

MARKET DRIVEN BUSINESS MODEL – What does it mean to Energy and Pulp?

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ENERGY AND PULP

Growth through market based approach in Energy and Pulp Business Group



Energy

Competitive climate friendly energy portfolio with market presence in Nordic and Central European markets

Grow in low-emission generation and leverage market operations

Pulp

Pulp production and plantation operations. Pulp market operations.

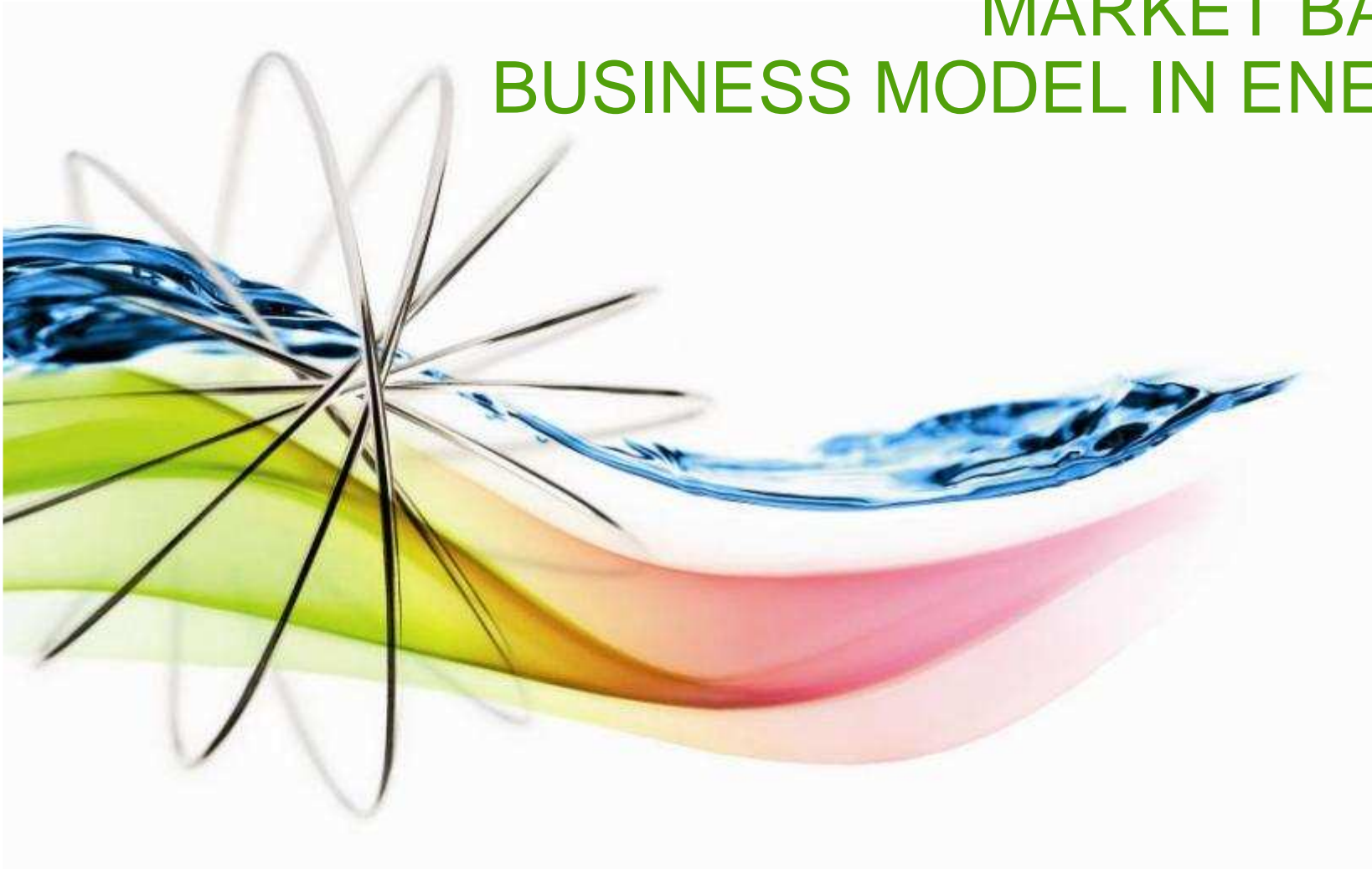
Increase the cost-competitive pulp capacity and market operations

Biofuels

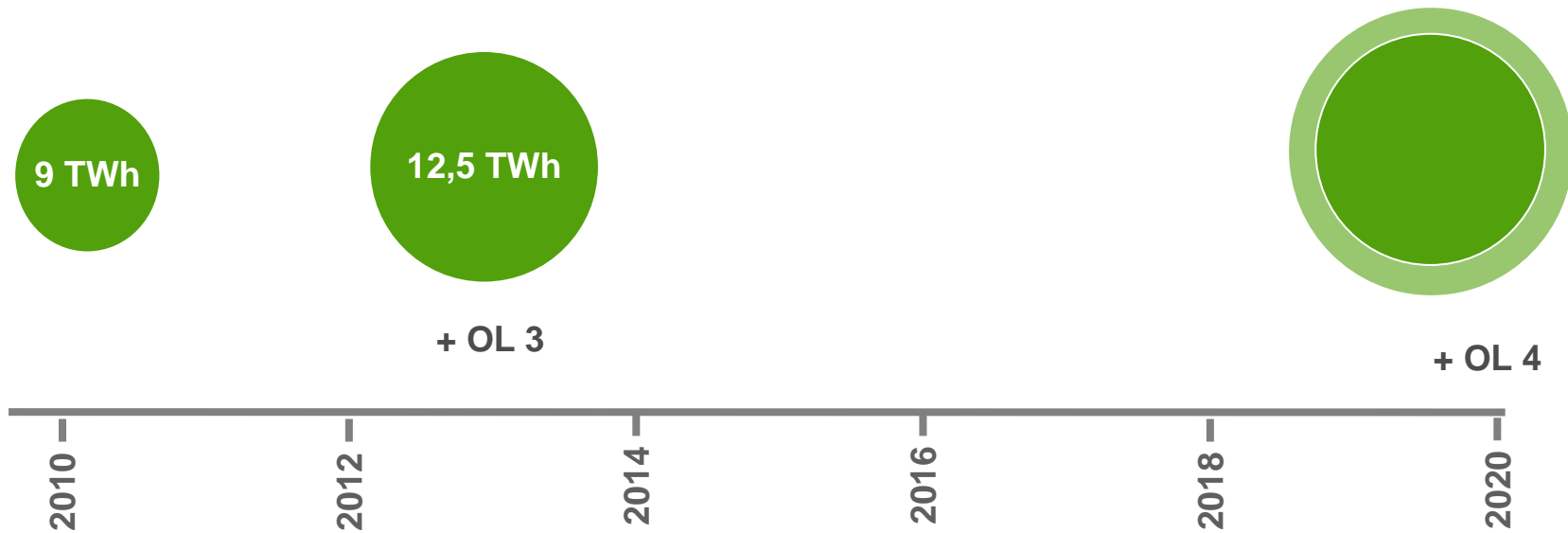
Research and development of advanced biofuels

Leverage the business opportunities in biofuels and biochemicals

MARKET BASED BUSINESS MODEL IN ENERGY



MARKET BASED BUSINESS MODEL – ENERGY
**UPM targets profitable growth in CO₂
neutral power generation**



Strengths

- Versatile production portfolio
- Long and vast experience in electricity generation
- Competence in market operations
- 80% of fuels used for electricity generation in Finland are renewable

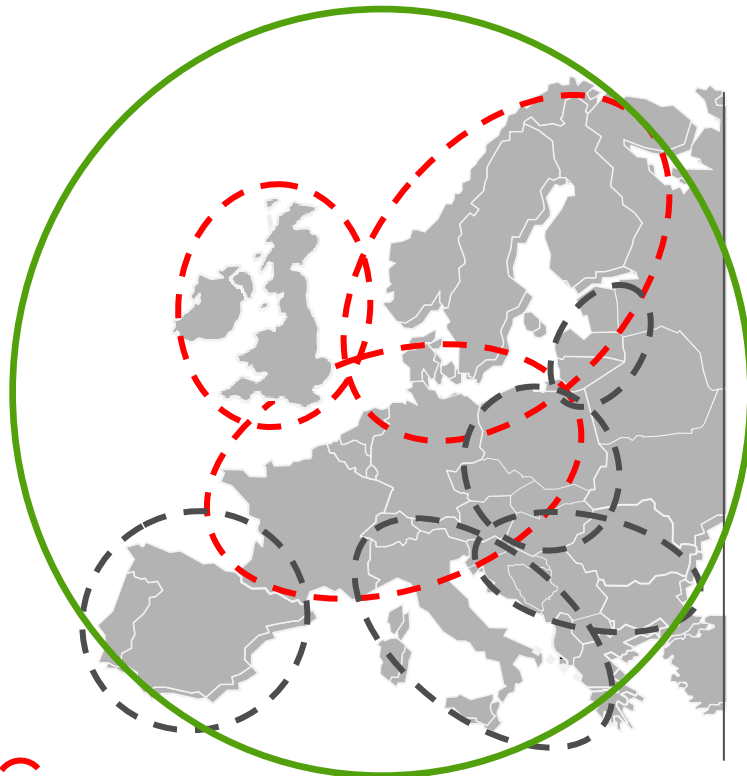
Challenges

- Energy biomass sourcing
- Renewable energy support schemes

MARKET BASED BUSINESS MODEL – ENERGY

Market integration from regional markets to European markets is taking place

Nordic region as a frontrunner



 Broadly homogeneous price regions 2008

 European electricity, gas, emission and environmental certificate market

Expected developments

- Market models and dynamics unified
- Markets merging
- Price regions disappearing
- Cross border trading increasing
- New transmission investments needed

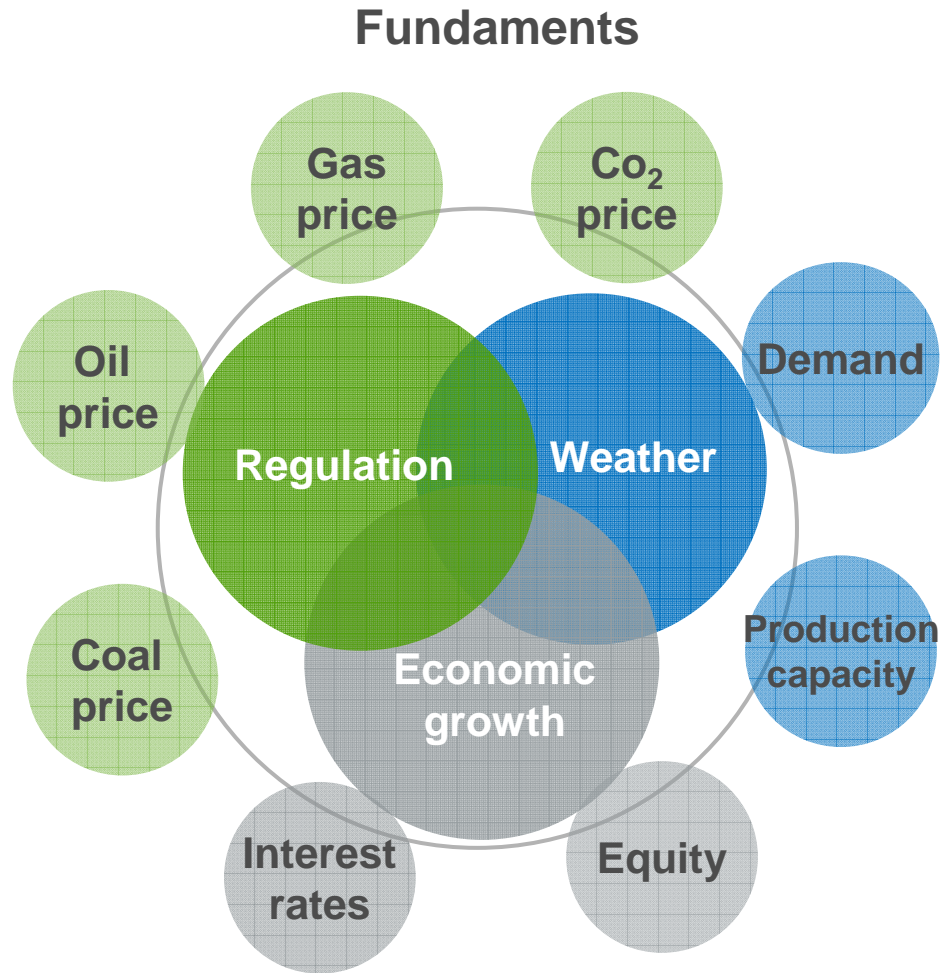


Key success factors:

- Good quality production portfolio
- European wide market operations
- In-depth market intelligence

MARKET BASED BUSINESS MODEL – ENERGY

Electricity price is influenced by number of varying factors and drivers



Operating in markets requires various competences:

- Long term planning for short term actions
- Optimal production and consumption balancing
- Hedging strategies
- Follow-up of technical and market indicators

MARKET BASED BUSINESS MODEL – ENERGY

Integrated utilisation of UPM's expertise to create value for power assets and to secure competitive price for mills

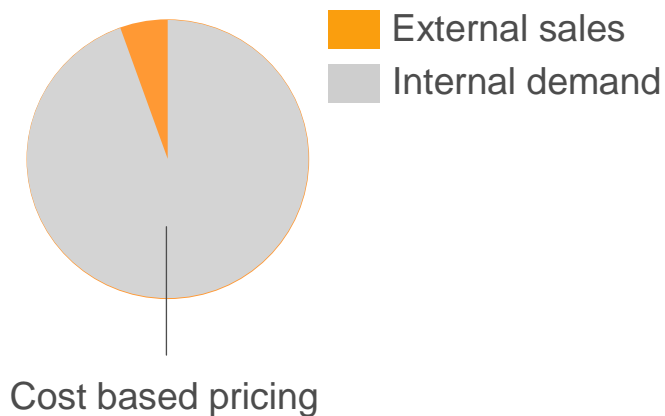


Resource based approach

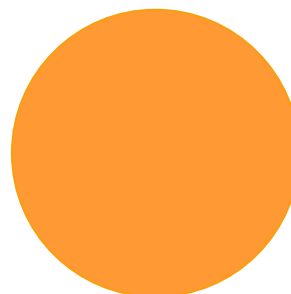
- Energy as resource
- Balanced demand/supply in Nordic
- Only small net external sales

Market based approach

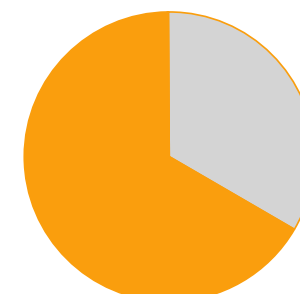
- Energy as business
- Net open position grows (incl. OL3)
- Ability to optimize gross position
- Risk policy and active hedging strategy
- Integration benefits through strong position in the value chain



Generation

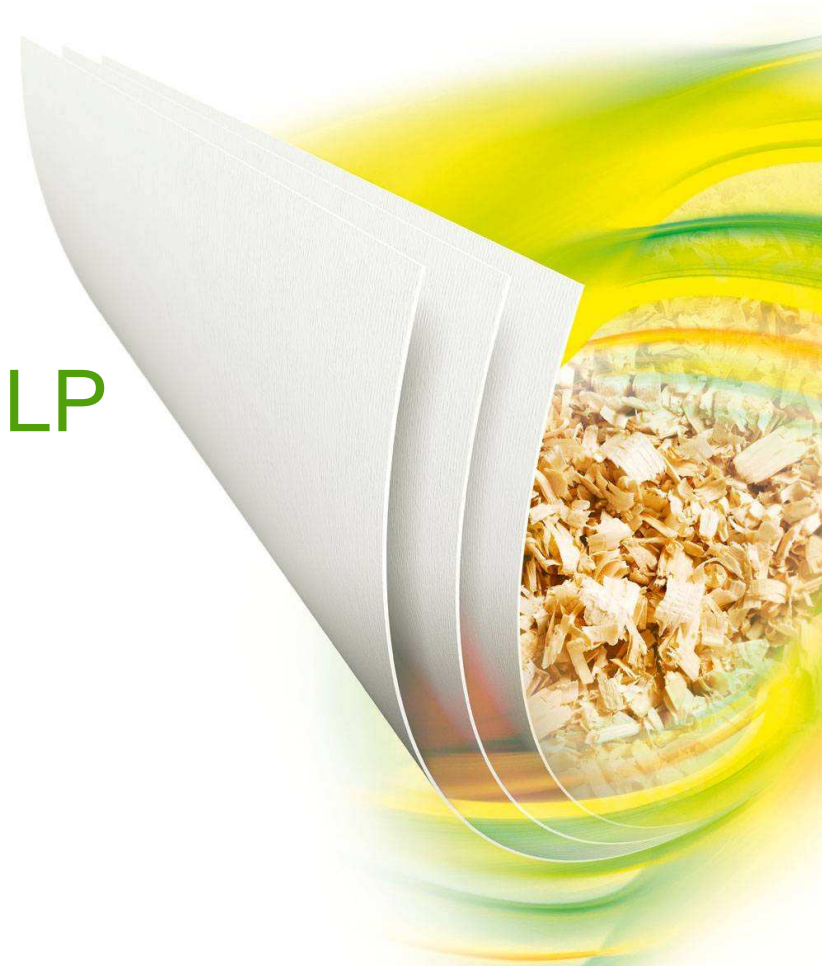


Consumption



- External sales / purchase
- Internal generation (mill site CHP)

MARKET BASED BUSINESS MODEL IN PULP

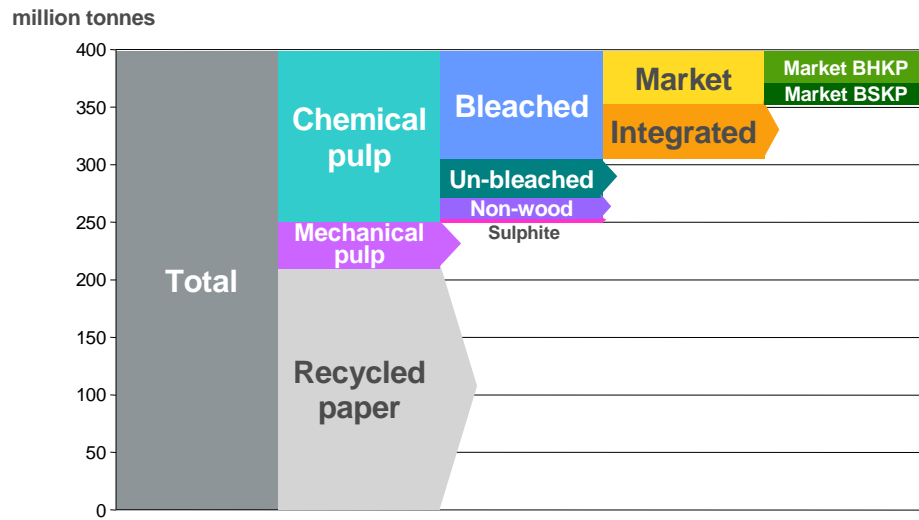


MARKET BASED BUSINESS MODEL – PULP

World chemical market pulp demand growing

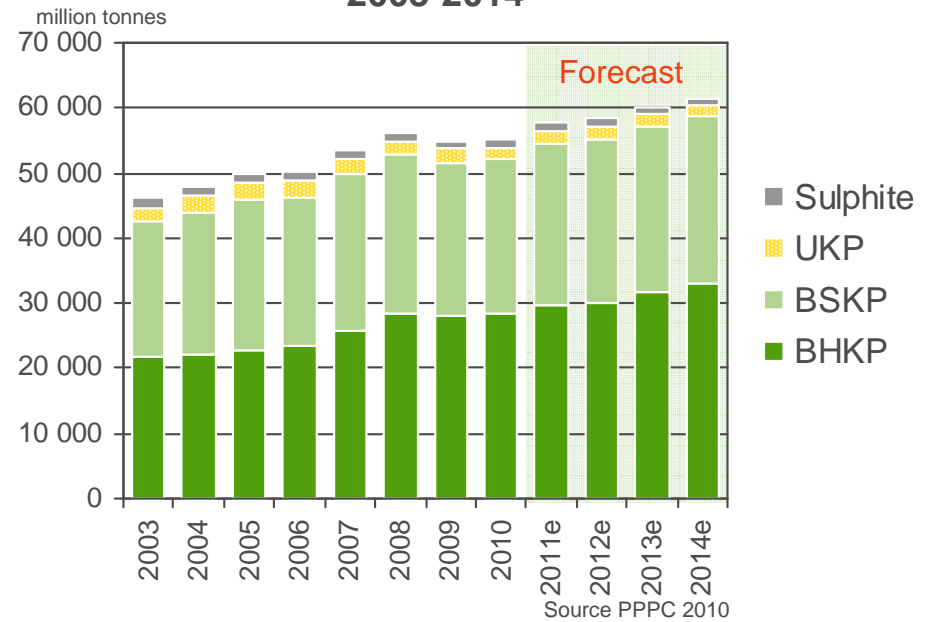


World fibre consumption



Source Pöyry 2009

Market pulp demand development 2003-2014

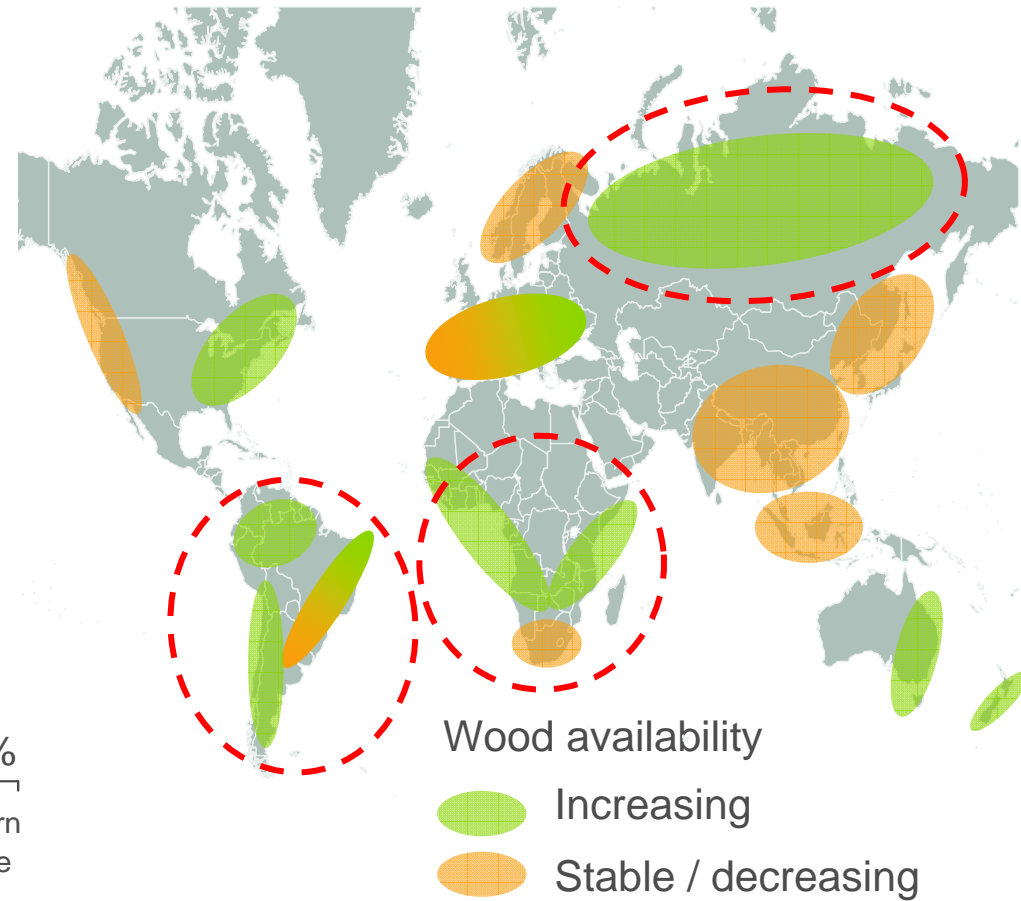
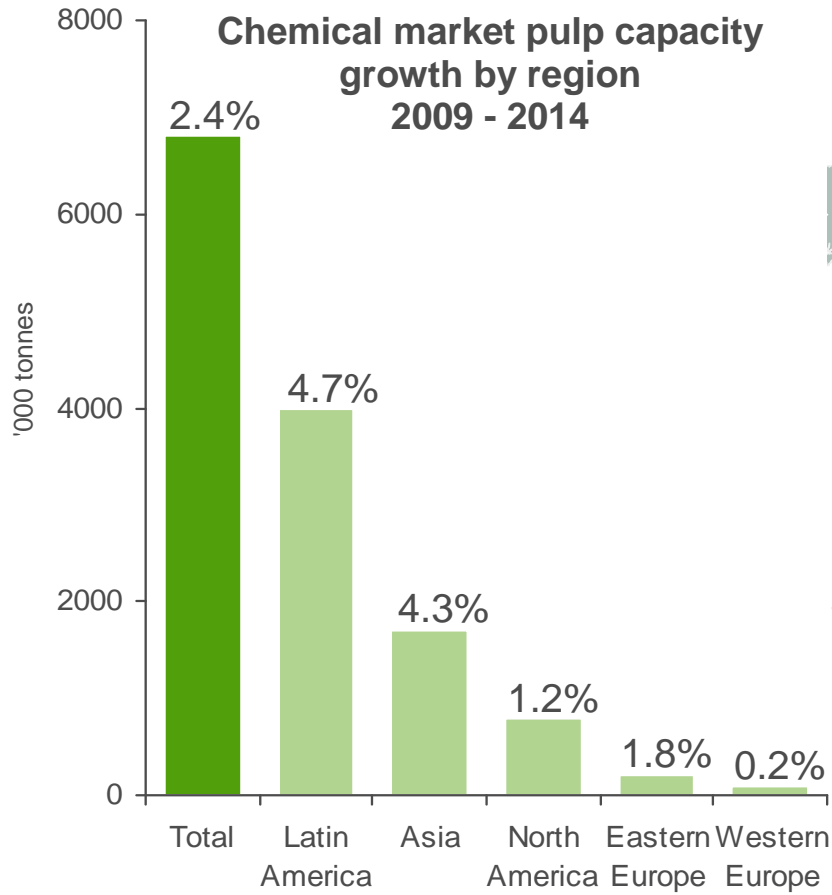


Source PPPC 2010

- Growth takes place in non-integrated pulp

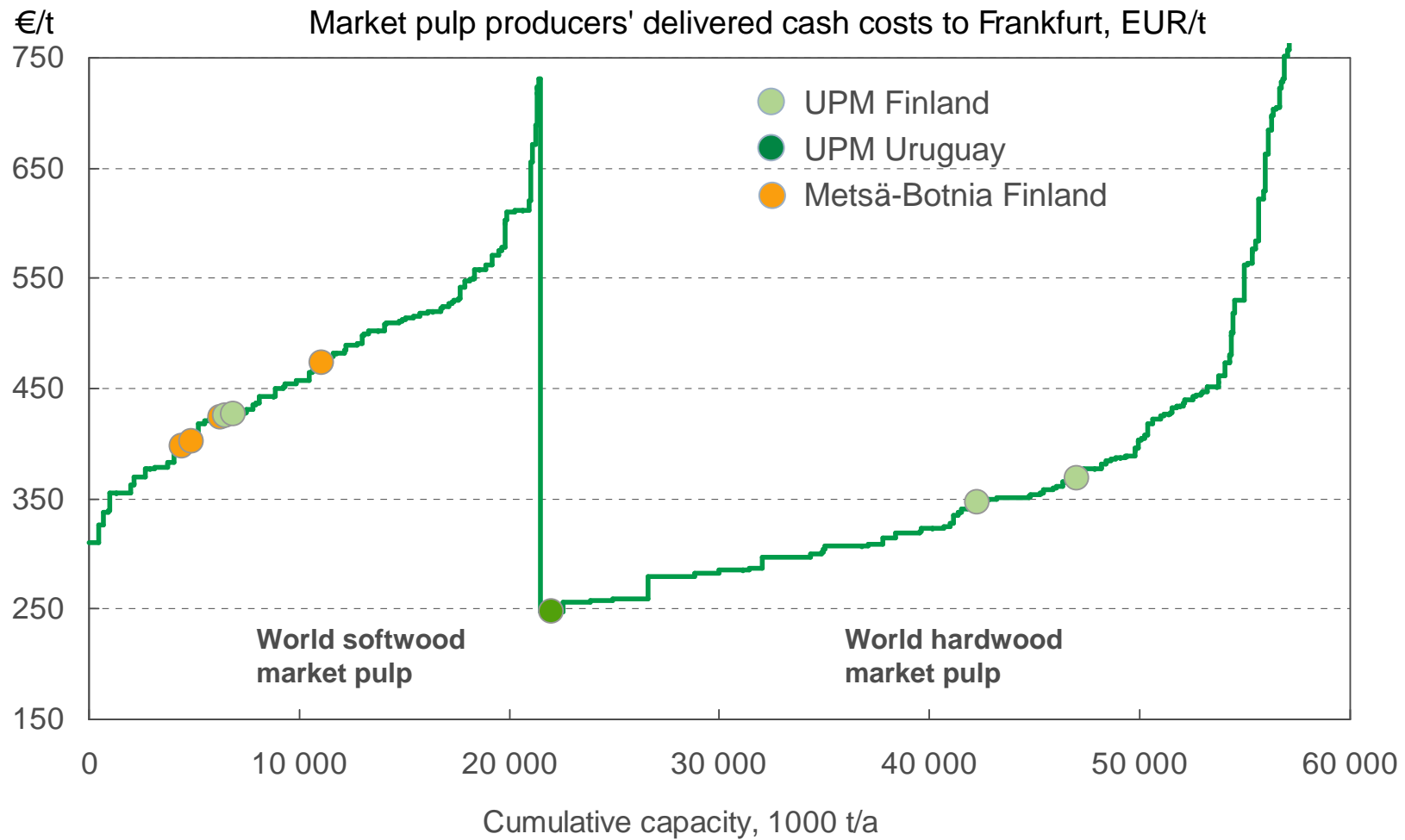
MARKET BASED BUSINESS MODEL – PULP

Growth focus on regions with increasing wood availability and cost efficient plantation operations



MARKET BASED BUSINESS MODEL – PULP

UPM's current pulp production portfolio provides excellent operational performance



Source: Pöyry estimate Q4/2010

MARKET BASED BUSINESS MODEL – PULP

Driven by market based approach, UPM strengthens its position in the value chain

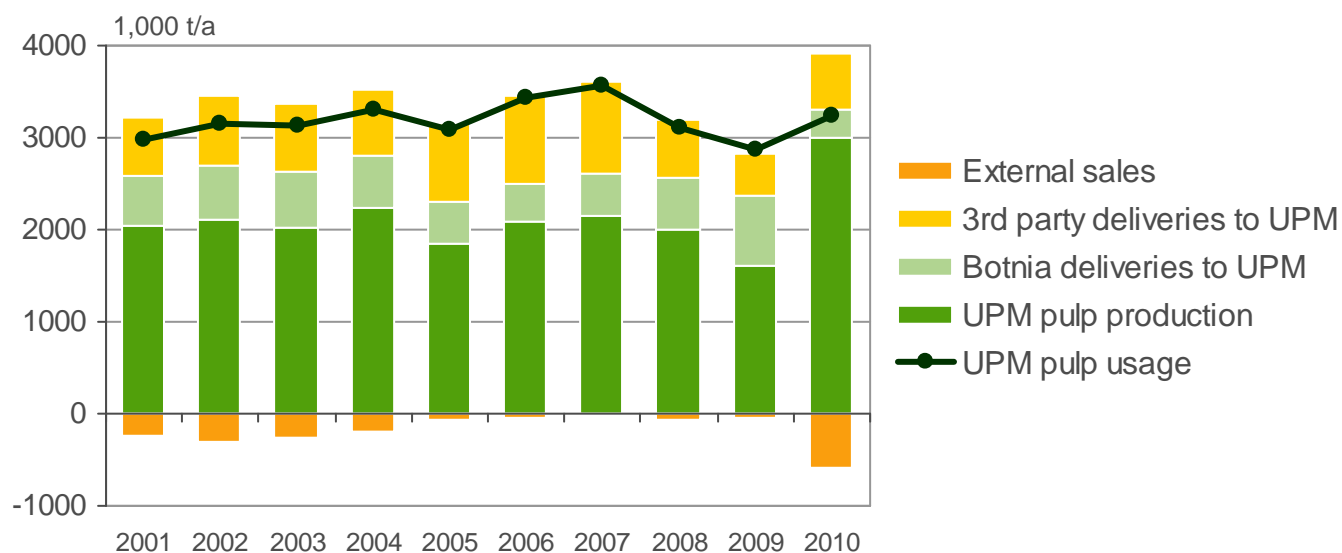


Resource based approach

- Pulp as resource
- Integrated pulp producer
- Production in the northern hemisphere
- Pulp supplier mainly for printing and writing papers
- Cost based pricing

Market based approach

- Pulp as business
- Active operator in the pulp market
- Production in the cost efficient regions
- Pulp supplier for wide range of growing end-uses
- Market based pricing





The Biofore Company **UPM**

BIOFUELS



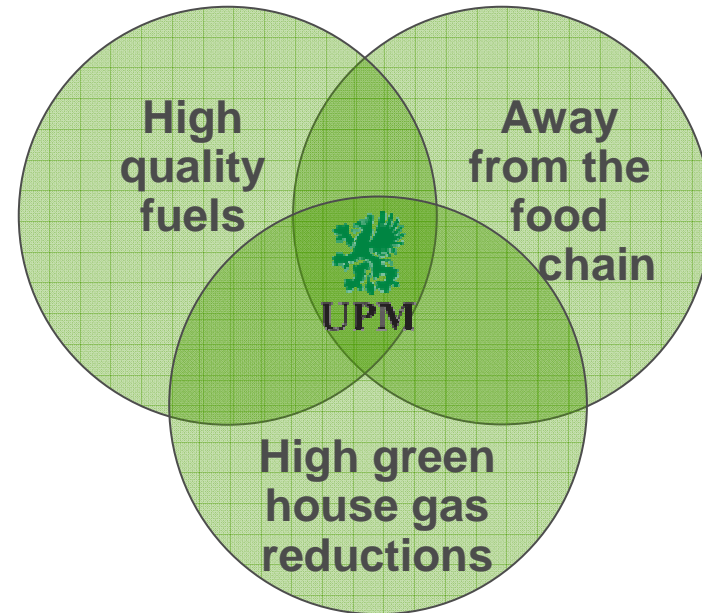
BIOFUELS
UPM's biofuel strategy

**BTL
Biodiesel**

**Hydrotreated
biofuels**

Bio-oil

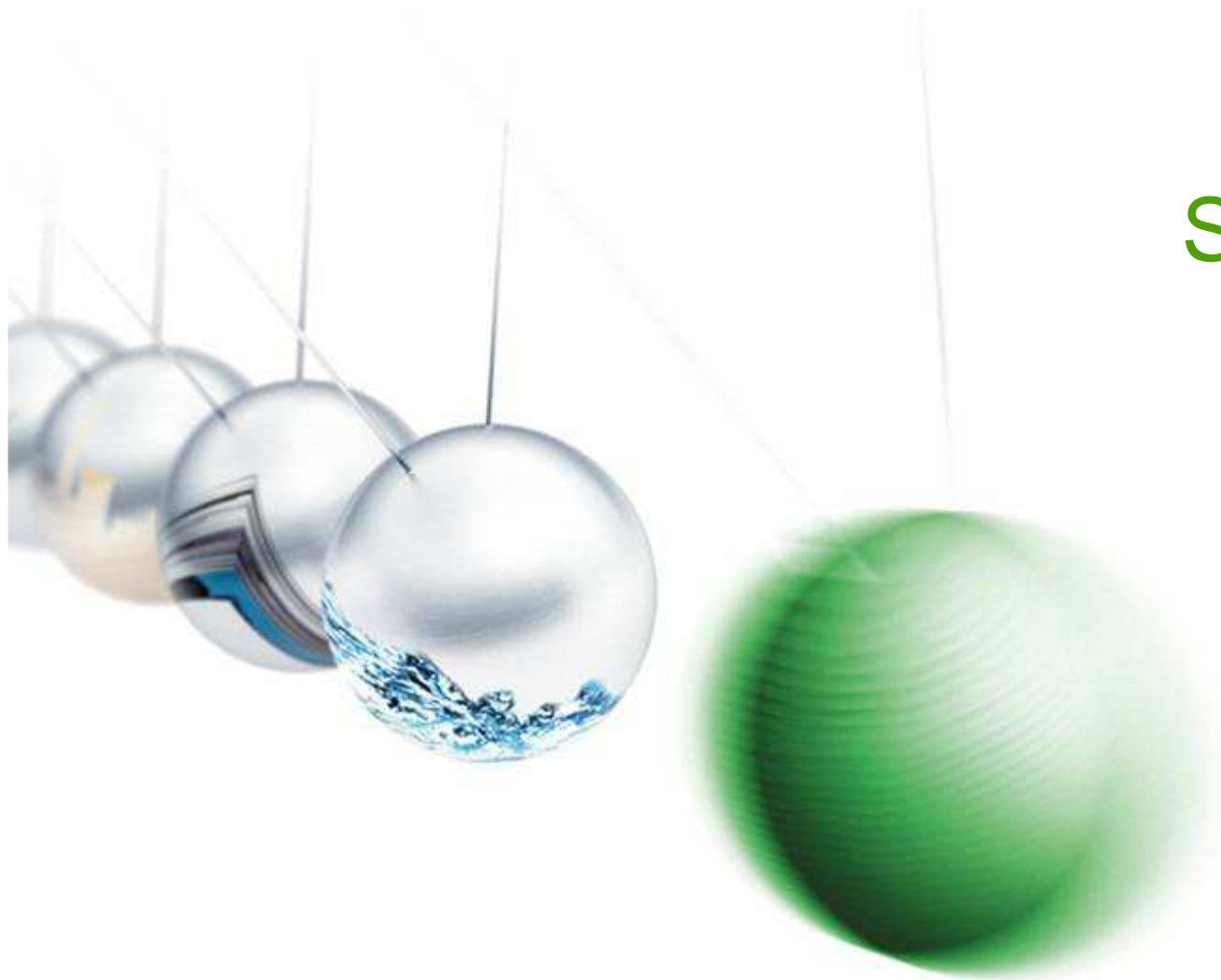
Bioethanol





The Biofore Company **UPM**

SUMMARY



Summary

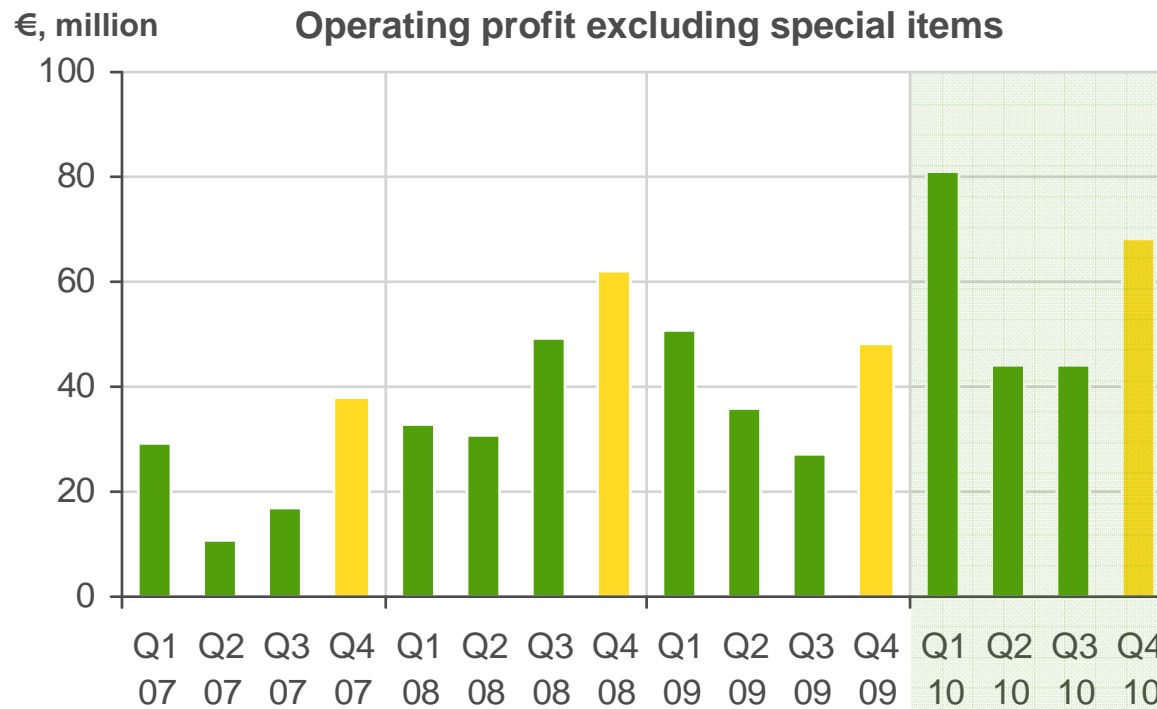
- Combination of market based business model and strong integration benefits improves UPM's competitive advantage
- Driven by market based approach Energy and Pulp has good growth opportunities
- Market based integration means
 - Improved ability to respond to changes
 - Increased market insight leading to new opportunities
 - Improved business minded capabilities and competences



UPM

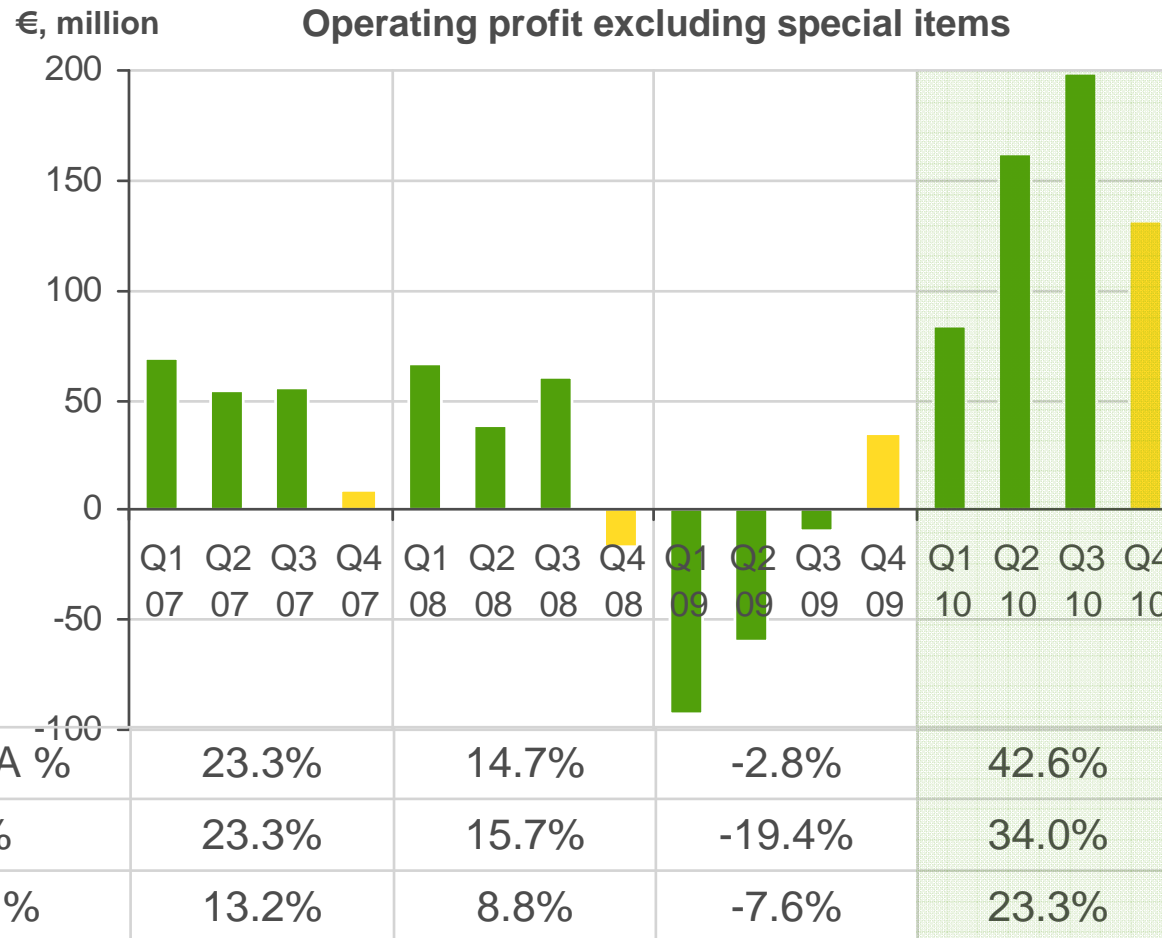
The Biofore
Company

ENERGY
Steady profit generator



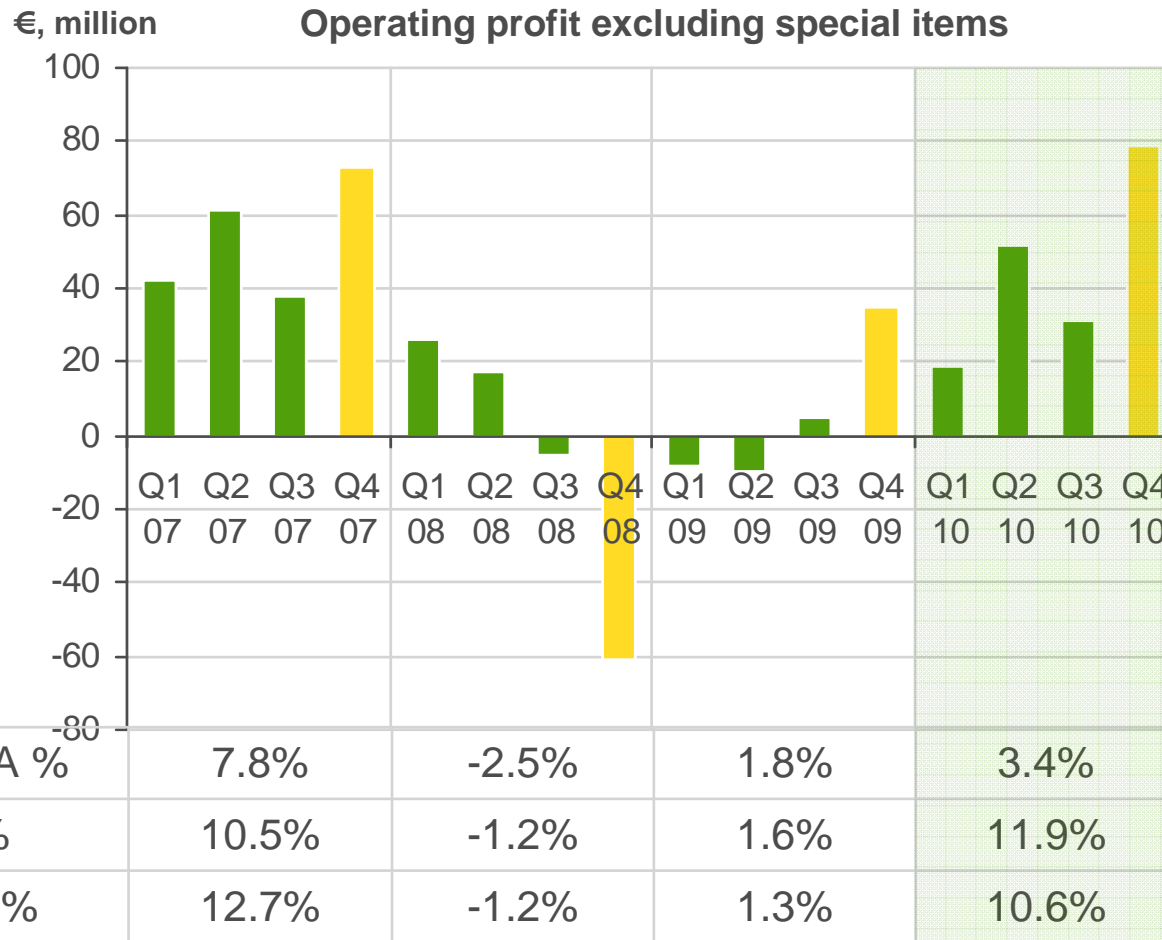
EBITDA %	31.1%	43.3%	40.3%	41.6%
EBIT %	25.1%	36.6%	34.3%	41.8%
ROCE %	9.6%	18.4%	18.6%	26.9%

PULP
Strong year for pulp producers



FOREST AND TIMBER

Increase in the fair value of forest and higher deliveries of sawn timber





UPM

The Biofore
Company