

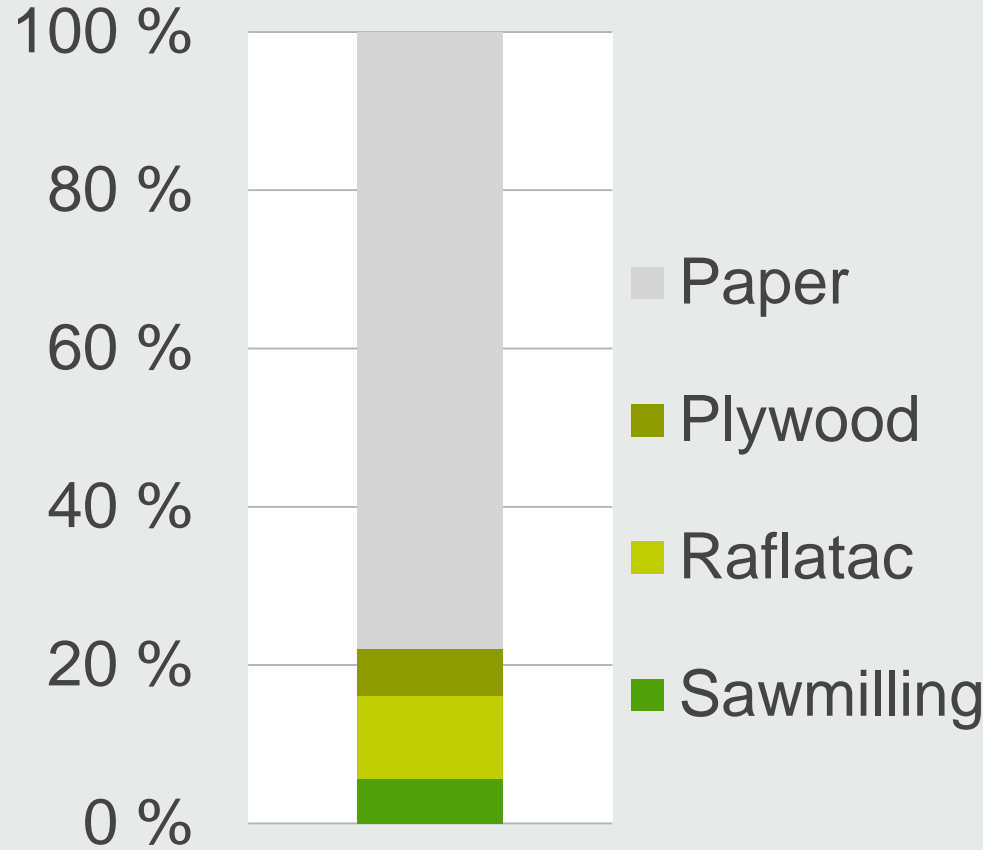
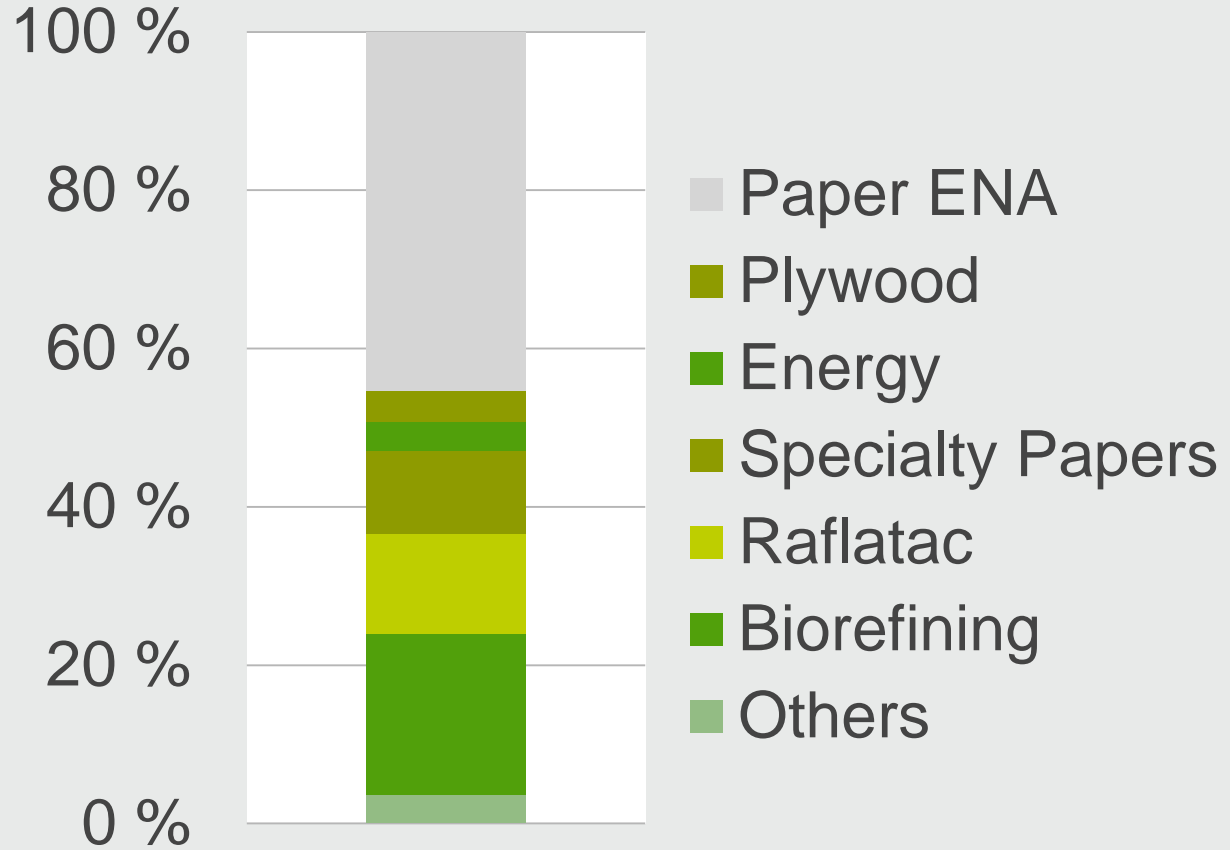
# UPM – THE BIOFORE COMPANY

Investor presentation  
November 2016





# UPM in transformation

	<b>2008</b> vertically integrated paper company	<b>2015</b> six separate businesses	<b>Business model</b> Promotes value creation
<b>Sales</b>			<b>Business portfolio</b> Increasing share of businesses with strong long-term fundamentals for profitability and growth
<b>Sales</b>	EUR 9.5bn	EUR 10.1bn	<b>Business performance</b>
<b>EBIT *)</b>	EUR 513m	EUR 916m	Continuous improvement in financial, social and environmental performance
<b>ROE *)</b>	3.5%	9.5%	
<b>Net debt</b>	EUR 4.3bn	EUR 2.1bn	<b>Disciplined capital allocation</b>
<b>Market cap</b>	EUR 4.7bn	EUR 9.2bn	Driving value creation

\*) excluding special items for 2008, comparable figures for 2015

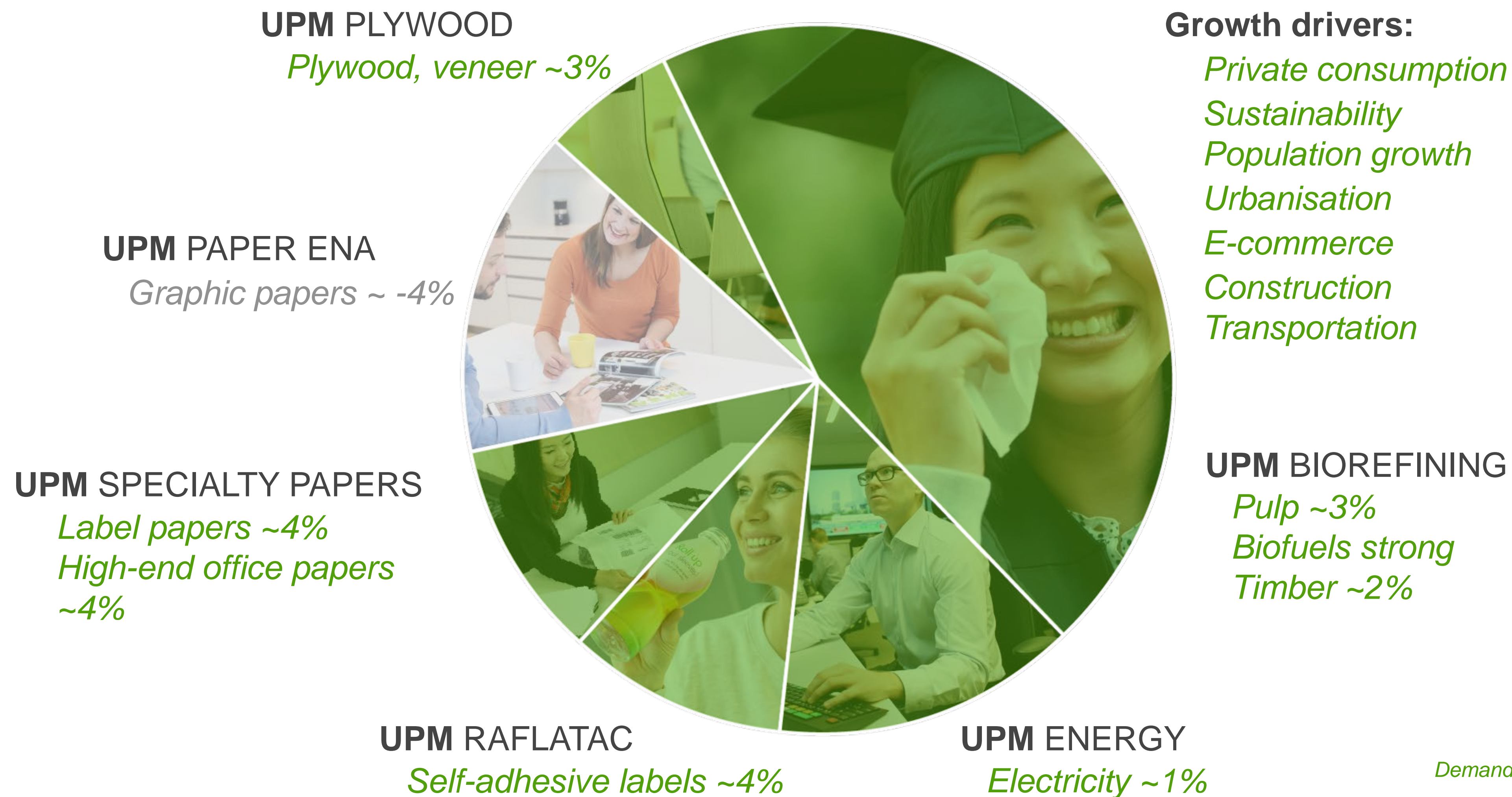
# UPM business portfolio today \*)

Competitive businesses with strong market positions

Operating on healthily growing markets



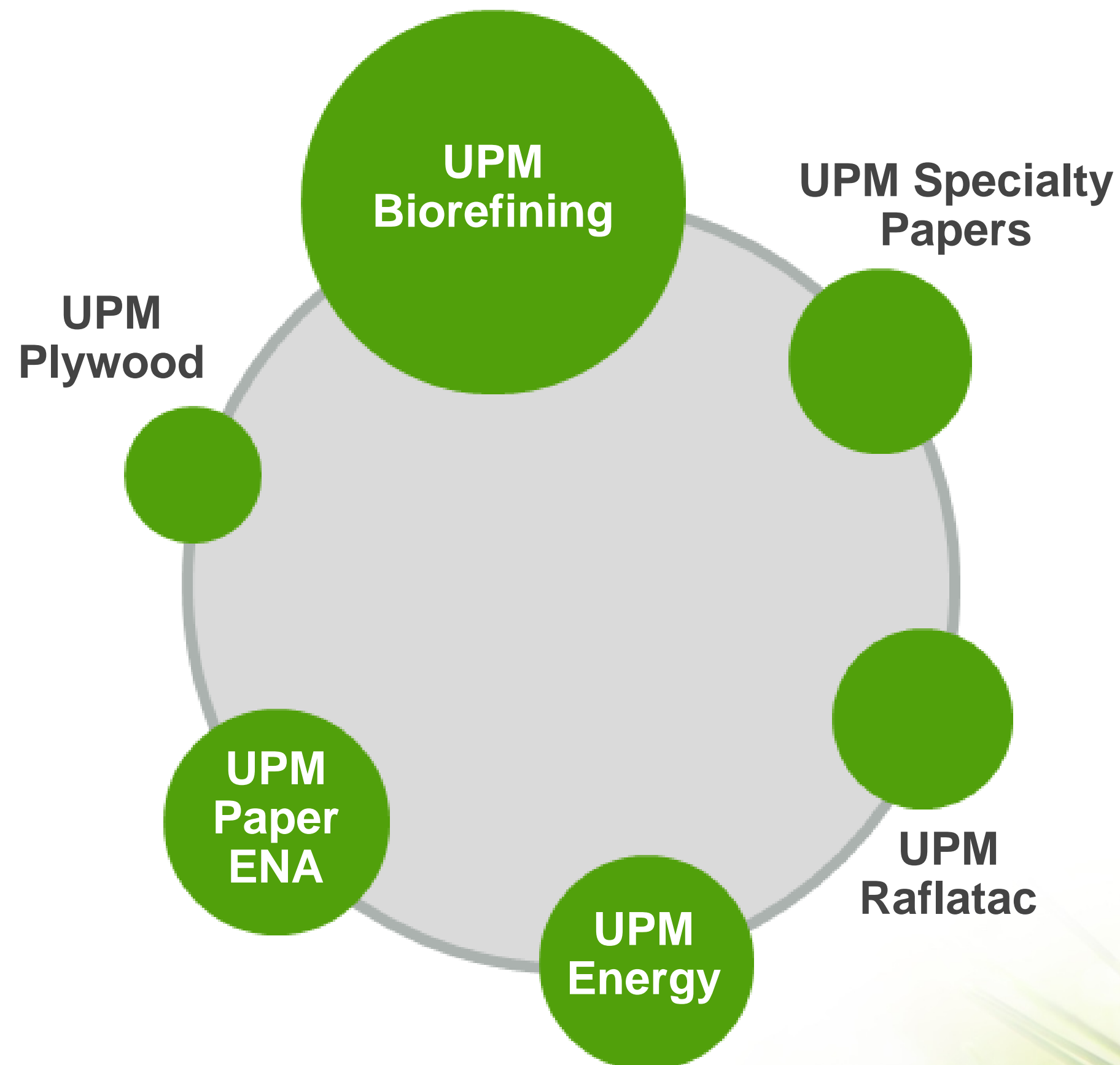
The Biofore Company UPM



\*) by EBITDA 2015.  
Demand trend growth, % pa



# Portfolio development: increase long-term shareholder value



- **Developing each business**  
Increase their value by driving profitability, growth and cash flow  
*Commercial strategies, focused growth investments, cost efficiency measures*
- **Developing the business portfolio**  
Increasing share of businesses with strong long-term fundamentals for profitability and growth  
*Growth investments, synergistic M&A*
- **Portfolio changes**  
If it would be the best way to increase long-term shareholder value





# Clear roles and decision making on right level

## Group

Portfolio strategy  
Capital allocation  
Business targets  
Code of conduct  
Responsibility targets

## Businesses

Business area strategies  
Commercial excellence  
Operational excellence  
Cost efficiency measures  
Focused growth projects  
Innovation

## Outcomes

Top performance  
Competitive advantage  
Value creation  
Stakeholder value  
License to operate



# Business model case: market-driven value creation in the labelling value chain



**Growing markets and end-uses, diverse customer needs**

**Focused growth investments**

**Commercial strategies, product and mix development, R&D**

**Transparency, benchmarking, targets, incentives**

**Agility, improved efficiency**

**Optimised sourcing, R&D**

- + Growing sales
- + Increased EBIT, CF
- + Higher ROCE



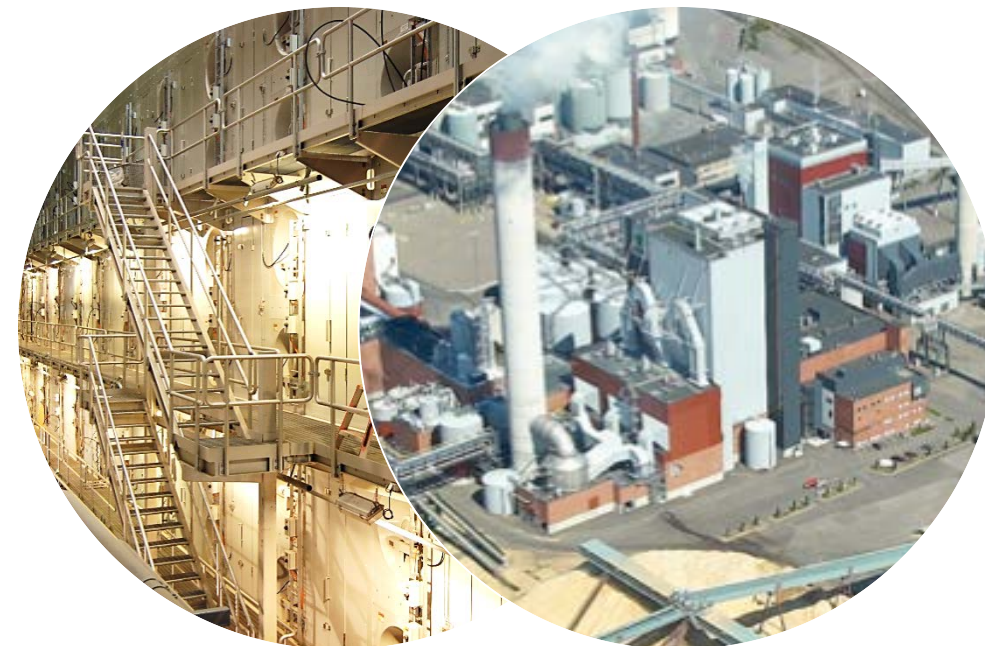
# Business model case: market-driven value creation at UPM Kymi pulp and paper mill

Growing pulp markets and end-uses

Customers

Tissue  
Spec. papers  
Board, etc.

A B C  
↑ ↑ ↑



P&L

Maintain synergies

Pulp mill  
530 + 340 = 870kt  
UPM Biorefining

A B C  
↑ ↑ ↑

Forest, Other

Focused growth investments

Customers

Advertisers  
Printers  
Mechants, etc.

A B C  
↑ ↑ ↑



P&L

Different paper end-use trends  
Commercial strategies, product mix and service development

Paper mill  
800kt  
UPM Paper ENA

A B C  
↑ ↑ ↑

Fibre, Other

Transparency, benchmarking, targets, incentives

Agility, improved efficiency

Optimised sourcing, raw material mix

- + Growing sales
- + Increased EBIT, CF
- + Higher ROCE

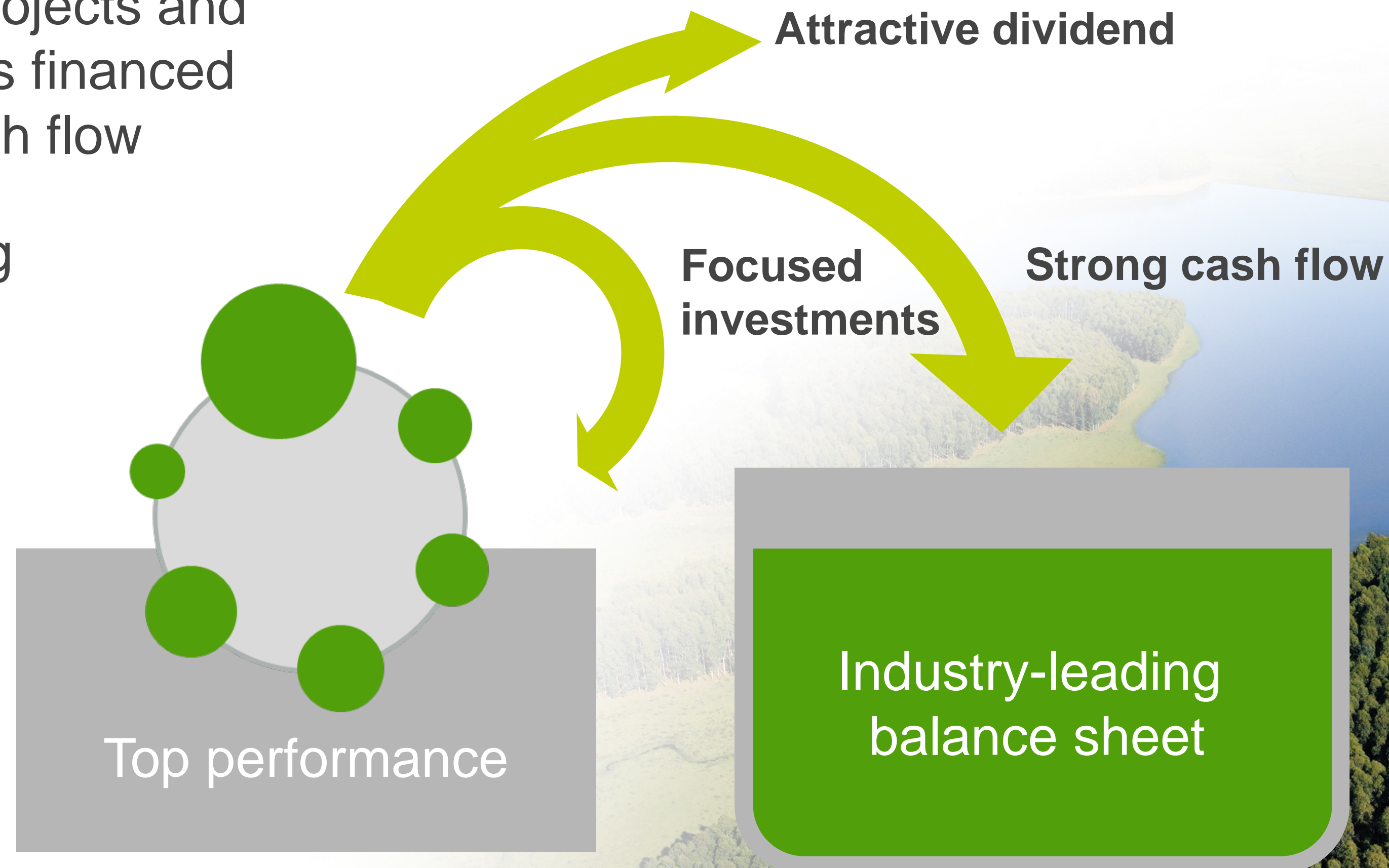




# Disciplined capital allocation

Focused growth projects and attractive dividends financed from operating cash flow

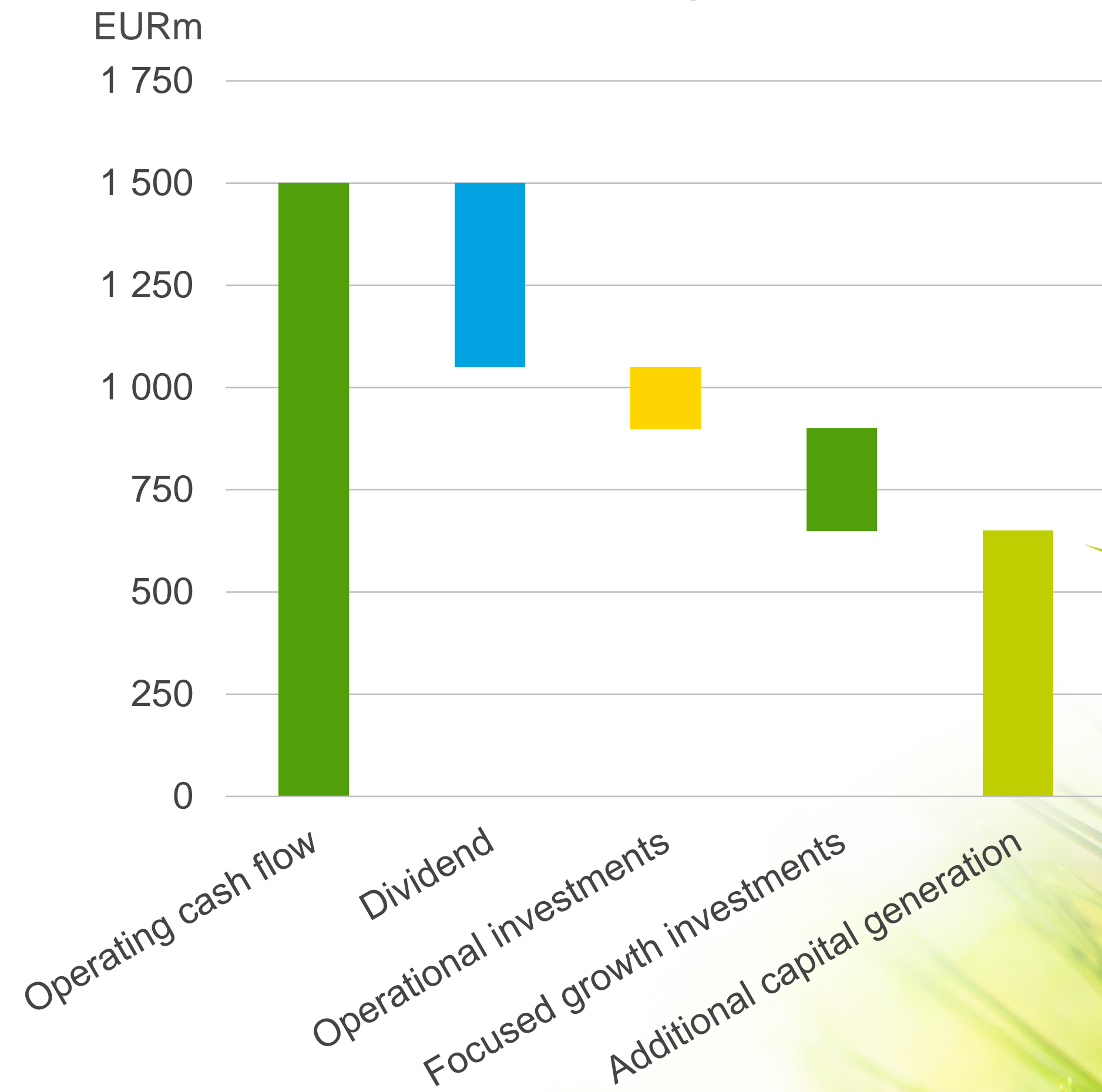
Consistently strong balance sheet





# Continuous free cash flow generation opens value creation options

Illustrative: LTM Q2 operating cash flow EUR 1,528m



## Robust cash flow

- Operating cash flow in 2014–LTM Q2 EUR 1.2bn–1.5bn

## Capital allocation

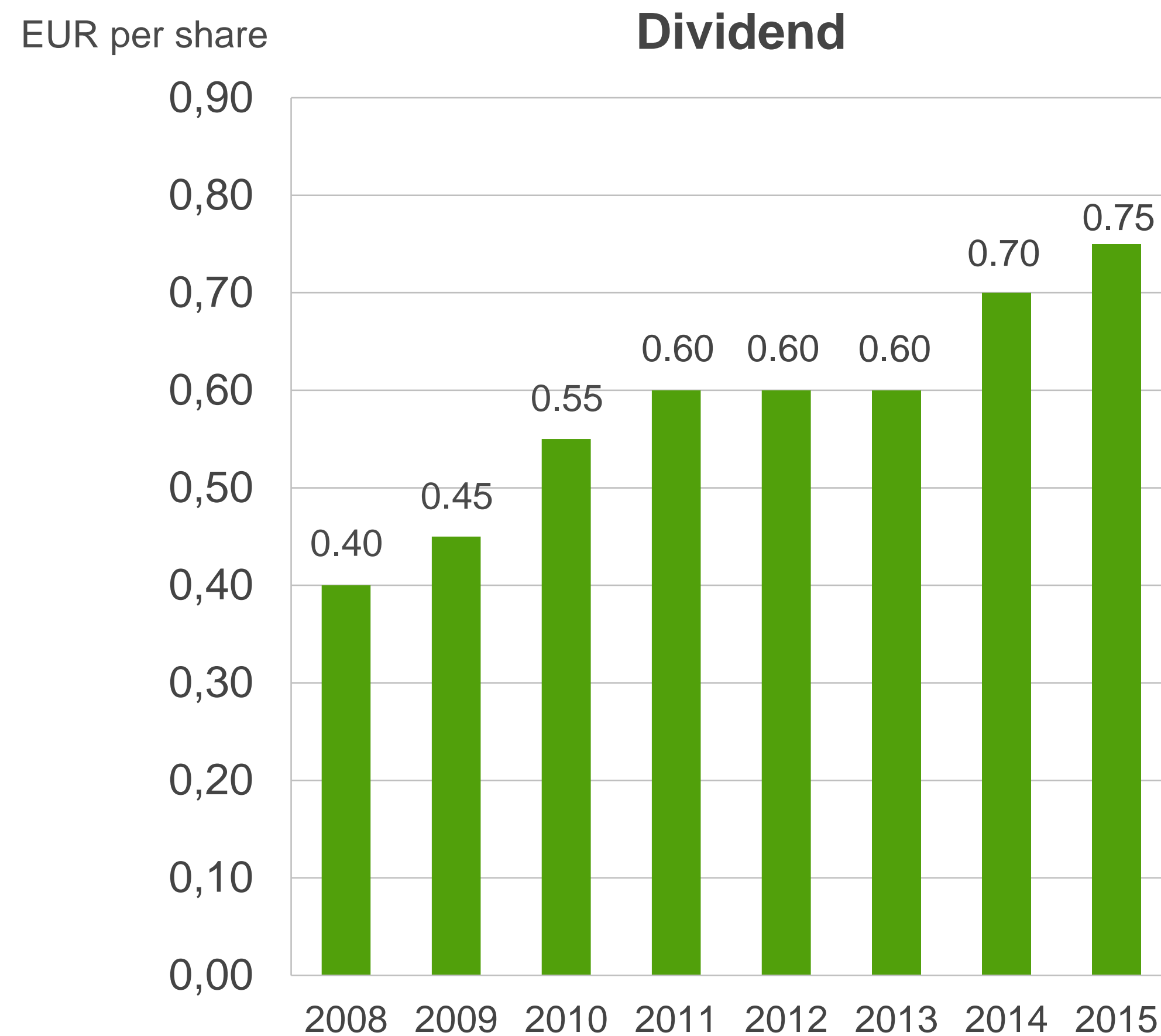
- Dividend policy: 30–40% of operating cash flow
- Low operational capex needs
- Focused growth investments

## Additional capital generation

- EUR 400–650m per annum



# Attractive dividend supported by increasing operating cash flow



## Dividend policy

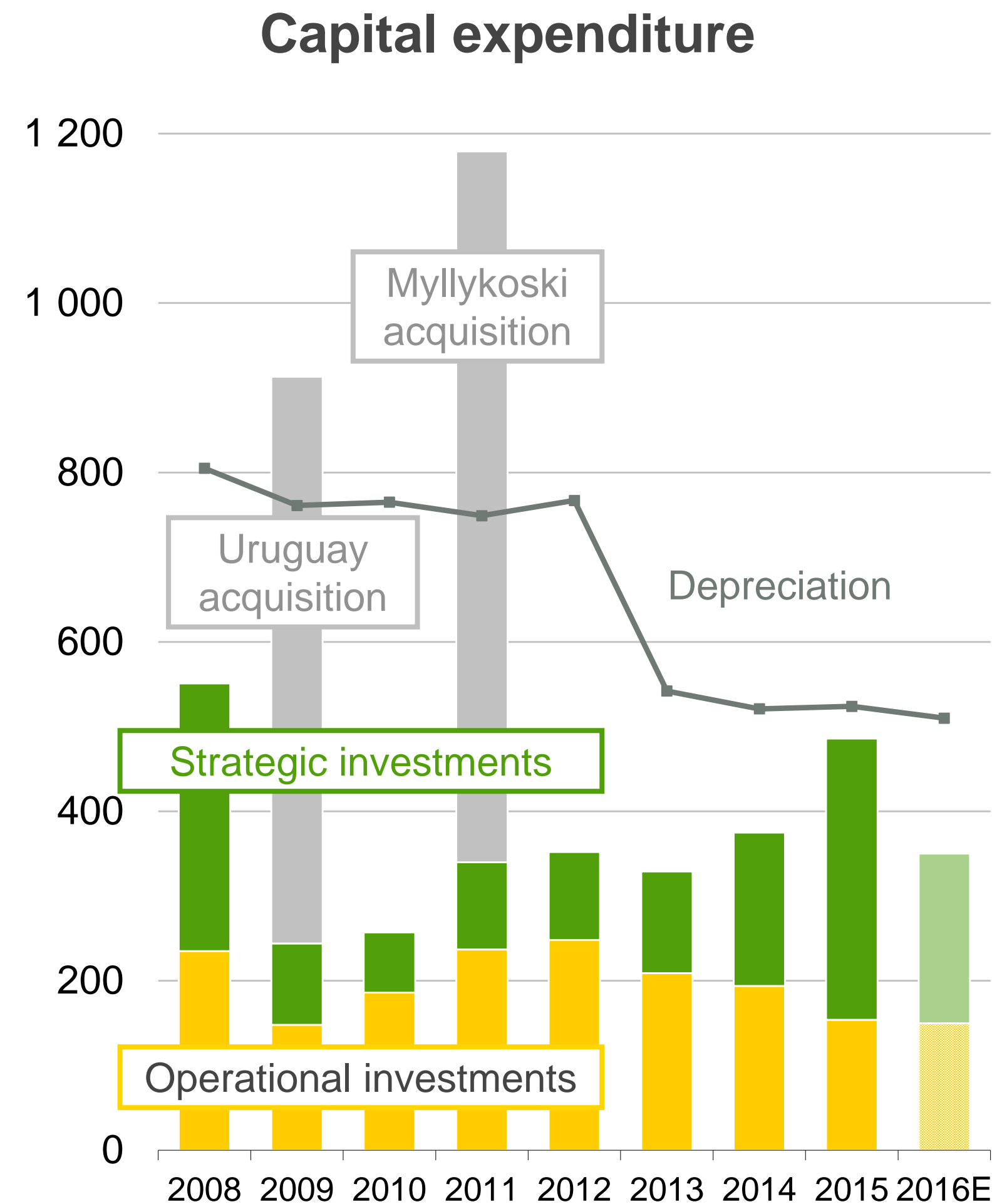
- UPM aims to pay an attractive dividend, 30–40% of operating cash flow per share

## Dividend for 2015

- EUR 0.75 (0.70) per share, totalling EUR 400m
- 34% of 2015 operating cash flow (EUR 1,185m)



# UPM will continue to invest on growth through focused 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

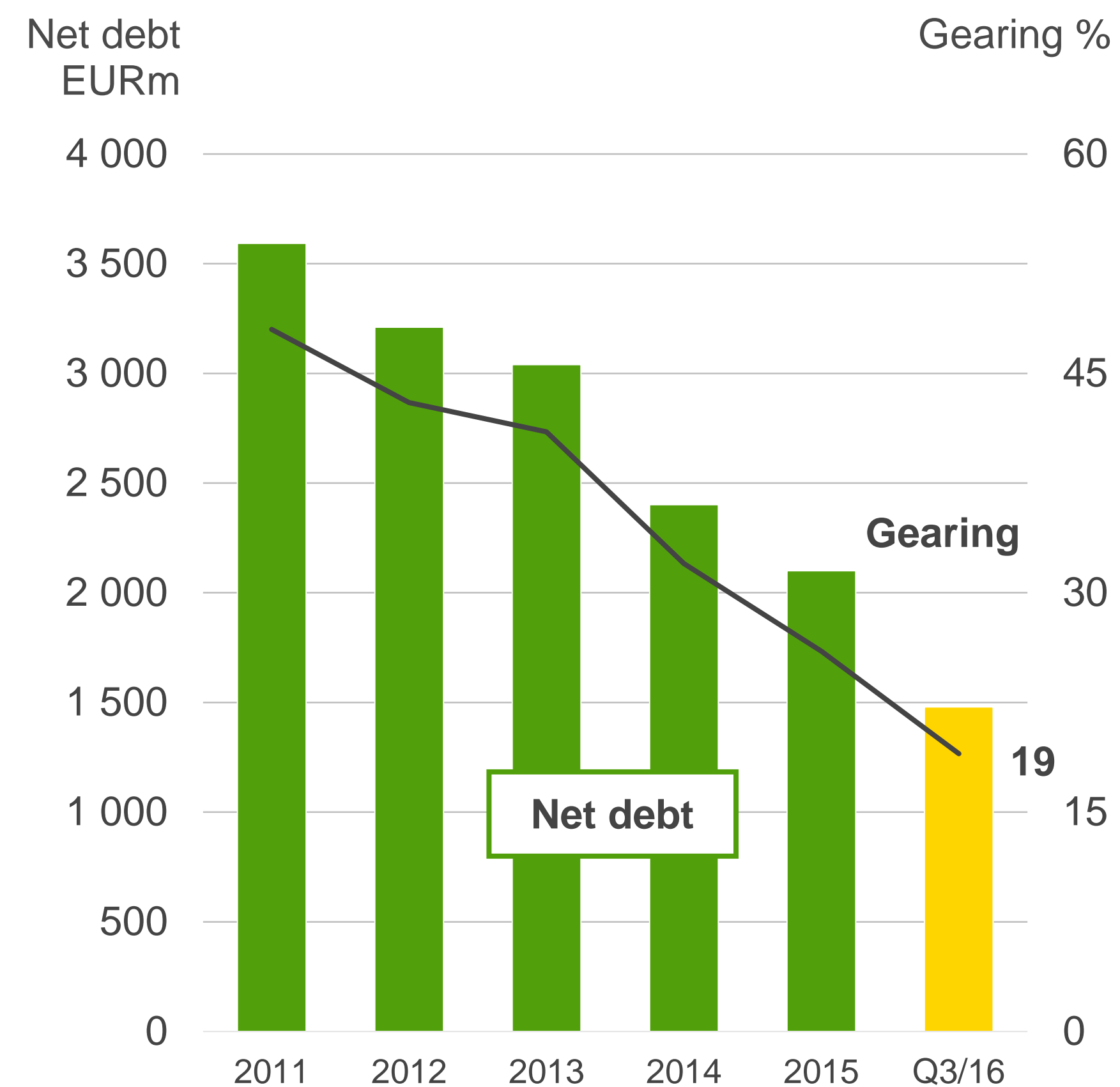
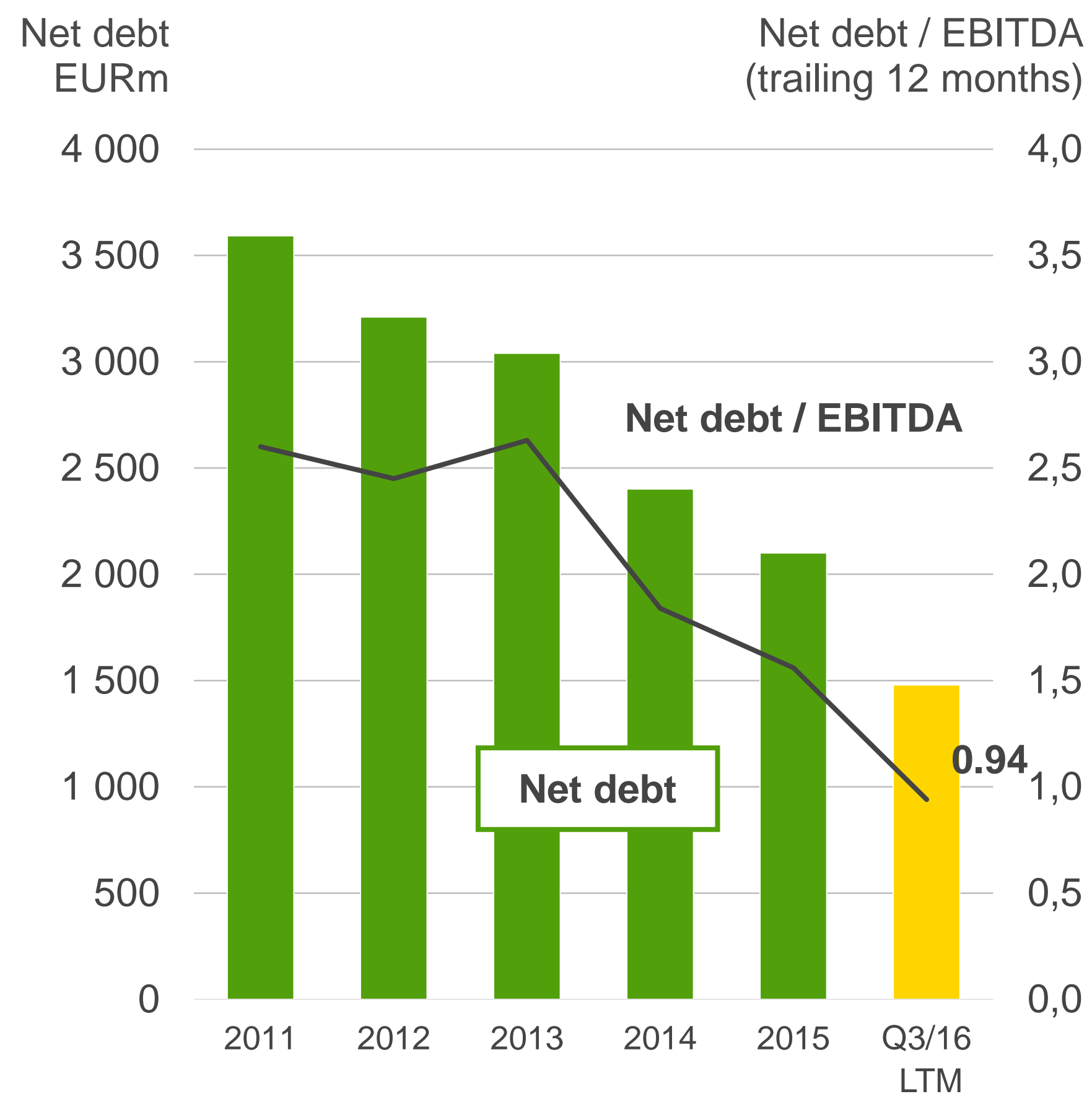
- ✓ Asset quality in all businesses, e.g. large competitive pulp mills
- ✓ UPM Paper ENA

▶ Modest total capex, attractive returns and continuously strengthening balance sheet





# UPM aims to maintain strong balance sheet







# Value creating capital allocation options

## Annual cash flow

- Focused growth investments, focused M&A
- Distribution to shareholders
- Debt reduction

## Balance sheet

- M&A, when the opportunity and timing are right
  - Continues the business portfolio transformation
  - Synergistic with attractive returns
  - In the businesses where UPM is investing on growth
- Next step in pulp, if the prerequisites are in place and the opportunity and timing are right
- In all cases, UPM aims to maintain strong balance sheet



# Focused growth investments contributed significantly to Q3 2016 results



- Fully contributing in 2016
- Pietarsaari pulp mill expansion
  - Fray Bentos pulp mill expansion
  - Kymi pulp mill expansion
  - Raflatac expansion in APAC, Poland



- Ramp-up progressing well
- Lappeenranta biorefinery
  - Changshu speciality papers

Capex EUR 680m  
Capacity ~800kt  
+ label stock

80% run-rate of the EUR 200m EBITDA target achieved in Q3 2016



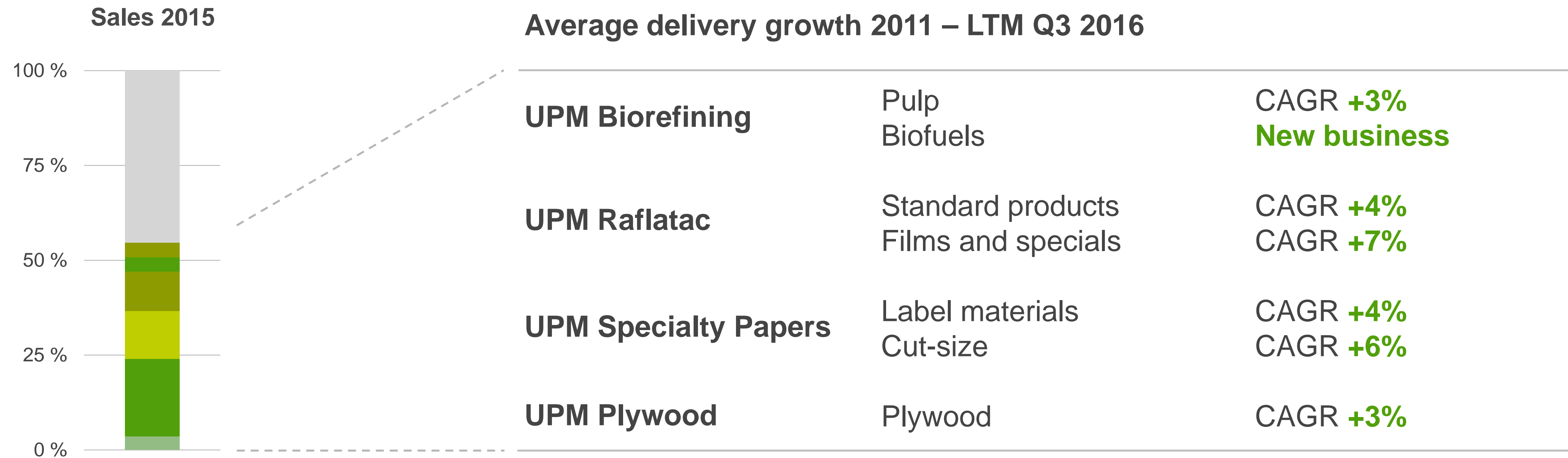
- Ramp-up starting, or under construction
- Otepää plywood mill expansion
  - Kaukas pulp mill efficiency
  - Kymi pulp mill expansion
  - Raflatac expansion in Poland

Capex EUR 225m  
Capacity ~200kt,  
+ plywood + label stock



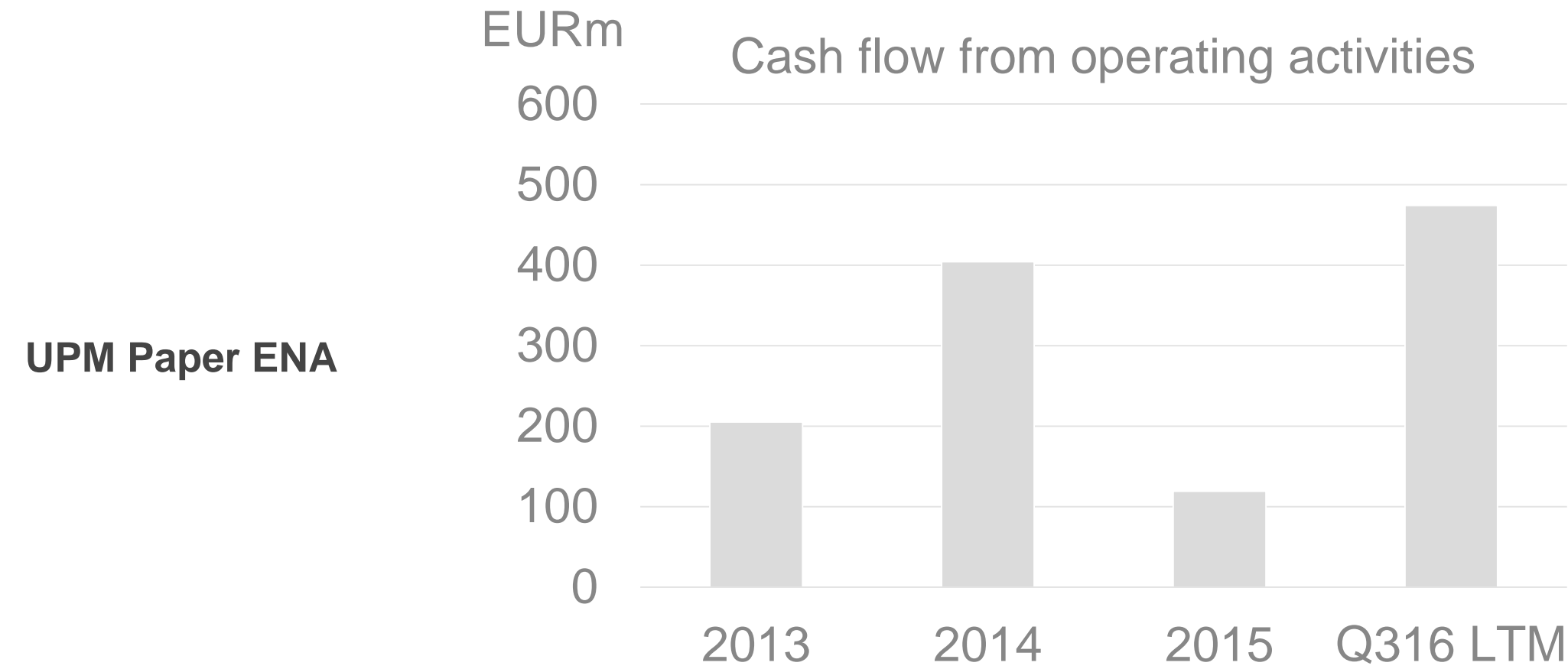
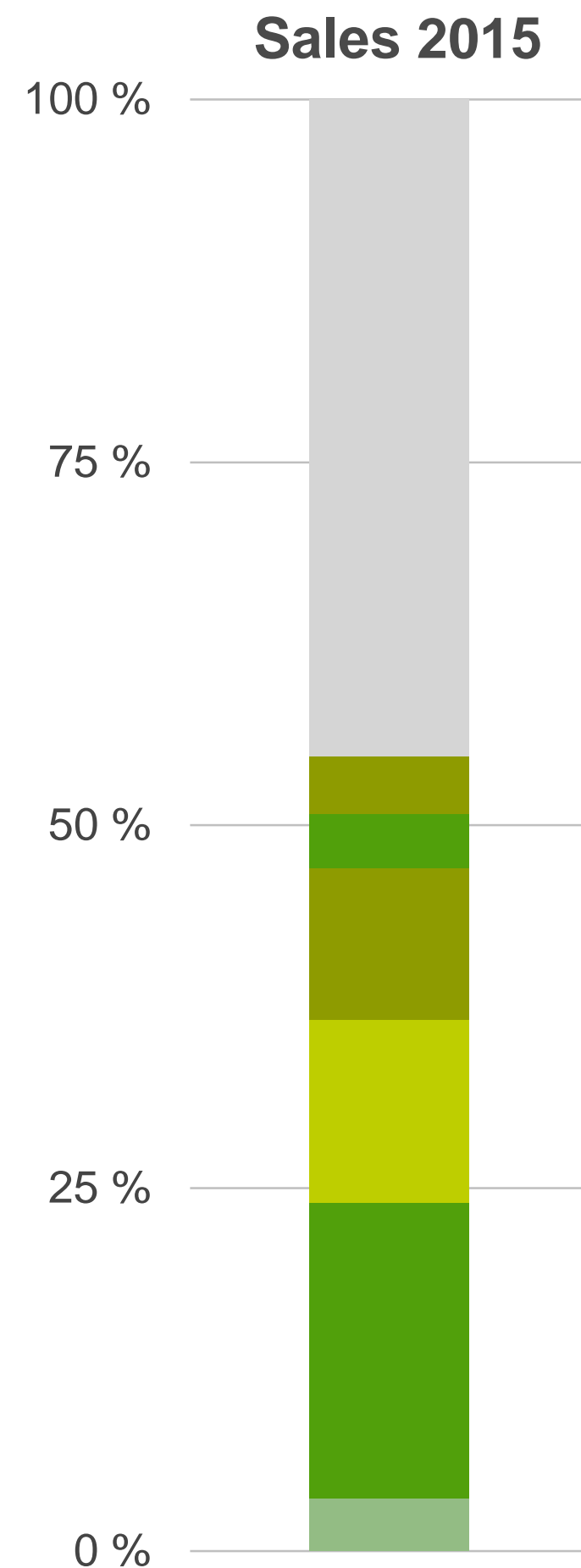


# Focused investments are delivering growth



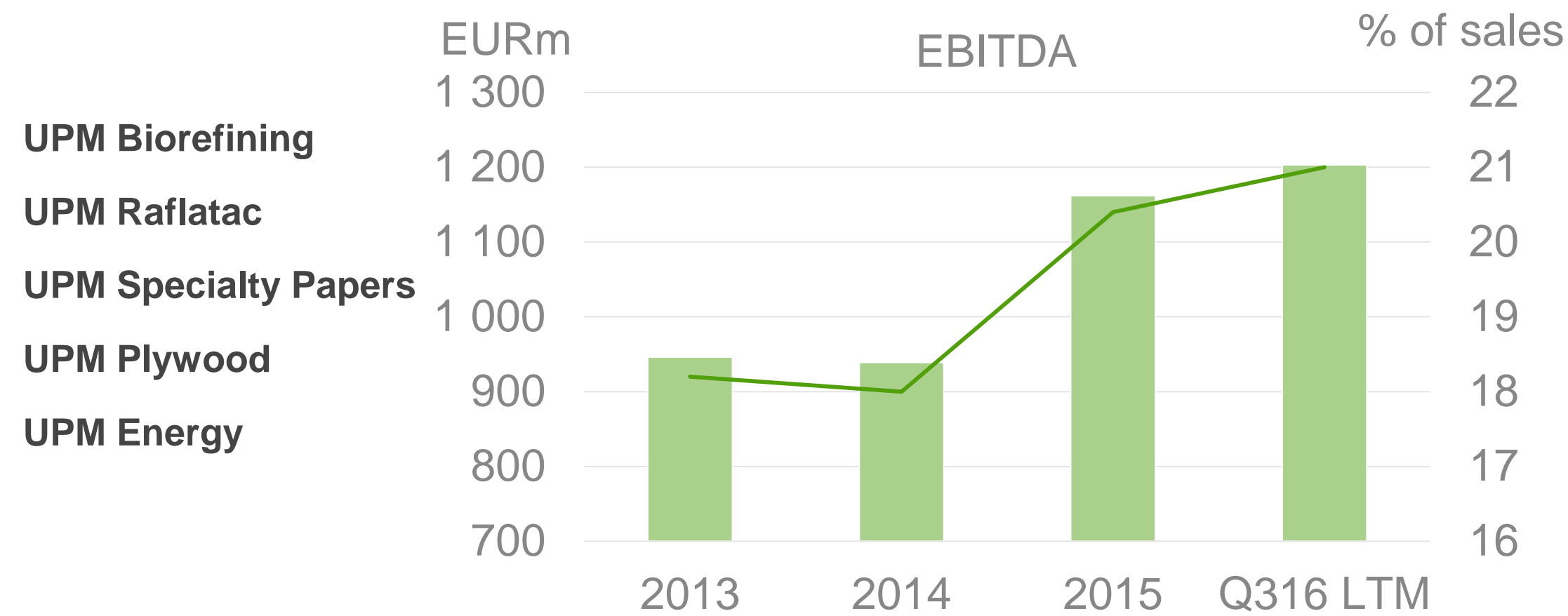


# Value creation through cash generation and sustainable growth



## Maintain strong cash flow

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



## Sustainable growth

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



# Portfolio of opportunities within UPM's disciplined capital allocation

## Pulp

- **Focused growth investments, major investments, M&A**  
*Decisions and timing based on the merits of each case*
- 

## Raflatac Speciality papers Plywood Energy

- **Focused growth investments, M&A**  
*Decisions and timing based on the merits of each case*
- 

## Biofuels Biochemicals

- **Focused growth investments, M&A, new business creation**  
*Decisions and timing based on the merits of each case*
- 

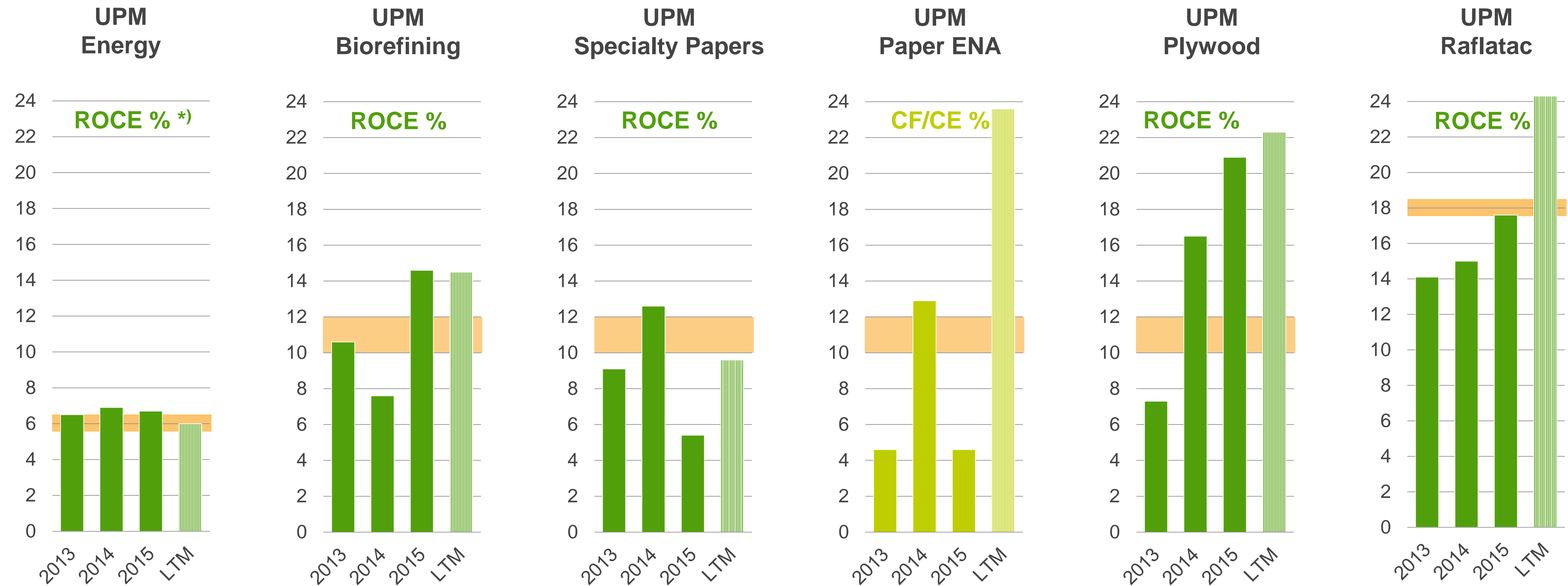
## Paper ENA

- **Cash flow and release of capital**  
*Efficient and competitive business system*





# Business area returns and targets



Each business targets top relative performance in their respective markets

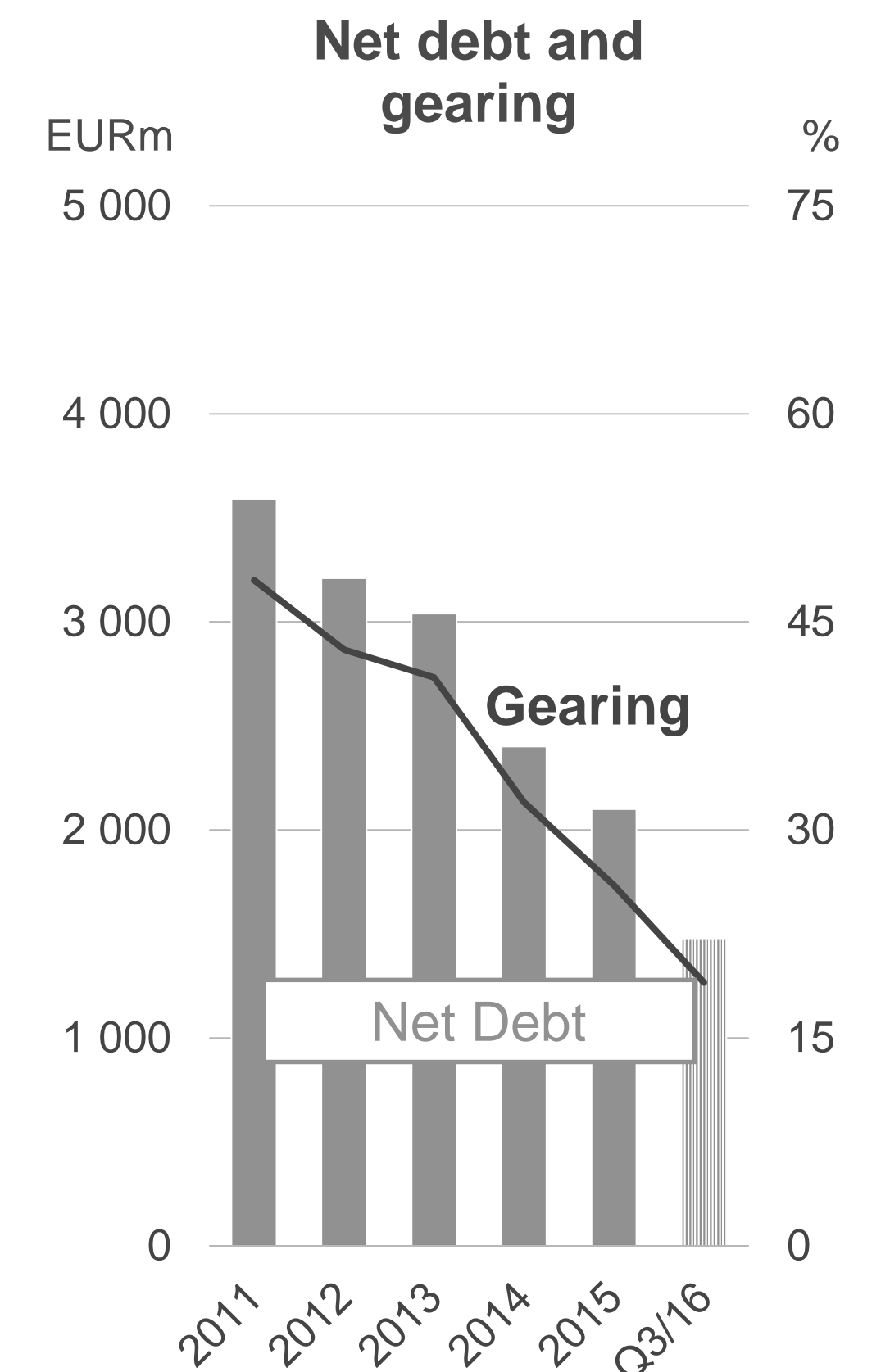
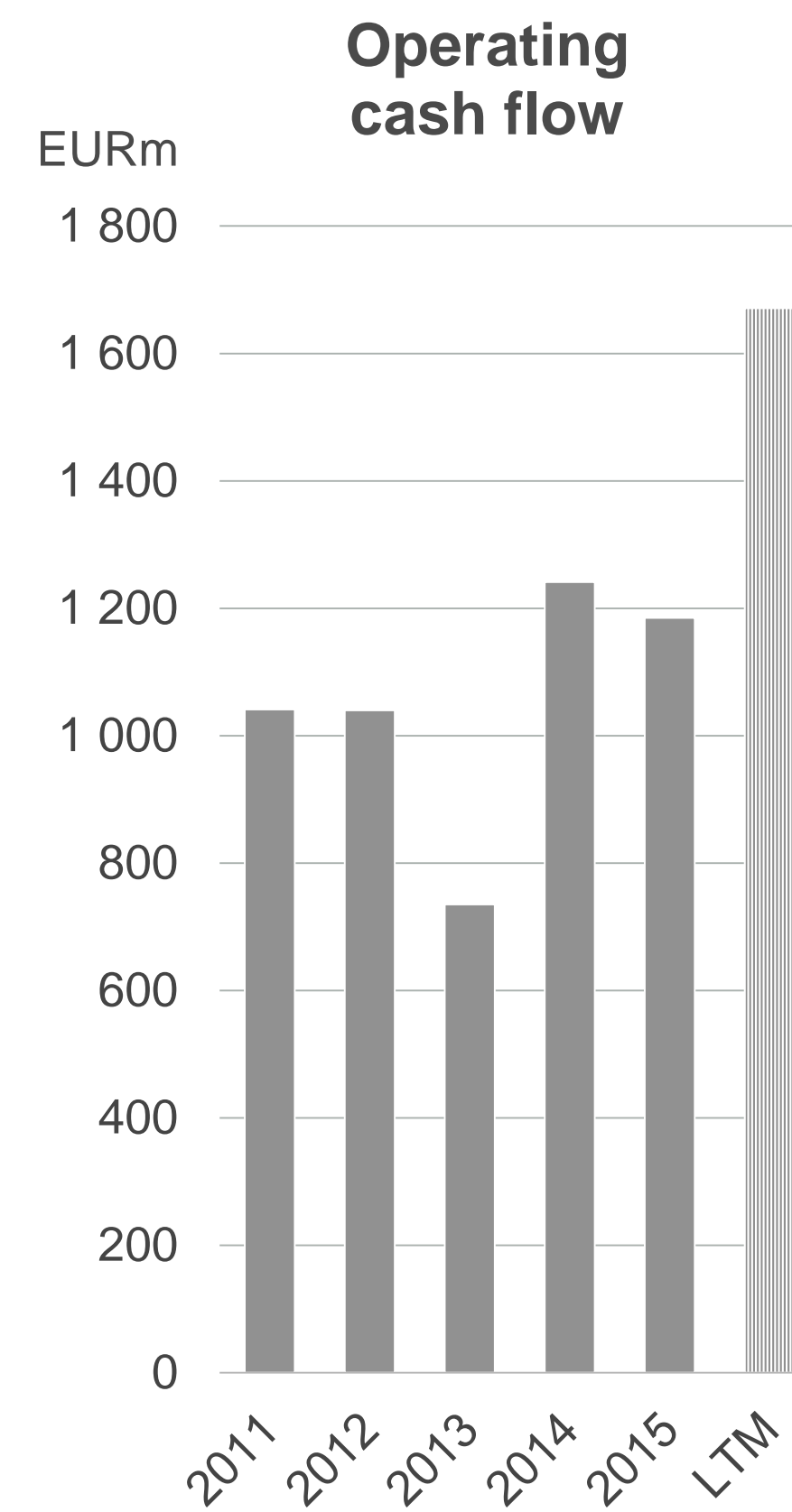
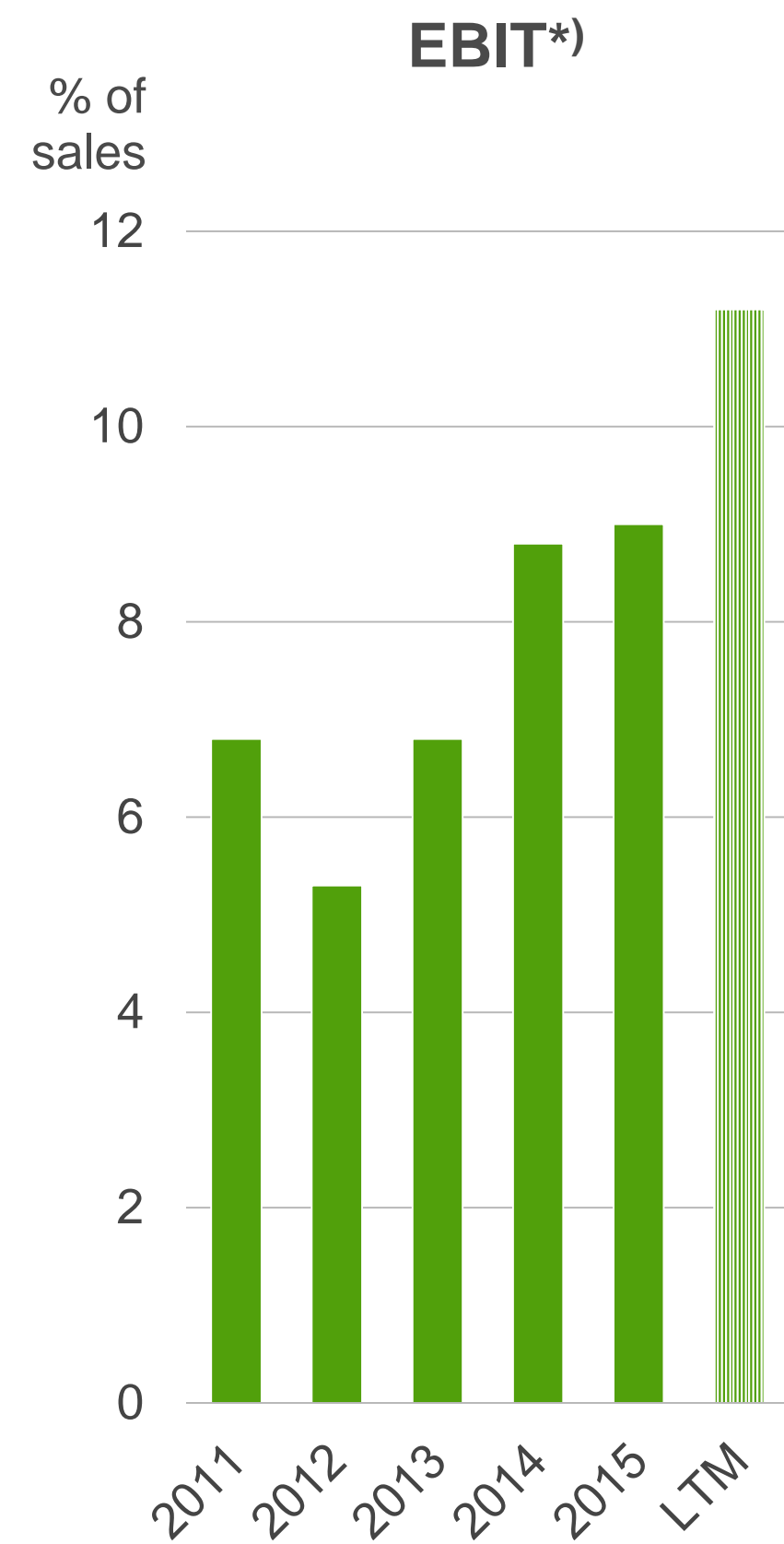
\*) shareholdings in UPM Energy valued at fair value

Long-term return target





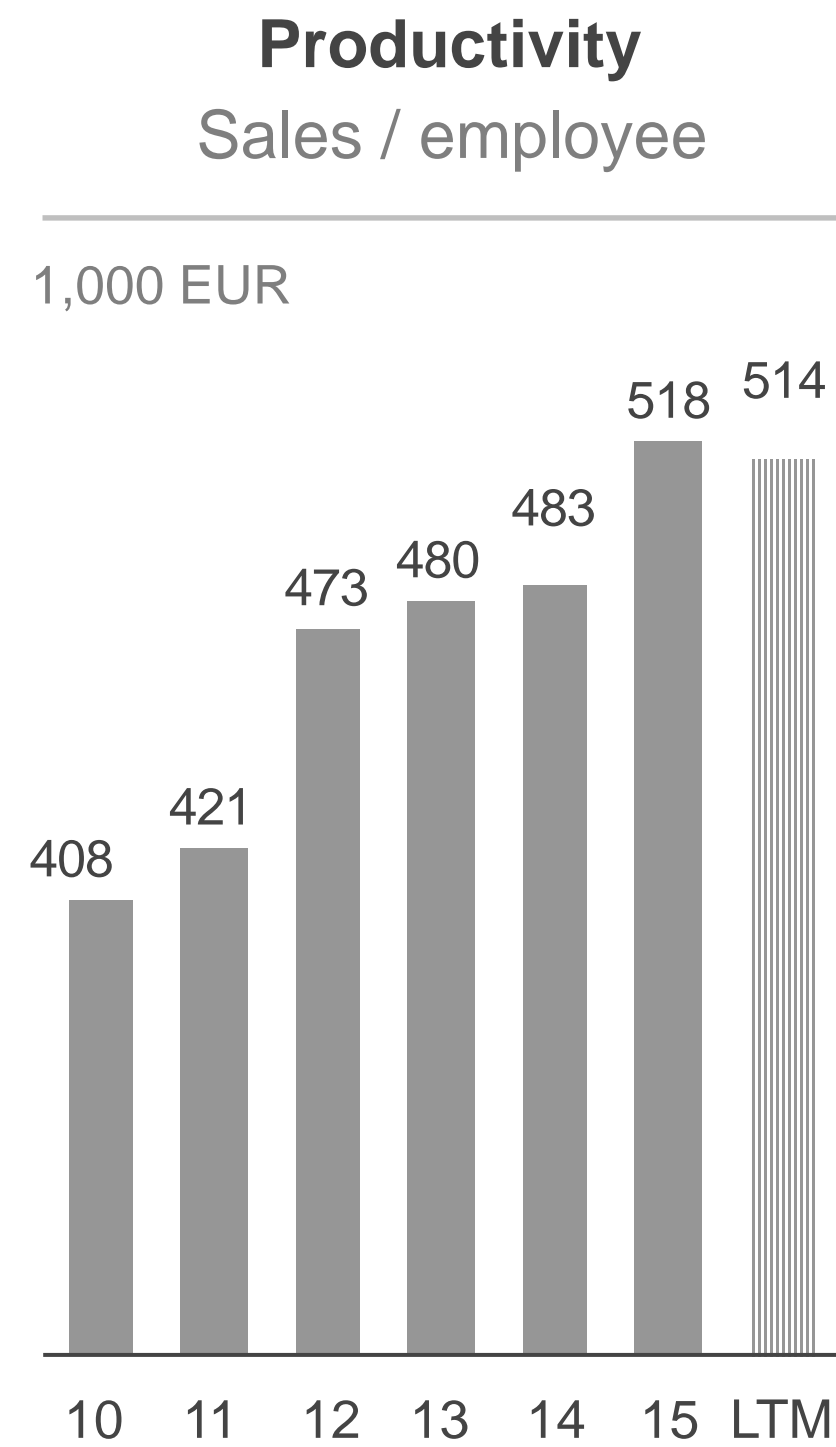
# Group financial performance



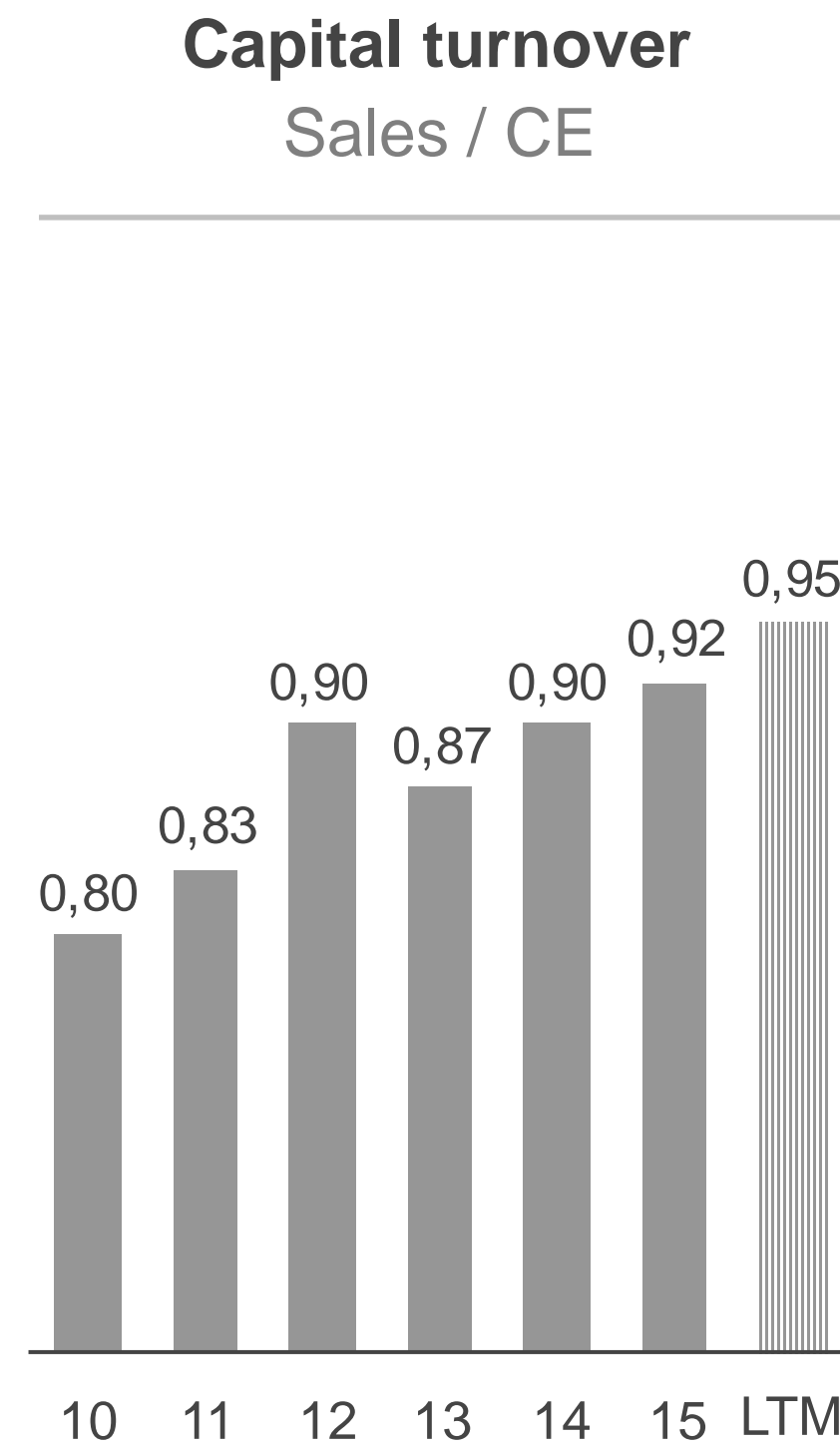
\*) comparable figures for 2015 and 2014, excluding special items for earlier years



# Consistent improvement



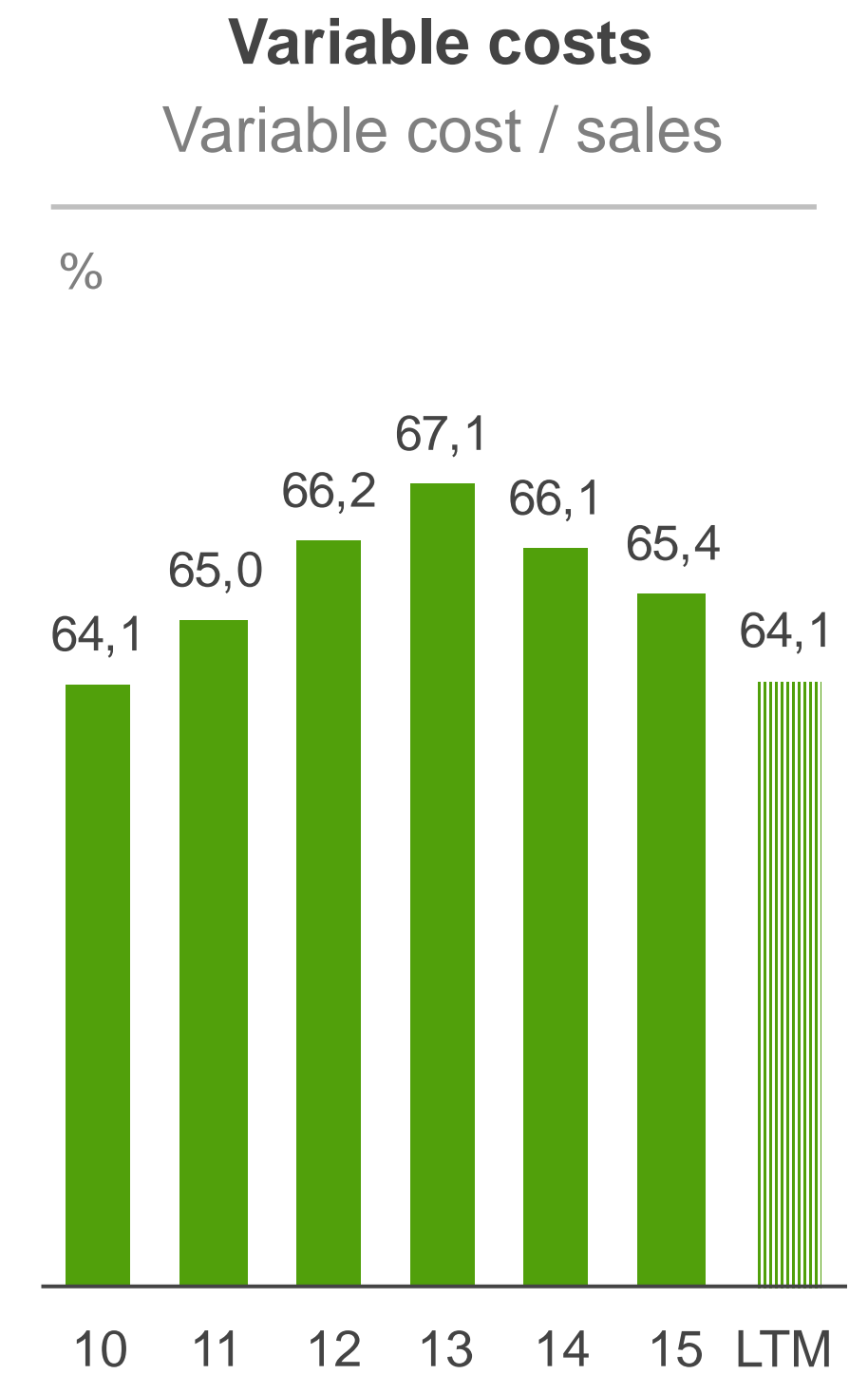
**Commercial strategies**  
**Efficient use of assets**  
**Focused investments**



**Capital allocation**  
**Focused investments**  
**Efficient use of assets**  
**WOC management**



**Commercial strategies**  
**Efficient use of assets**  
**Restructuring**  
**Maintenance**

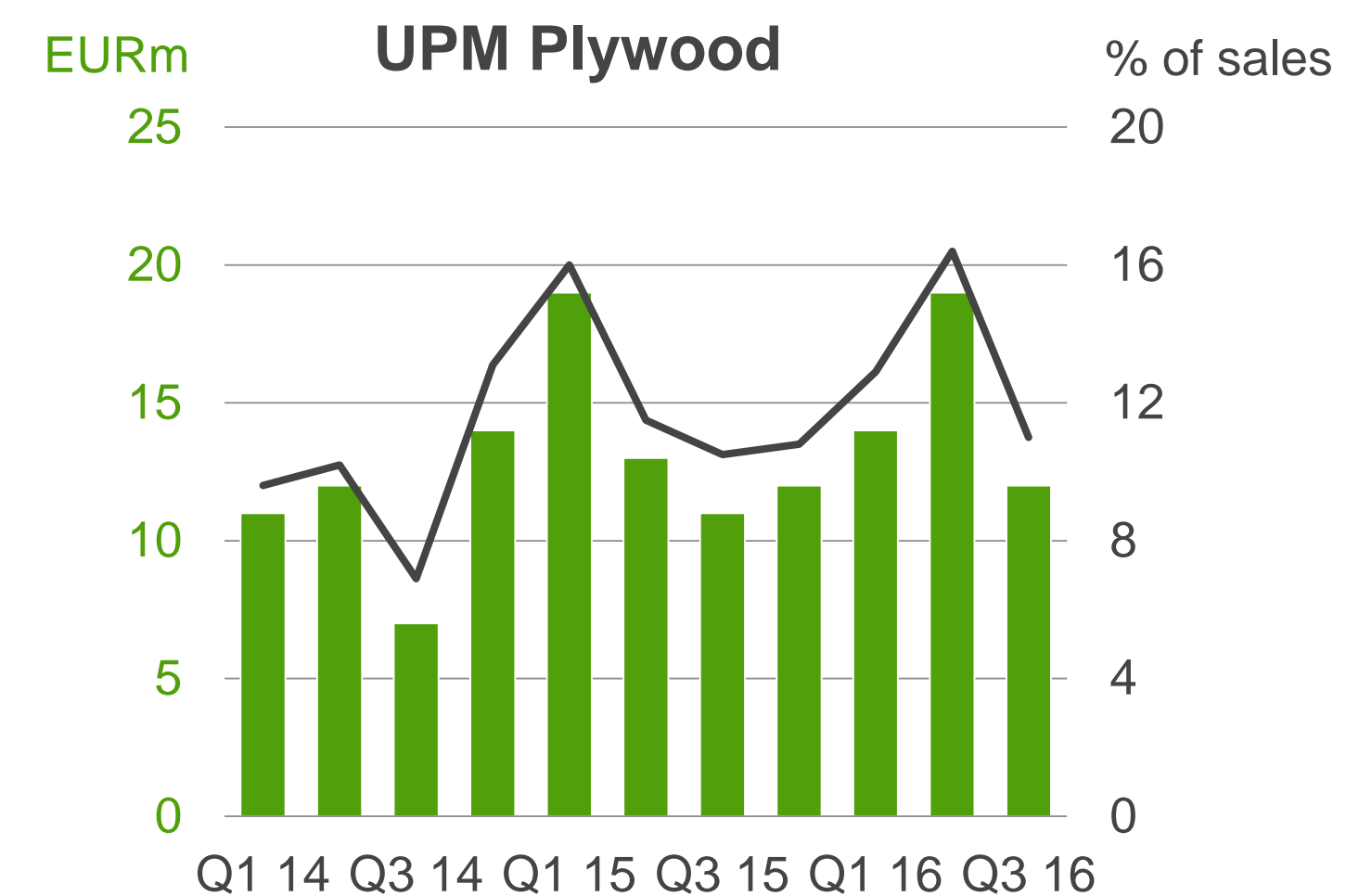
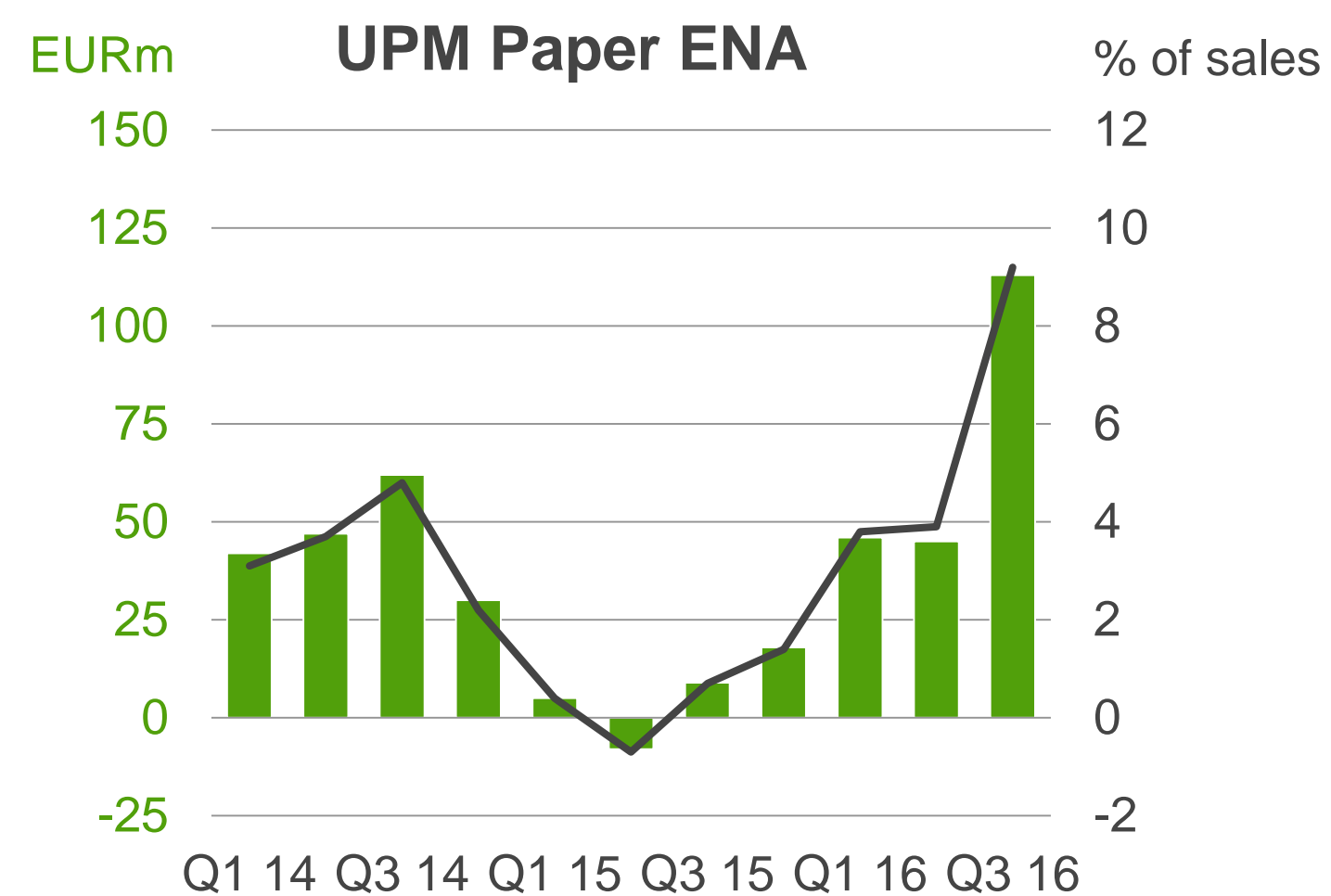
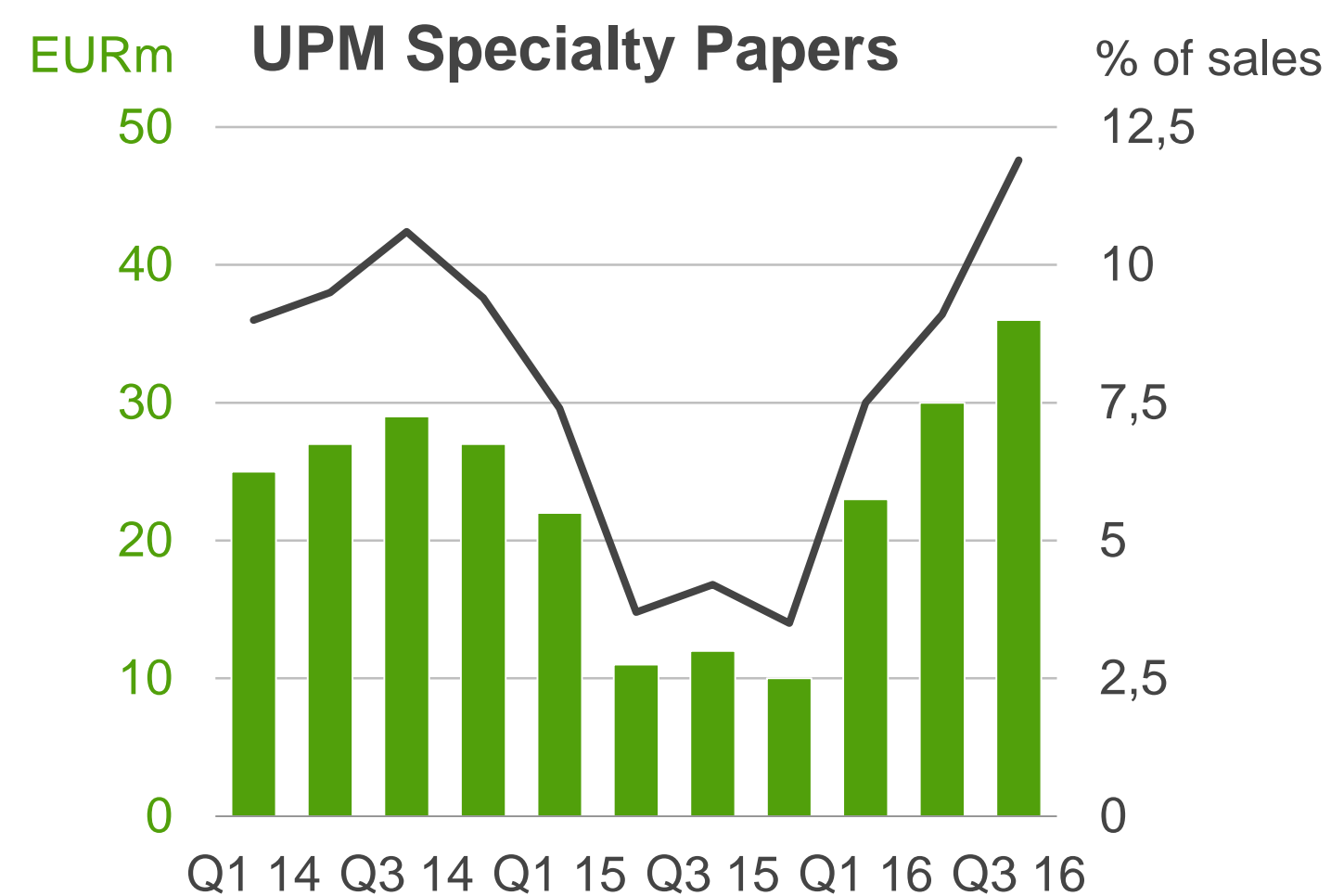
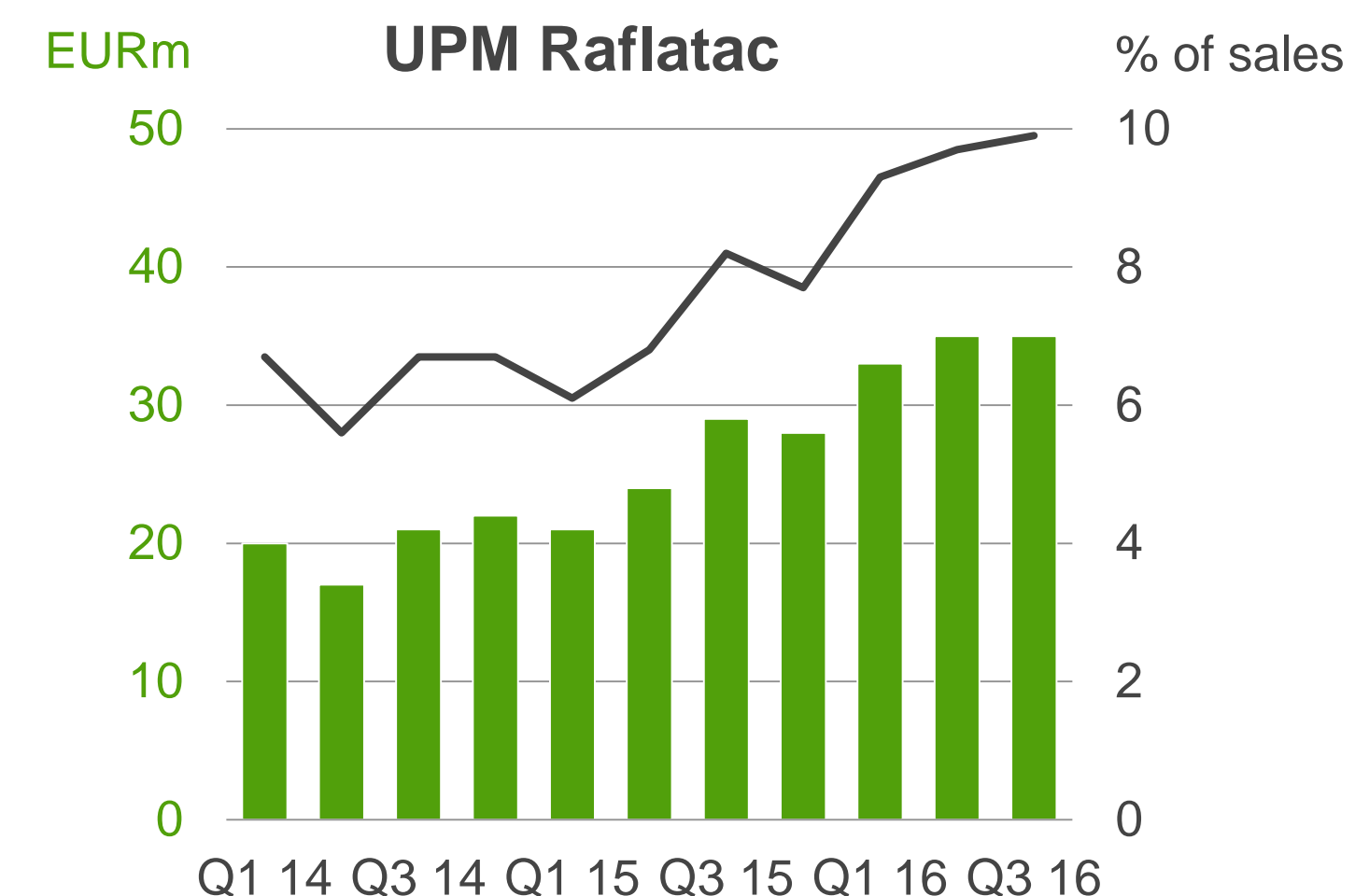
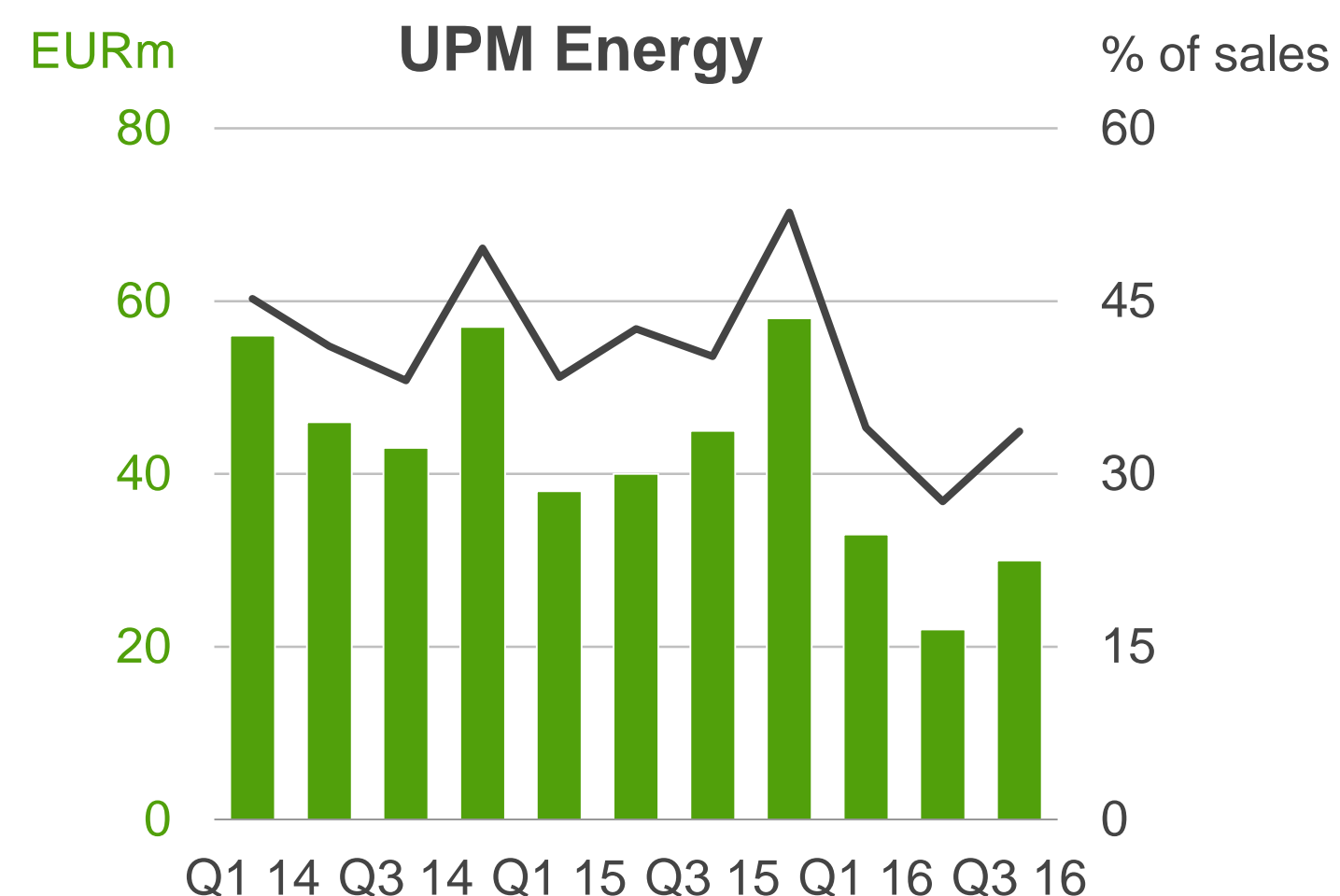
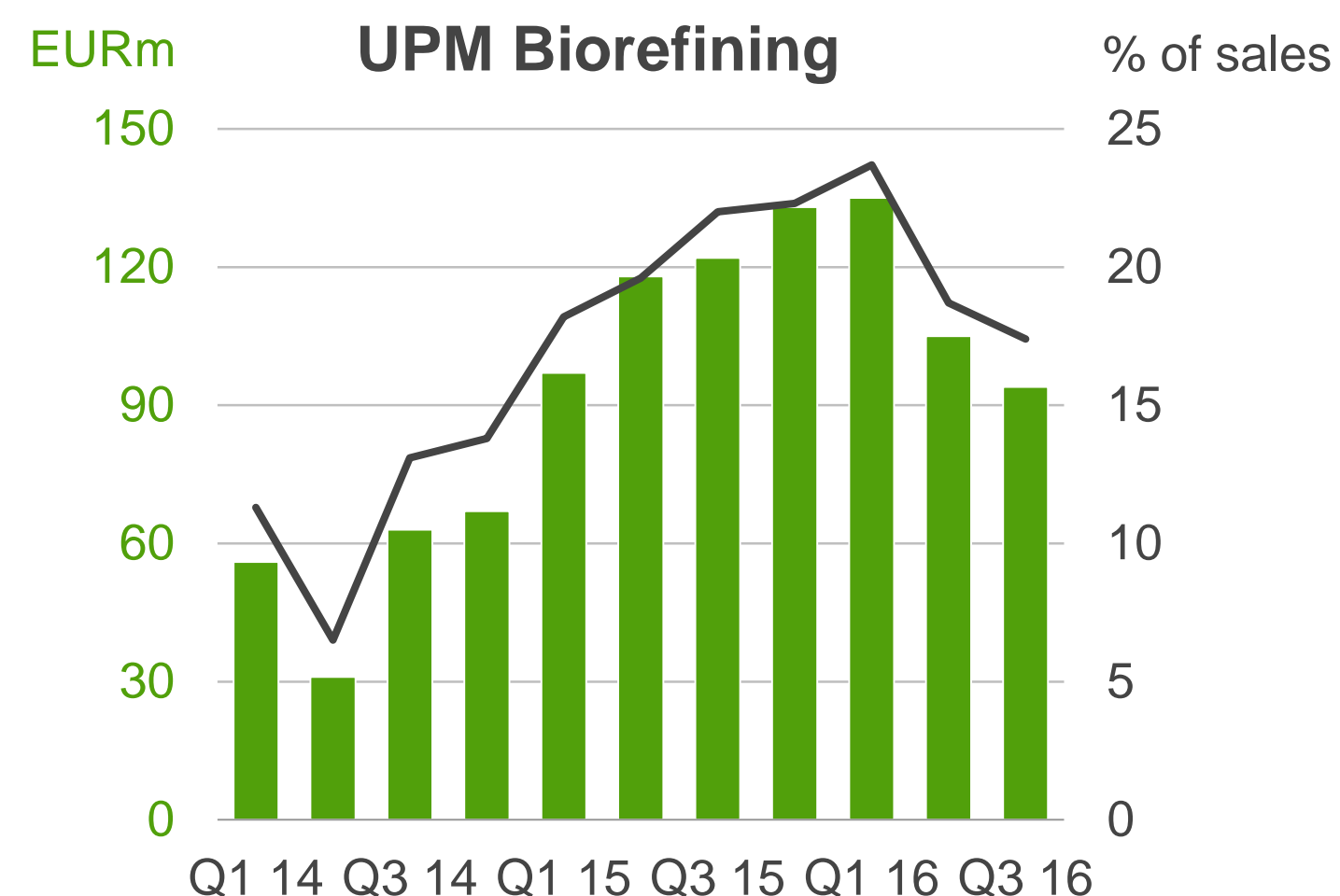


**Variable cost measures**  
**Materials efficiency**  
**Energy efficiency**  
**Efficient use of assets**





# Comparable EBIT by business area

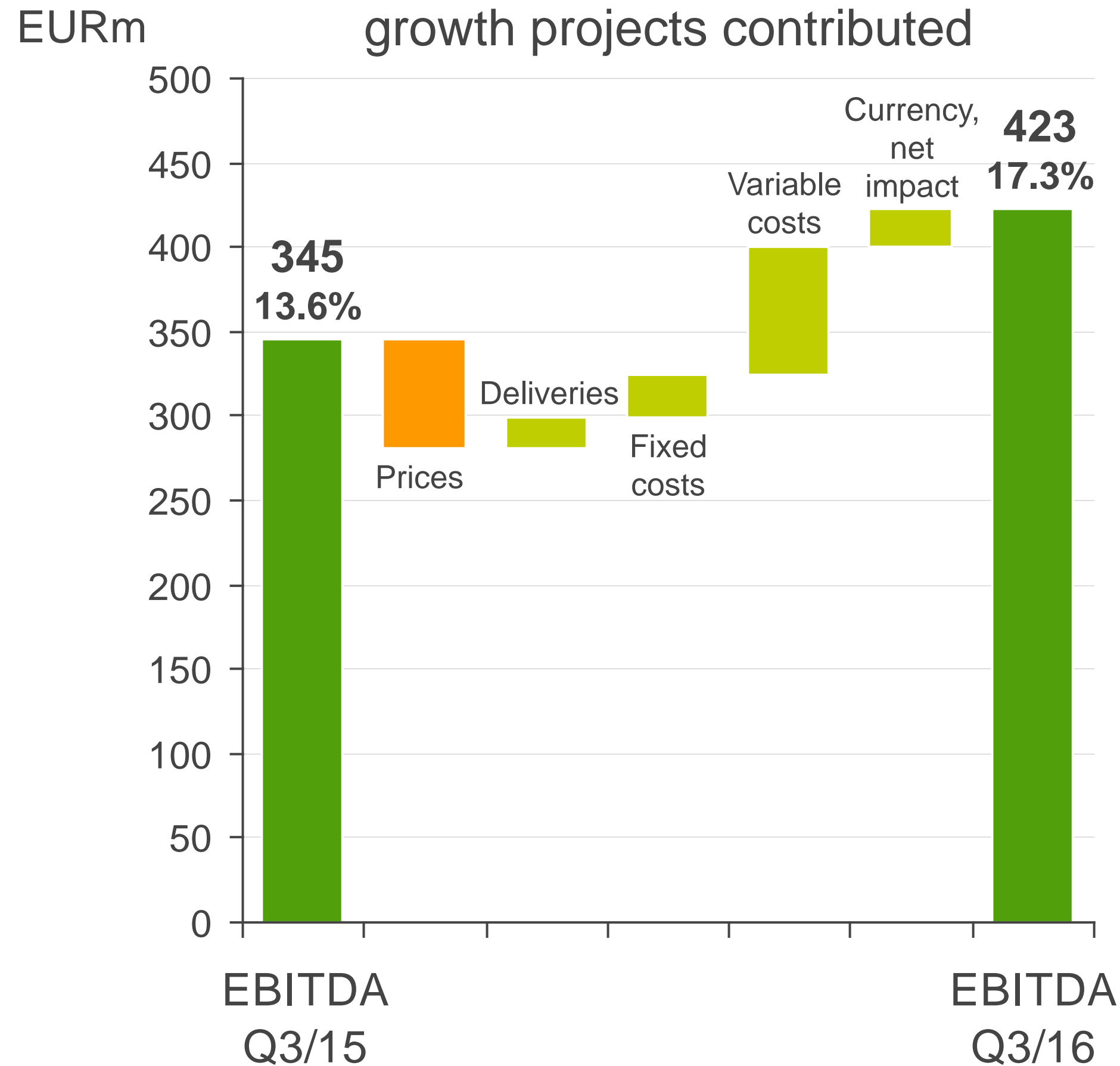




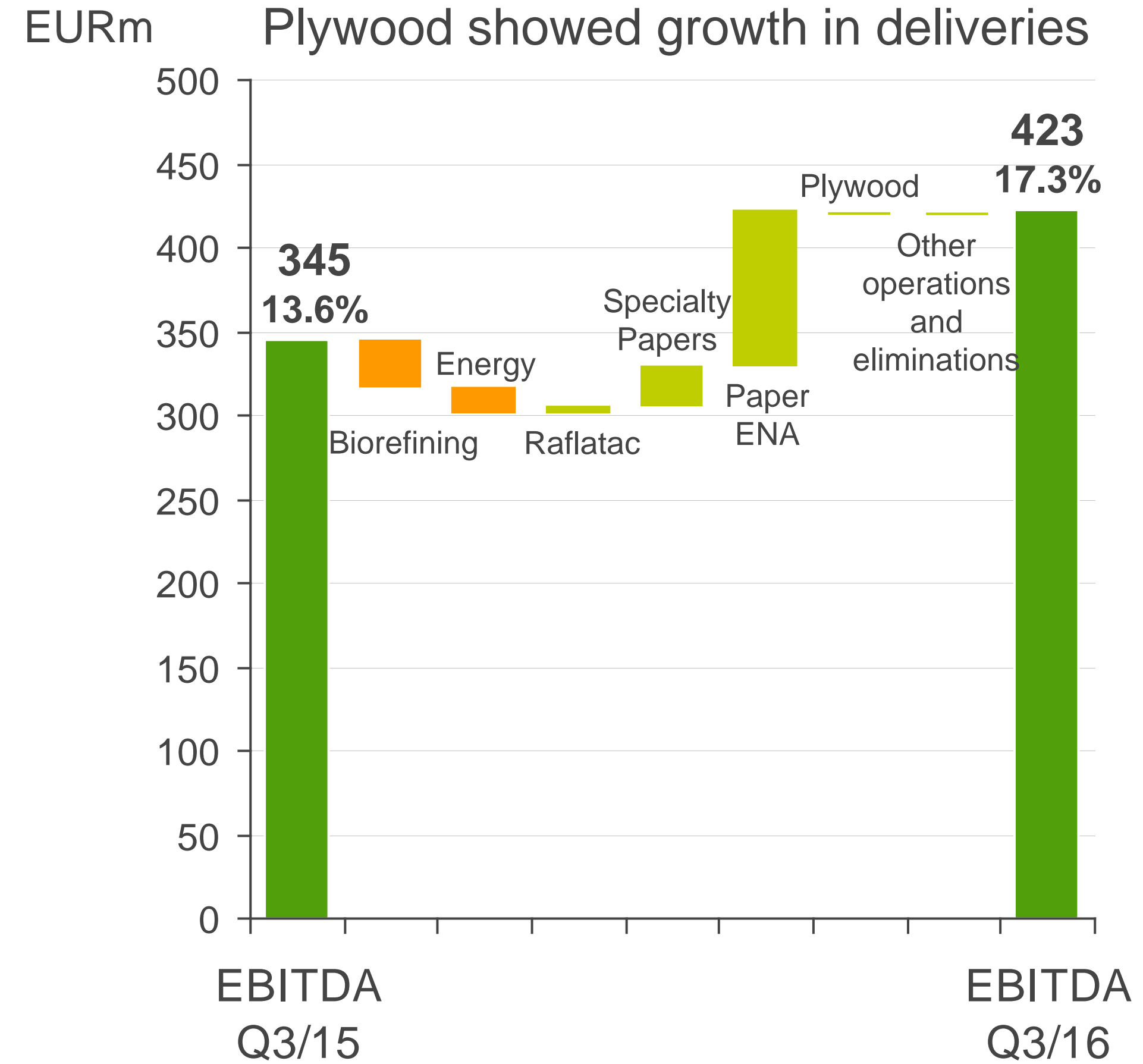


# Comparable EBITDA in Q3 2016 vs. Q3 2015

Cost efficiency measures on strong track in a deflationary business environment, growth projects contributed



Cost efficiency improved in all businesses. Biorefining, Raflatac, Specialty Papers and Plywood showed growth in deliveries





# Outlook for 2016 is unchanged

- UPM's profitability is expected to improve in both the full year 2016 and H2 2016, compared with last year. Q4 2016 performance is expected to be negatively impacted compared to Q3 2016 by seasonal factors and clearly higher maintenance activity in UPM Biorefining and UPM Paper ENA.
- UPM's growth projects are expected to contribute positively to the company's earnings in 2016, compared with 2015. UPM is continuing its measures to reduce variable and fixed costs in 2016. Currencies are expected to contribute positively as hedges have rolled over.



# Responsibility is good business

## MORE WITH BIOFORE



Creating value through products and innovation



Creating competitive advantage and long-term value by efficiency



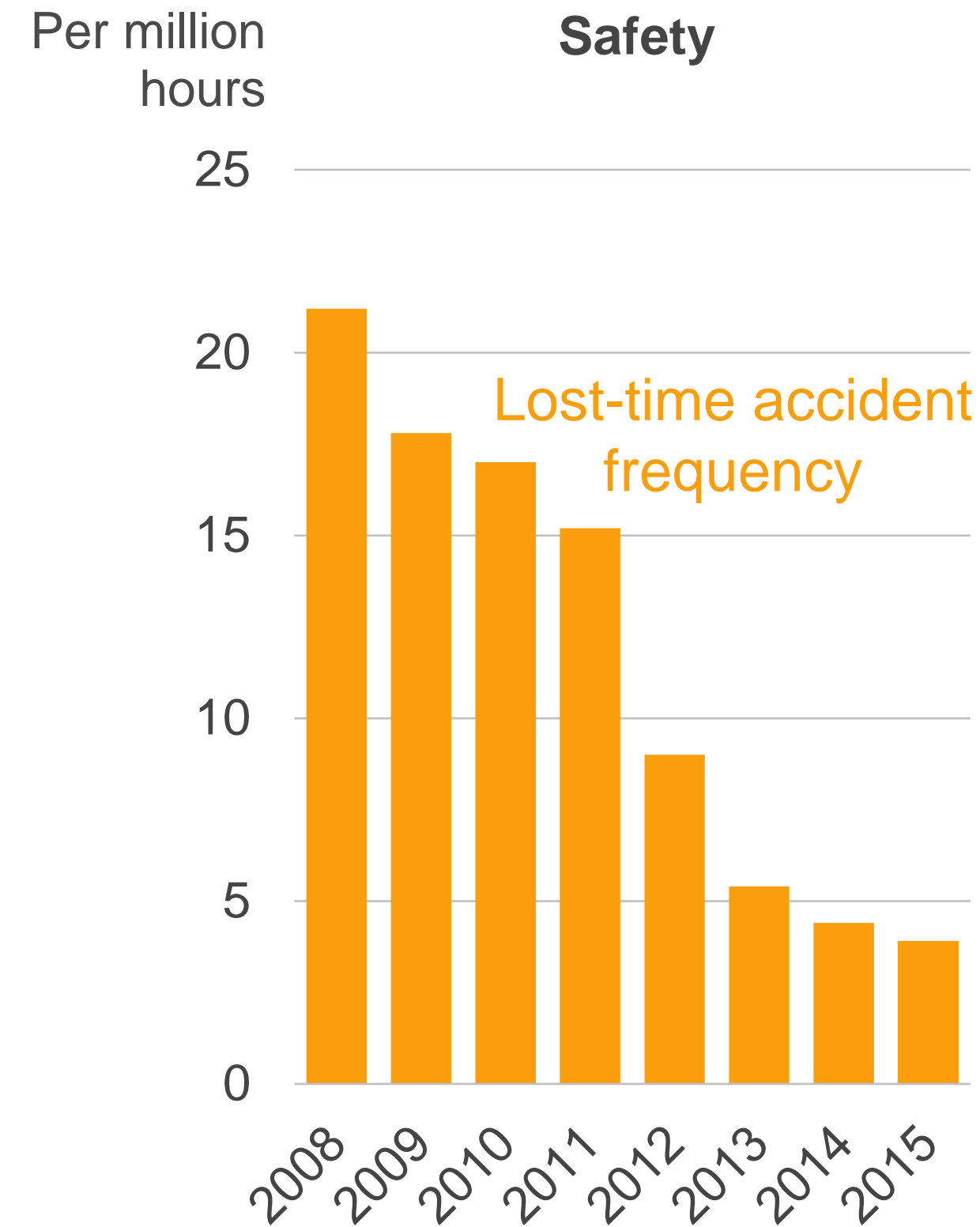
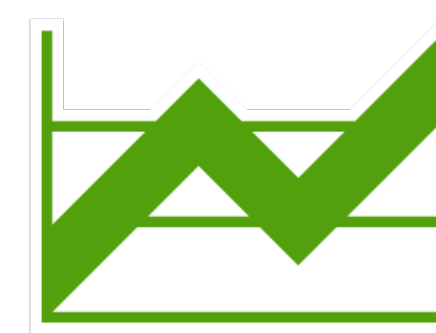
Risk mitigation by responsible value chain and production

**"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."**

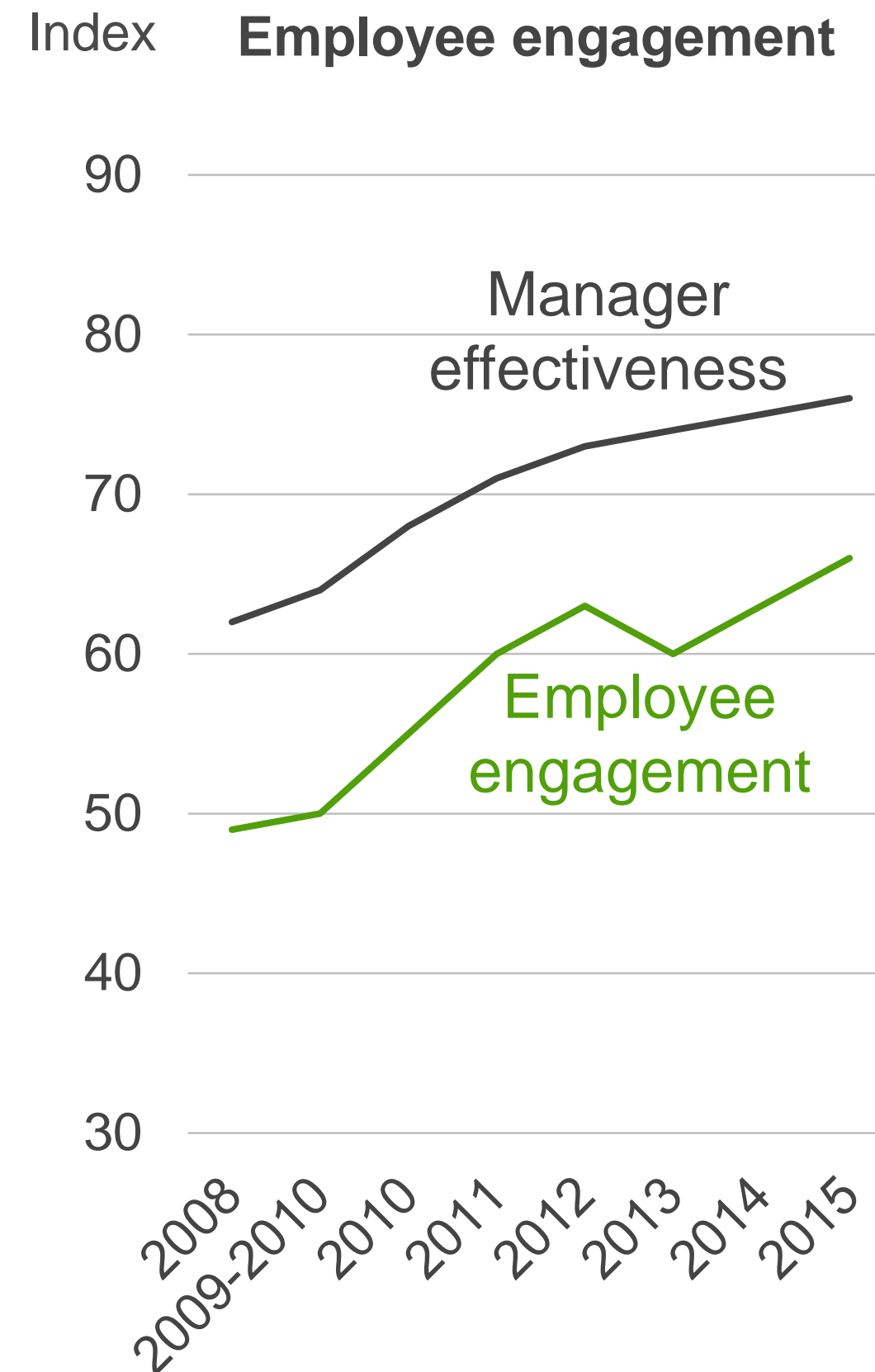
UPM Annual Report 2015



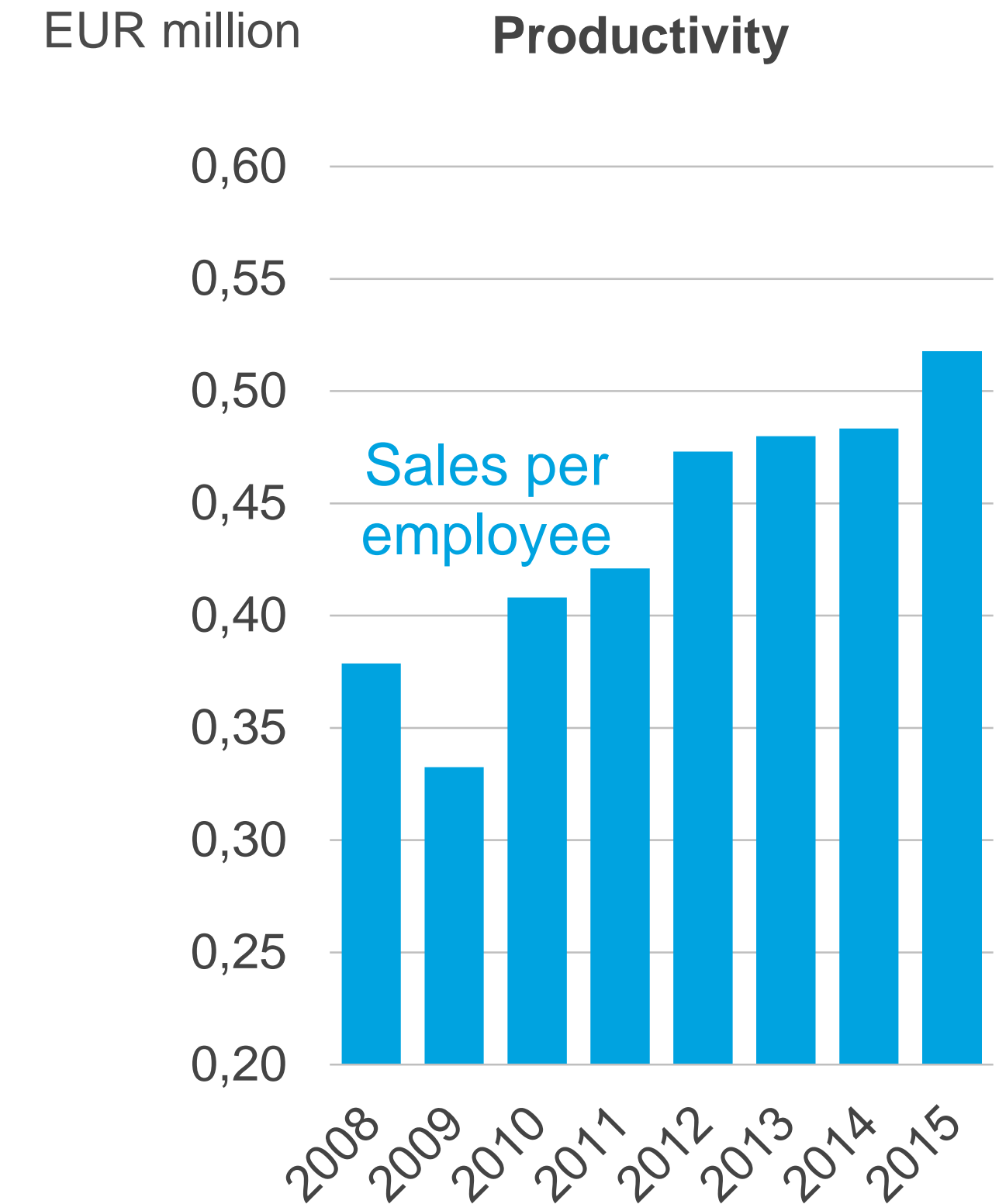
# Creating competitive advantage and long-term value by engagement



5-year change:  
**-77%**



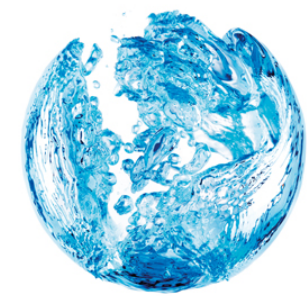
5-year change:  
**+11**



5-year CAGR:  
**+5%**

# Creating competitive advantage and long-term value by efficiency

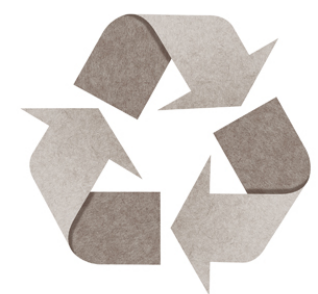
Case: UPM Changshu mill in China



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



SO<sub>2</sub> emission  
**-90%**  
Per tonne of paper

water intake



water discharge



Source: UPM

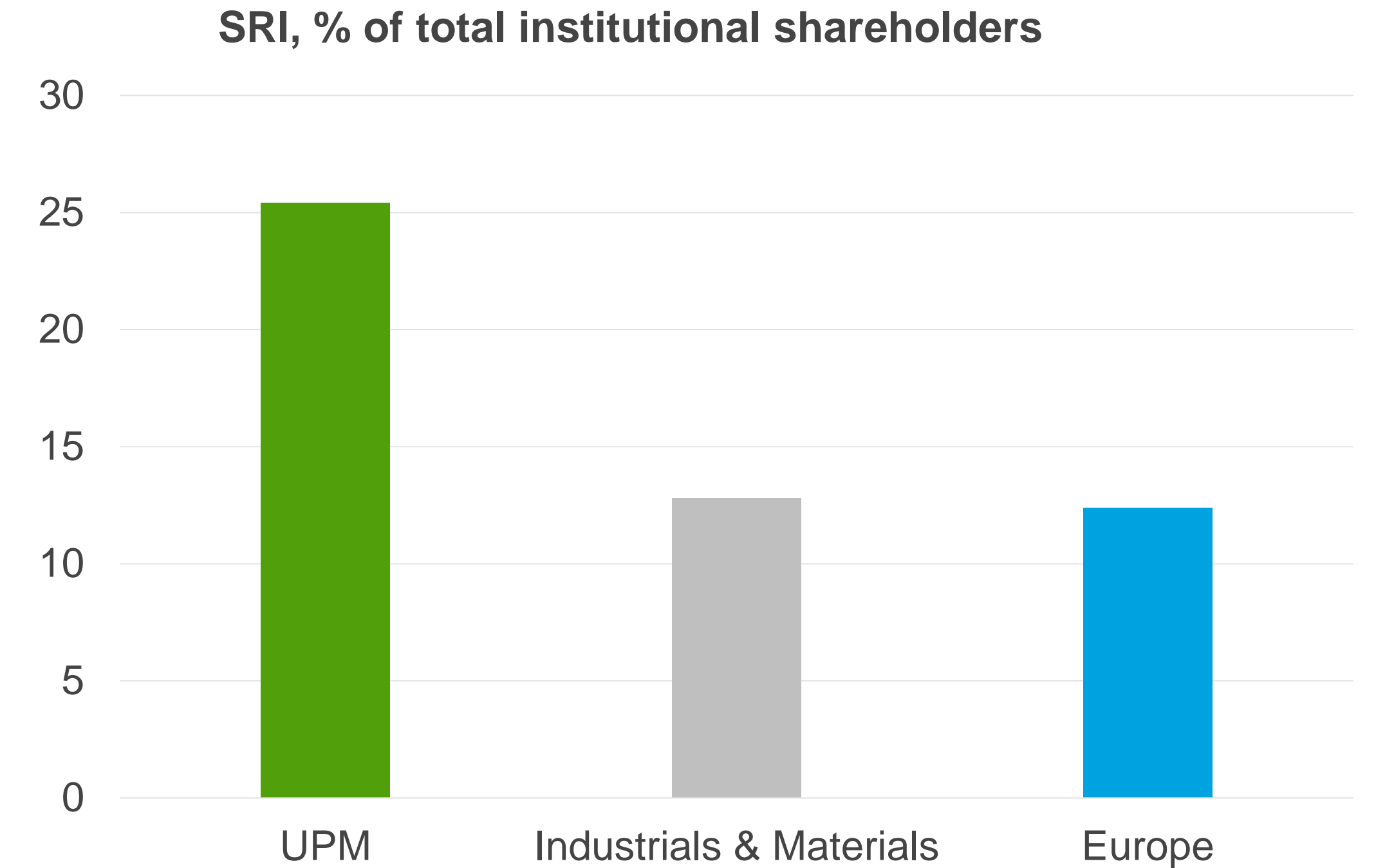


# Consistent long-term work receives external recognition

UPM in sustainability indices



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



Source: Nasdaq, October 2015



UPM Biorefining

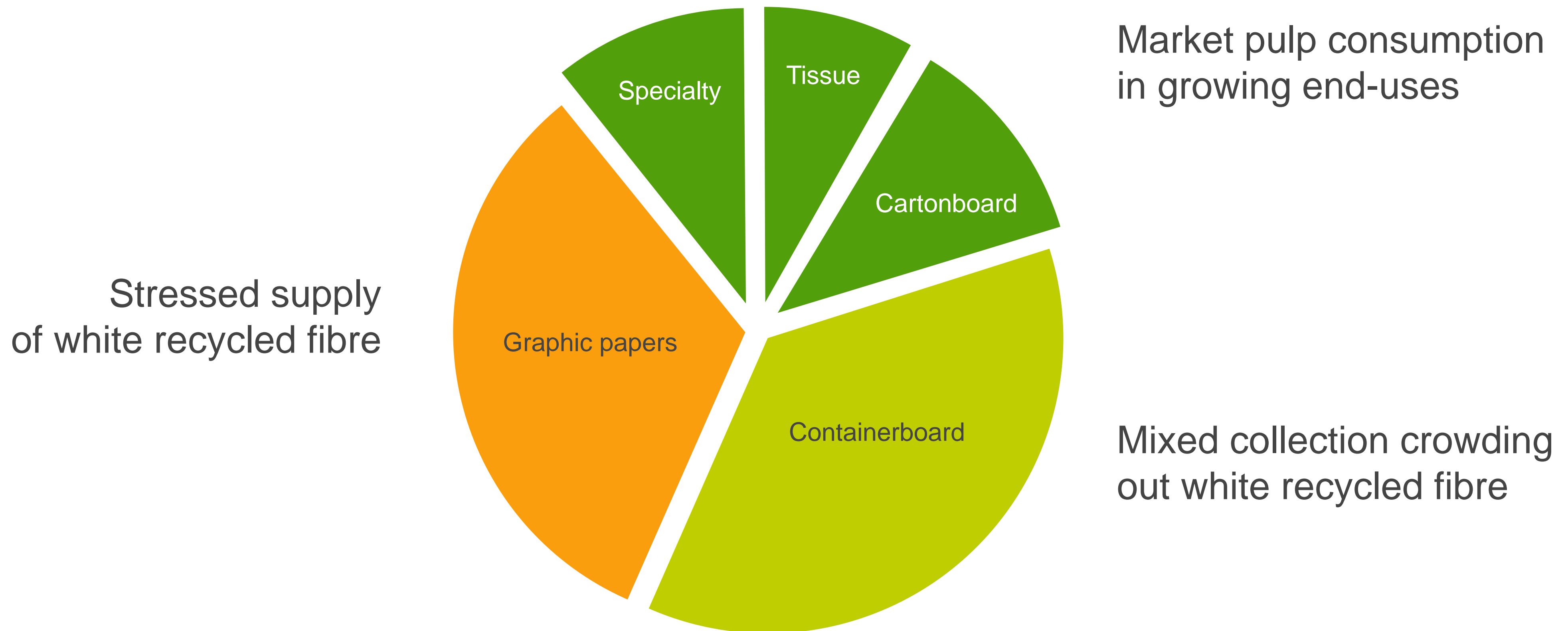
# Pulp is used in products we all use daily





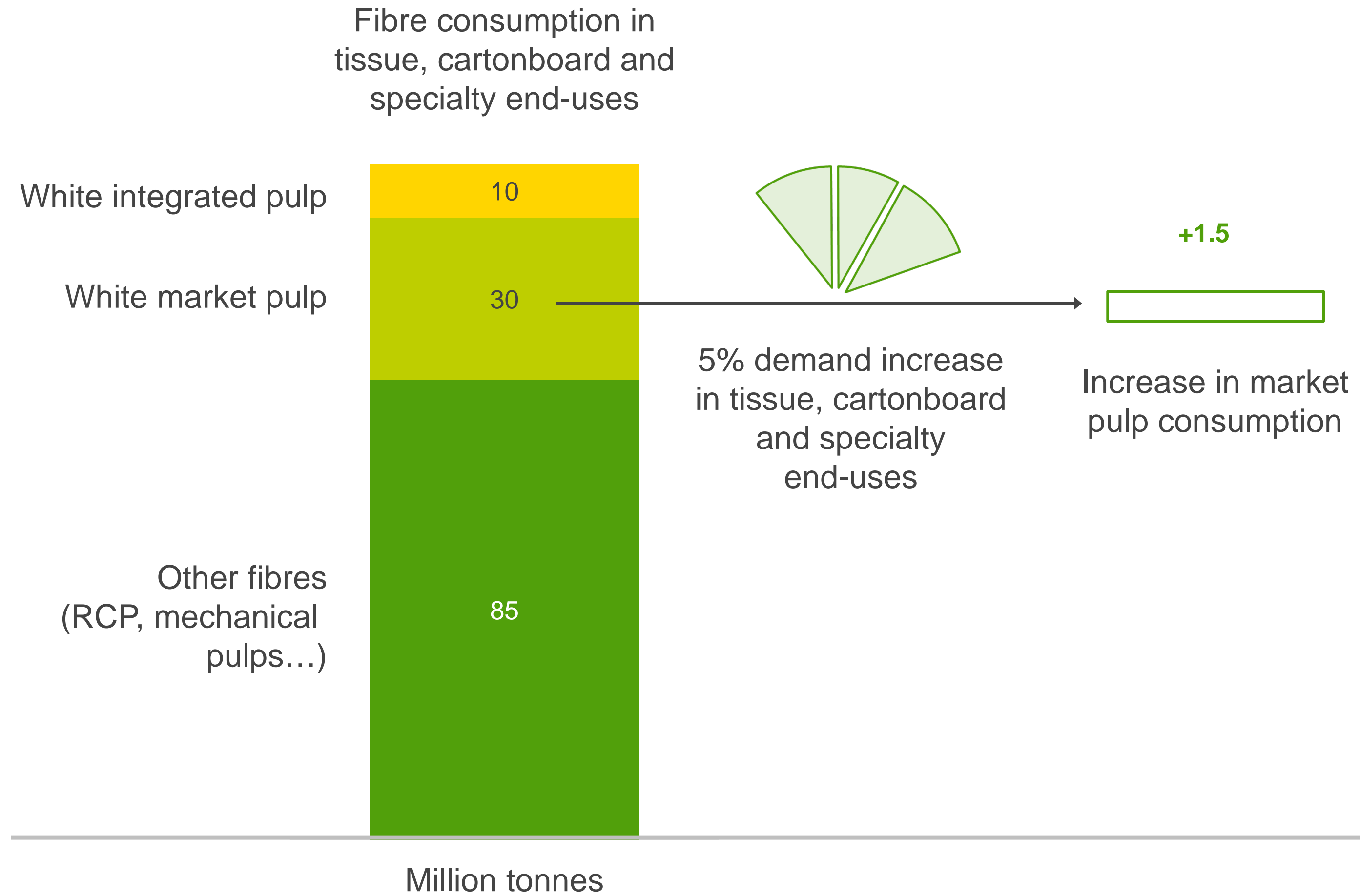
# Market pulp consumed in growing end-uses – supply of alternative white fibres declines

## Global paper and board production



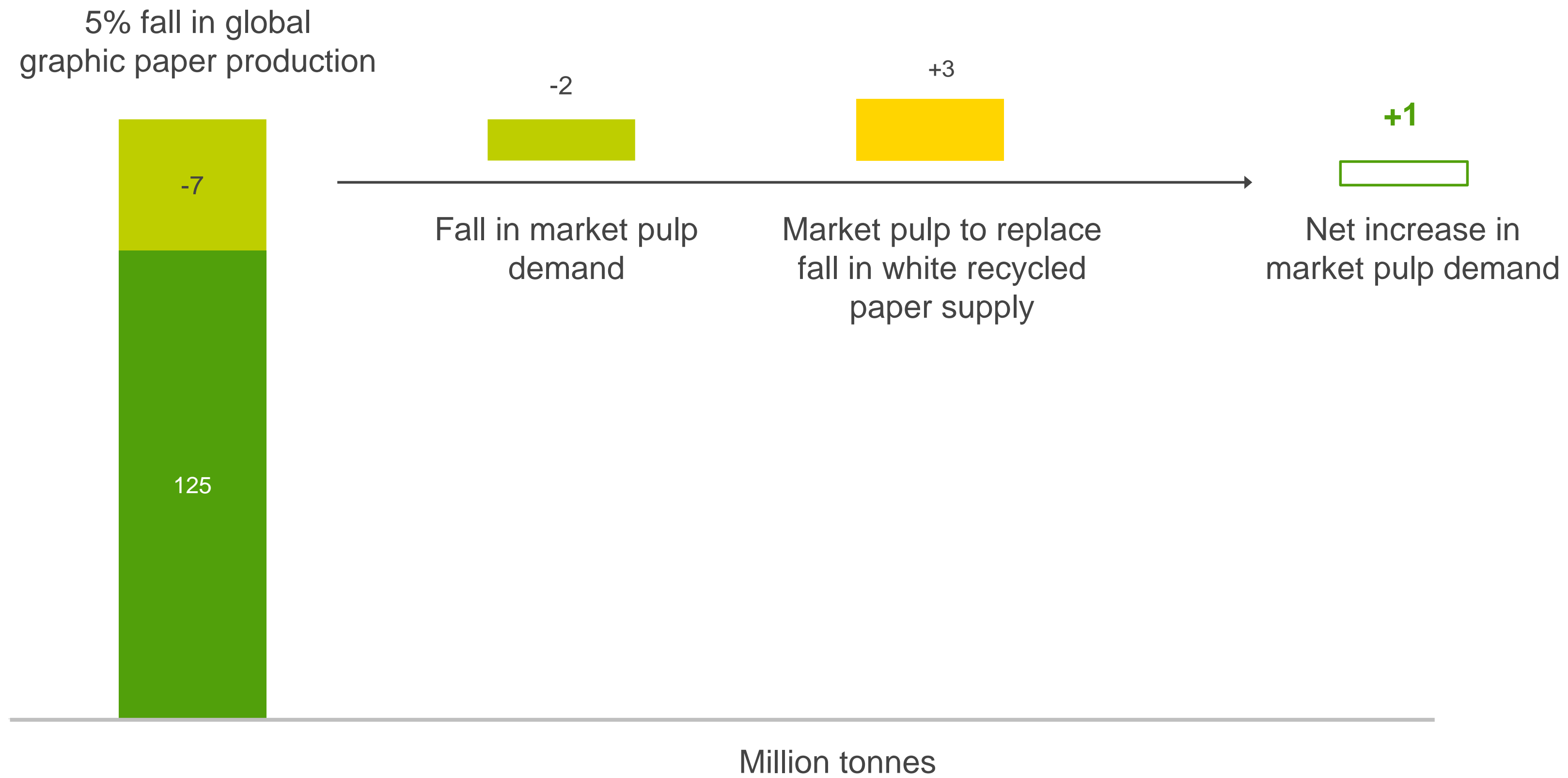


# Case: Market pulp consumption in growing end-uses



Source: Pöyry, Hawkins Wright, UPM

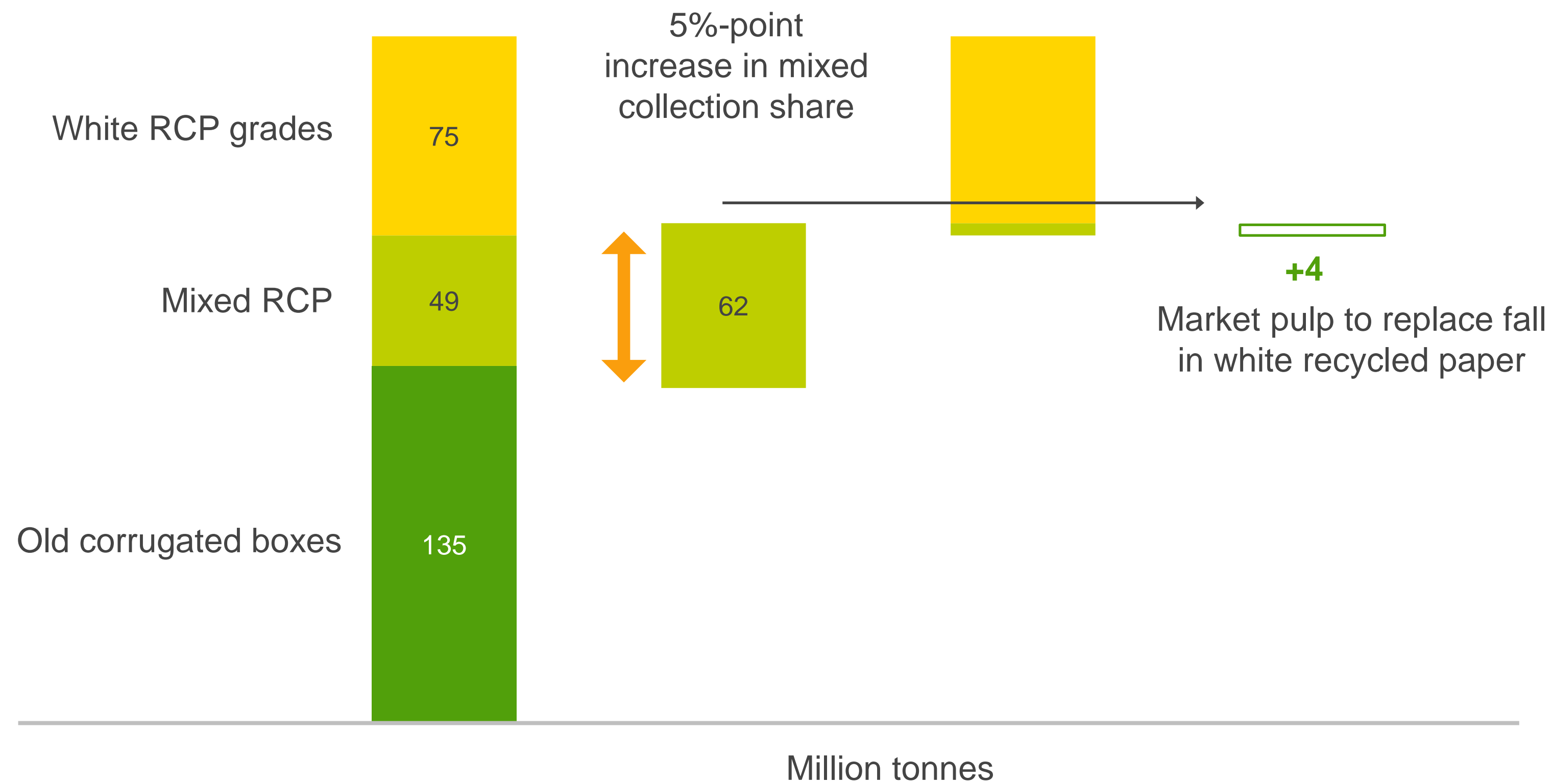
# Case: Stressed supply of white recycled paper



Source: Pöyry, UPM



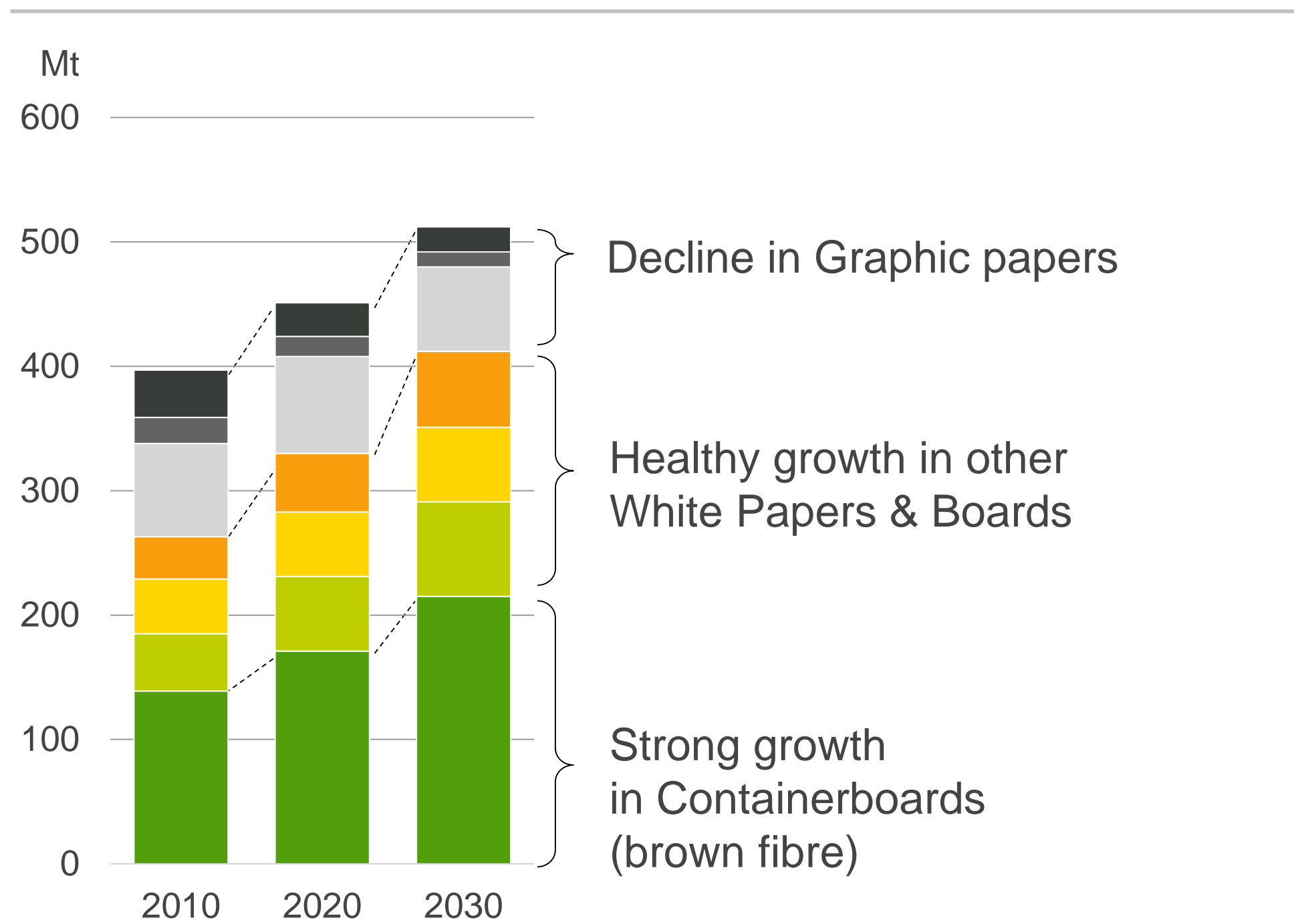
# Case: Mixed collection crowding out white recycled fibre



Source: Pöyry, UPM

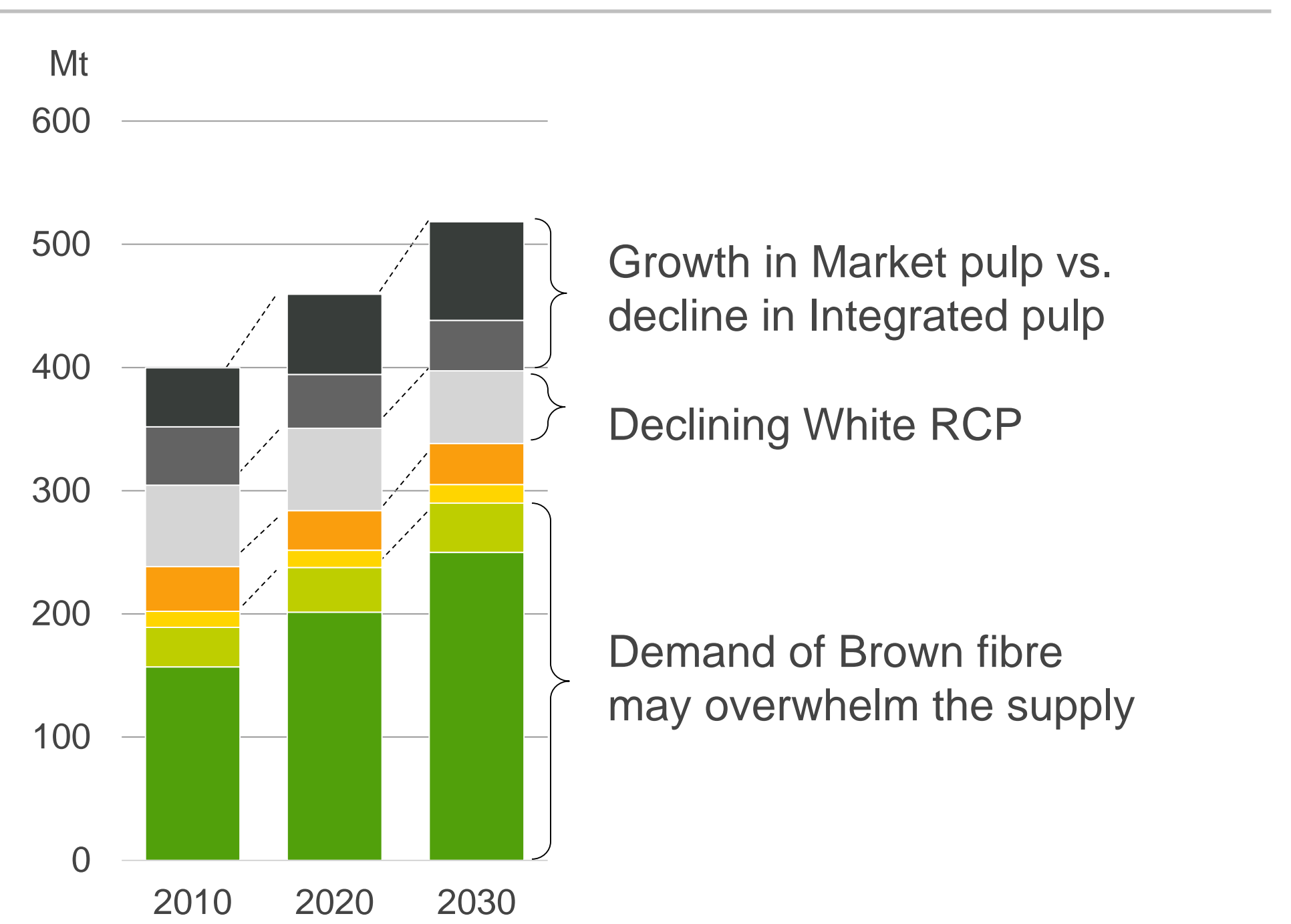
# Summary of pulp demand outlook

## Increase in end use ...



- Newsprint
- WC
- WF
- Spec. & other
- Container-boards
- Tissue & fluff
- Carton-boards
- WF: Wood-free graphical papers
- WC: Wood-containing graphical papers (magazine grades)

## ... will drive fibre demand in coming decades

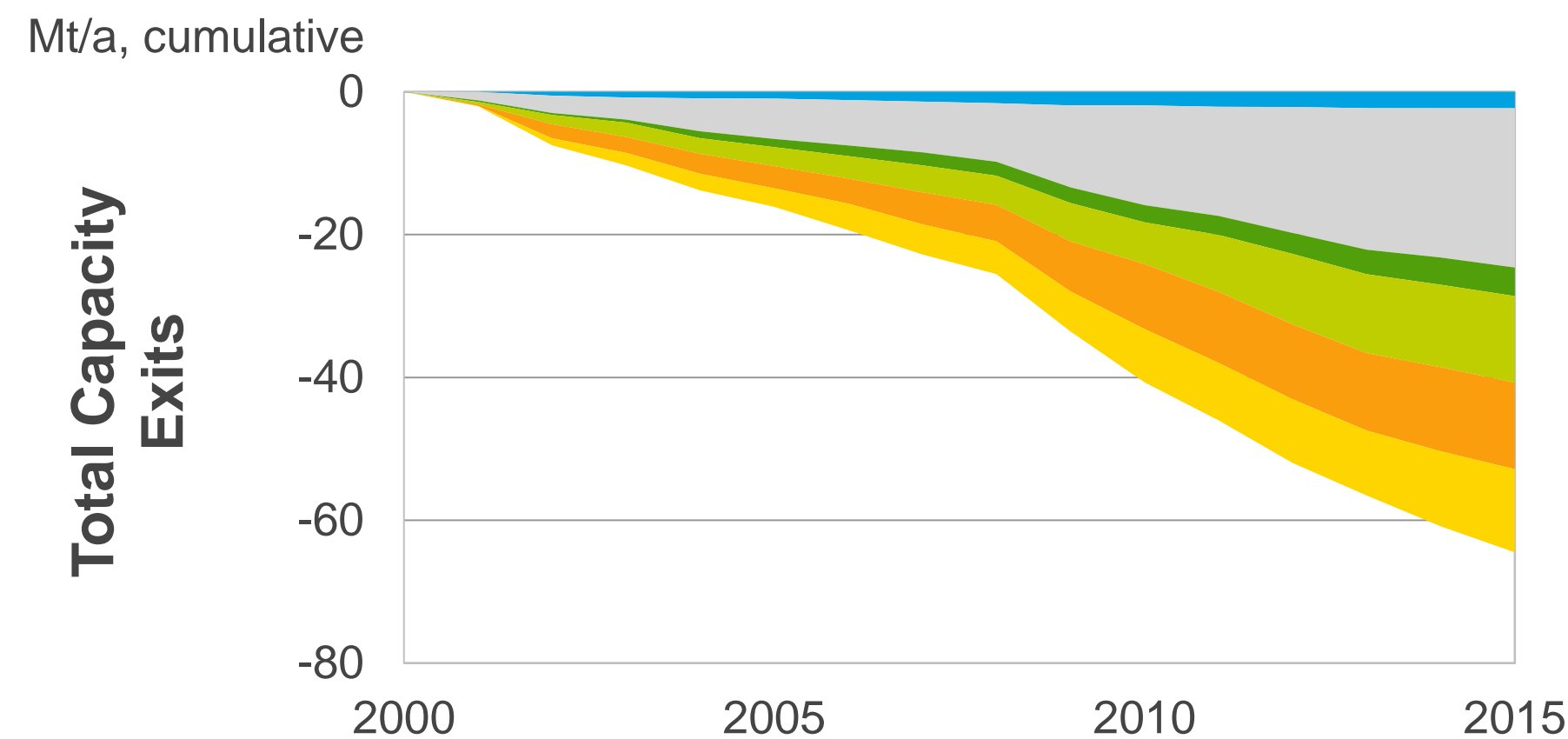
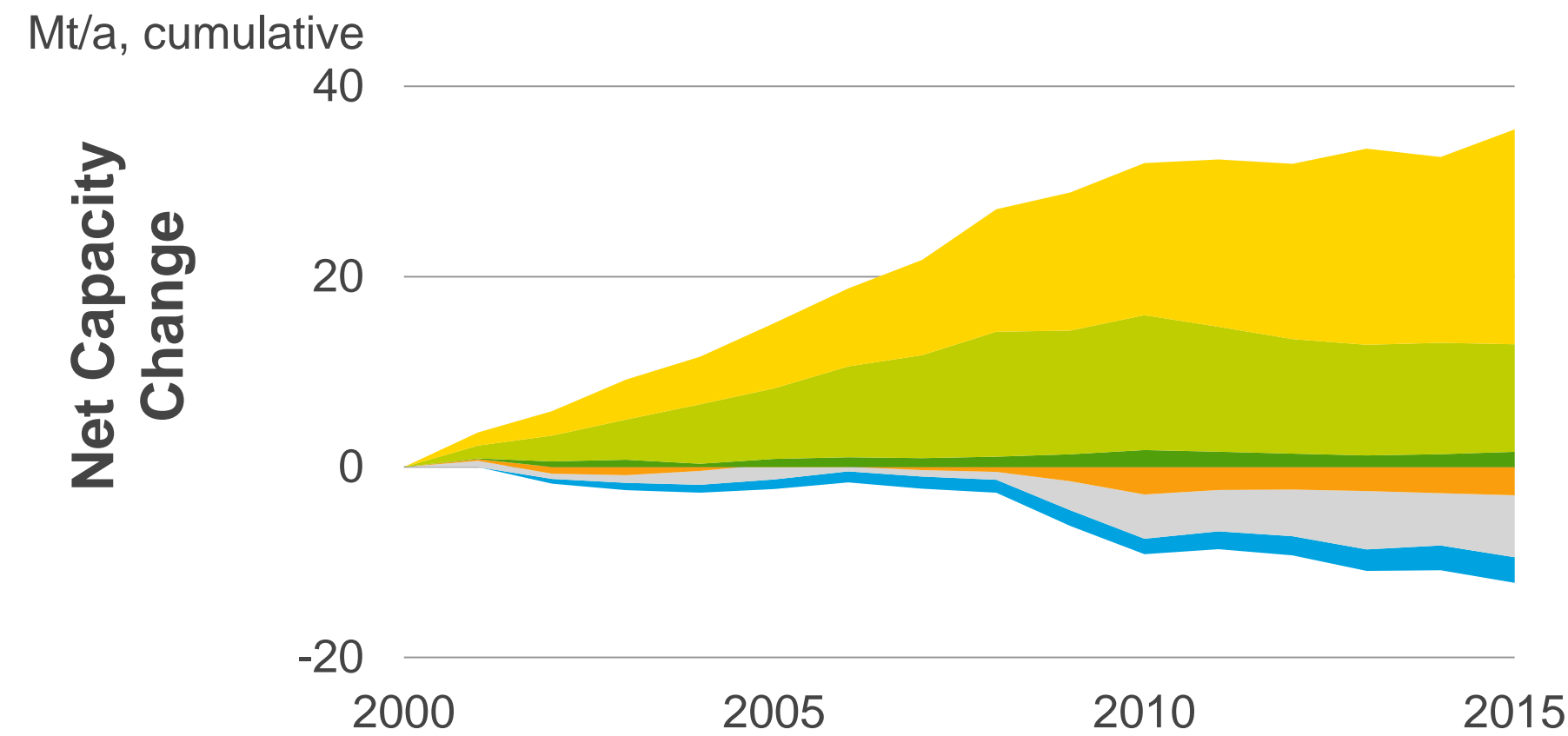


- RCP Brown
- Non-wood
- RCP White
- Market pulp
- Unbleached pulp
- Mechanical pulp
- Integrated pulp
- Estimated growth of White RCP + Integrated Pulp + Market Pulp is still conservative (~1 Mt/a)

Source: UPM, Pöyry, RISI



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



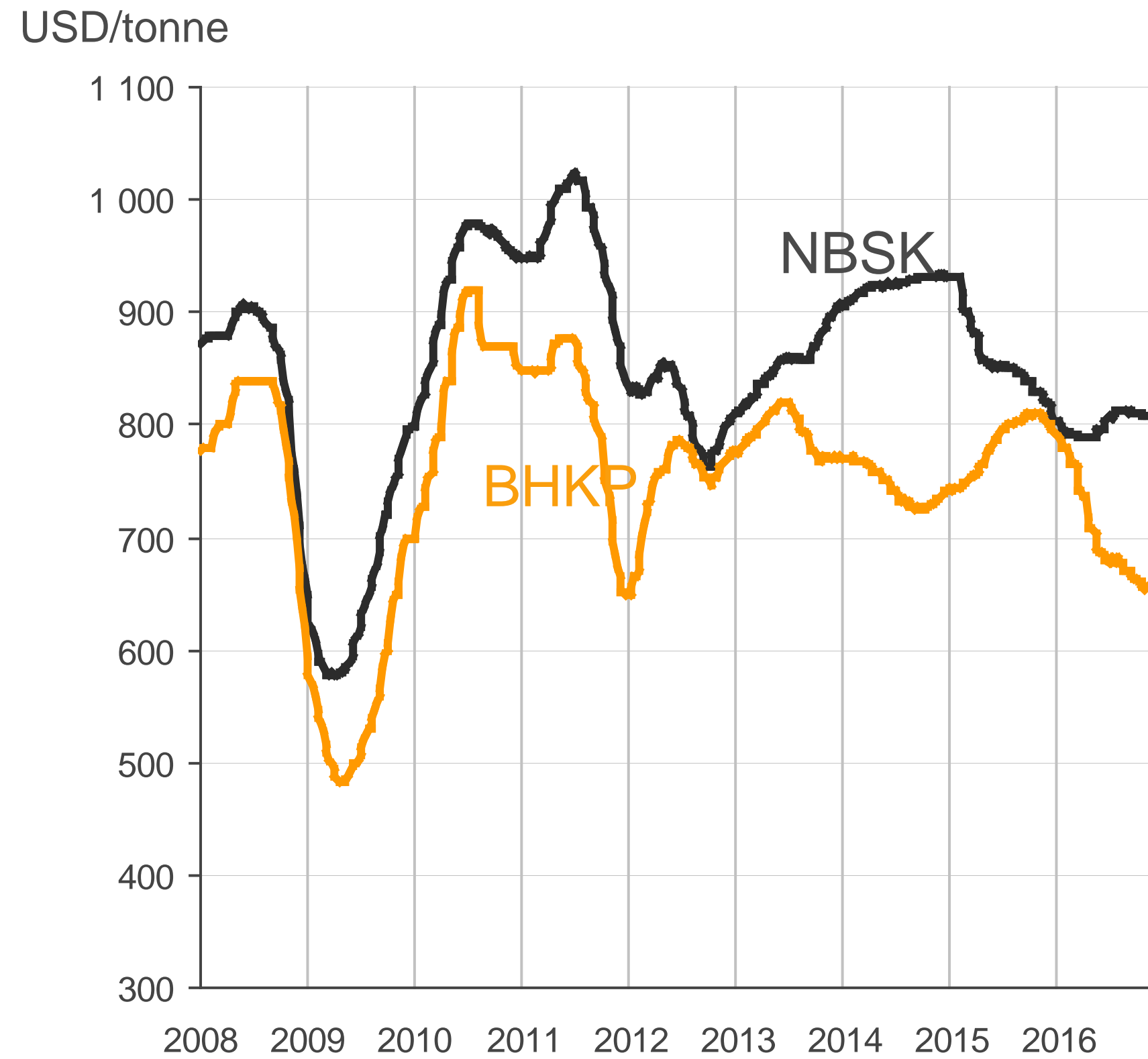
- **Hardwood pulp** capacity has experienced strong net growth after 2000 and is expected to continue growing.
- **Softwood** has faced closures as much as hardwood. New demand in China is turning decline into a slow growth.
- **White RCP** was the fastest-growing fibre in Europe and NA in early 1990's. 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.

Note: Including both market and integrated pulp

Source: Pöyry

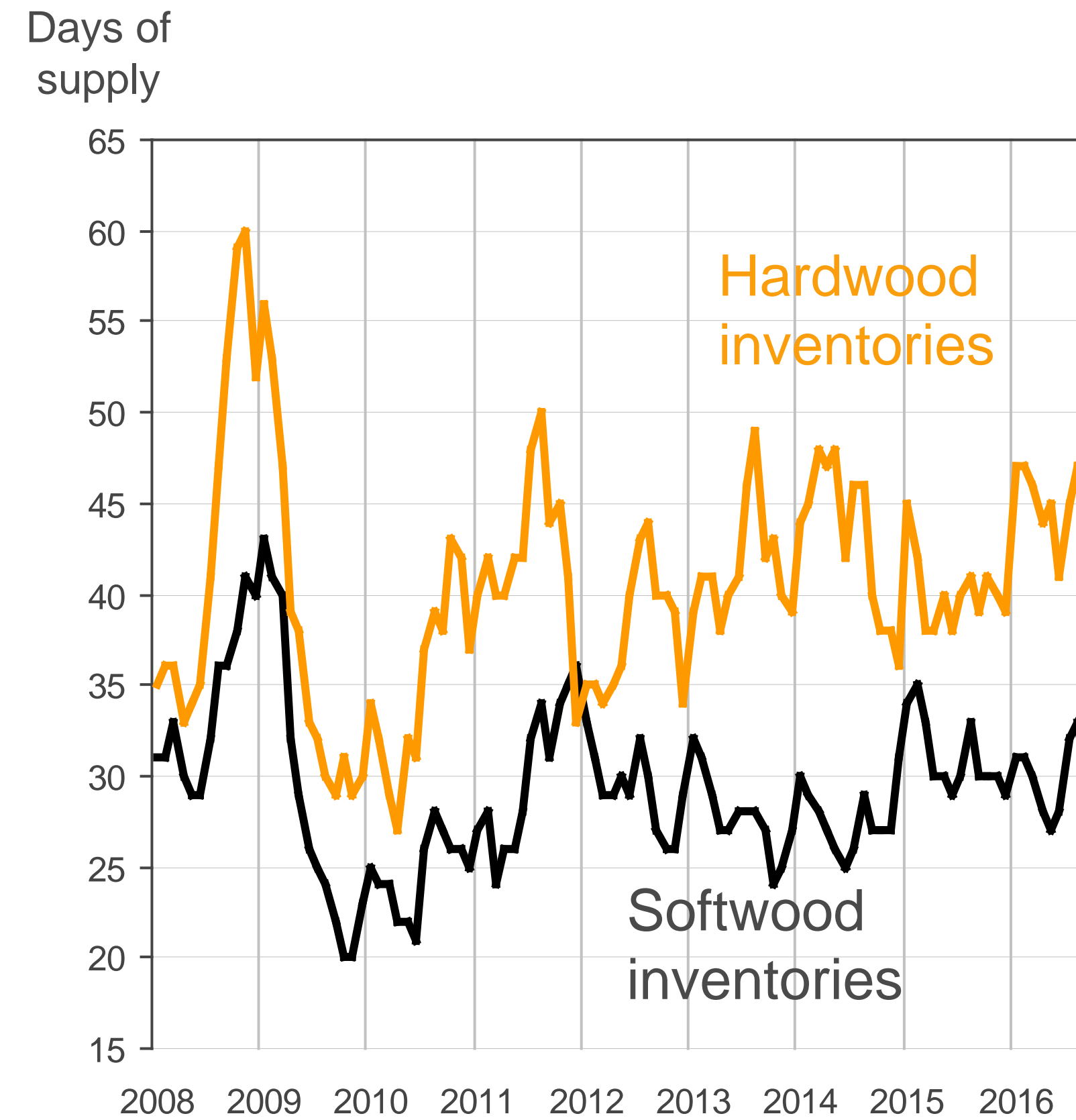
# Chemical pulp market

Q3 NBSK pulp price increased 2% from Q2  
Q3 BHKP pulp price decreased 3% from Q2



Source: FOEX Indexes Ltd.

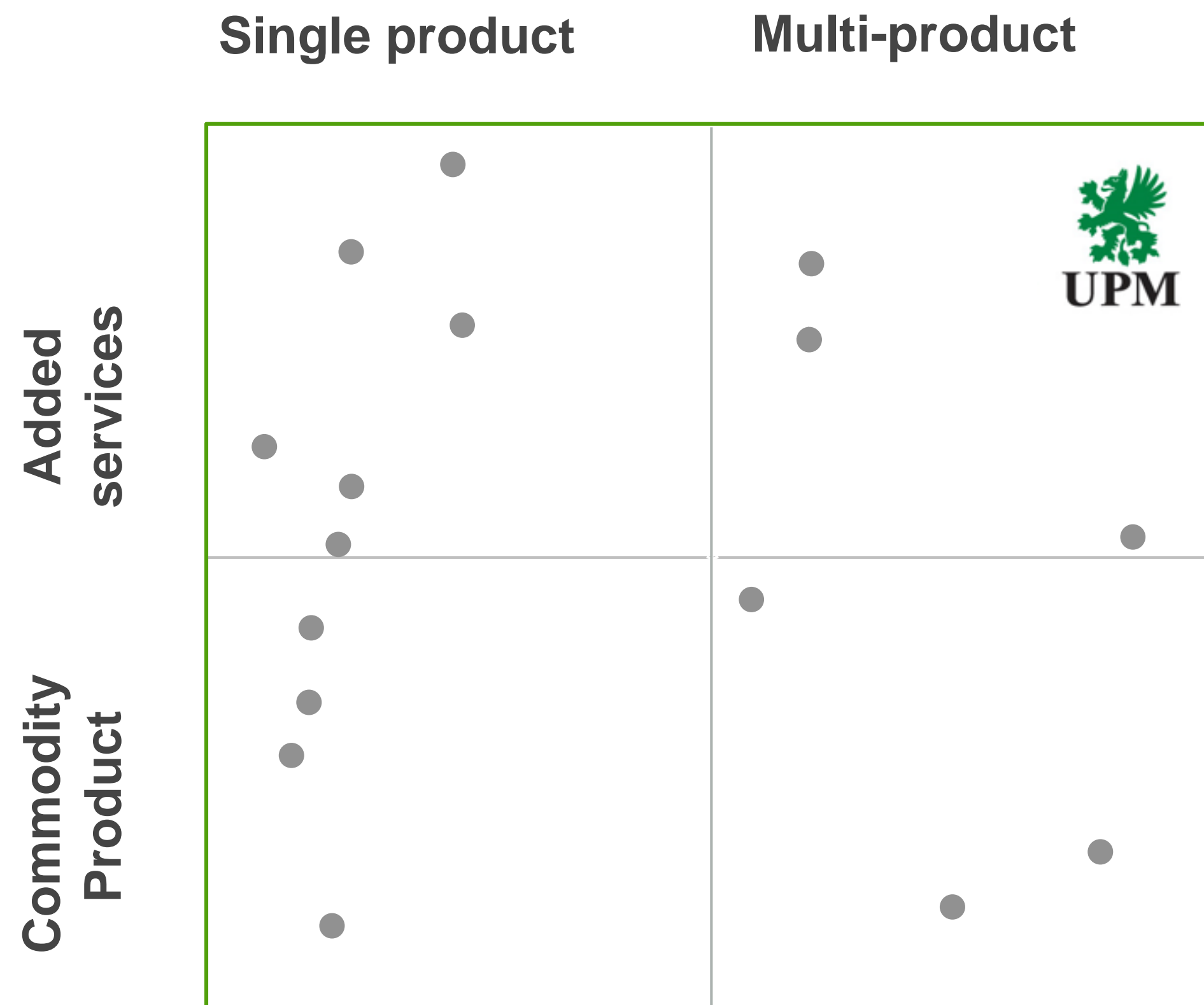
## Pulp inventories



Source: PPPC World-20 statistics



# UPM Pulp's commercial strategy is based on multi-fibre product strategy and technical support



Source: UPM

- Broad pulp grade offering combined with technical service strengthens UPM's customer relations and enhances regular business
- UPM is large in specialty end-use segments where quality, product range and technical support matters the most
- Trusted business partner with own sales and marketing network, advanced technical service offering and outstanding environmental performance as well as stable quality pulp
- Modern and cost efficient assets, committed to grow with the customers



# Sustainability and environmental performance are increasingly important differentiators

## Performance of wood supply & mill operations



\* Including certificates, eco-labels, footprint analyses etc.

Source: UPM

## Sustainability principles for UPM pulp

### Wood supply

- Legal and certified
- Biodiversity integrated in operations
- Net positive environmental gain

### Mill operations

- BAT and continuous improvement
- Eco-label criteria fulfilled

### Stakeholders

- Active dialogue and engagement of local, national and international stakeholders

### Proof

- Verified for internationally recognized eco-label
- Footprint analysis; carbon, water
- Recognized in Dow Jones sustainability index



## UPM Biorefining

# Large modern assets allow growth through debottlenecking with high pay-off at low risk

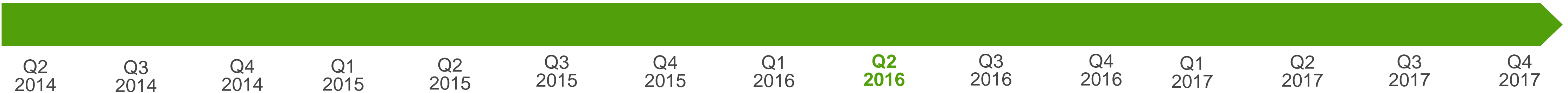
**Pietarsaari**  
pulp mill expansion  
70,000t



**Kymi**  
pulp mill expansion  
170,000t



**Kaukas**  
pulp mill efficiency improvement, paper and  
pulp decoupling completed



**Fray Bentos**  
pulp mill expansion  
100,000t



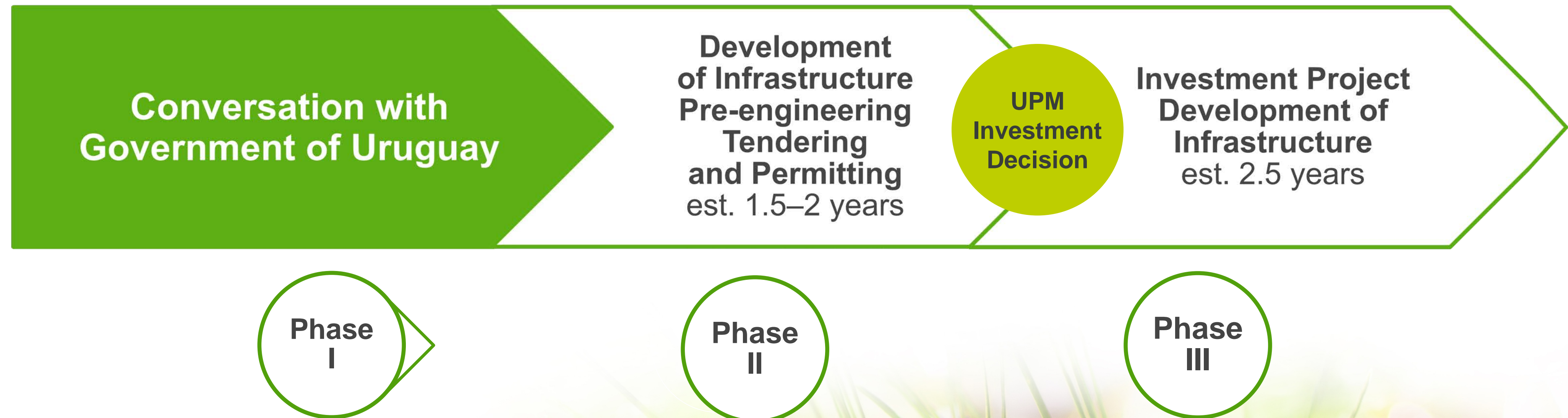
Capacity increase since 2013 more than 500,000 tonnes with investments of ~ EUR 350m

**Kymi**  
pulp mill expansion  
170,000t





# Uruguay could be a competitive alternative – time schedule is several years





 Fuel retail



 Dedicated green fleets

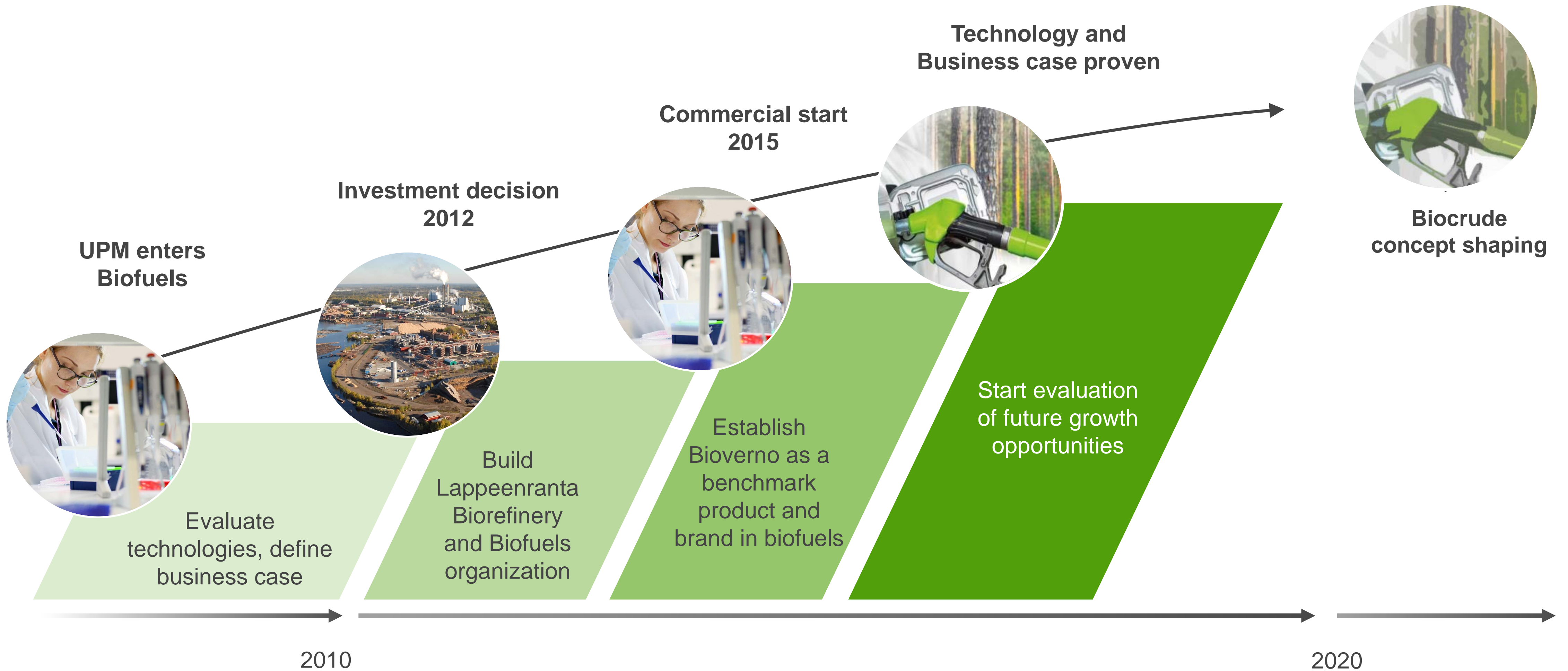


  Marine/Aviation





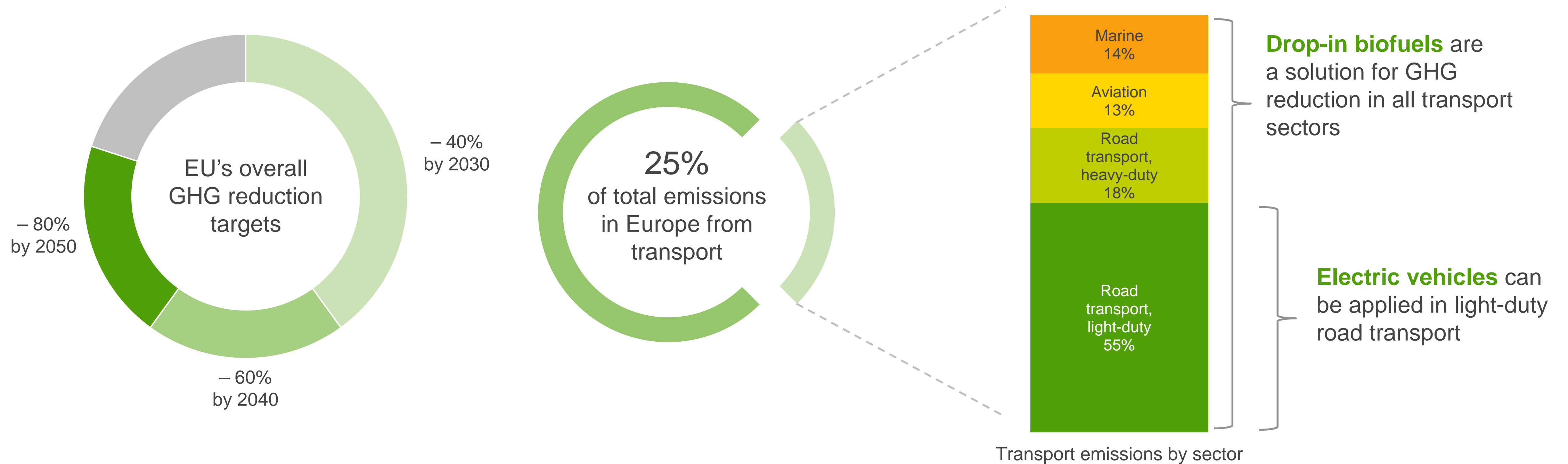
# UPM Biofuels business evolving





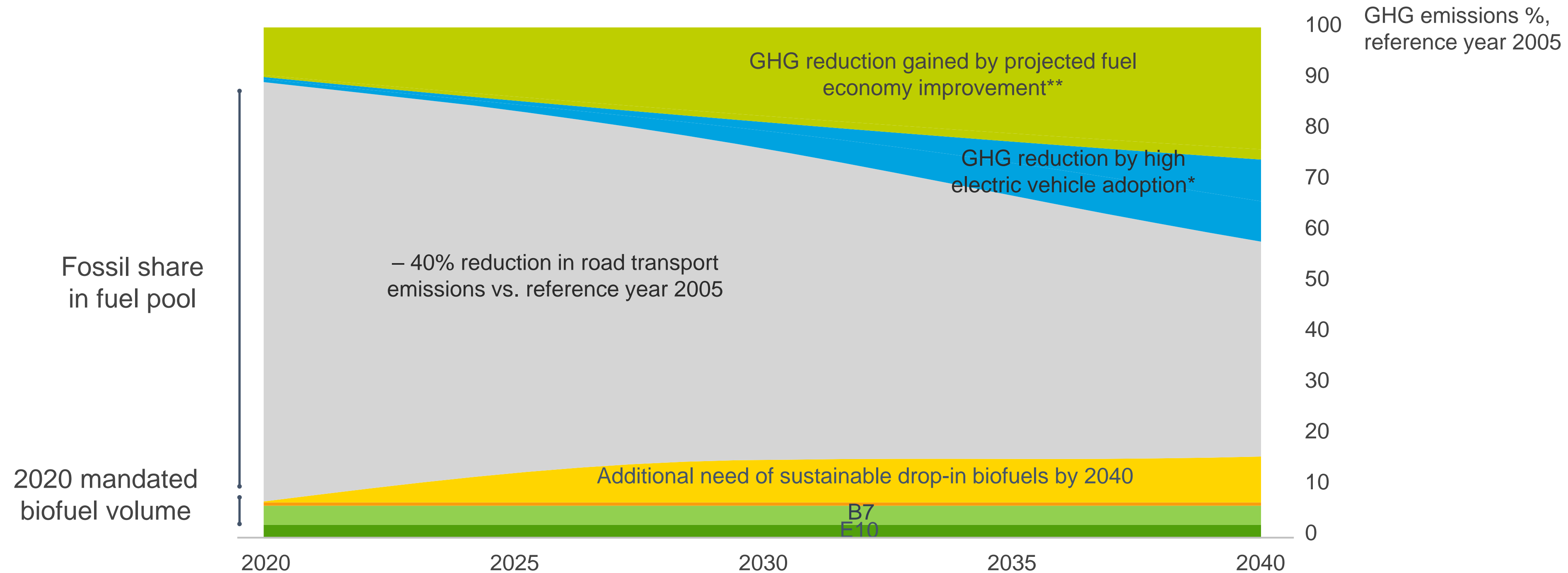
# Significant emission cuts needed in transportation sector

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

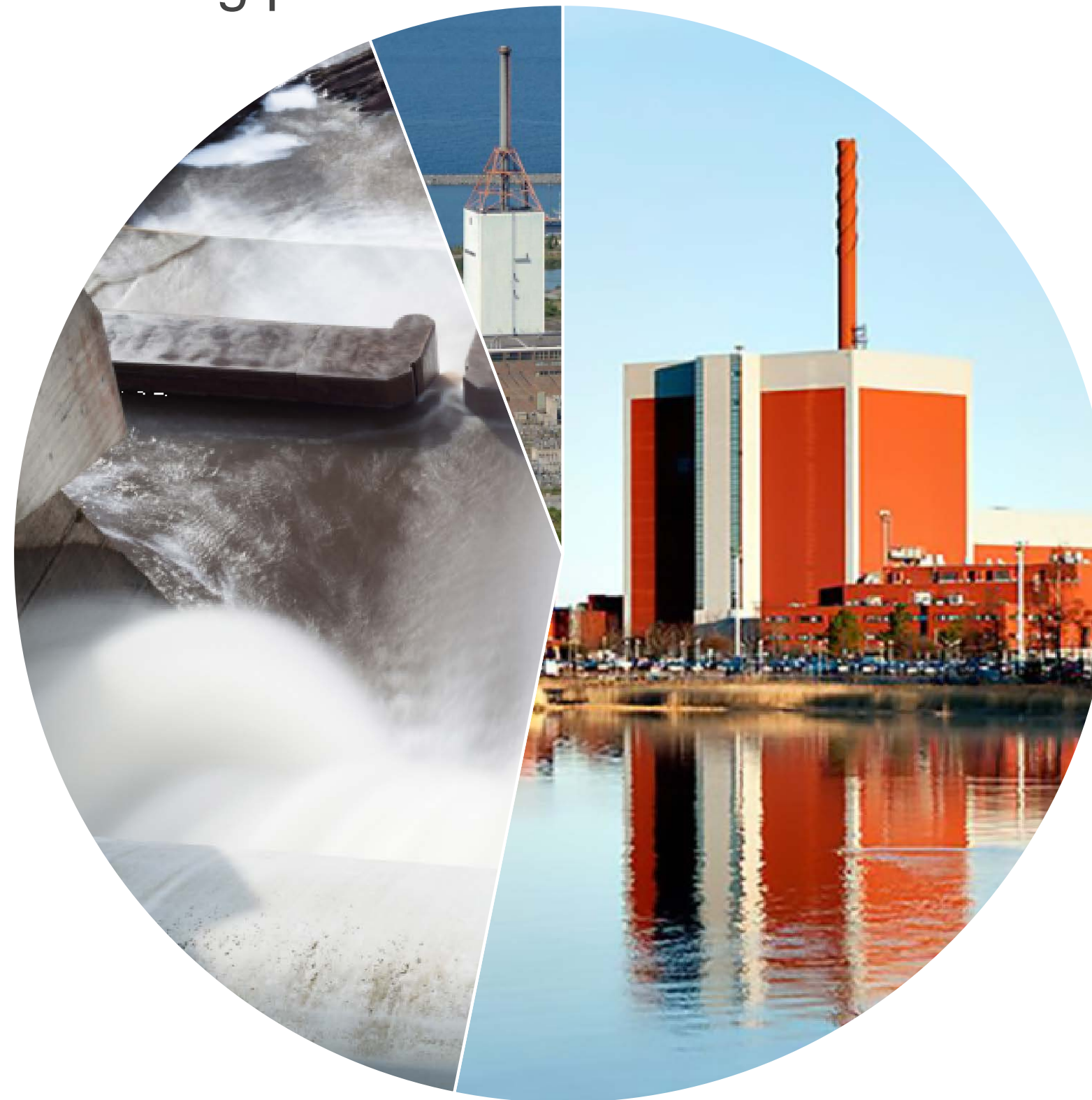


# Cost competitive and flexible asset base

## Power generation breakdown 2015

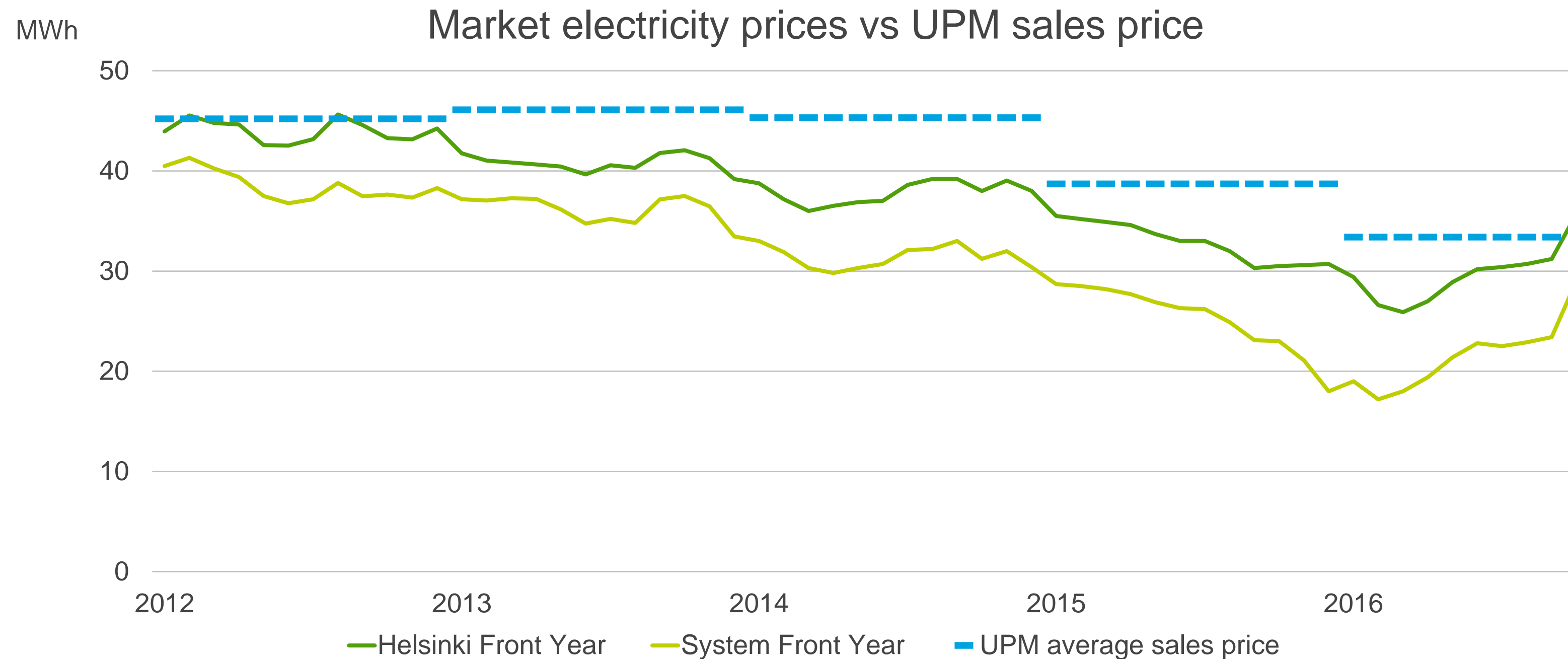
Condensing power

Flexible hydro production with optimisation opportunities



Nuclear as reliable base load with world-class availability performance

# Cost efficient generation enables robust profitability also in challenging market environment



UPM Energy profitability	2012	2013	2014	2015	9M 2016
Comparable EBIT, EURm	217	186	202	181	85
% of sales	45.0	39.9	43.5	43.6	32.0



UPM Raflatac

# Self-adhesive labels in end-use





# Leading position in a growing market

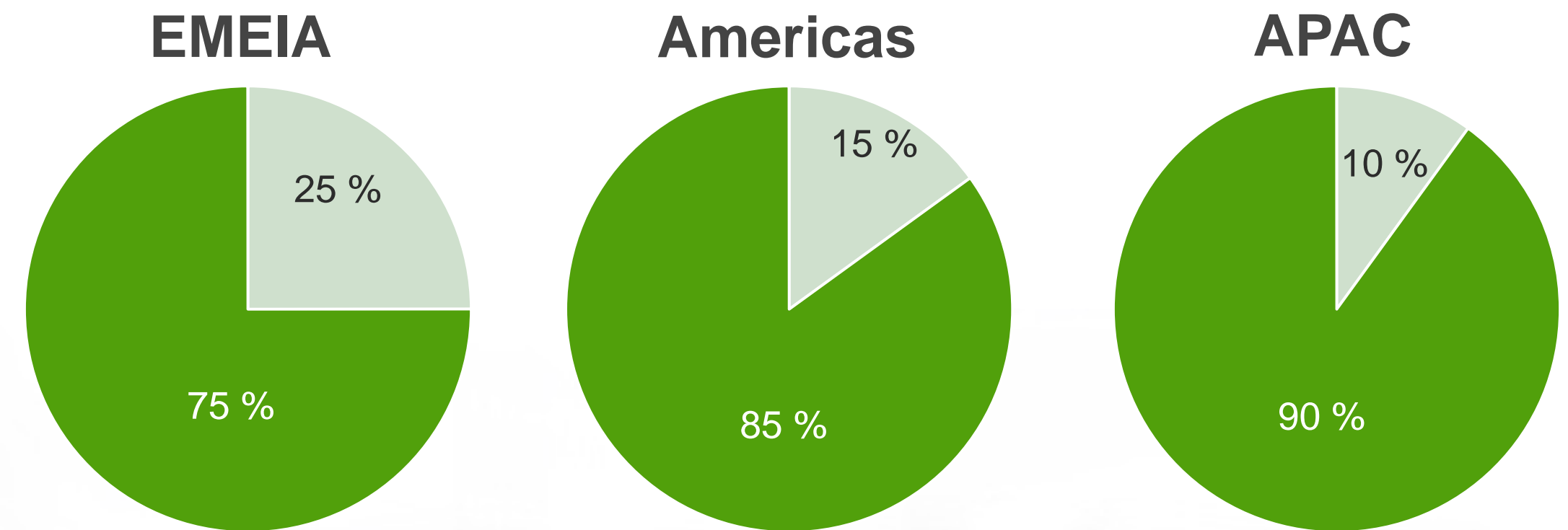
## The self adhesive labelstock market

- > 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





# Versatile growth drivers in both developed and developing markets

## Brands & product innovations

- Constant drive to attract consumers

## Legislation

- Increased mandatory information

## Technology

- Self adhesive gaining share, E-commerce

## Population growth

- Total consumption growth

## Higher standard of living

- Expanding middle class

## Urbanisation

- Rapid development of retail, packaged foods & goods growth





# 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





# Focus on Labeling materials, Packaging and Office paper in Asia

## LABELING MATERIAL



## PACKAGING

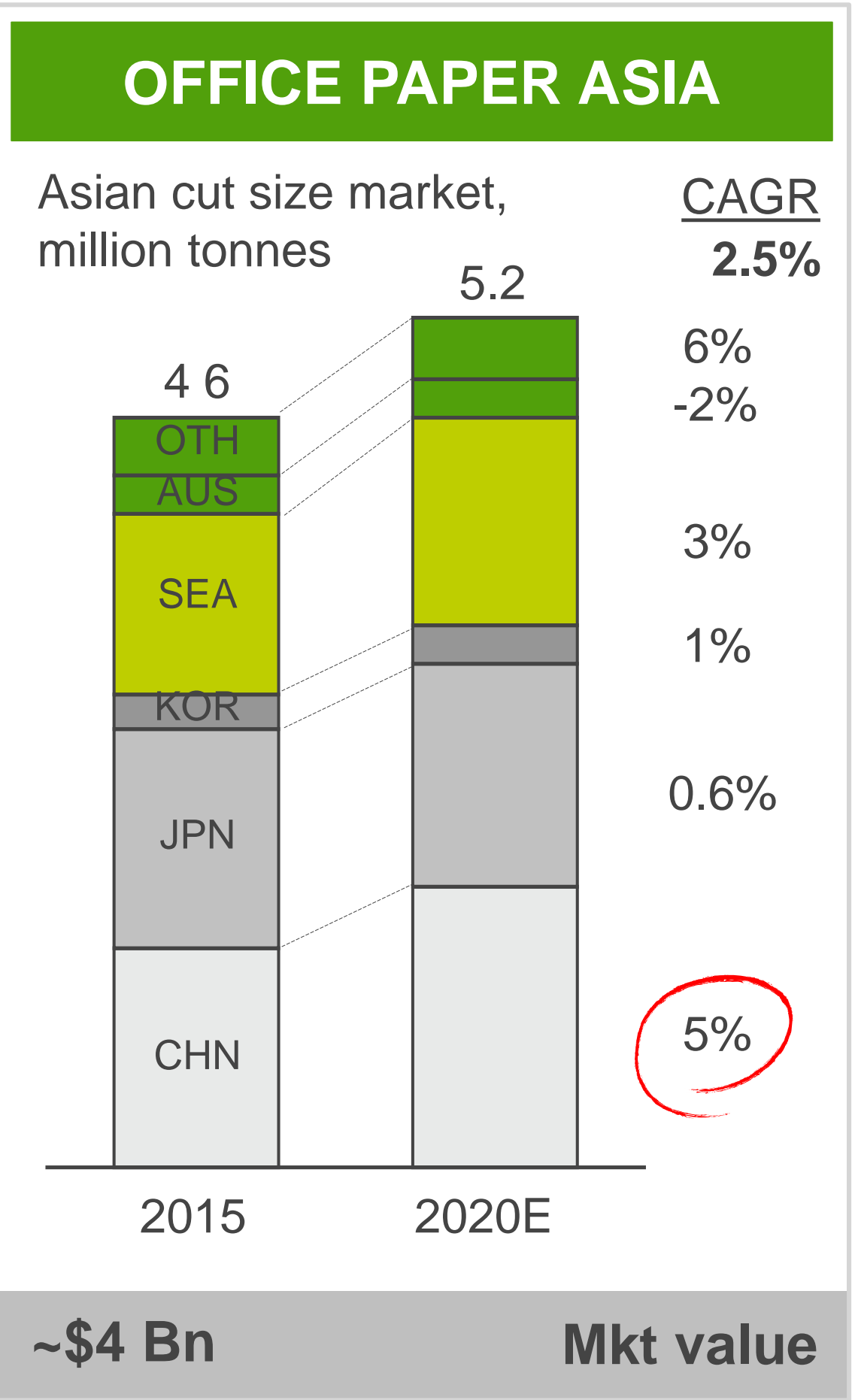
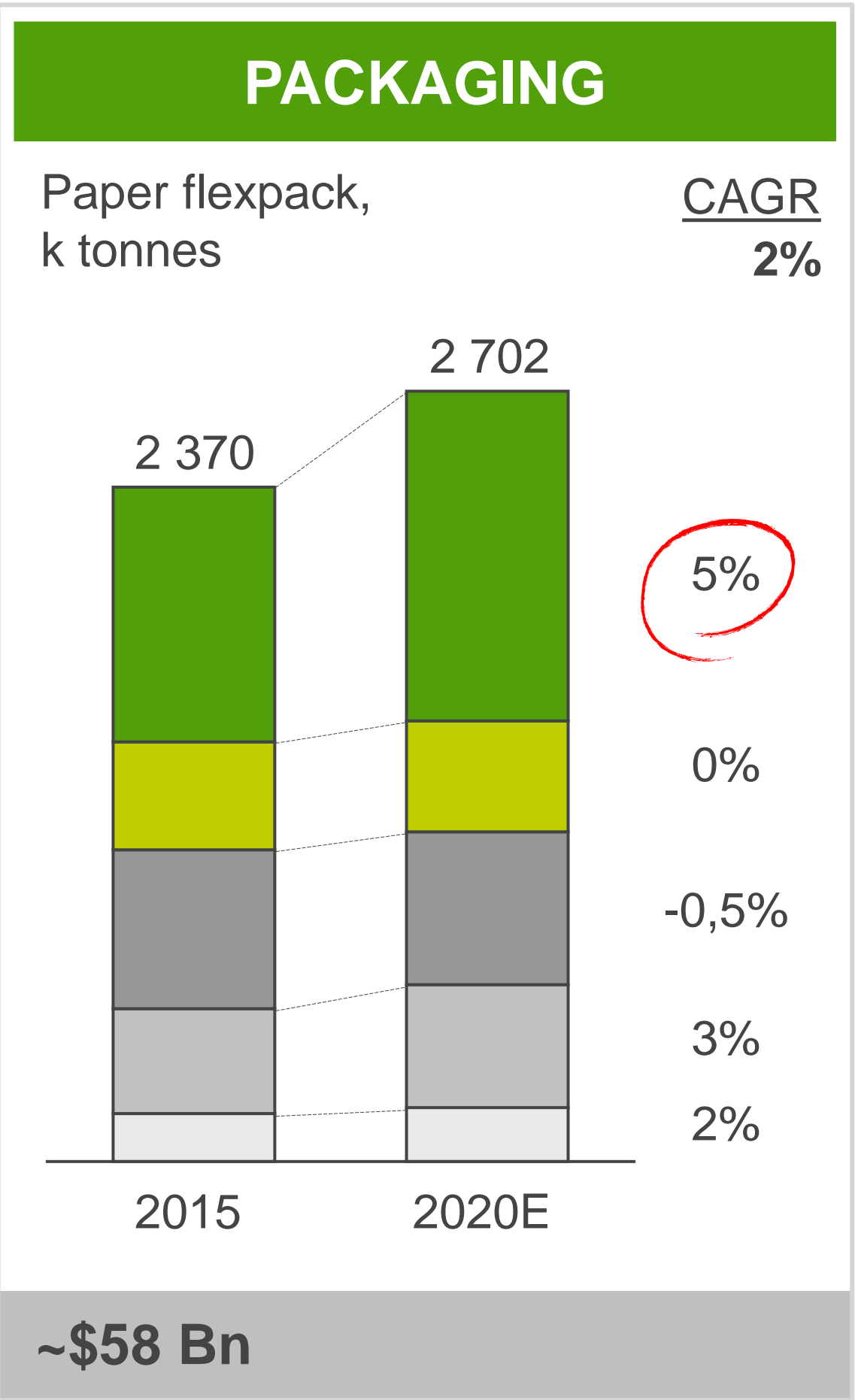
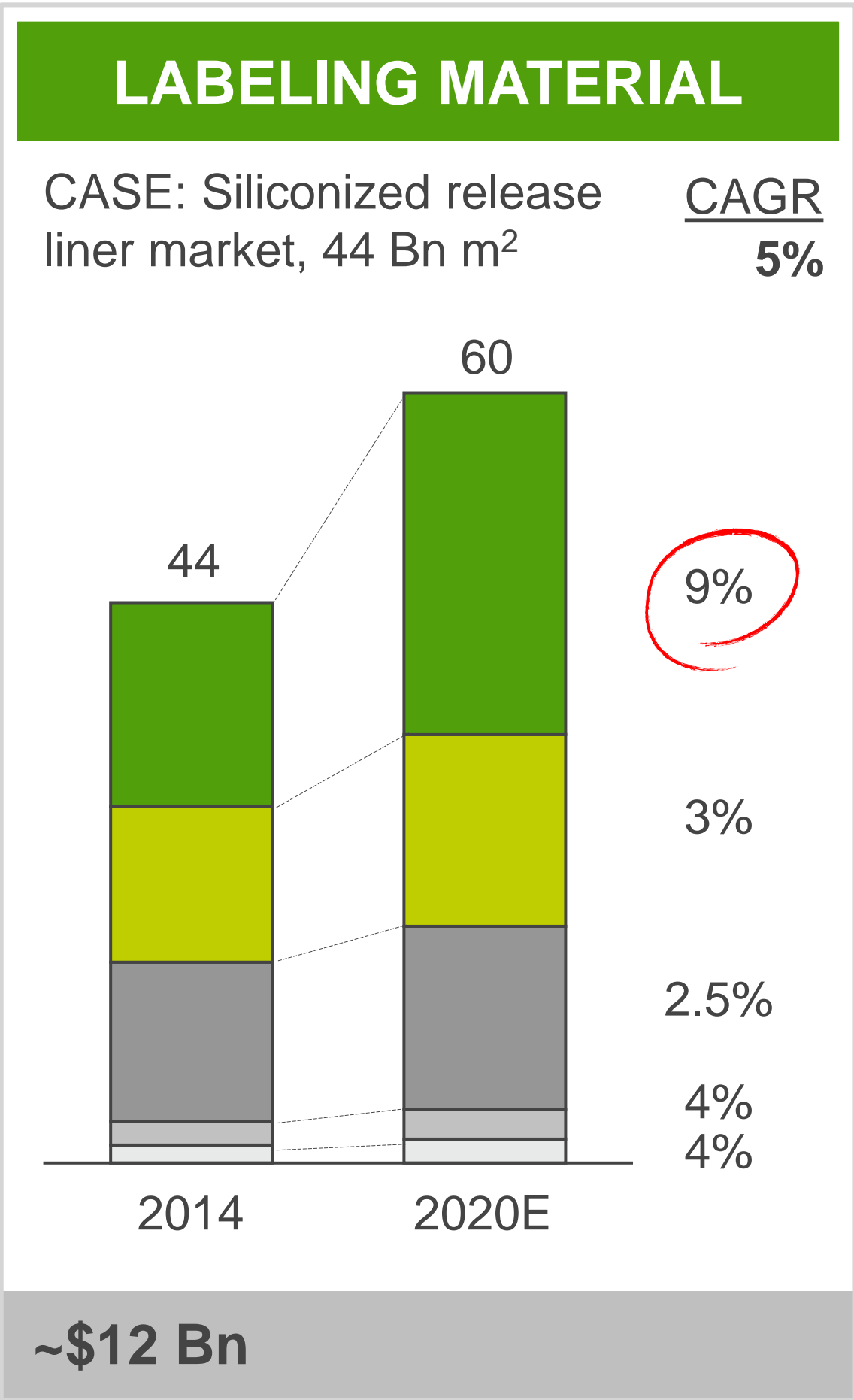


## OFFICE PAPER ASIA





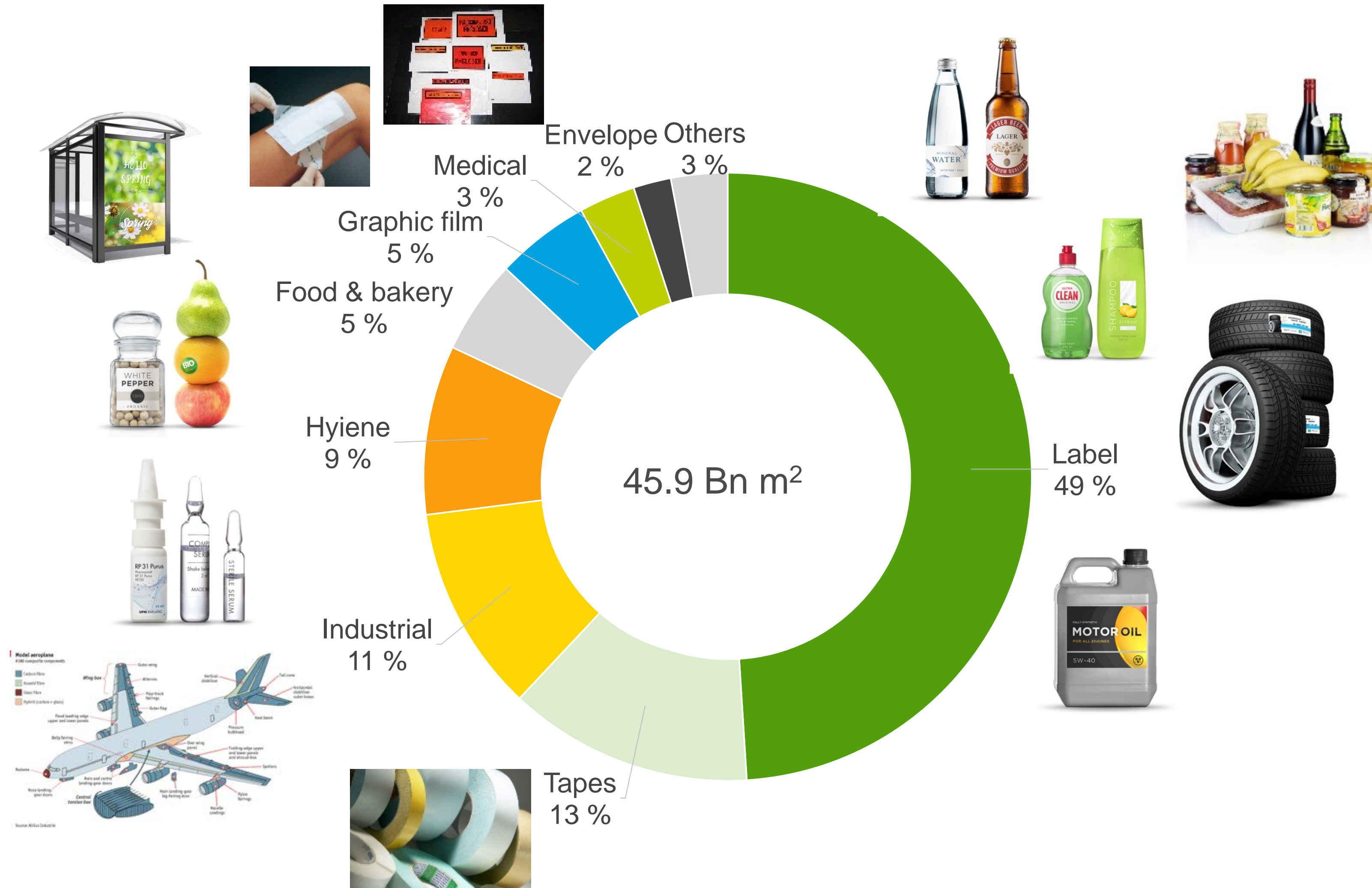
# Our end use markets are growing



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



# Global release liner market: Applications



### Product functions:

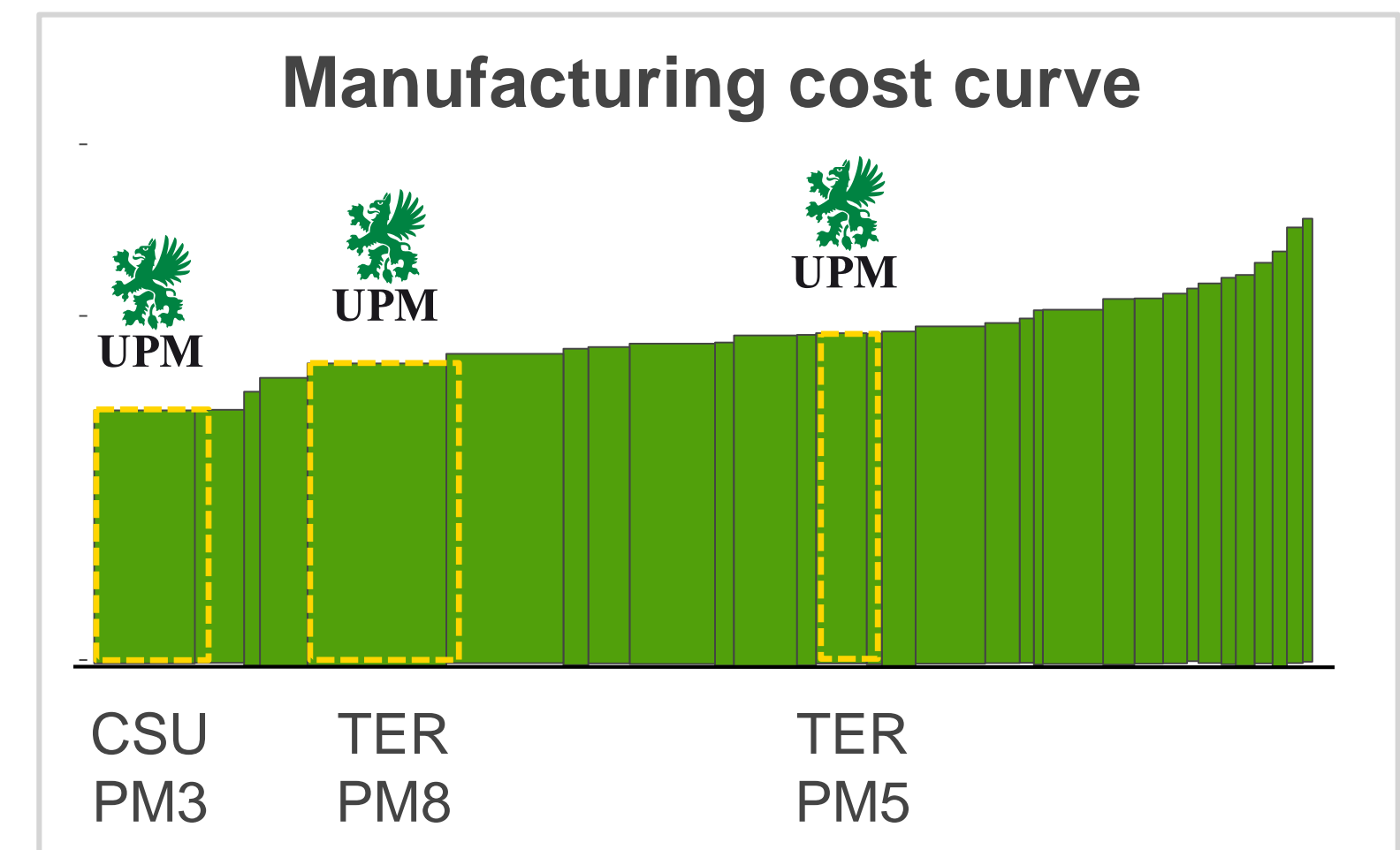
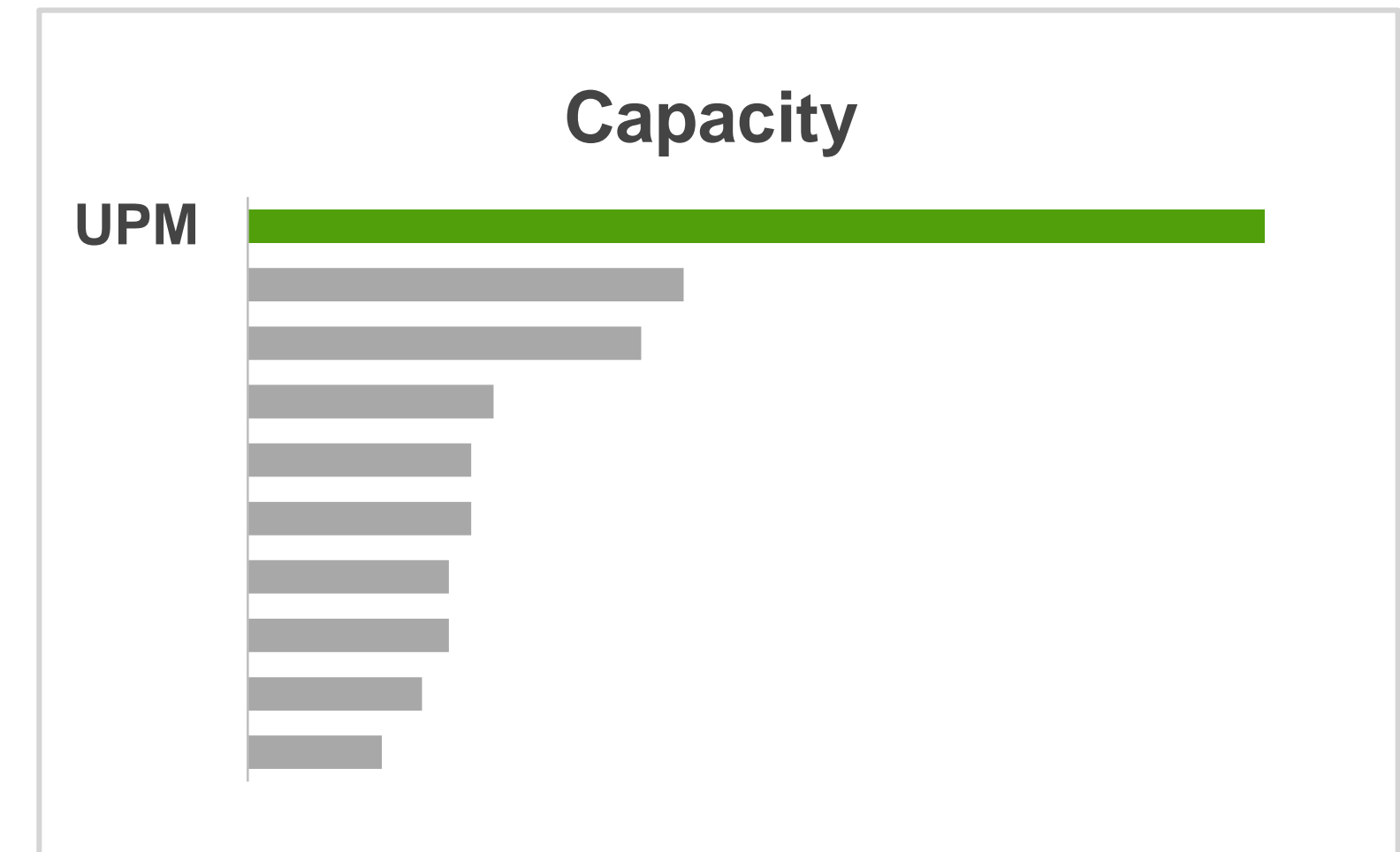
- Release liner carries the adhesive and face material
- Prevents the adhesive from sticking permanently
- Important and often critical feature of a layered construction



Source: AWA

# UPM strengths in Release liner – competitive assets and global customer base

Go-to-market	Deep customer relationships	Focus on key accounts has significantly increased customer satisfaction
	Global sales network	Salesforce concentrating on LP&R products supporting local and global customers
Assets	Superior product quality	Quality stability and performance in low basis weight papers, comprehensive portfolio, and innovative products
	Operational efficiency	Extensive production experience with a strong cost focus
	Competitive production platform	Cost competitive machines and distribution network



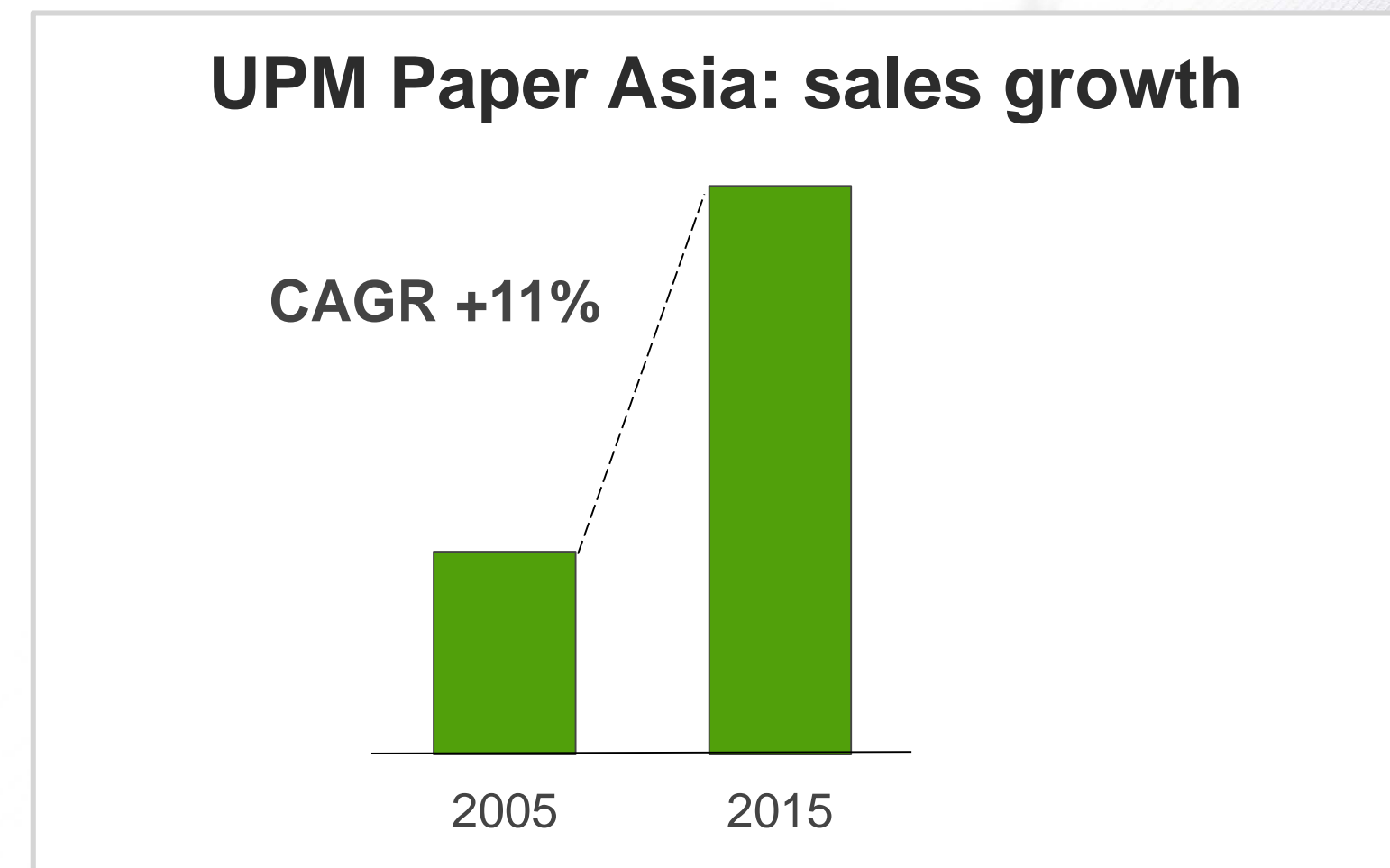
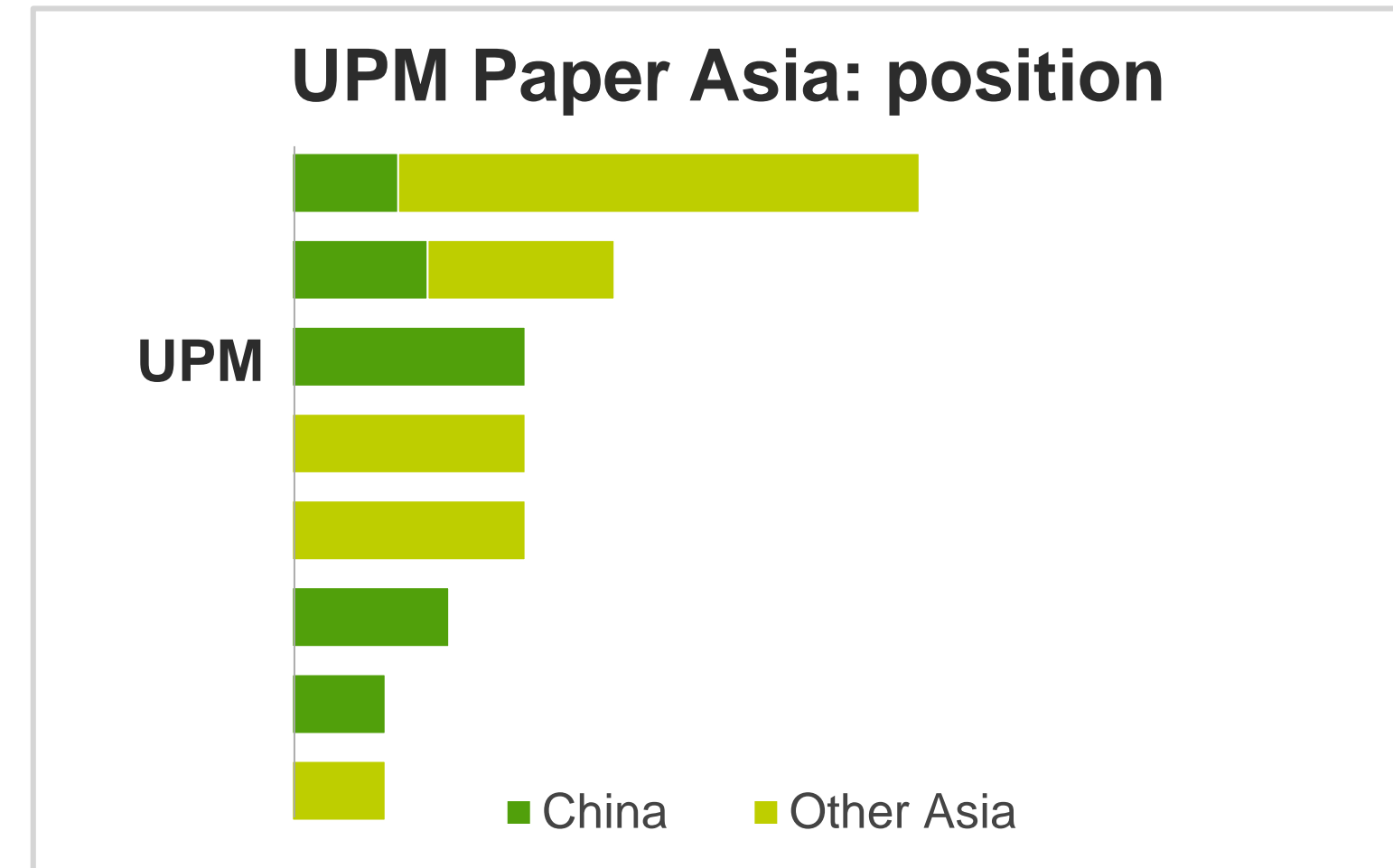
Source: RISI, Poyry, UPM



# China is the main office paper market in Asia

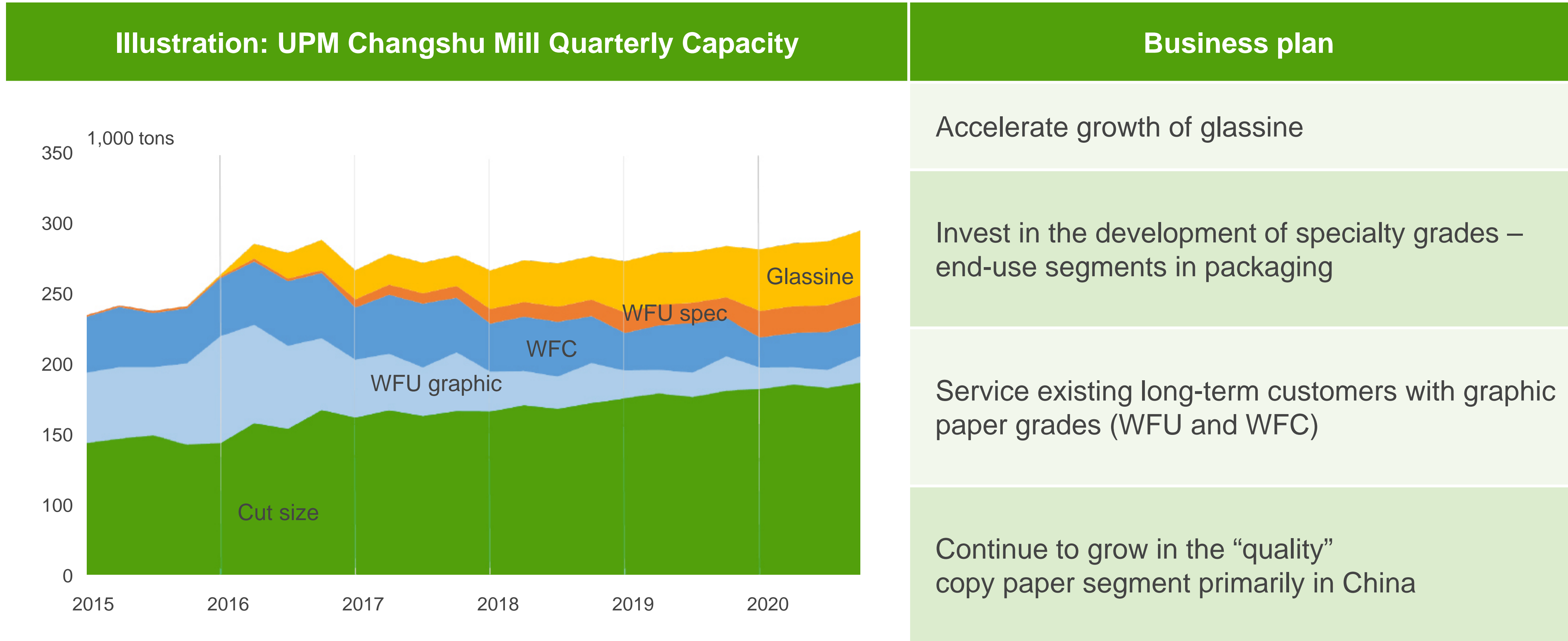
## Consumption increase supported by

- **Economic growth** is driving establishment of new enterprises
- **Establishment of new enterprises** increases installation of new copiers
- **Growing economy** drives the need for more documentation, and increase in personal printer population
- **Urbanization** supports demand for specialized business services





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



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”



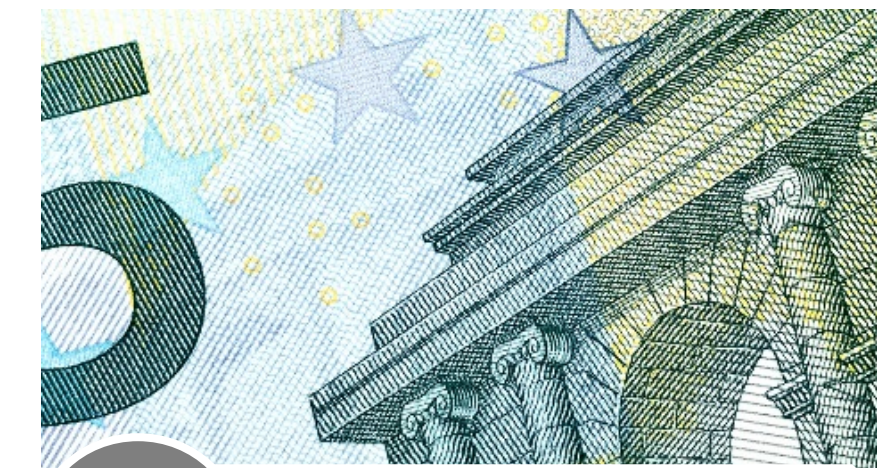
## 2 Sales

“profound customer- and market understanding”



## 3 Cost base

“smart initiatives in push mode”



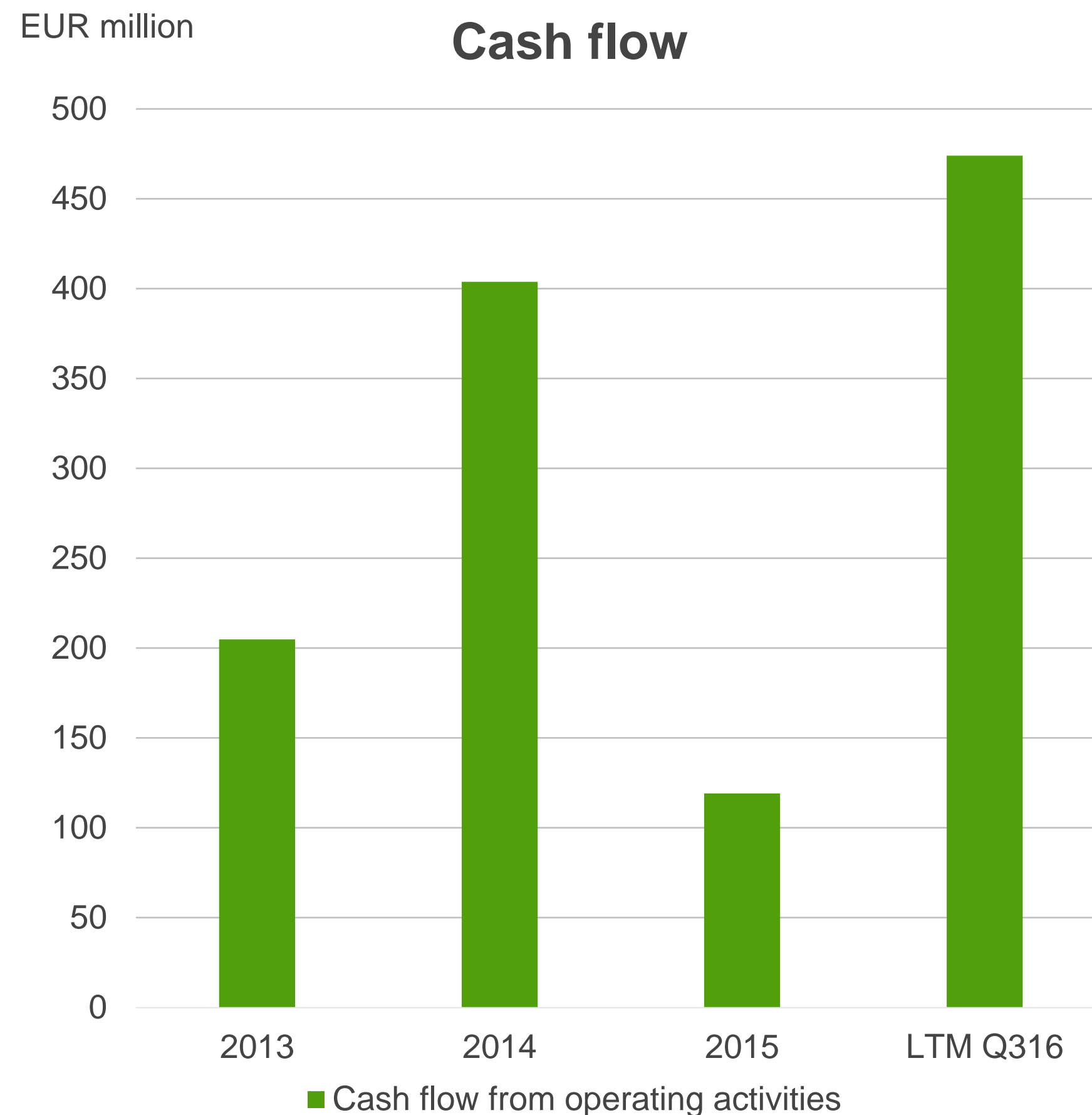
## 4 Cash flow

“performance management and discipline”



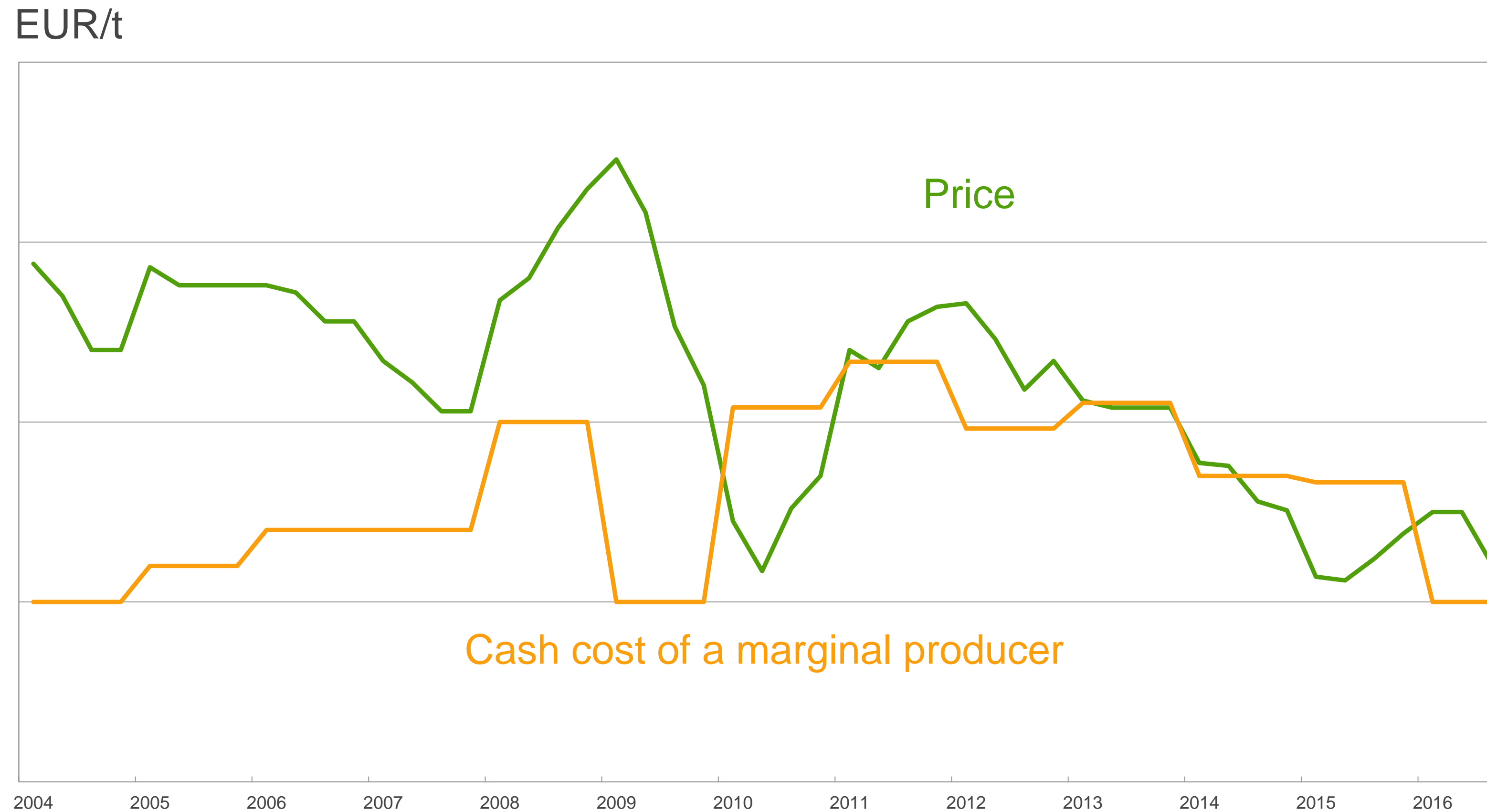
# UPM Paper ENA

## Key messages



- Paper ENA has proven the ability to generate good results
- Strong focus on performance at all fronts resulting in attractive cash flow
- Not only “WHAT” we do matters, but also “HOW” we do matters
- Granular understanding of end use trends combined with an efficient use of a large operative platform continues to offer optimization opportunities

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



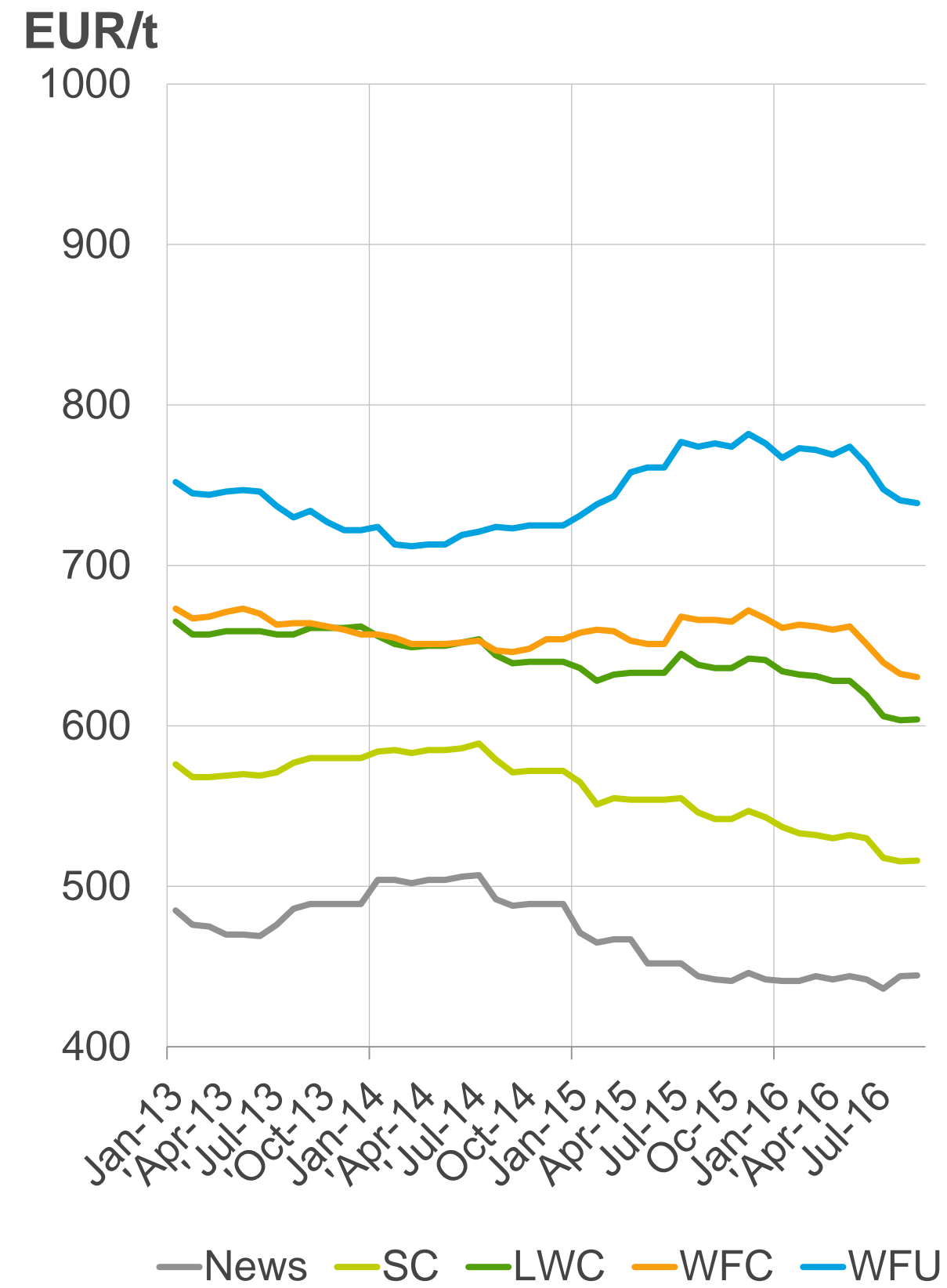
Sources: PPI, RISI, Pöyry



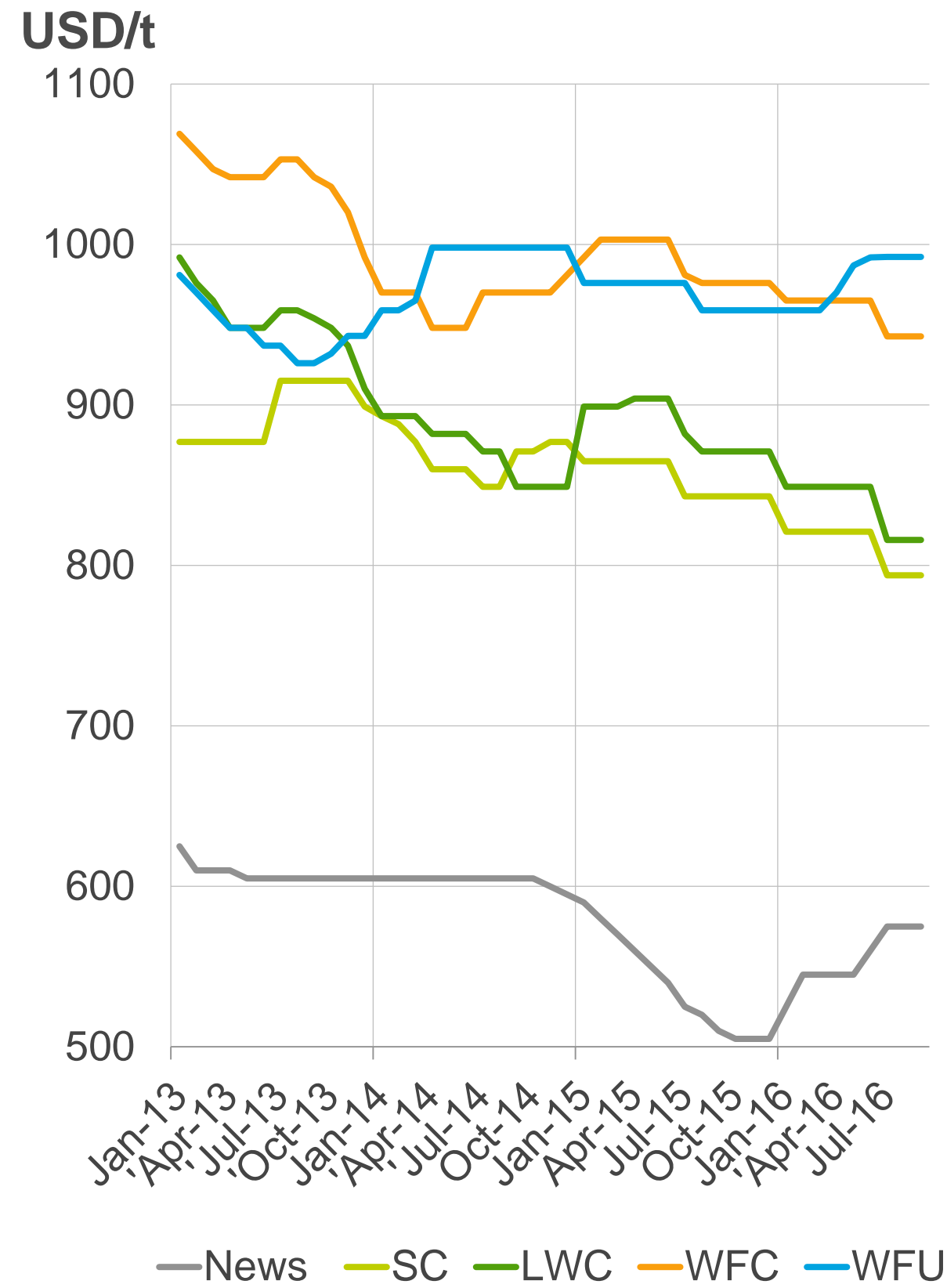
# UPM Paper ENA

## Graphic paper prices

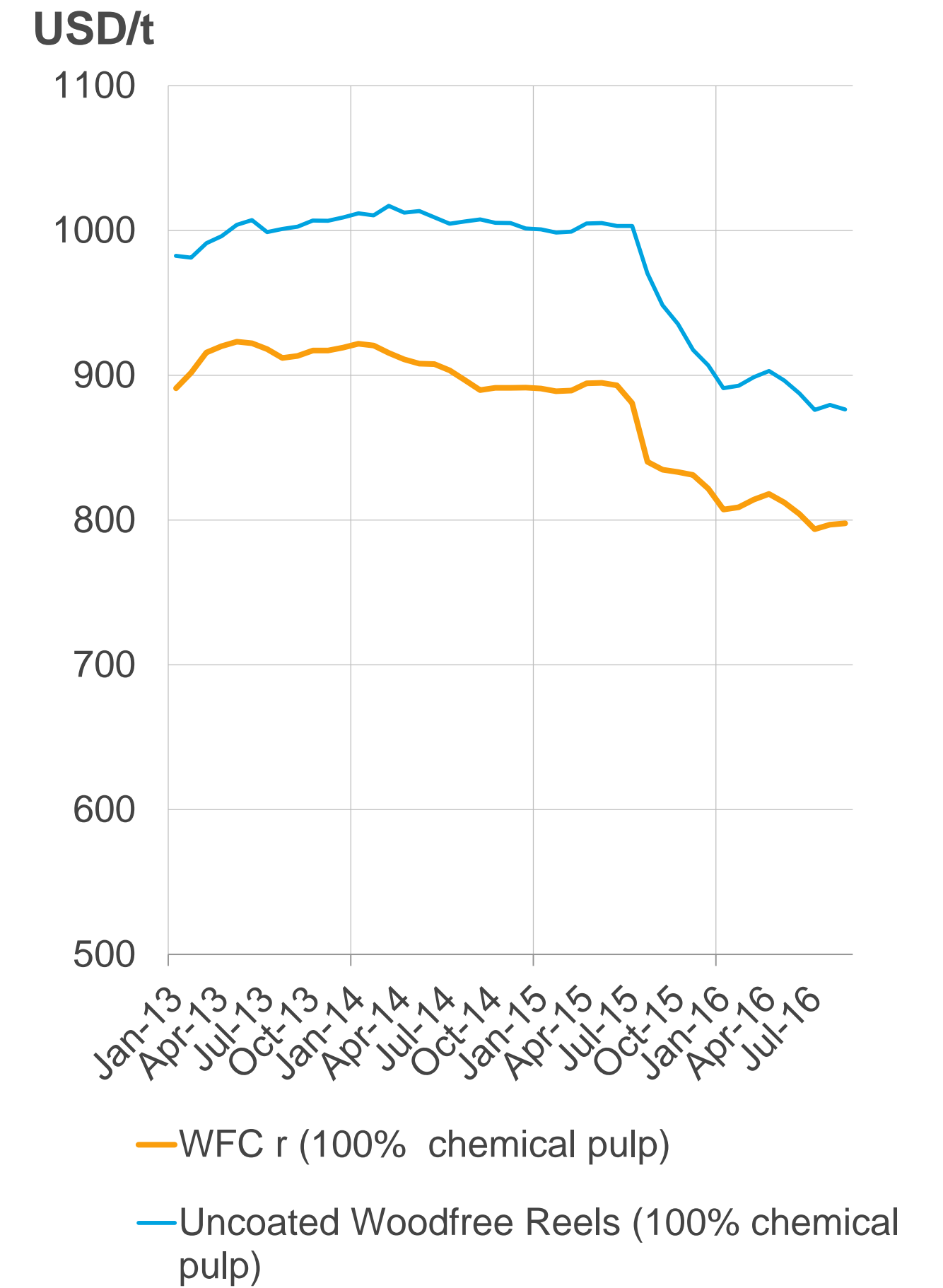
### Europe



### North America



### China

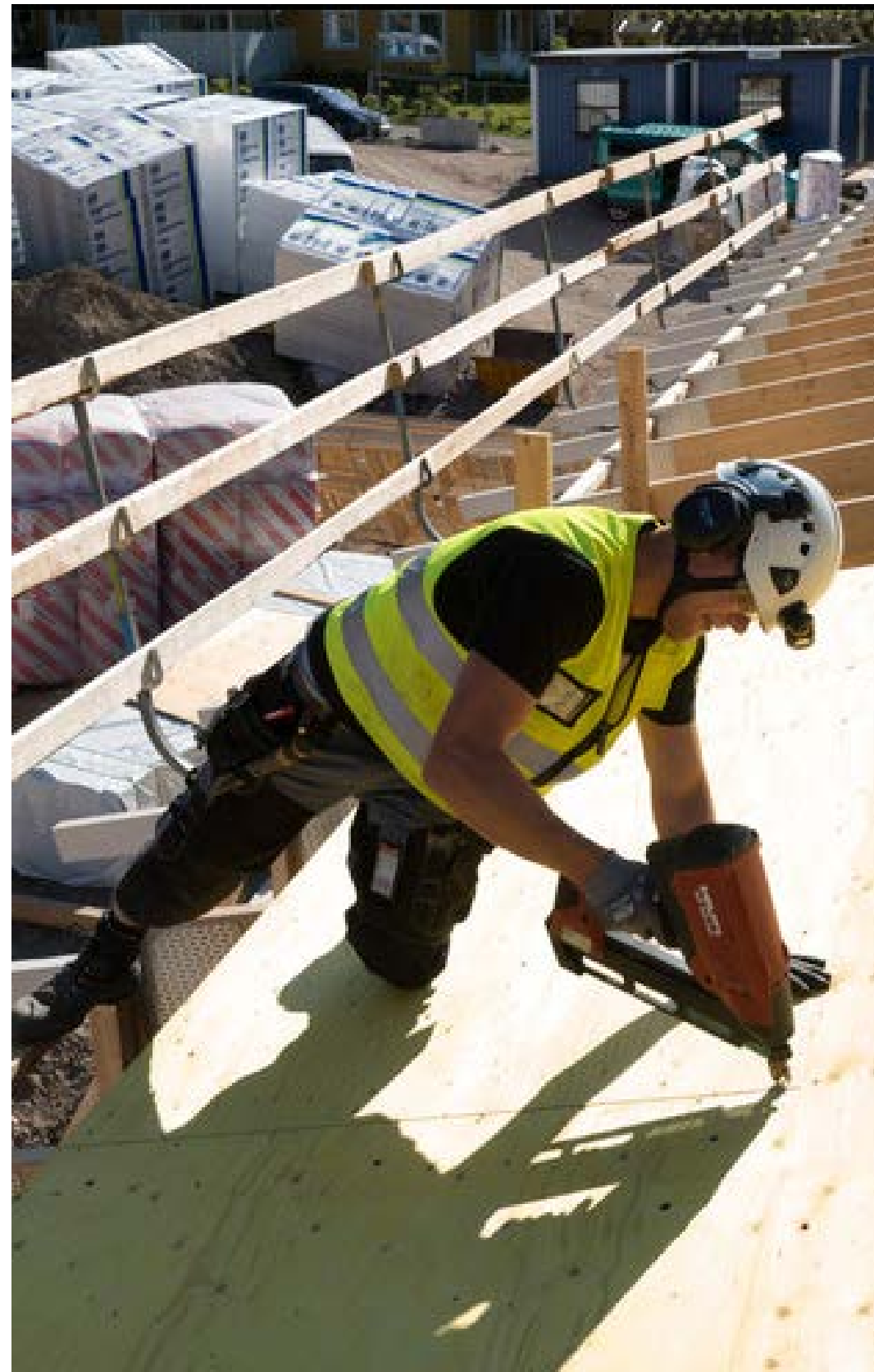




UPM Plywood

# UPM Plywood in end-use

Construction



Vehicle flooring

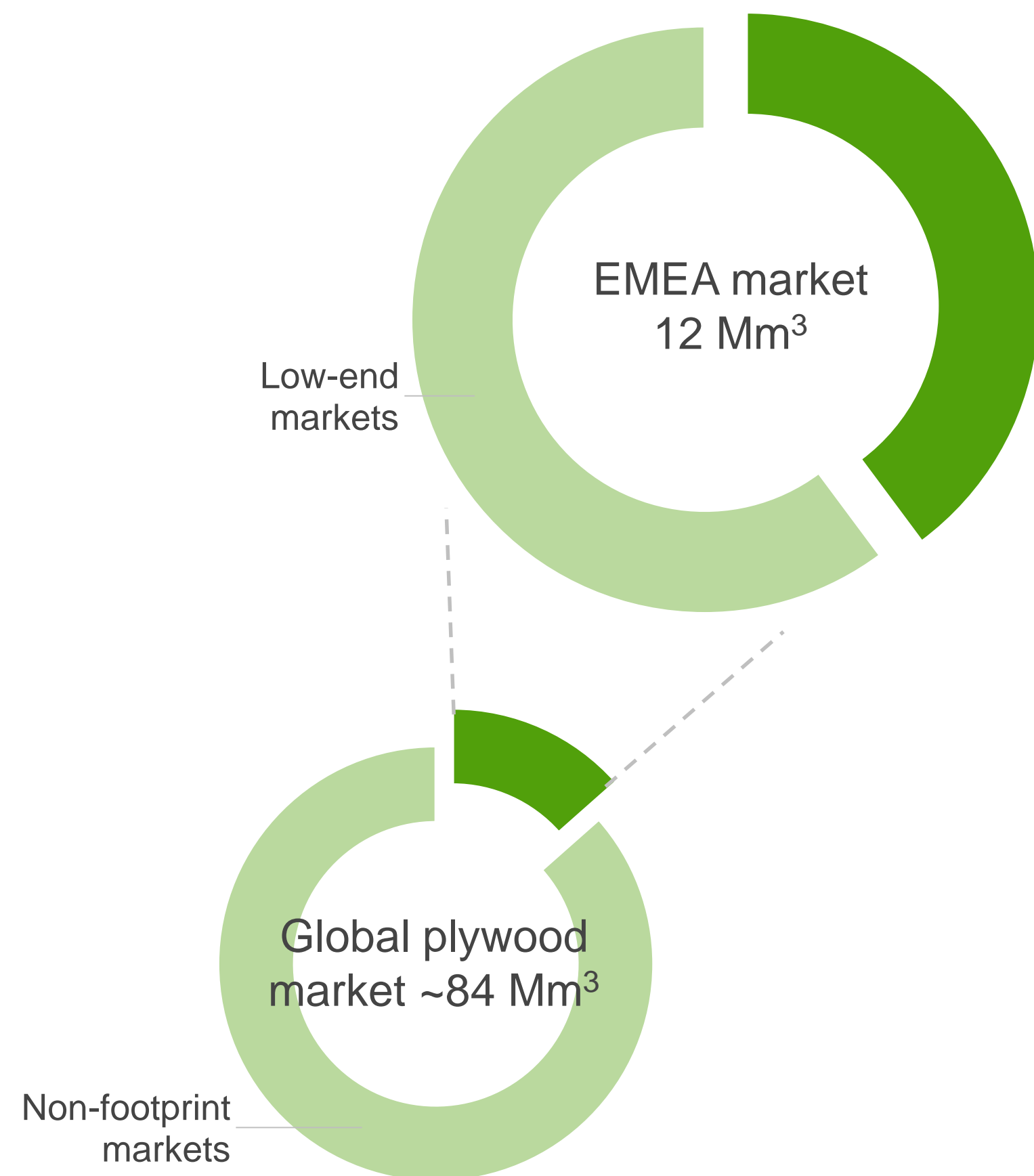


LNG shipbuilding





# Relevant high-end market offers meaningful growth potential



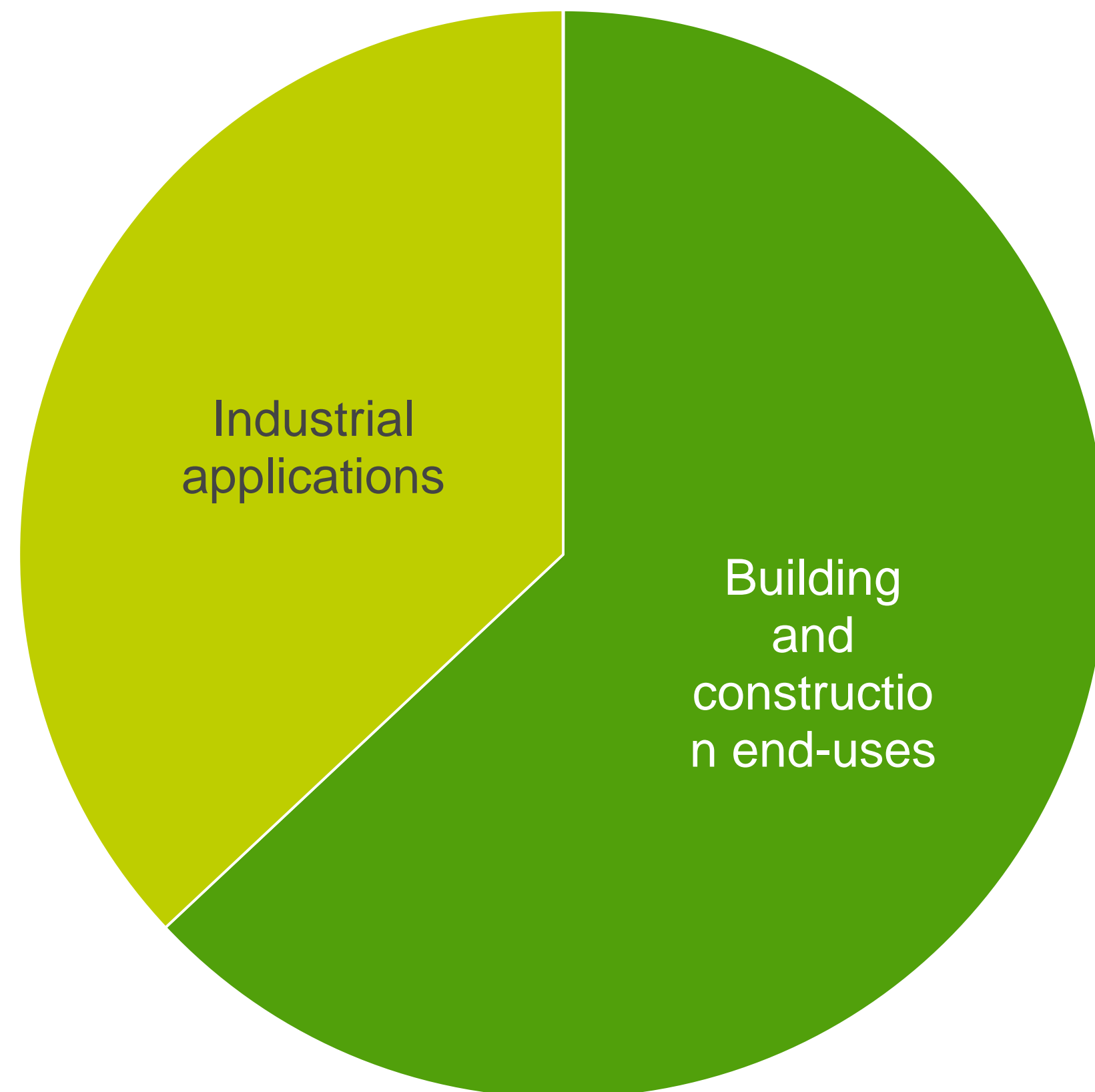
## Relevant market ~5 million m<sup>3</sup>

- 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

Share of sales 2015



- 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 orderbook for plywood based LNGC ~100 vessels)

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



# The way forward

## Otepää mill expansion

- Responding to market and customer demand in key segments
- Increase capacity to 90,000 m<sup>3</sup>, representing 10% of UPM Plywood's capacity
- New bio-boiler to improve overall material efficiency and to lower environmental footprint

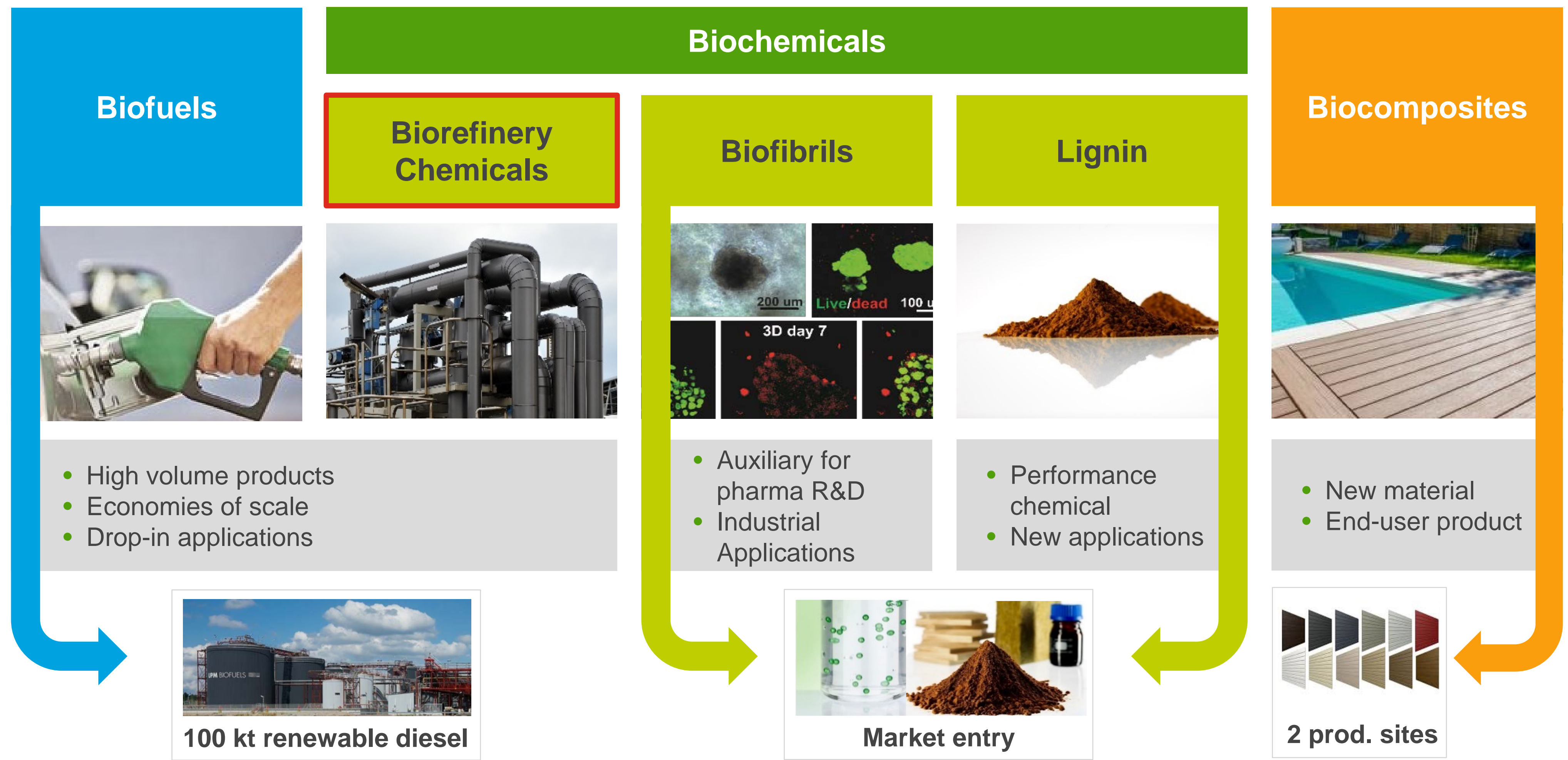
## The way forward

- Focused investments in existing production sites to maximise returns at low risk
- Continue with the proven commercial approach to further improve customer engagement



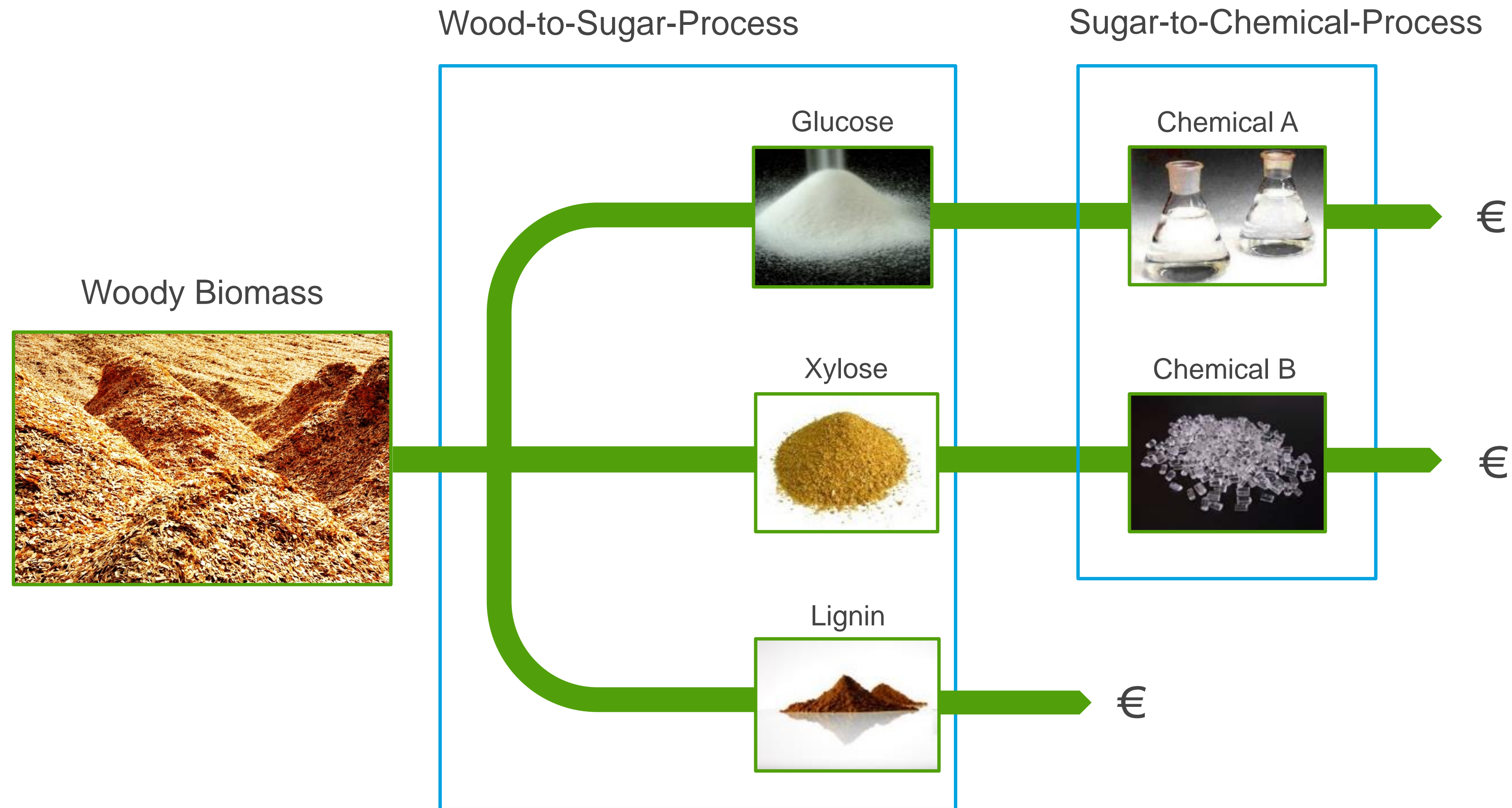


# New business opportunities for UPM

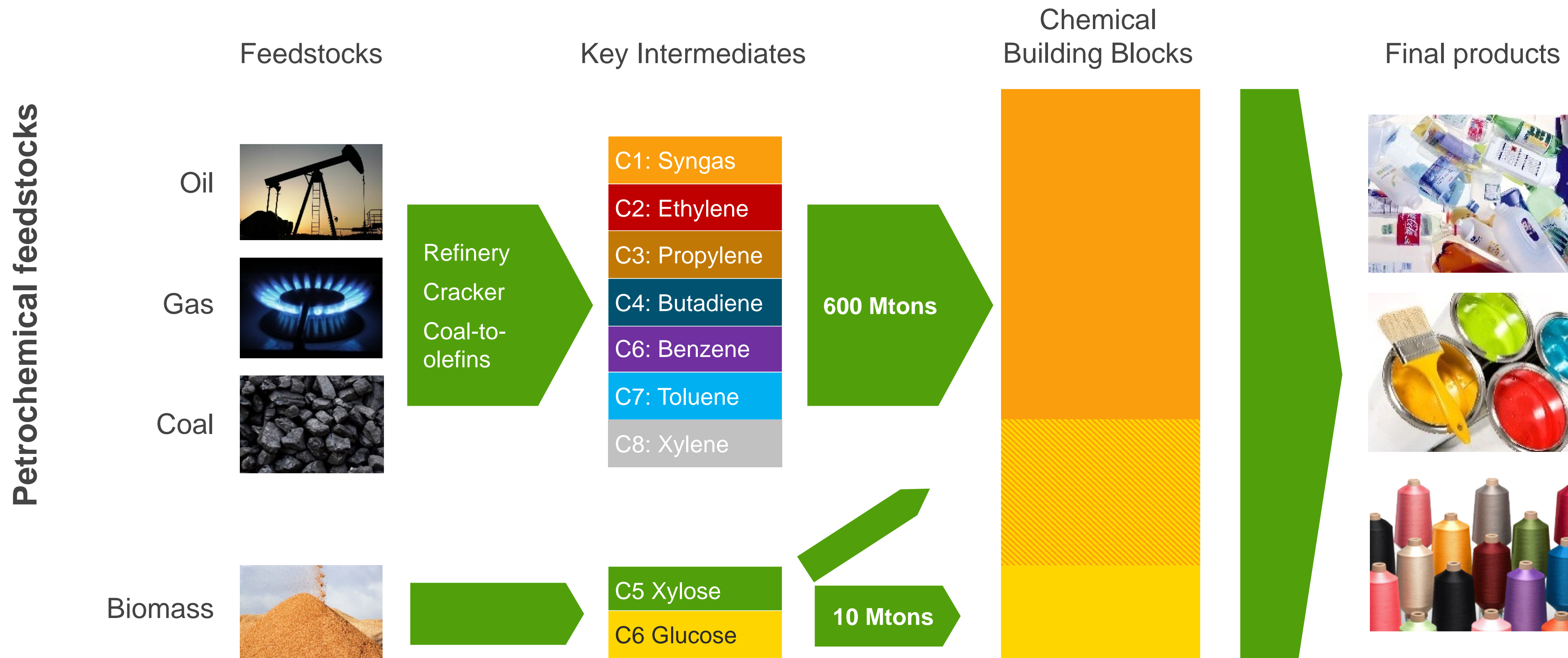




# New separation technologies ensure best overall value capture



# Partial overlap with fossil-based value chains in chemicals







**UPM**

The Biofore  
Company