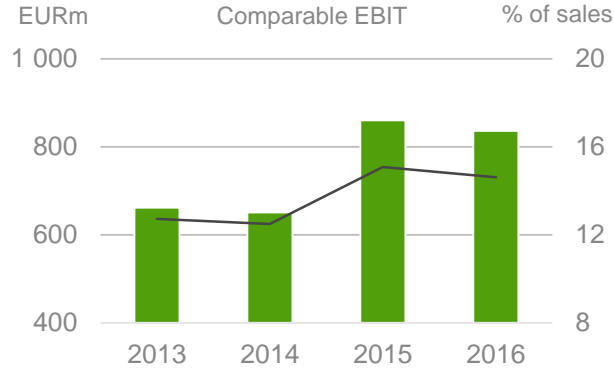
Increasing share of businesses with strong long-term fundamentals for profitability and growth



Value creation through sustainable growth and cash generation



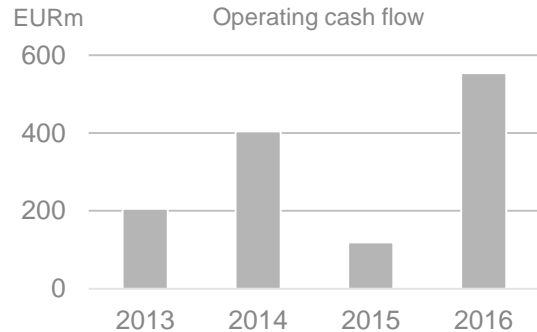
UPM Biorefining
UPM Raflatac
UPM Specialty Papers
UPM Plywood
UPM Energy



Sustainable growth

- Commercial success
- Cost efficiency
- Focused growth investments
- Product mix development

UPM Paper ENA



Maintain strong cash flow

- Commercial success
- Cost efficiency
- Efficient use of assets, including restructuring

Serving the increasing customer demand with the help of the growth initiatives



Fully contributing

- Pietarsaari pulp mill expansion
- Fray Bentos pulp mill expansion
- Kymi pulp mill expansion
- Raflatac expansion in APAC, Poland
- Kaukas pulp mill efficiency



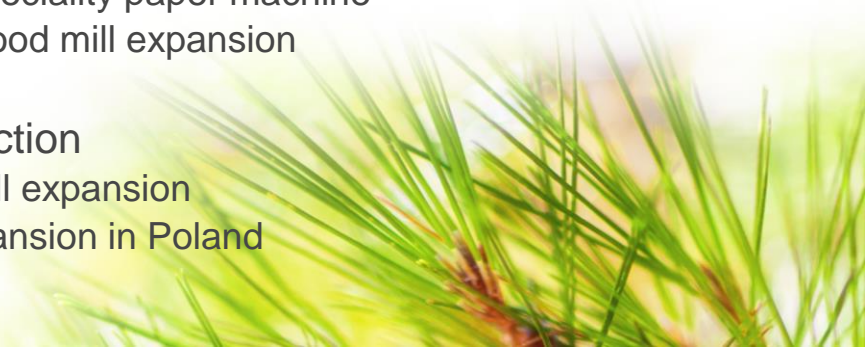
Contributing well in Q1 2017

- Lappeenranta biorefinery
- Changshu speciality paper machine
- Otepää plywood mill expansion



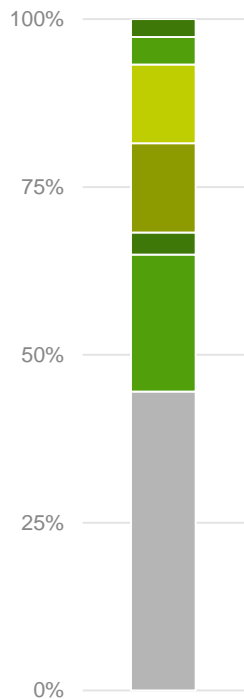
Under construction

- Kymi pulp mill expansion
- Raflatac expansion in Poland



Focused investments are delivering growth

Sales 2016



Average delivery growth 2011 –2016

UPM Biorefining

Pulp
Biofuels

CAGR **+3%**
New business

UPM Raflatac

Standard products
Films and specials

CAGR **+4%**
CAGR **+8%**

UPM Specialty Papers

Label materials
Cut-size

CAGR **+4%**
CAGR **+6%**

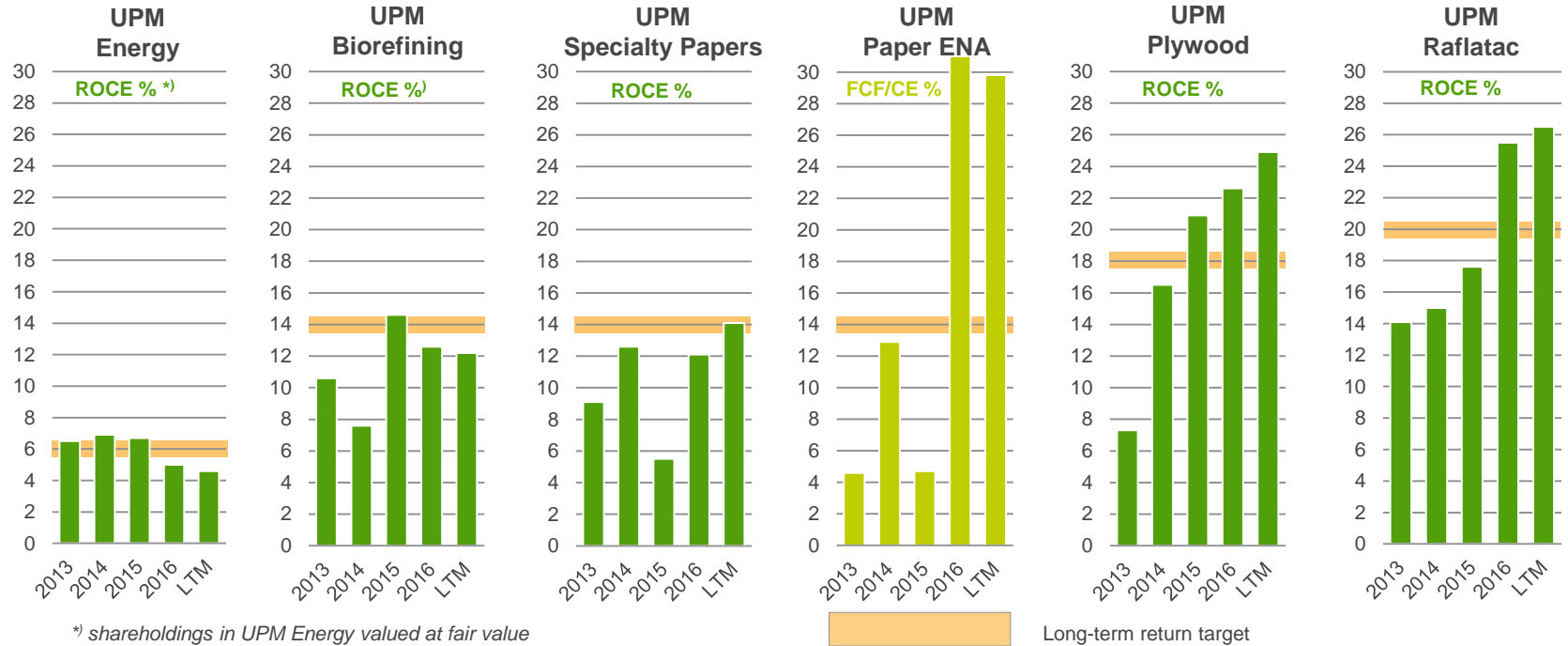
UPM Plywood

Plywood

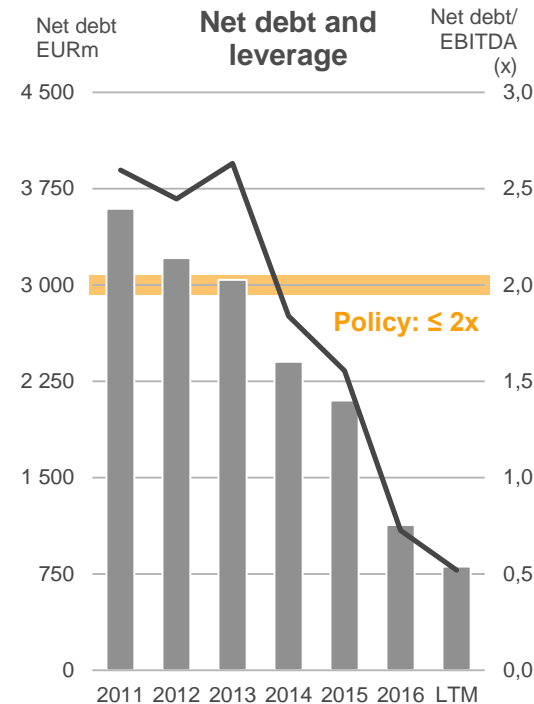
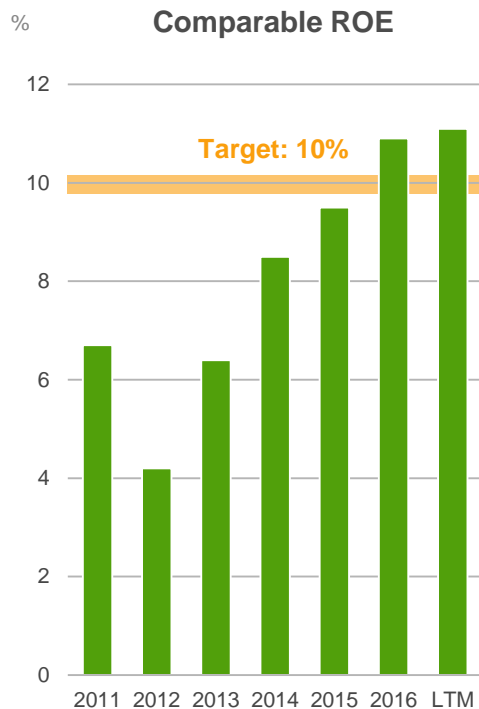
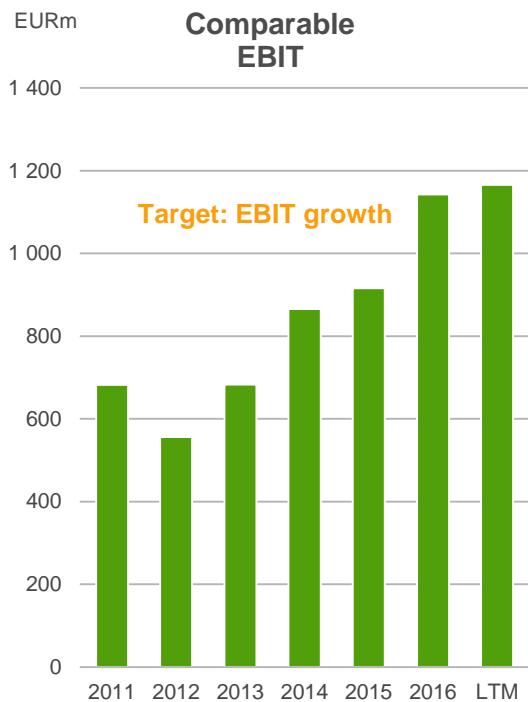
CAGR **+3%**



Business area long-term targets compared with realised returns



Group financial performance



Comparable figures for 2014 - Q1 2017, excluding special items for earlier years

AIMING HIGHER

WITH BIOFORE

Direction: grow businesses with strong long-term fundamentals and sustainable competitive advantage

Operating model

→ *Better than sum of parts*

- Separate businesses
- Top performance
- Corporate benefits

Performance

→ *Continuous improvement*

- Profit focus
- High performing people
- Value-based leadership and responsibility
- Innovation

Capability

→ *Foundation for opportunities*

- Strong cash flow
- Strong balance sheet
- Corporate structure

Capital allocation

→ *Attractive returns*

- Attractive dividend
- Focused growth investments
- Selected larger investments
- Synergistic M&A

Growth

→ *Earnings growth and valuation*

- Current growing businesses
- New bio-based businesses

Financial performance in 2016 – disciplined capital allocation in action

Top performance

Comparable EBIT

EUR 1,143m

+25%

Comparable ROE

10,9%

+1,4%pp

Strong cash flow

Operating cash flow

EUR 1,686m

+42%

Attractive dividend

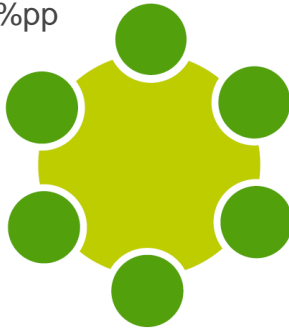
Dividend

EUR 507m

+27%

5/6

business areas
achieved their
financial targets



Net debt reduction

EUR 969m, -46%

Focused investments

Capital expenditure

EUR 325m

Attractive returns

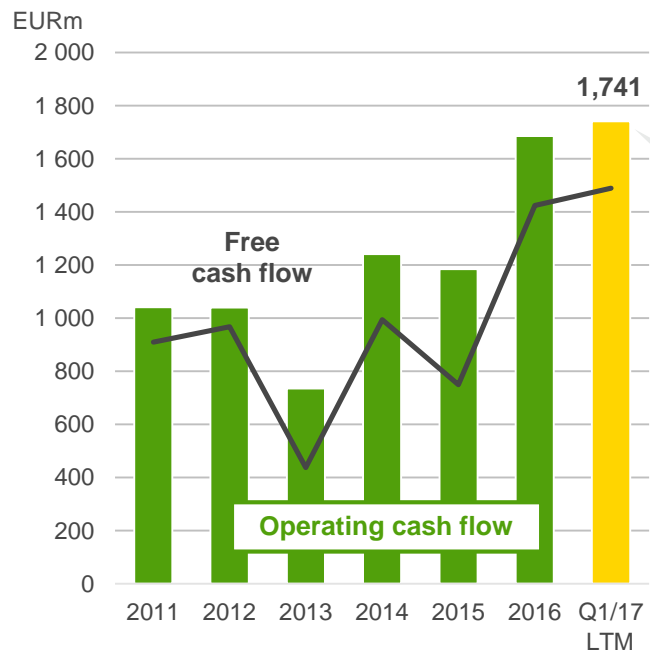
reached 80% of the EUR 200m
EBITDA target set for the first
wave of growth projects

Industry-leading balance sheet

**Net debt/
EBITDA
0,73x**

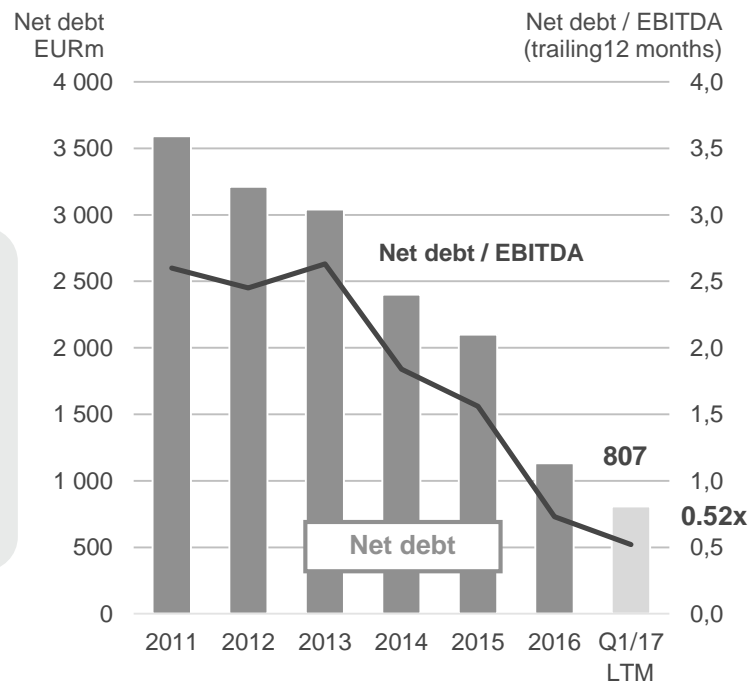
Strong cash flow and balance sheet

Operating cash flow

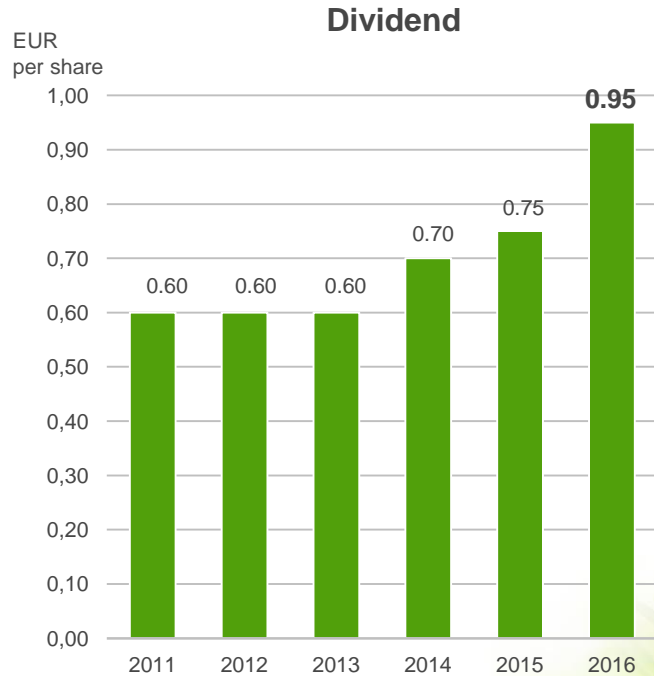


Q1/17 operating cash flow EUR 396m
Working capital decreased by EUR 36m

Net debt



Dividend



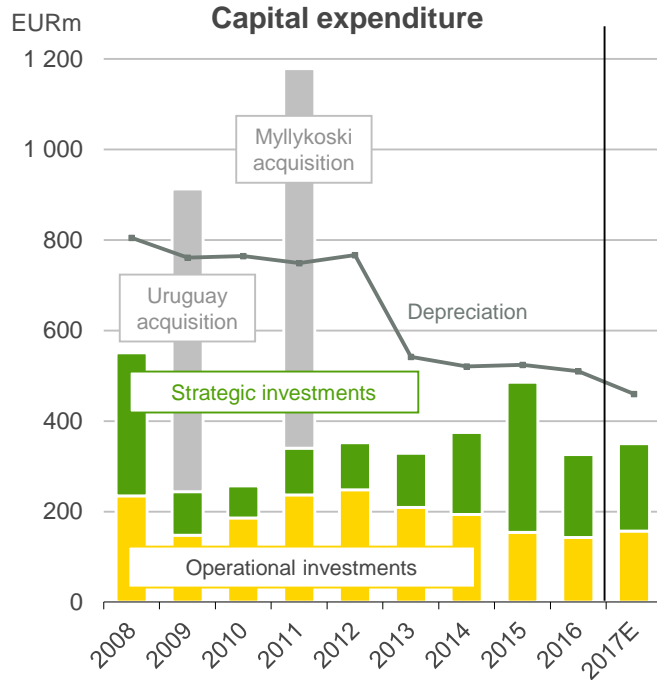
Dividend policy

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

Dividend for 2016

- EUR 0.95 (0.75) per share, totalling EUR 507m
- 30% of 2016 operating cash flow of EUR 1,686m

Low investment needs in existing assets allow growth projects with modest total capex



Focused growth investments

- ✓ Good returns and fast payback
- ✓ Low implementation risk
- ✓ Financed from operating cash flow

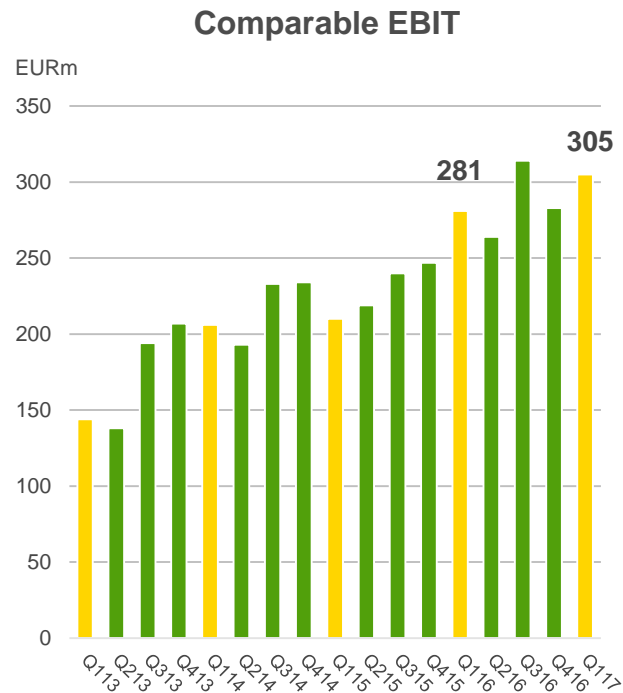
Low replacement investments

- ✓ Asset quality in all businesses, e.g. large competitive pulp mills
- ✓ UPM Paper ENA

► **Modest total capex and attractive returns**

UPM businesses delivered a strong Q1 2017

- Comparable EBIT increased by 8% to EUR 305m (281m)
- Operating cash flow was strong at EUR 396m (341m)
- Net debt decreased to EUR 807m (1,873m), net debt/EBITDA to 0.52x (1.31x)
- Comparable ROE (LTM) increased to 11.1% (10.0%)
- Operating cash flow (LTM) was EUR 1,741m, EUR 3.26 per share



Q1 2017 – strong operational efficiency and good growth in deliveries

UPM BIOREFINING

- Record production in Pulp, Biofuels and Timber
- Pulp deliveries +8%
- Good demand growth, particularly in China

UPM SPECIALTY PAPERS

- Record profits
- Good progress in product mix
- Deliveries +3%
- Good demand growth, particularly in Asia

UPM PAPER ENA

- Another good quarter
- Sale agreements of hydropower assets
- Closed 305,000t of capacity
- Graphic paper deliveries –2%

UPM RAFLATAC

- Record profits
- Deliveries +6%
- Good demand growth, particularly in Asia

UPM ENERGY

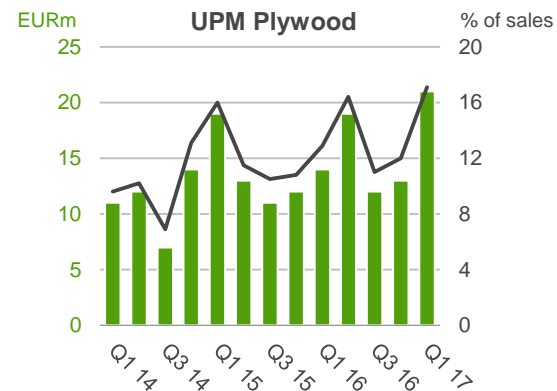
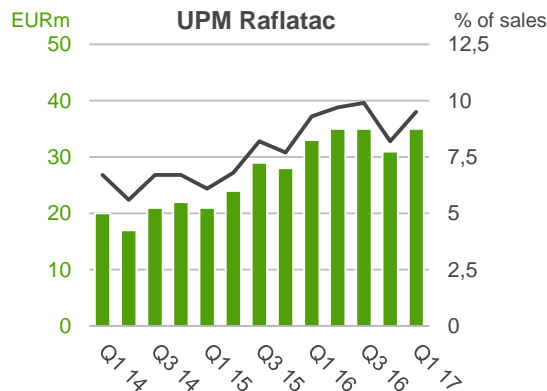
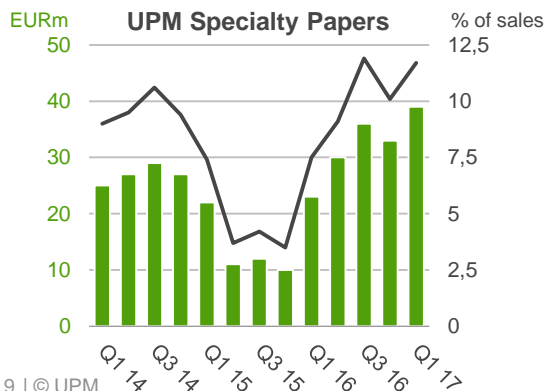
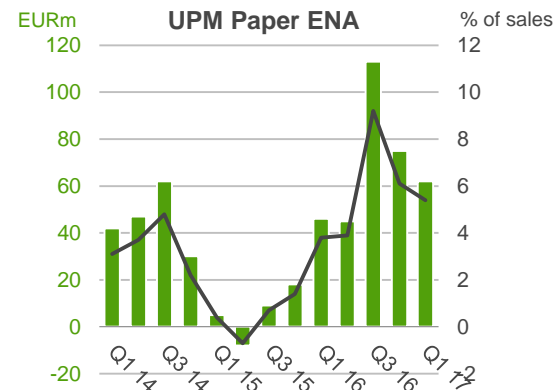
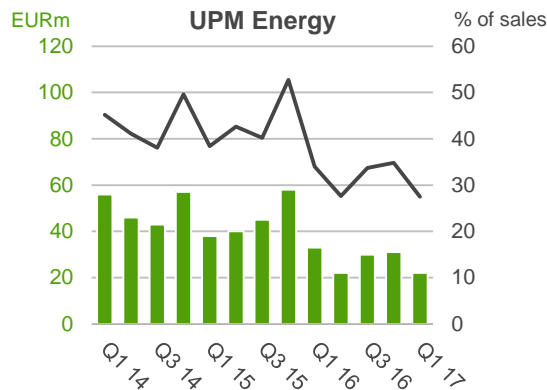
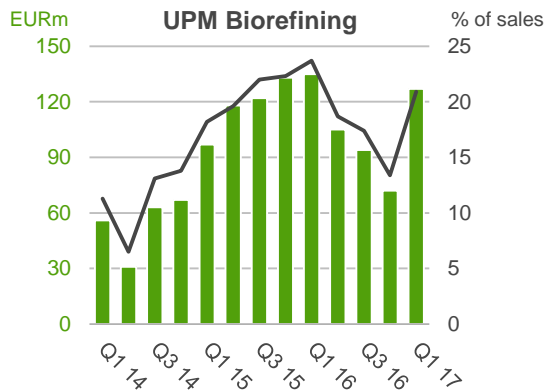
- Hydropower generation below long-term average
- Market prices depressed by mild weather conditions

UPM PLYWOOD

- Record profits
- Deliveries +7%, favourable product mix
- Good demand, activity in construction improved further



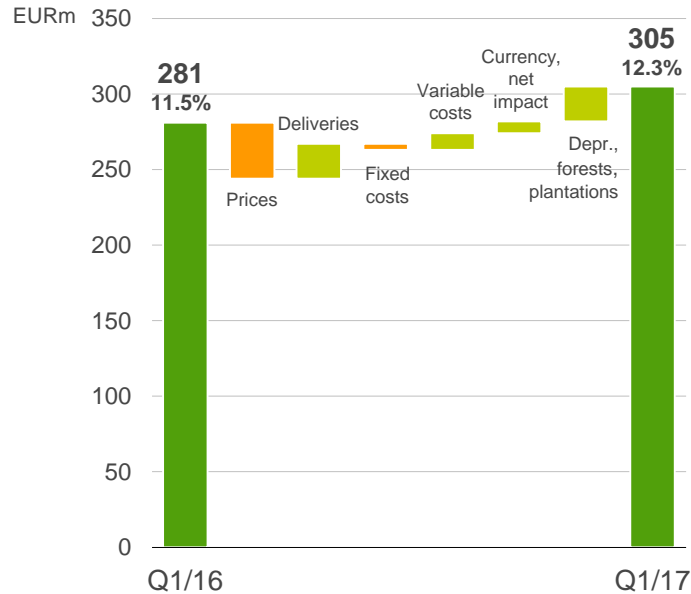
Comparable EBIT by business area



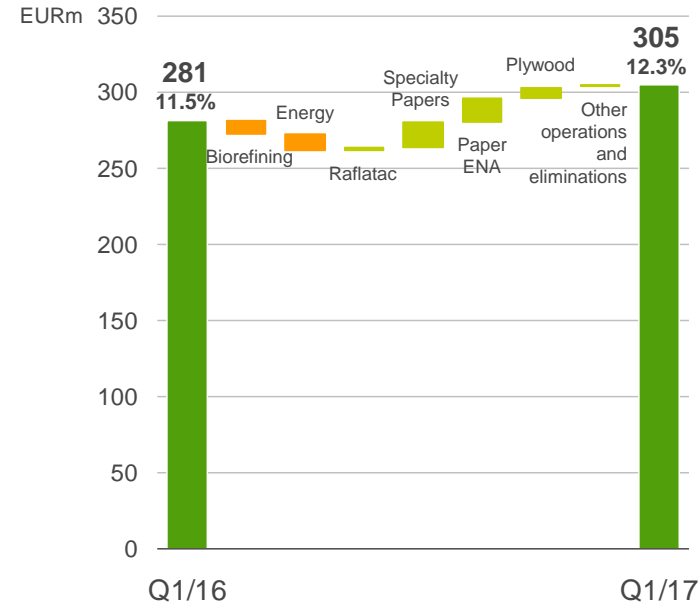


Comparable EBIT in Q1 2017 vs. Q1 2016

Good growth in deliveries.
High operational efficiency.
Net impact of costs largely neutral.



Growth in deliveries in Biorefining, Raflatac, Specialty Papers and Plywood. Mix improvement. Cost control in Paper ENA.



Outlook for 2017

- UPM's profitability improved significantly in 2016 and is expected to remain on a good level in 2017.
- Demand growth is expected to continue for most of UPM's businesses, while demand decline is expected to continue for UPM Paper ENA. The focused growth projects continue to contribute gradually to UPM's performance.
- Following a deflationary environment in recent years, 2017 is expected to show modest input cost inflation. UPM will continue measures to reduce fixed and variable costs to mitigate this.
- In Q2 2017, UPM's performance will be impacted by higher maintenance activity, especially in UPM Biorefining, UPM Paper ENA and UPM Energy, compared with Q1 2017.

Responsibility is good business

MORE WITH BIOFORE



Creating value through
products and innovation



Creating competitive advantage
and long-term value by efficiency

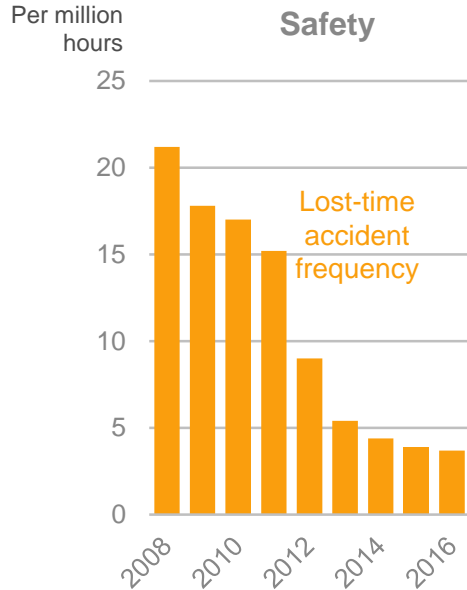


Risk mitigation by responsible
value chain and production

"We believe that customers, investors and other stakeholders value responsible operations that keep risks under control and add to our business opportunities, thereby increasing the company value."

UPM Annual Report 2015

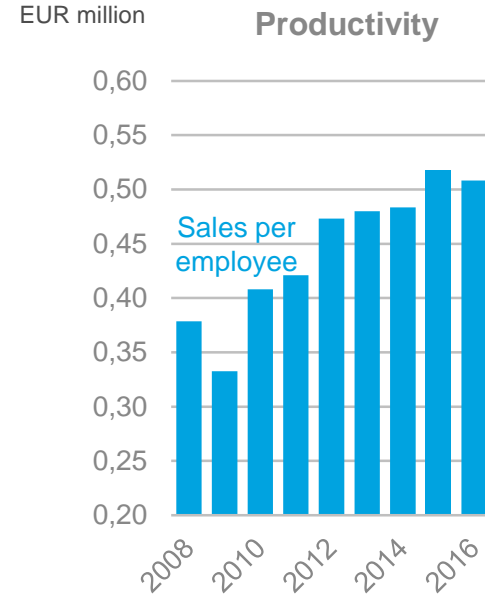
Creating competitive advantage and long-term value by engagement



5-year change:
-76%



5-year change:
+9



5-year CAGR:
+4% pa

Creating competitive advantage and long-term value by efficiency

Case: UPM Changshu mill in China



Water

-60%

Per tonne of paper



Energy

-30%

Per tonne of paper



Waste to landfill

-60%

Per tonne of paper



Certified fibre

85%

In 2015

2015 compared to 2005



COD in effluent

-75%

Per tonne of paper



SO₂ emission

-90%

Per tonne of paper

water intake



water discharge



Consistent long-term work receives external recognition



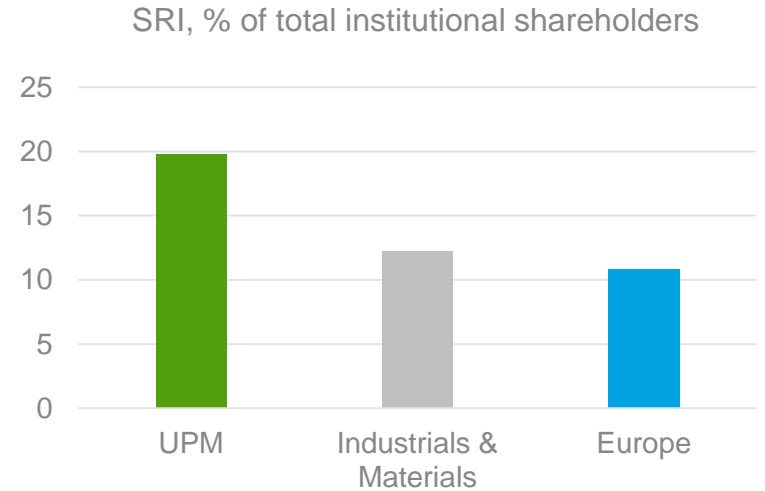
UPM in sustainability indices



MEMBER OF
**Dow Jones
Sustainability Indices**
In Collaboration with RobecoSAM



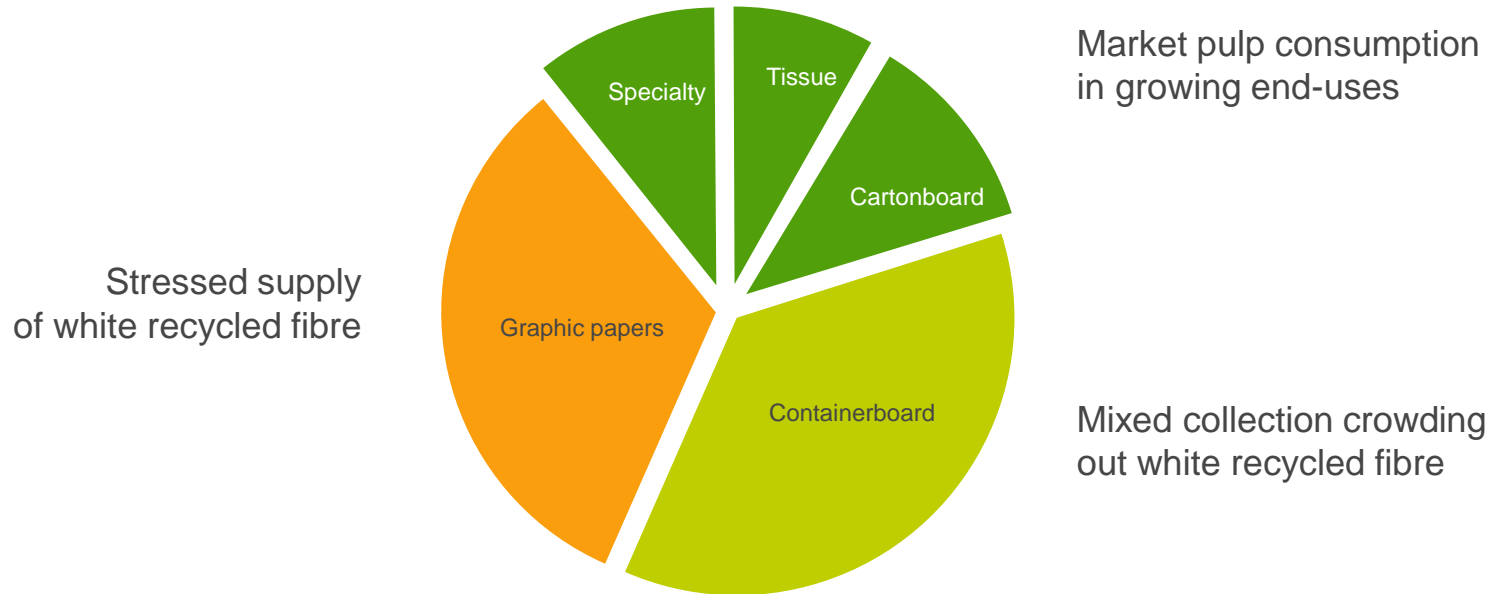
Sustainable and Responsible (SRI) investors form a significant part of UPM's shareholders



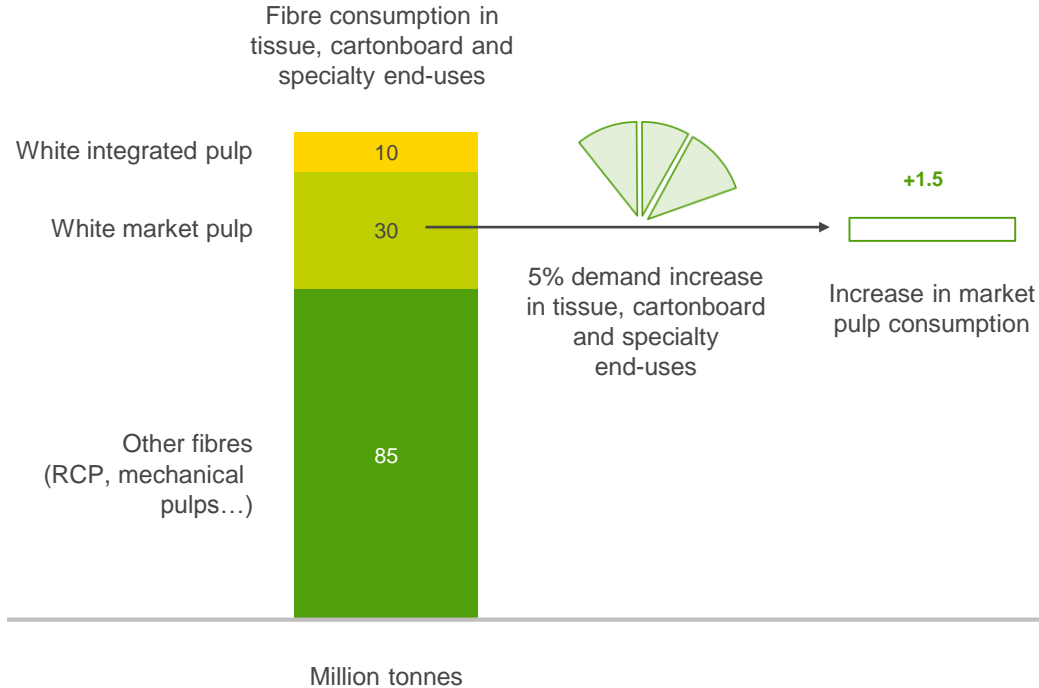
Source: Nasdaq, September 2016

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

Global paper and board production

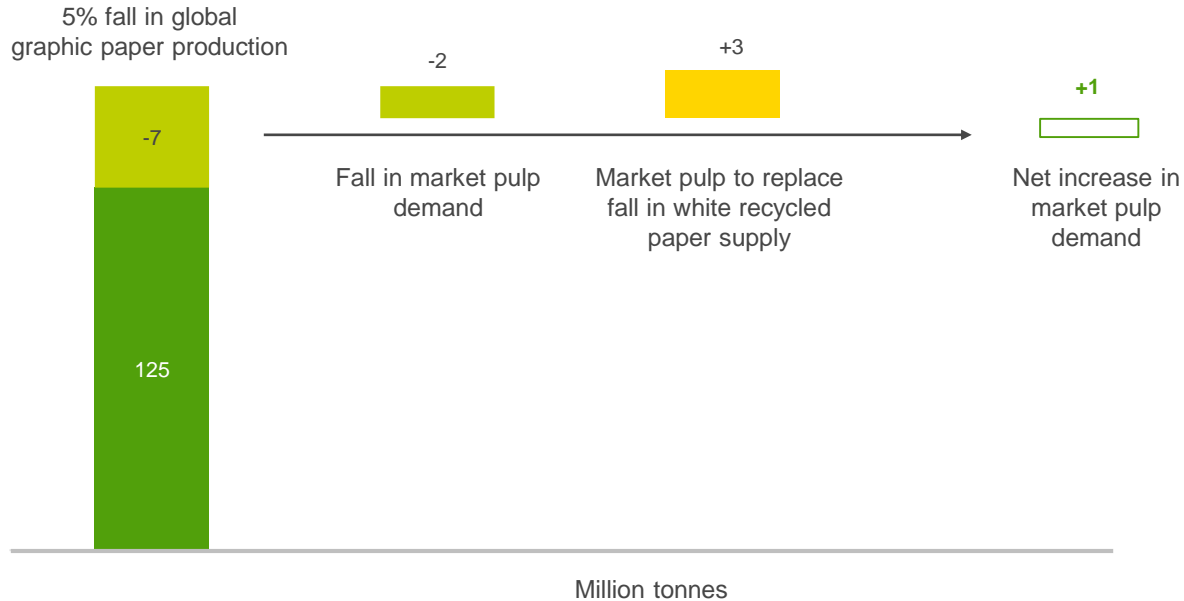


Case: Market pulp consumption in growing end-uses



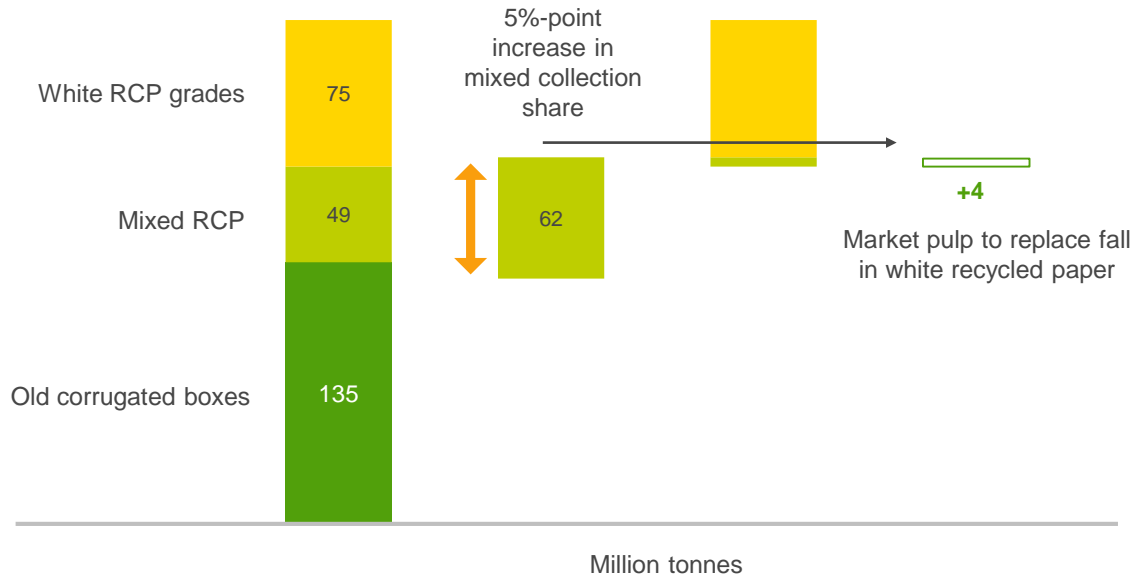
Source: Pöyry, Hawkins Wright, UPM

Case: Stressed supply of white recycled paper



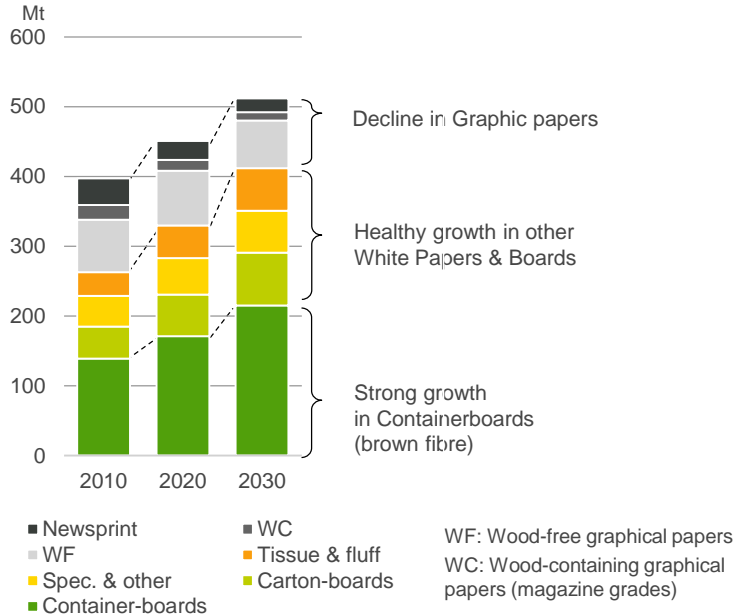
Source: Pöyry, UPM

Case: Mixed collection crowding out white recycled fibre

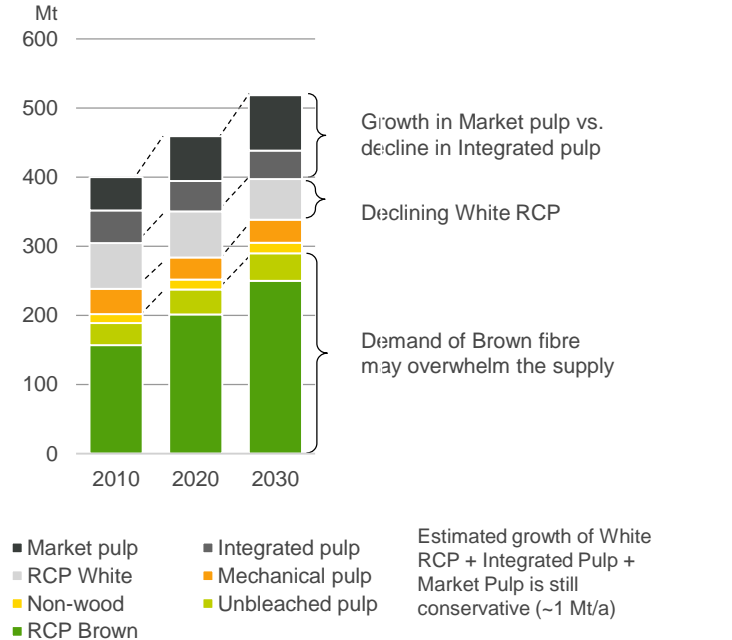


Summary of pulp demand outlook

Increase in end use ...

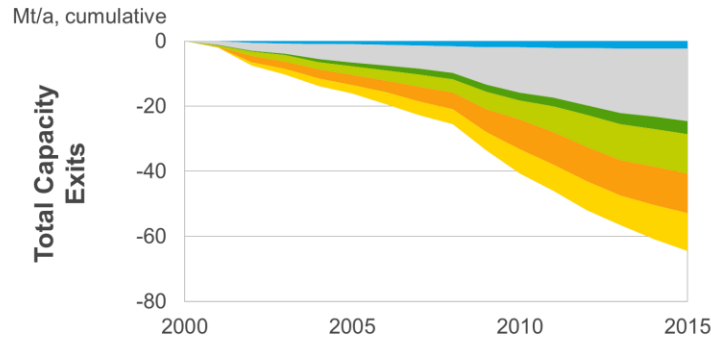
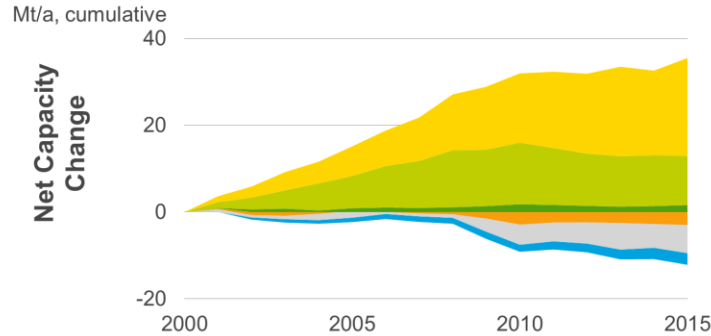


... will drive fibre demand in coming decades



Source: UPM, Pöyry, RISI

White fibres in different stages of life-cycle; 64 Mt capacity closed within 2000–2015

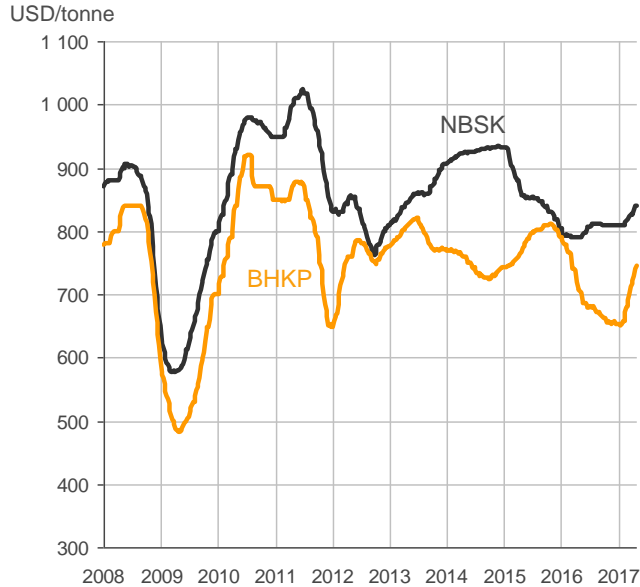


Note: Including both market and integrated pulp

- **Hardwood pulp** capacity has experienced strong net growth after 2000 and is expected to continue growing.
- **Softwood** has faced closures as much as hardwood. New demand in China is turning decline into a slow growth.
- **White RCP** was the fastest-growing fibre in Europe and NA in early 1990's. After recession capacity has been in decline due to very high collection rates and diminishing supply of graphic paper.
- **Mechanical pulp** continues to decline along with graphic papers.
- **Non-wood pulps** consumed mostly in China are under pressure due to environmental reasons.
- **Sulphite** has been in decline for decades.

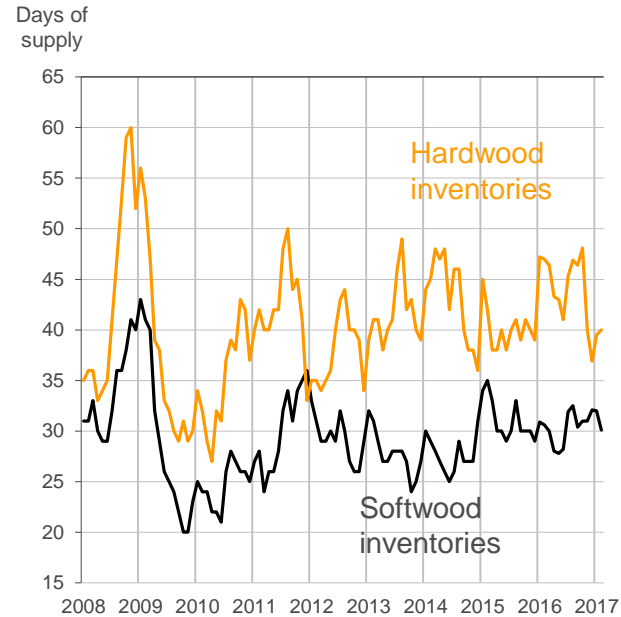
Chemical pulp market

Q1 NBSK pulp price increased by 1% from Q4
Q1 BHKP pulp price increased by 4% from Q4



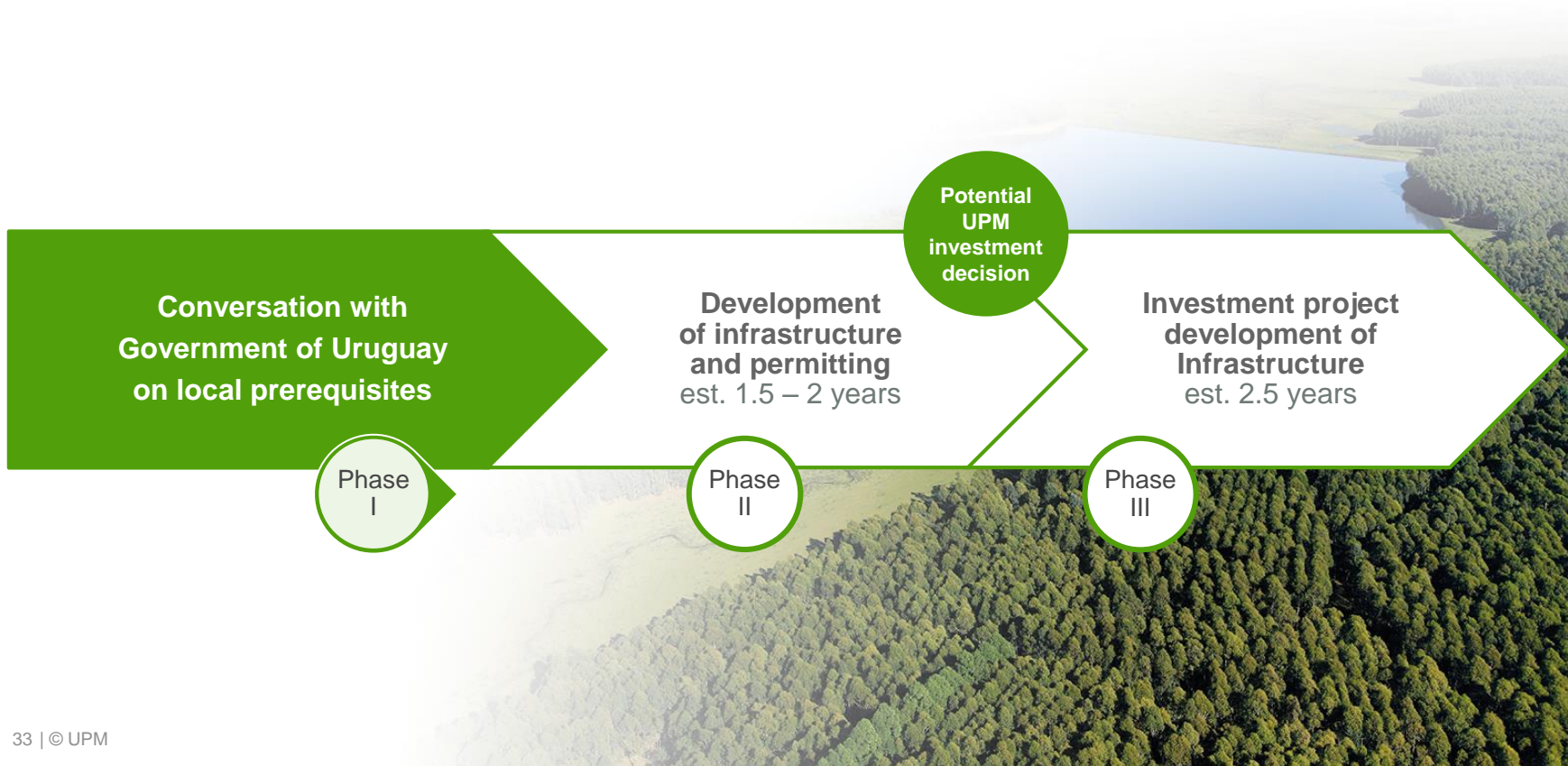
Source: FOEX Indexes Ltd.

Pulp inventories



Source: PPPC World-20 statistics

Potential pulp mill in Uruguay could be a competitive alternative – time schedule is several years



UPM Biofuels in existing and future end-use



Fuel retail



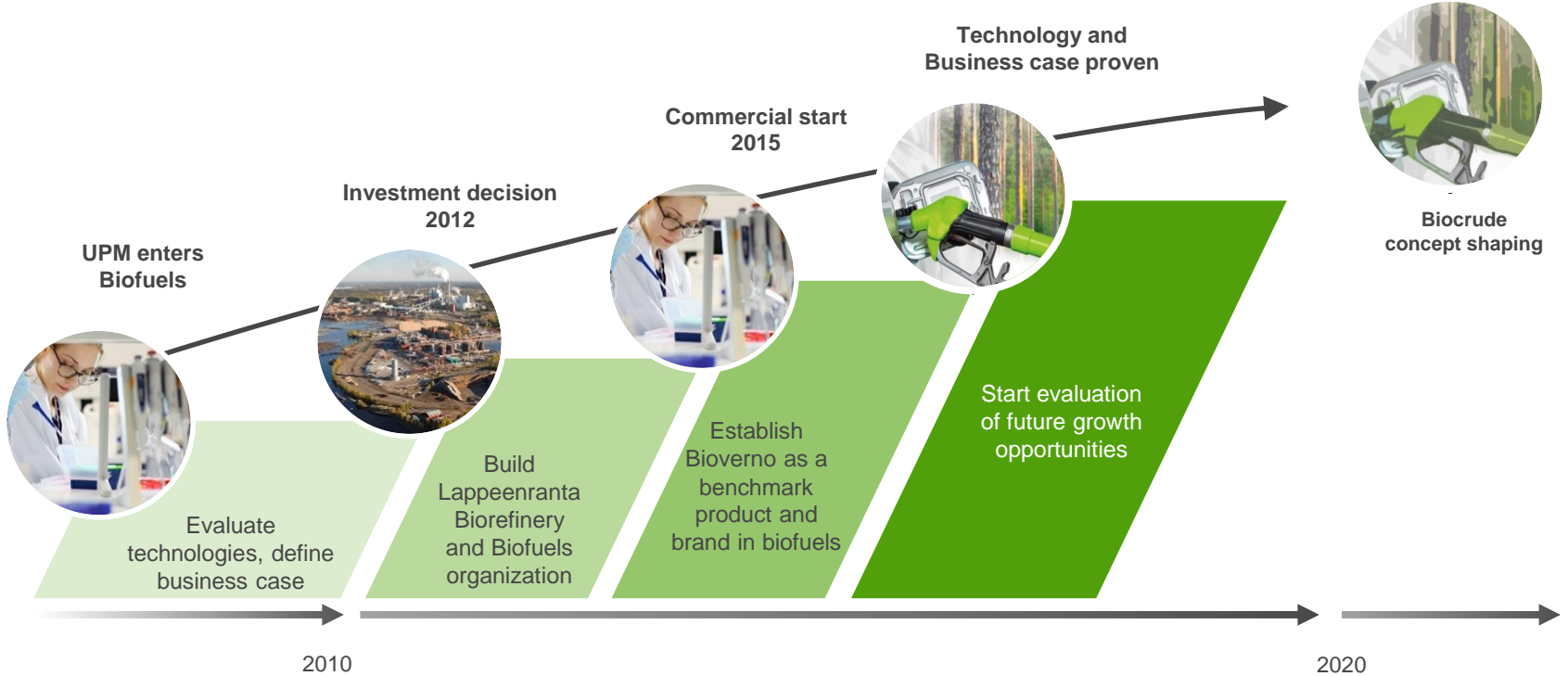
Dedicated green fleets



Marine/Aviation

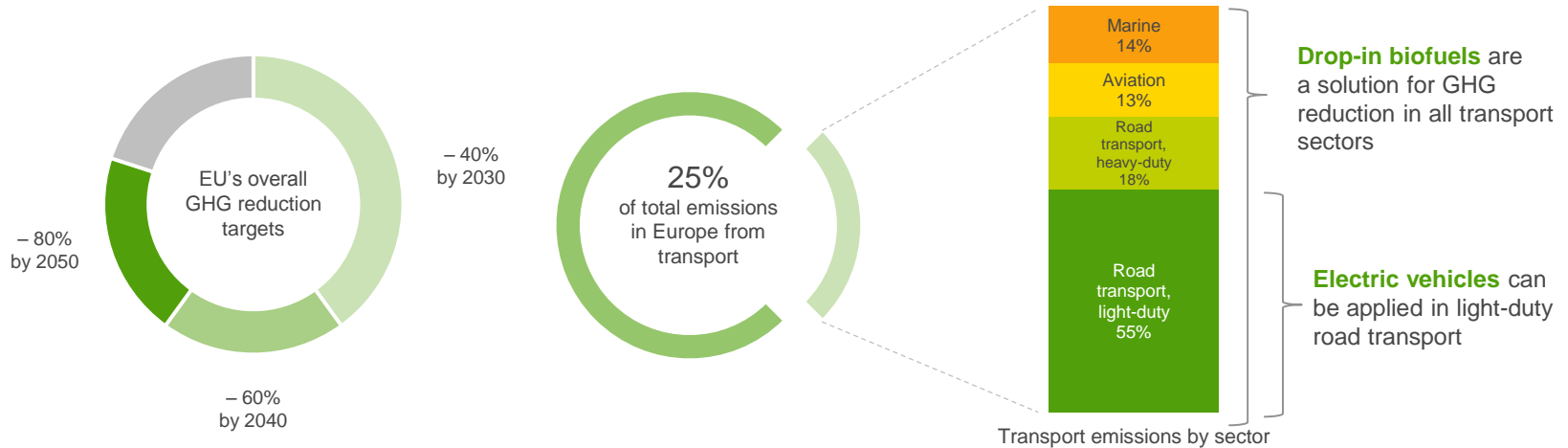


UPM Biofuels business evolving



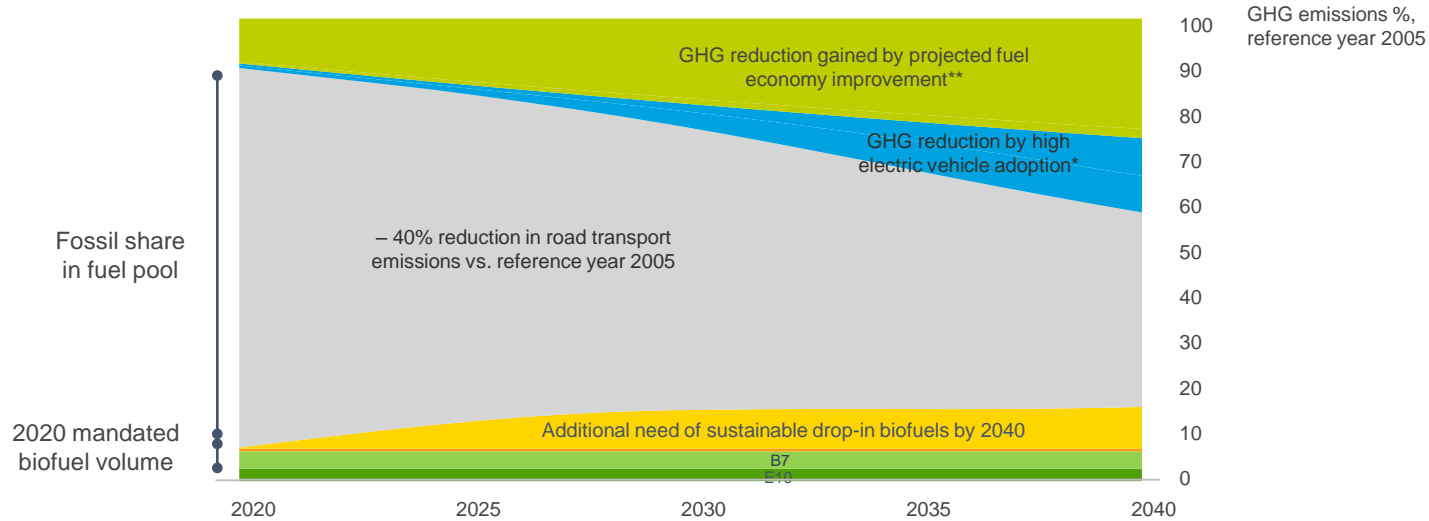
Significant emission cuts needed in transportation sector

EU's greenhouse gas reduction targets cannot be met without significant emission cuts in transport – actions needed in all sectors



All energy and technology options needed

Decarbonizing European transport requires effective use of all energy and technology options – renewable drop-in fuels a fast-lane solution



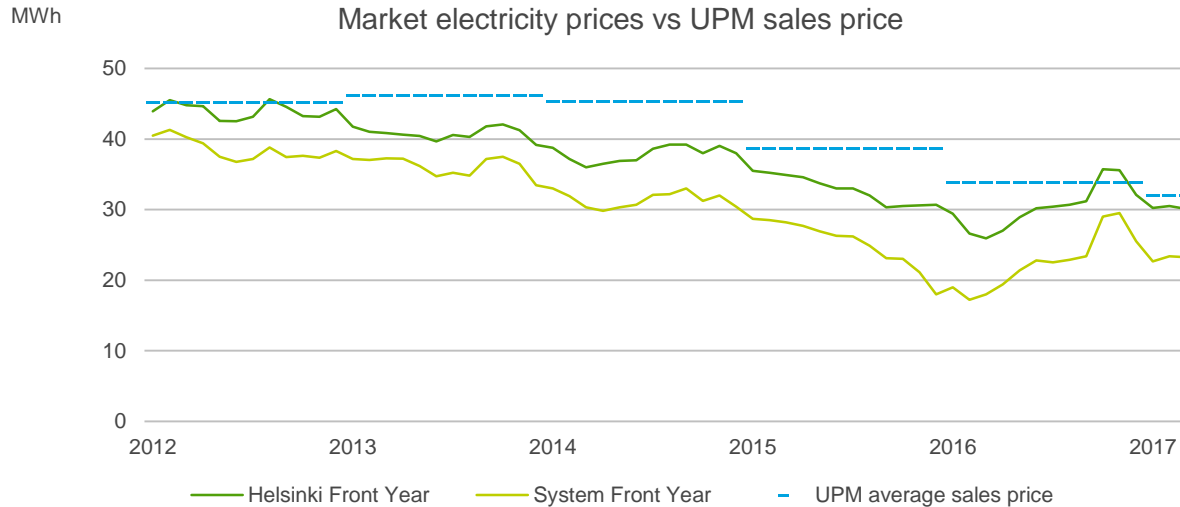
* Calculated based on "Global EV sales outlook to 2040" by Bloomberg New Energy Finance
 * Assuming EV's represent 38% of new car sales in Europe by 2040 + EV's are fully emission free
 ** Assuming annual energy efficiency improvement of 2% in light-duty, 0,5% in heavy-duty

Cost competitive and flexible asset base

Power generation breakdown



Cost efficient generation enables robust profitability also in challenging market environment



UPM Energy profitability	2012	2013	2014	2015	2016	Q117
Comparable EBIT, EURm	217	186	202	181	116	22
% of sales	45.0	39.9	43.5	43.6	32.7	27.5

Self-adhesive labels in end-use



Leading position in a growing market

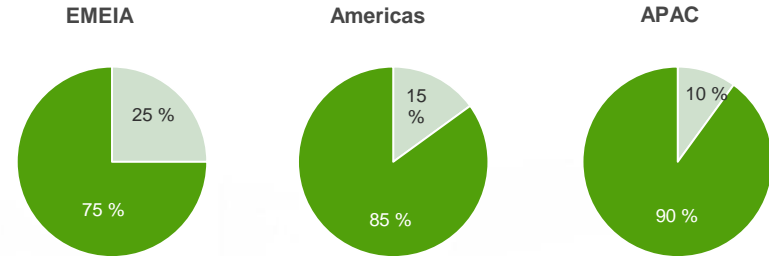
The self adhesive labelstock market

- > EUR 8bn global market
- ~ 4% p.a. growth
- Private consumption driven

UPM Raflatac

- #2 globally
- Business in 120 countries
- > 8,000 customers
- 3,000 people in six continents

UPM Raflatac market shares

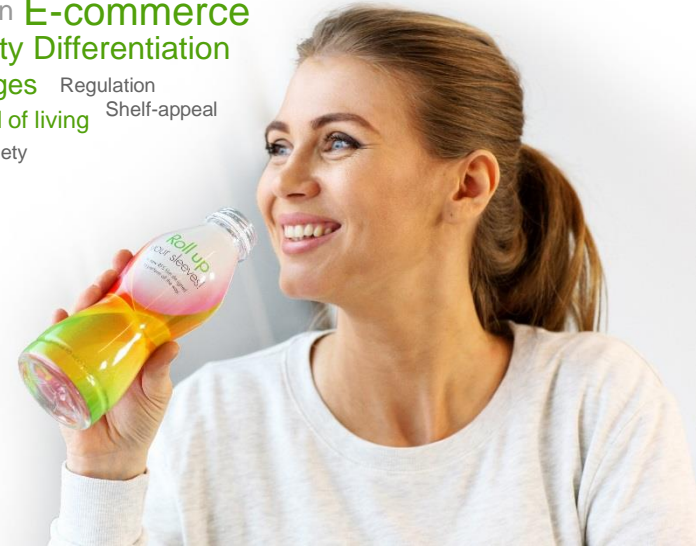


Continuing growth

1. Capturing the market growth in the current markets and product areas
2. Increased distribution coverage and customer reach
3. Wider product portfolio
4. M&A when opportunities emerge

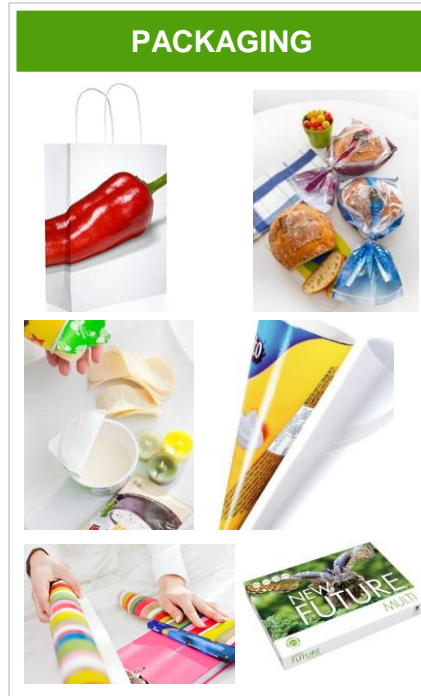
Enabled by scalable operating platform & efficient investments

Tailored marketing
Productivity Population growth
Single households Consumerism
Reliability Packaged food Ease of use
Private consumption
Label demand
Urbanisation E-commerce
Sustainability Differentiation
Retailing changes Regulation
Higher standard of living Shelf-appeal
Product safety

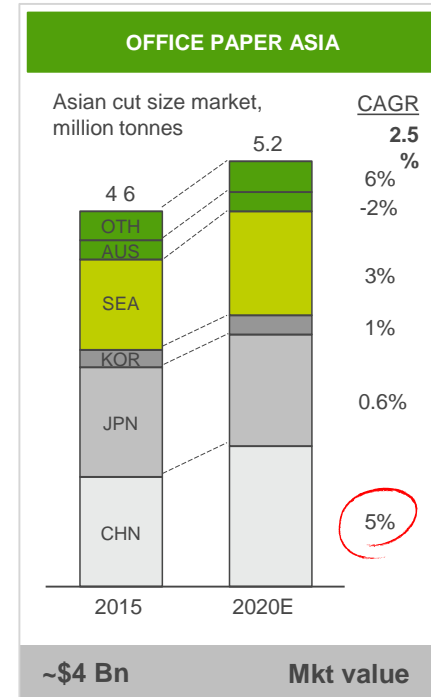
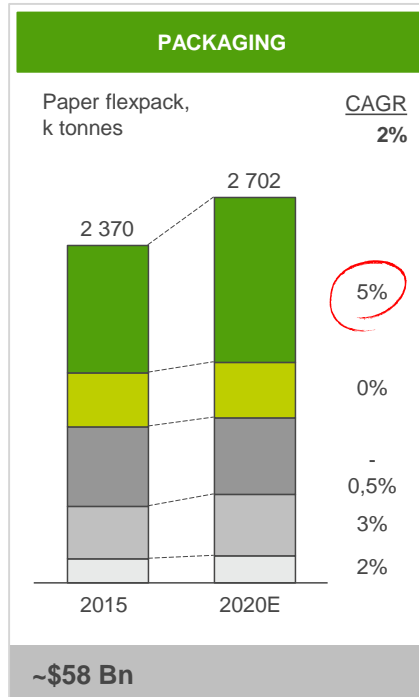
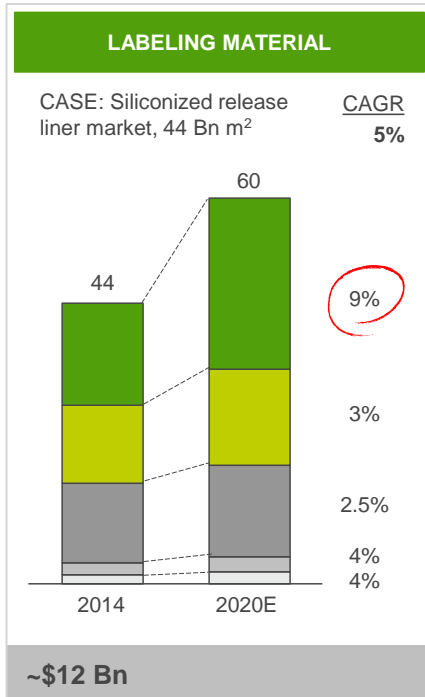


UPM Specialty Papers

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

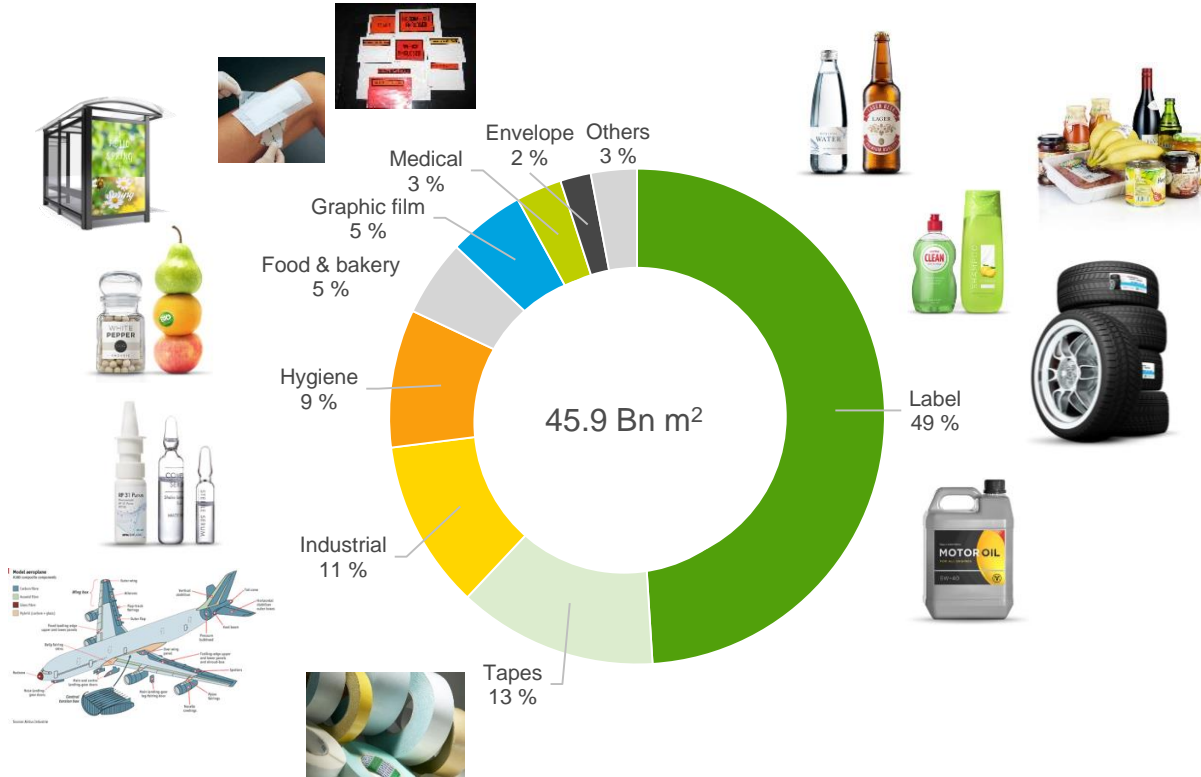


Our end use markets are growing



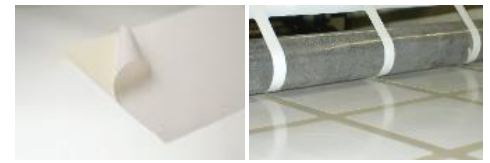
■ Asia
 ■ North America
 ■ Europe
 ■ South America
 ■ MEA

Global release liner market: Applications



Product functions:

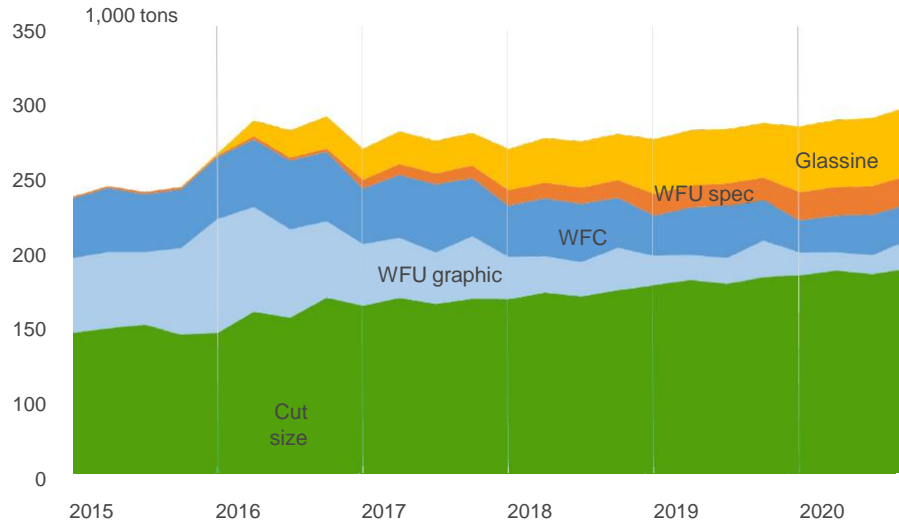
- Release liner carries the adhesive and face material
- Prevents the adhesive from sticking permanently
 - Important and often critical feature of a layered construction



Source: AWA

Changshu mill: focus on growing end uses with a flexible swing production line

Illustration: UPM Changshu Mill Quarterly Capacity



Business plan

Accelerate growth of glassine

Invest in the development of specialty grades – end-use segments in packaging

Service existing long-term customers with graphic paper grades (WFU and WFC)

Continue to grow in the “quality” copy paper segment primarily in China

WFU: wood free uncoated
WFC: wood free coated
Source: UPM

Paper demand by end use – different trends



Source: Euro-Graph

- Historically Home & Office end-use has been the **most resilient** to structural changes
- Despite the digital alternatives personal preferences (way of working and learning), regulation (archiving) and lack of common standards have mitigated the change
- **A moderate decline** has taken place in Direct marketing end-use
- Paper based marketing is still recognized to be the **most effective medium** for retailers and cataloguers
- **Steady decline** in Magazine Publishing circulation and pagination, however number of titles increasing
- Publishers still **rely heavily on the revenues** from print
- Newspaper publishing being historically the **most vulnerable** to structural changes but remarkable differences between countries
- **Monetizing digital circulation for Magazines and Newspapers continue to be challenging**

What does it take to perform in challenging markets?



1 Assets

stringent capacity management



2 Sales

profound customer- and market understanding



3 Cost base

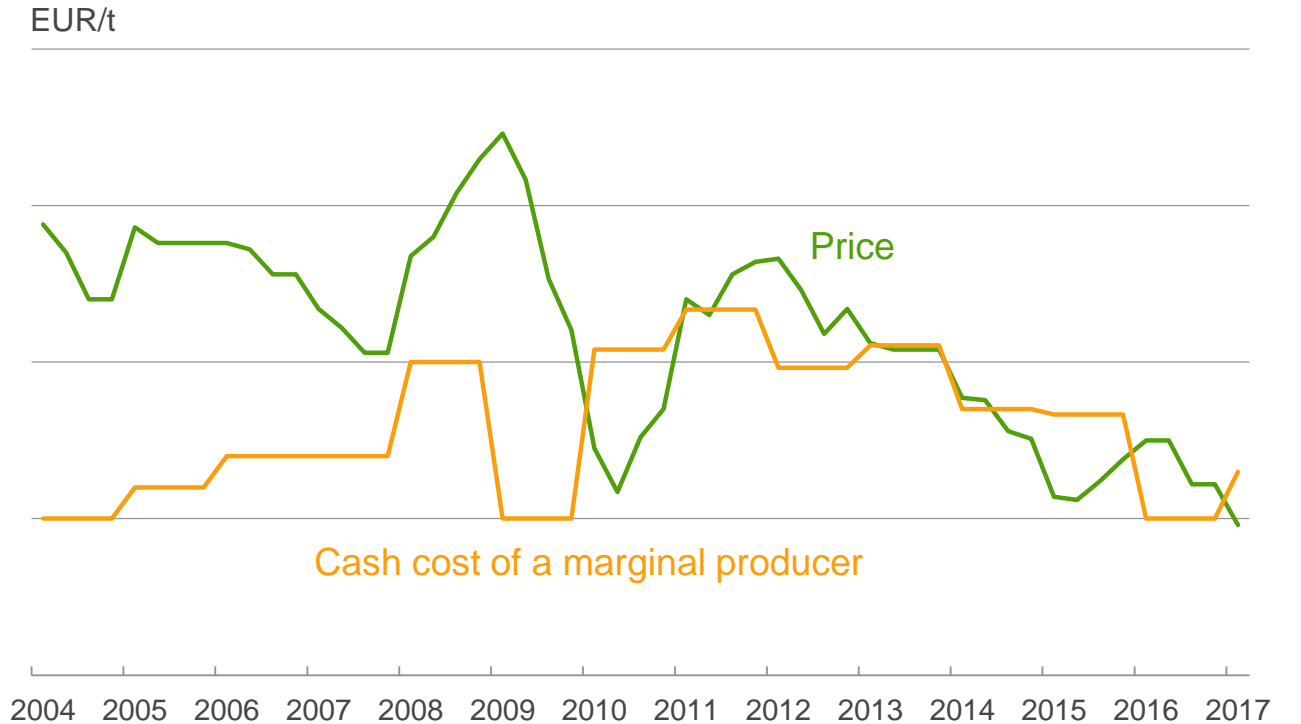
smart initiatives in push mode



4 Cash flow

performance management and discipline

Demand-supply balance in European graphic paper is visible in margins



UPM Plywood

UPM Plywood in end-use

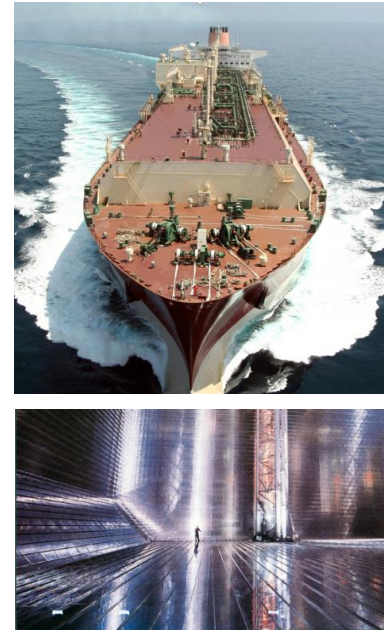
Construction



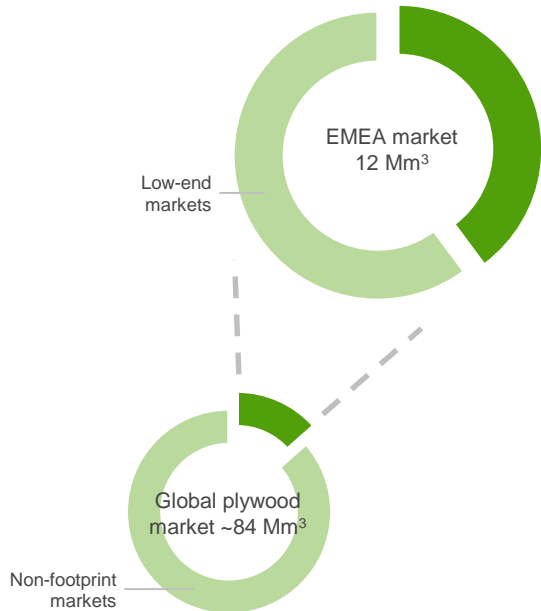
Vehicle flooring



LNG shipbuilding



Relevant high-end market offers meaningful growth potential



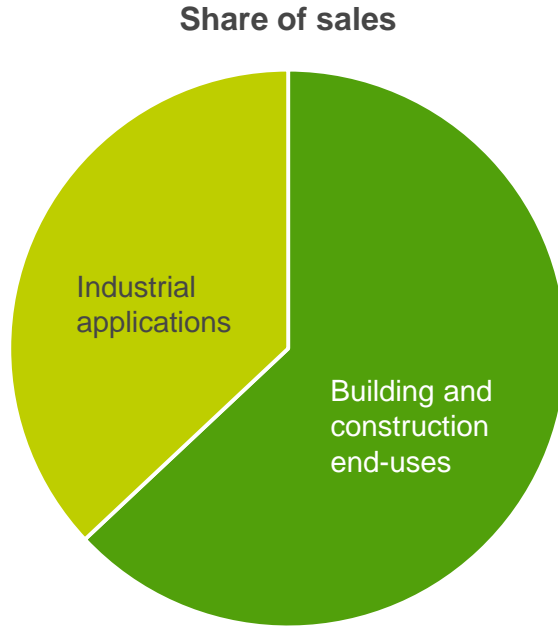
Relevant market ~5 million m³

- High-end demanding applications & customers
- Medium range standard products
- EMEA region
- Global LNG business

- Europe is net importer of plywood
- Imports focus mainly on standard products in mid-low ranges

Source: FEIC; FAOSTAT; UPM

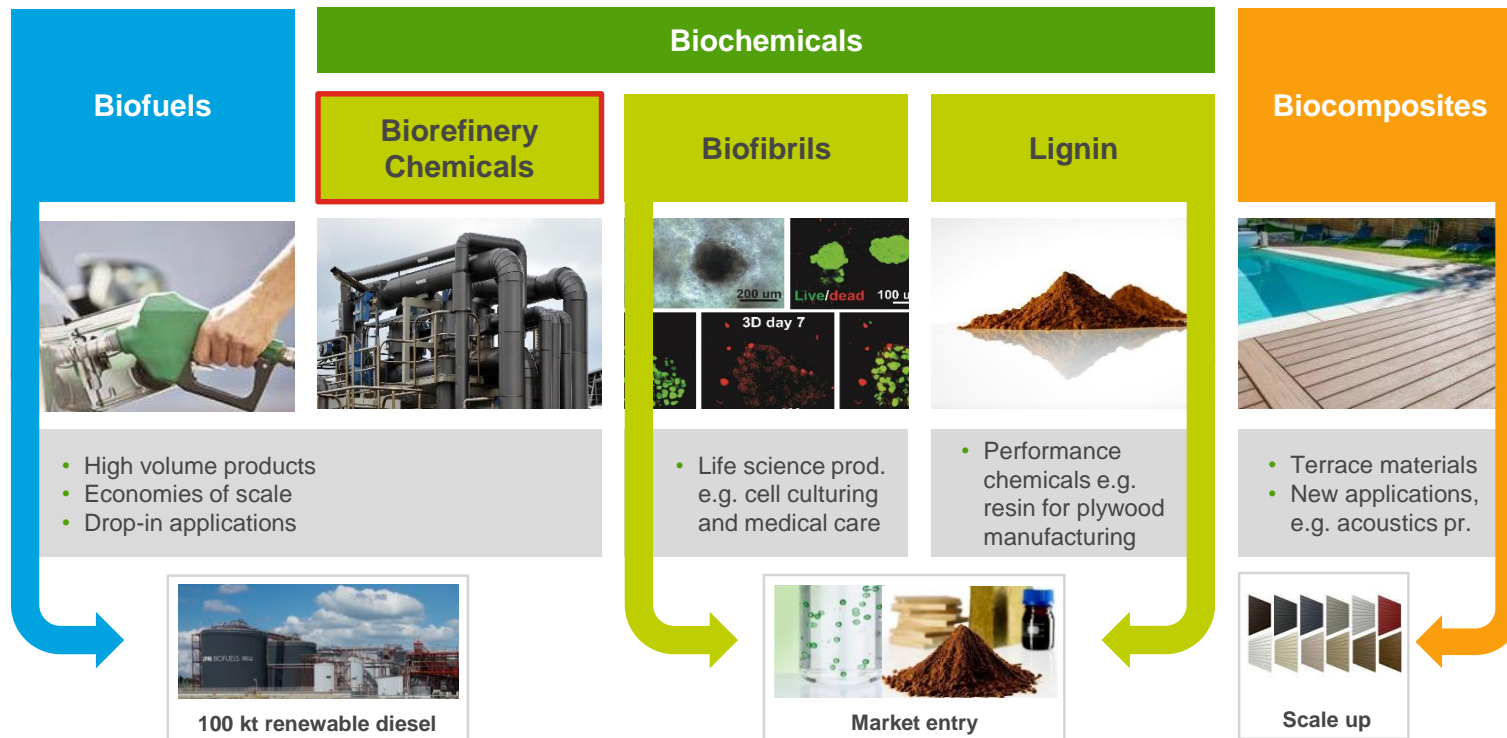
Selected focus end-uses provide further growth potential



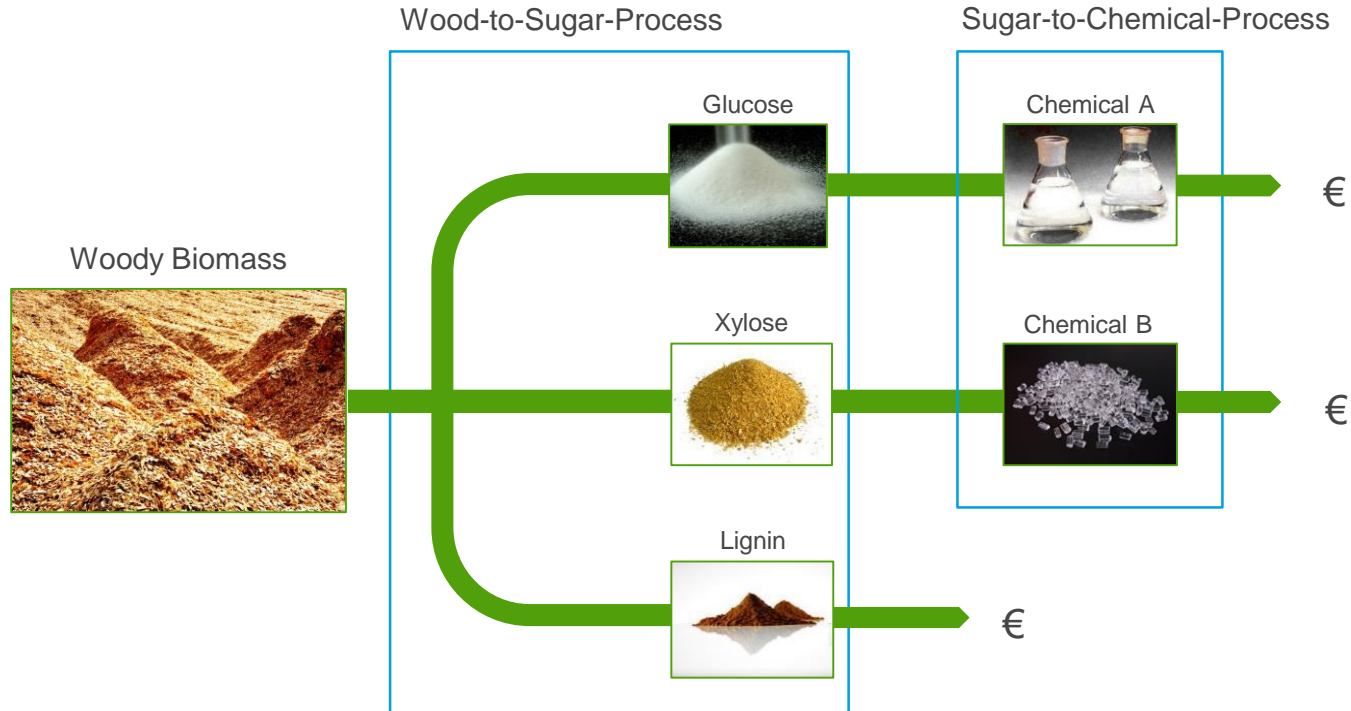
- The recovery of the European construction sector is driving demand (annual growth 2–3% p.a.)
- The financial crisis created a backlog for trailers driving the current replacement need (average growth 4% p.a.)
- The LNG market is expected to remain solid as countries secure energy availability, thereby supporting the demand for LNG vessels (existing order book for plywood based LNGC ~90 vessels)

Sources: Euroconstruct, West European trailer registrations for Big 7 Countries (1985–2016), LNG World Shipping

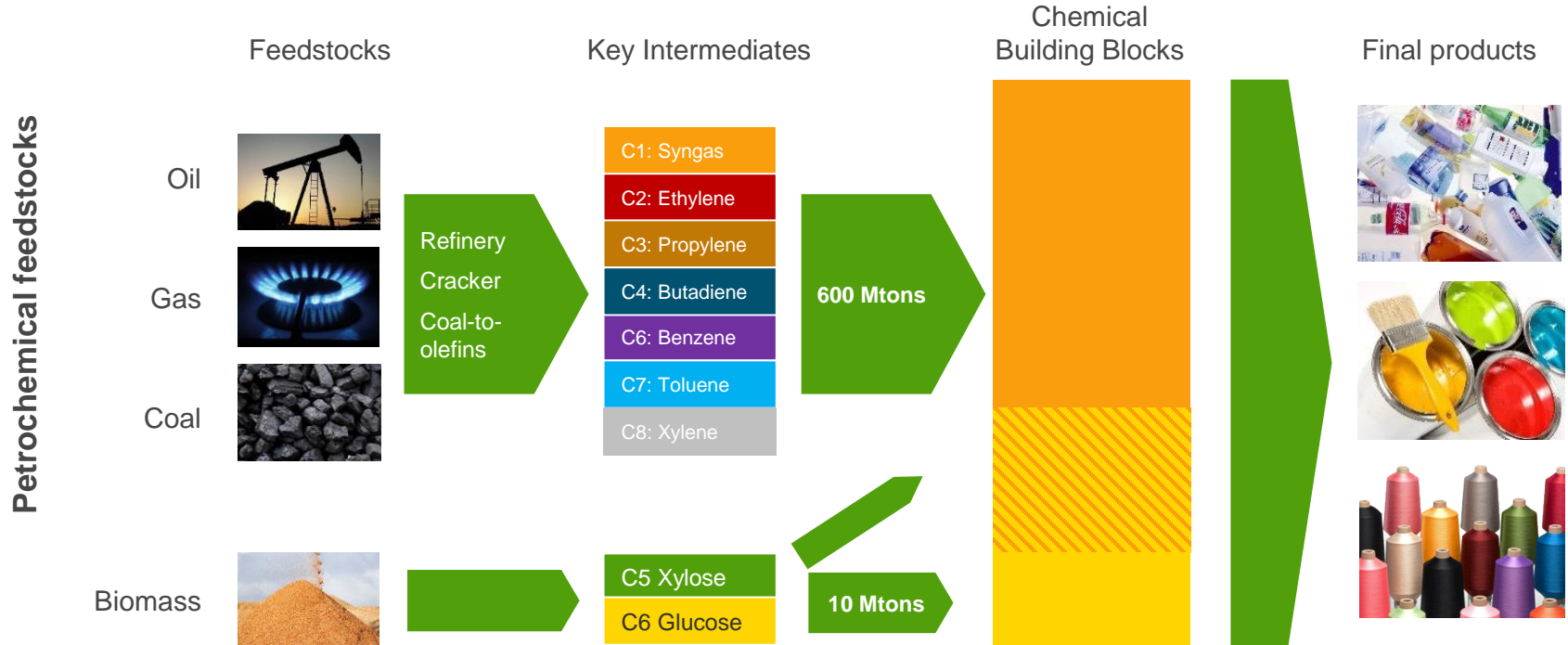
New business opportunities for UPM



New separation technologies ensure best overall value capture



Partial overlap with fossil-based value chains in chemicals





UPM

The Biofore
Company