Kemira Capital Markets Day 2012

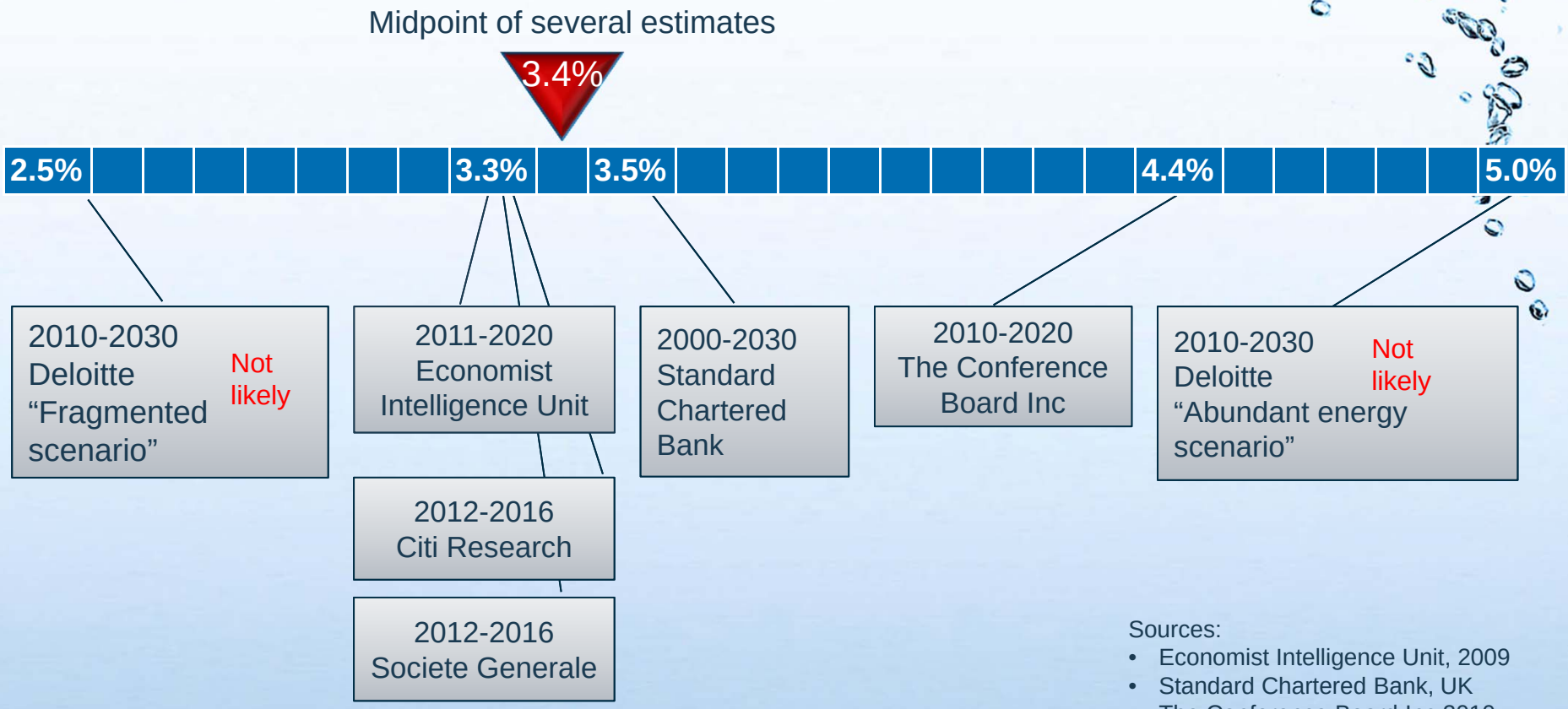
Appendix

Water is the connection kemira

Content

*Water quality and quantity management

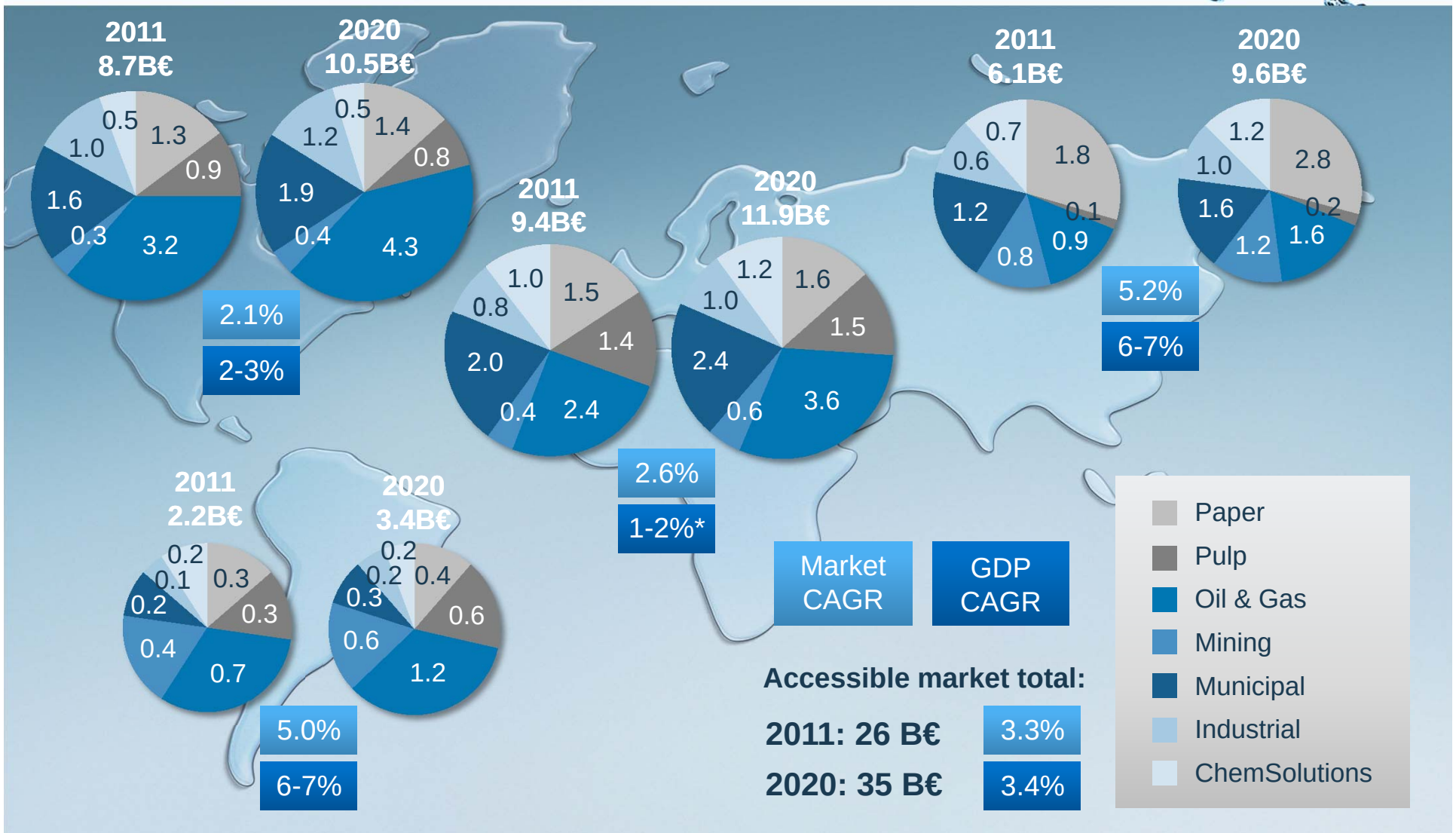
World GDP CAGR until 2020 estimated at 3.4%



Sources:

- Economist Intelligence Unit, 2009
- Standard Chartered Bank, UK
- The Conference Board Inc 2010
- Deloitte,The Chemical Industry in the Netherlands:World leading today and in 2030–2050
- Citi Research July 2012
- Societe generale 2012

Strong market growth for Oil & Gas as well as in APAC and SA

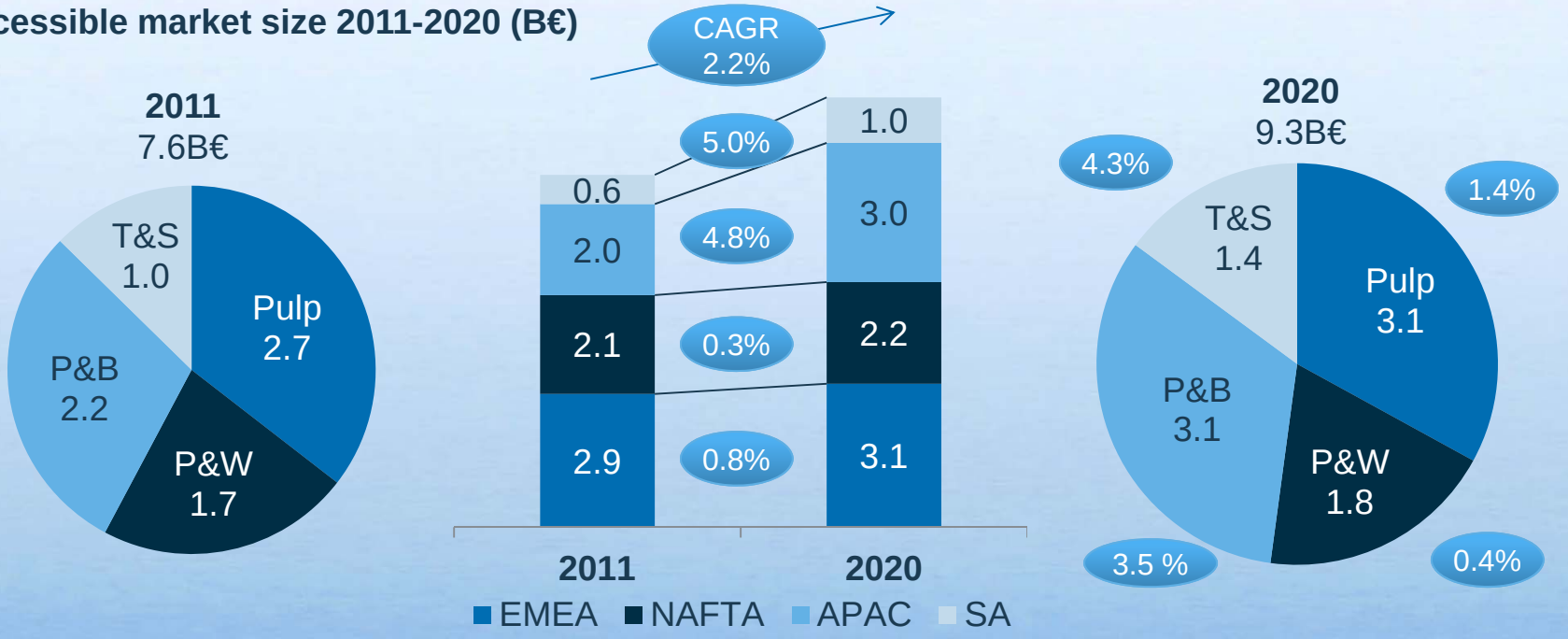


Source: Management estimation based on various sources. *Eurozone GDP

Paper and pulp - growth is focused on emerging markets – mature markets will remain important

- Growth in all regions, fastest in APAC (Packaging and Board) and SA (Pulp), also Eastern Europe is a growing market
- Tissue, and fibre based packaging will grow, new pulp capacity will be established
- Trend towards recycled fiber and lighter paper qualities will increase the chemicals consumption
- Newsprint share of Paper segment revenue less than 4%

Accessible market size 2011-2020 (B€)

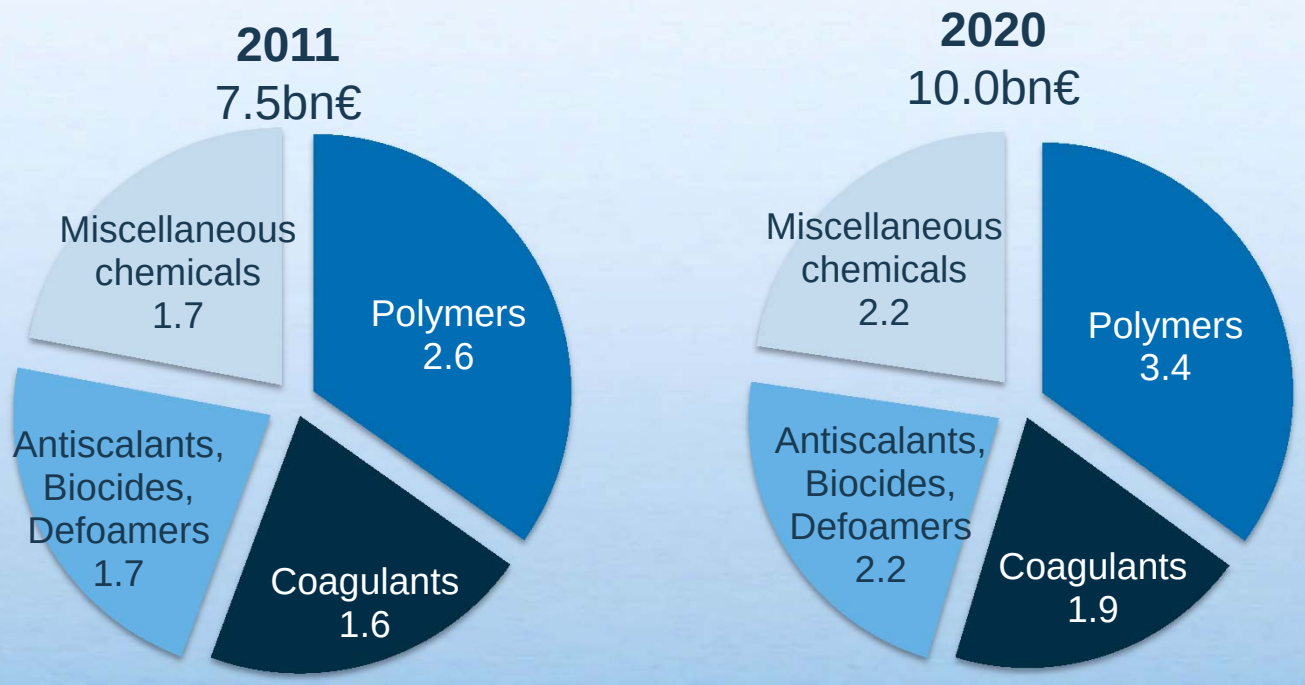


CAGR%

Growth driven by R&D in new water treatment technologies

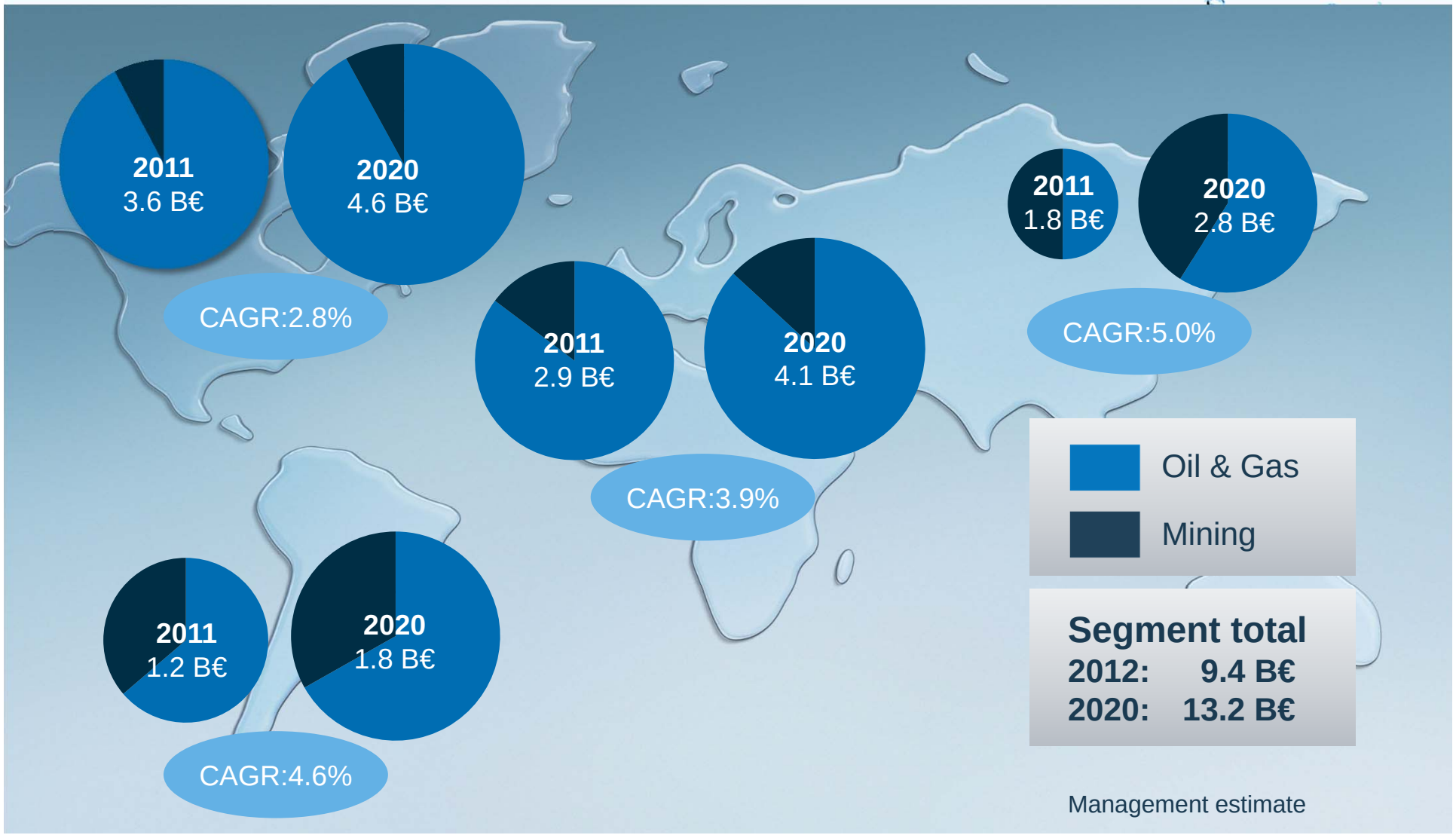
- Focus R&D efforts into product lines with high market growth – driven by new water treatment technologies
- Industrialization and sludge de-watering drive growth for Polymer products
- Antiscalants, Biocides and Defoamers are the fastest growing product lines

Accessible market by product line 2011-2020 (B€)



Source: Combines information from various sources: McIlvaine 2011, Frost & Sullivan 2011, PPG 2011, SRI 2010, Booz&Company, and management estimation.

Fast global oil & mining market growth



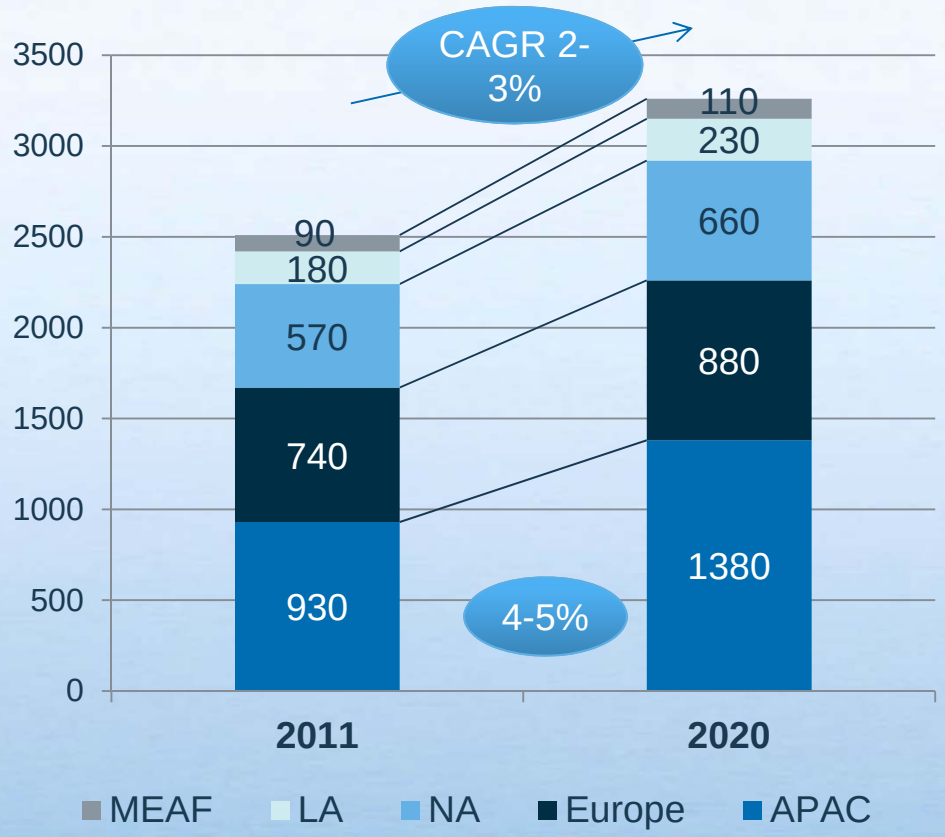
WQQM* market definitions

Process chemicals**	Chemicals used to improve efficient water usage in manufacturing processes, or to ensure prosess stability or to improve yield of natural resources or biomass based materials
Water treatment chemicals**	Chemicals used within the water cycle from collection, treatment, distribution through to wastewater treatment and reuse
Boiler & Cooling chemicals & service	Chemicals to reduce or eliminate scale, corrosion, fouling, microbiological contamination and other water treatment problems in boiler and cooling tower in power plants and industries. Because water treatment solutions are complex strong support and service is required from chemical suppliers.
Consumables in WQQM	E.g. activated carbon, ion exchange resins
Maintenance & Monitoring services	Maintenance services to extend service life and operational reliability of water treatment equipment and facilities. Monitoring services for process optimization through external service providers who have proprietary sensor, instrumentation and data management capabilities
Membrane water treatment equipment	Membrane refers to a thin, film-like structure that separates particles or chemicals from water. Membrane equipment relate systems that enable a large membrane surface to be put in the smallest possible volume, e.g. tubular membrane system and the plate & frame membrane system.
Process control equipment (valves, monitoring, control)	Control equipment and instrumentation, components, and systems to improve process performance,
Other WT equipment	Large size equipment like filters, clarifiers, dewatering, sludge drying
Design/Consulting	Engineering companies and advisories for process and plant design
Operation services	Outsourced operation of water and wastewater treatment facilities
Pumps	Equipment for moving fluids
Build/Infrastructure	Building and constructing of systems needed to supply, treat and distribute water

*Water Quality and Quantity Management
**Kemira's accessible market

Global shift in production and demand of chemicals is towards APAC and Middle East

Chemicals market by region 2011-2020 ($billion)*



Chemicals market outlook 2020

- Global chemicals industry is expected to grow at 2-3% CAGR
- Chemical demand from Asia Pasific region is expected to grow at CAGR of 4-5% from 2011 to 2020
- **APAC** will be dominant chemical market in 2020, and is estimated to account for **40% of total in 2020** (30% in 2010 and 20 % in 2000)

*Global trends impacting the chemicals and materials industry, 360 Degree Analysis, Frost & Sullivan, March 2011

Appendix – Paper segment

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Kemira Paper segment, sales per region
Revenue in 2011 EUR 973 million

North America

28% of revenues

Sales personnel: ~ 200

South America

9% of revenues

Sales personnel: ~ 30

Europe, Middle East and Africa

55% of revenues

Sales personnel: ~ 200

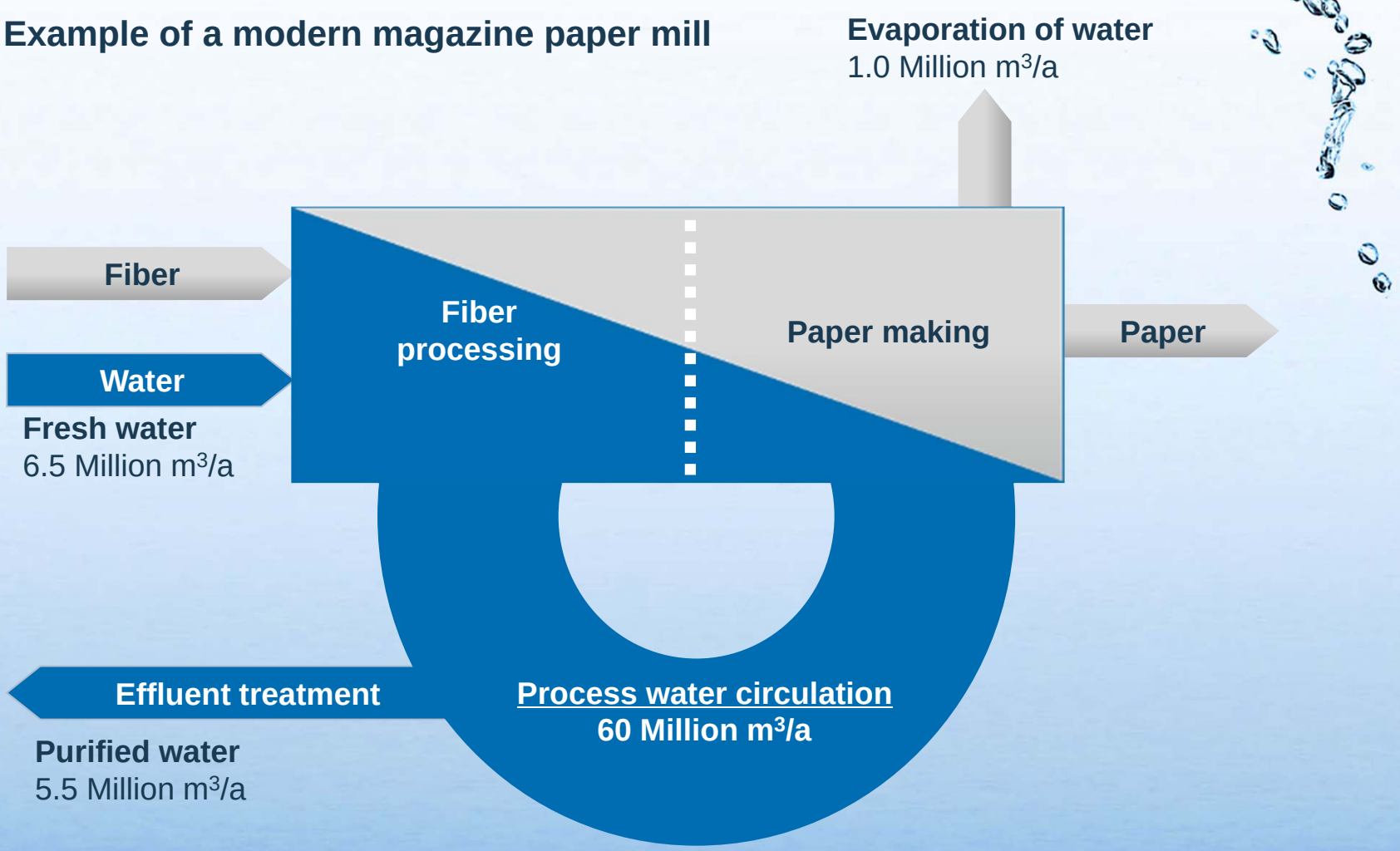
Asia Pacific

9% of revenues

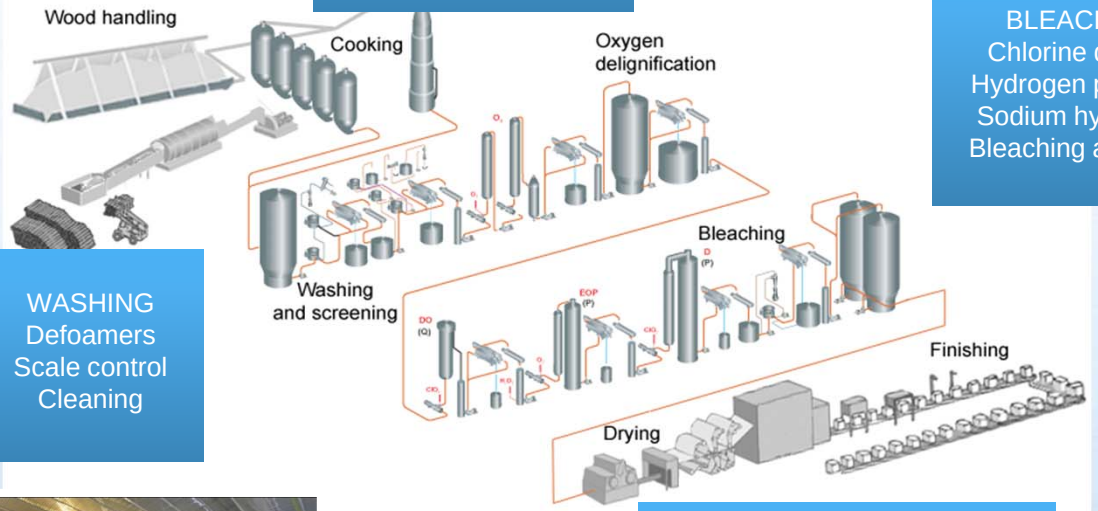
Sales personnel: ~ 90

Maximizing efficient use of water

Example of a modern magazine paper mill



COOKING
Sodium hydroxide
Sulphuric acid
Scale control
Cleaning
Impregnation aids



BLEACHING
Chlorine dioxide
Hydrogen peroxide
Sodium hydroxide
Bleaching additives

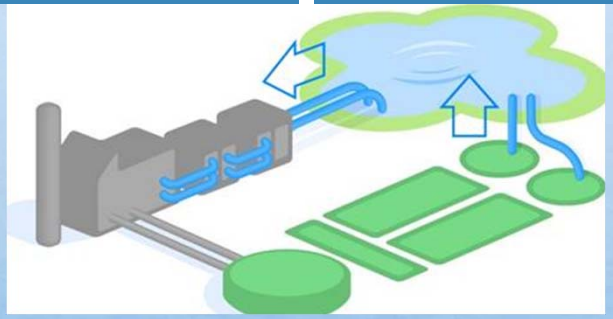
WASHING
Defoamers
Scale control
Cleaning

DRYING
Microbe control
Cleaning

FINEPAPER MACHINE
Retention and fixation
Pitch control
Deposit control
Defoamers
Microbe control, biocides
Cleaning agents
Sizing agents
Tinting dyes/colorants
Coating pigment preservation
Dispersion agents
Control&monitoring

RAW WATER TREATMENT
Coagulants
Biocides
pH control
Control & monitoring

WASTE WATER TREATMENT
Coagulants
Sludge polymers
Defoamers
Odor control
Control & monitoring



What does the chemicals do?

In **cooking,** lignin, the glue between fibers, is dissolved and removed with **chemicals** and heat.

Brightness and cleanliness of pulp is improved by **bleaching chemicals**. Pulp is washed between the different bleaching stages which are connected.

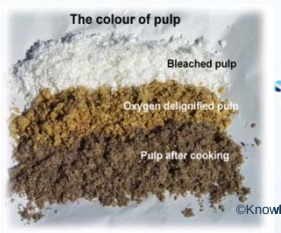
Defoamers are chemicals to eliminate foam and entrained air in systems in order to enhance the efficiency of the process.

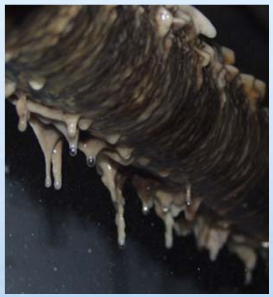
Less and less water is used on modern paper machines. This can lead to deposition of accumulated chemicals and bacterial slime on surfaces. If those deposits detach from the machine surface, it can cause defects in the paper (holes, spots, smell) and paper web breaks. **Deposit control agents and biocides** are needed to control these effects.

Water content in the wet end is 99%. Final moisture of the paper is <10%. **Retention aids** help to keep fiber and filler in the formed sheet and increase the speed of dewatering.

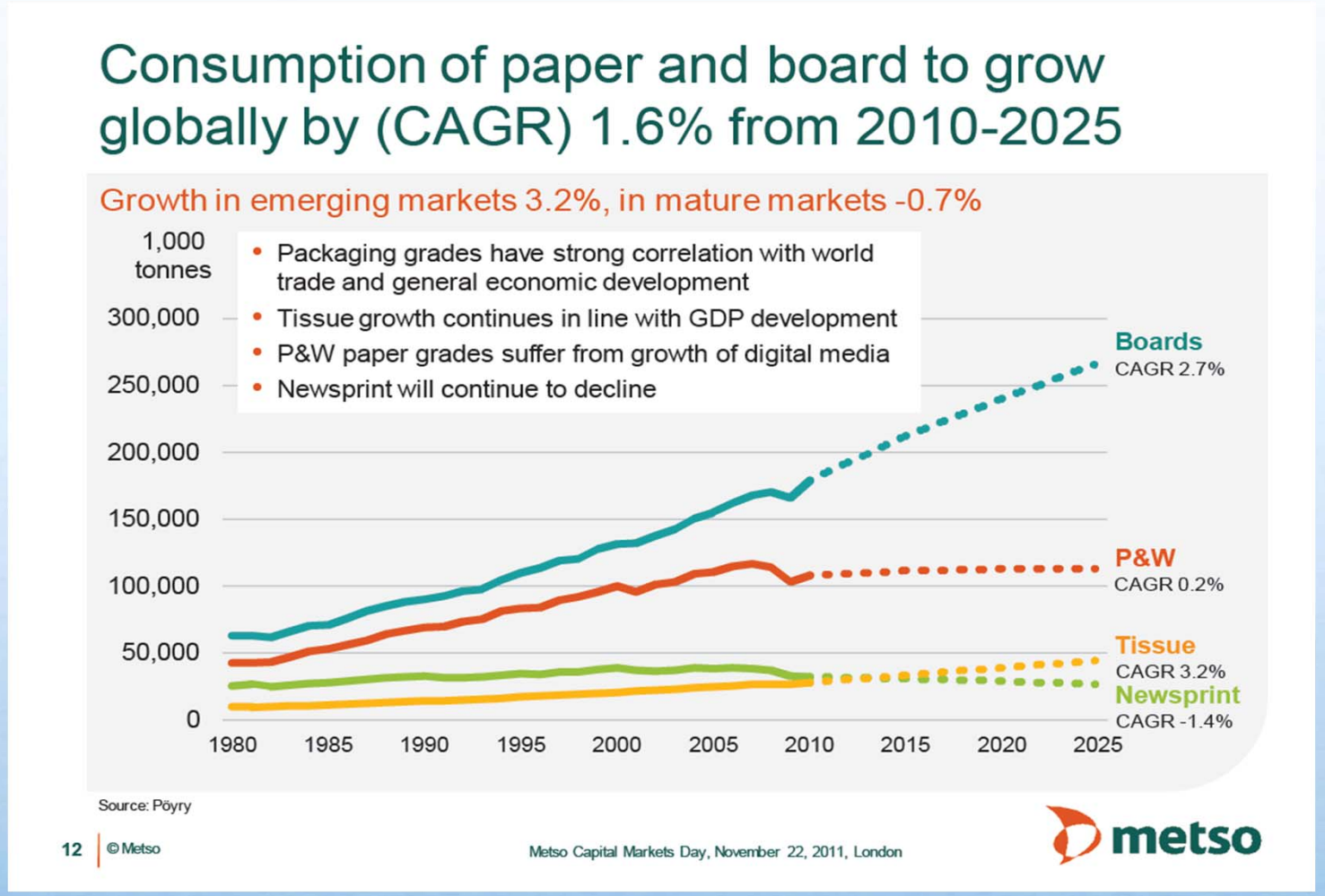
Wet end chemistry affects paper machine runnability, energy demand for drying and paper quality.

The image quality of printed paper and the stability against moisture of Paper is improved with **sizing agents.**



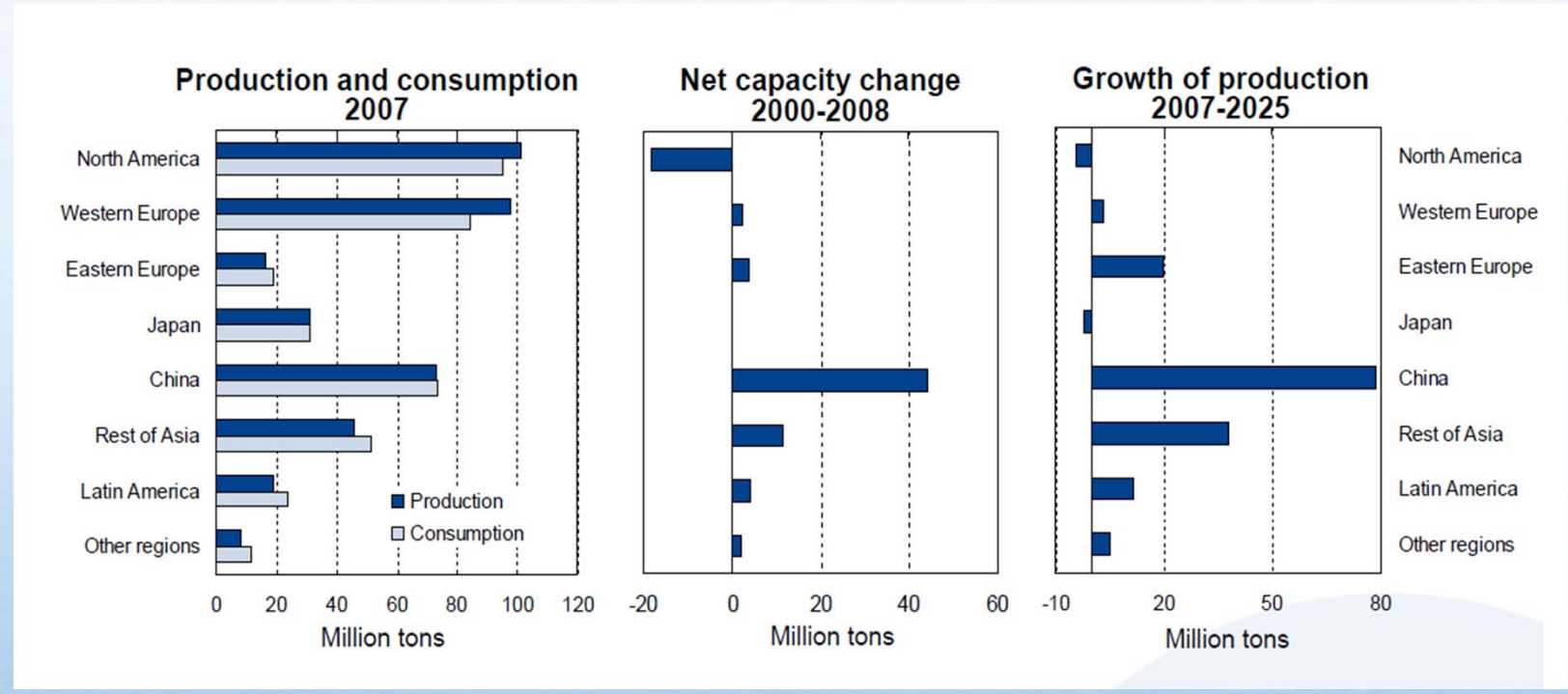


Consumption of paper and board



Source: Metso

Shifting paper and paperboard production

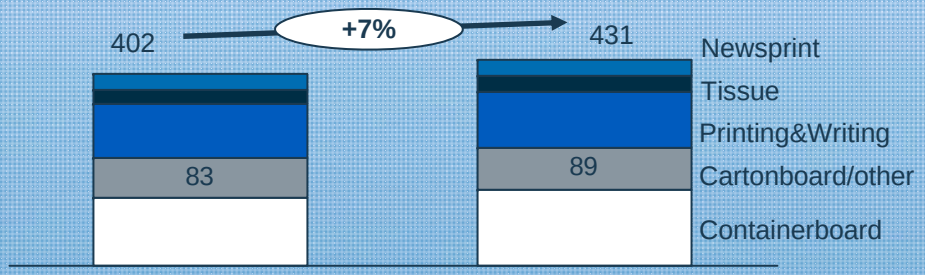


Source: Pöyry

Paper market

- The Printing & Writing market, especially the newsprint market, has been shrinking in the mature markets. The total P & W market is still however growing.
- P & W (incl. Newsprint) is expected to grow with 7 Mtons by 2013.
- The total Paper and Board market is forecasted to grow 7% by 2013.

Global Paper&Board demand
2011-2013, million tonnes



- News 33 → 34M Tons
- Tissue 31 → 34M Tons
- P & W 111 → 117M Tons
- Cartonboard 83 → 89M Tons
- Containerboard 111→158M Tons

Appendix – Municipal & Industrial

Water is the connection kemira

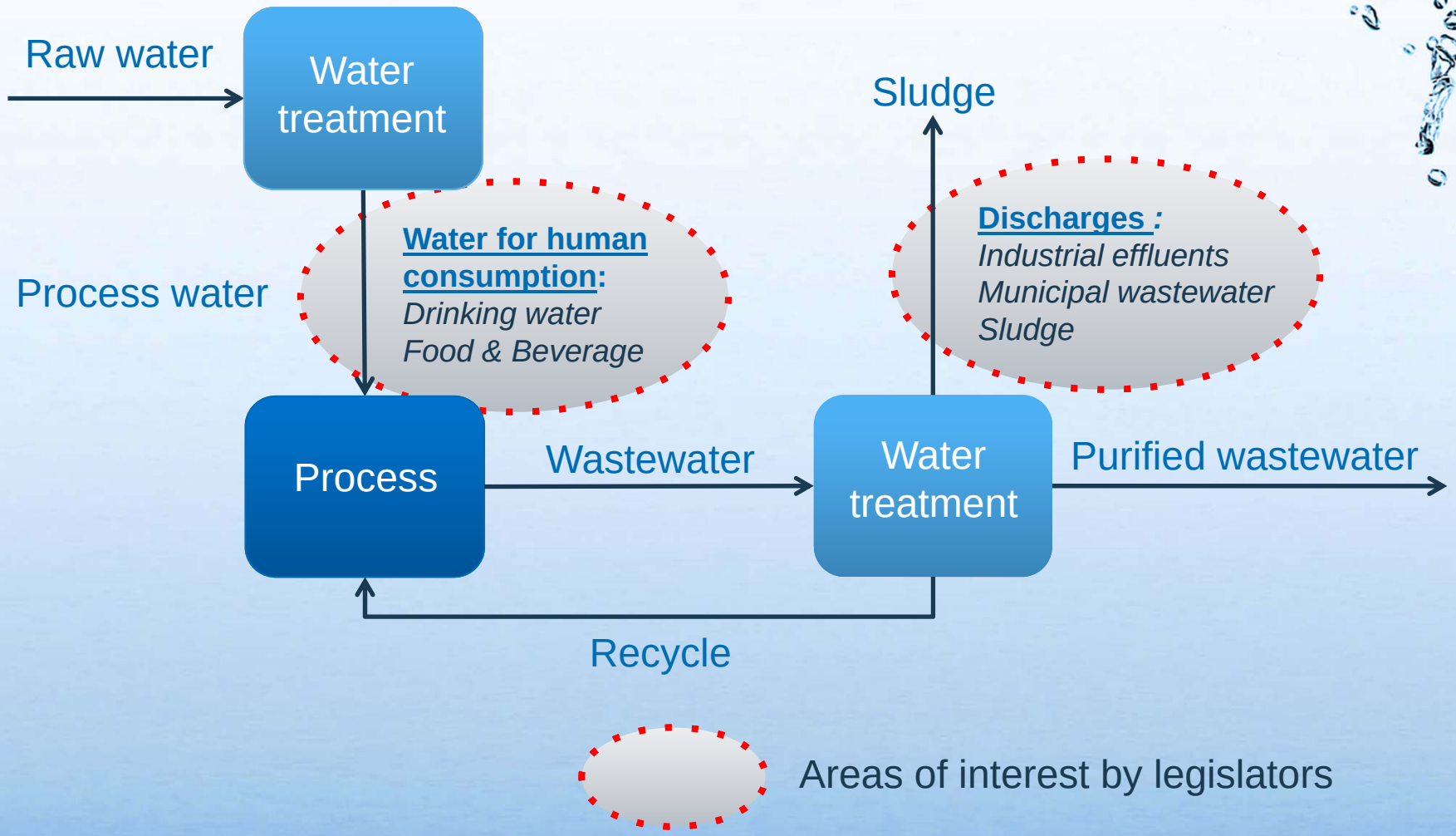
Water and wastewater legislation

Water related environmental legislation facing Kemira's customer industries

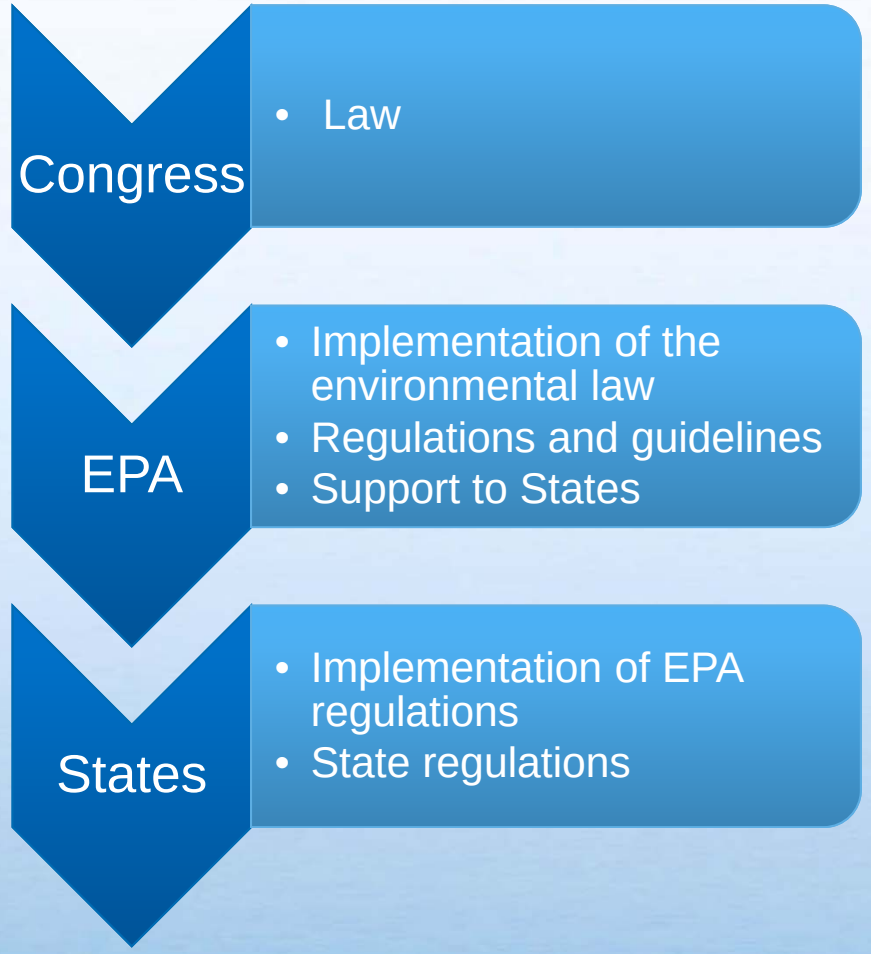
Water is the connection

kemira

Legislator's interests in water



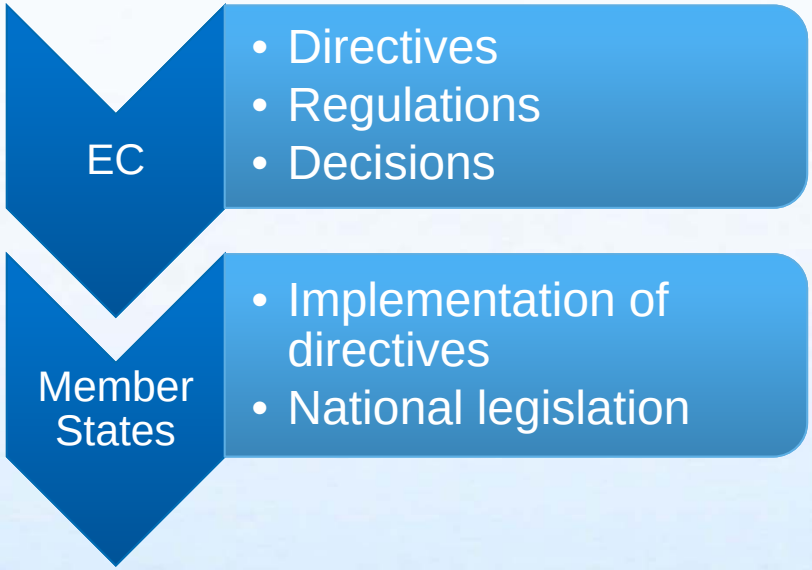
The United States



- The Environmental Protection Agency (EPA) is a major actor and information source for environmental regulatory
- Main water related national acts
  - Clean Water Act (CWA)
    - National Pollutant Discharge Elimination System program (NPDES)
  - Safe Drinking Water Act (SDWA)
    - National Primary (and Secondary) Drinking Water Regulations (NPDWR, NSDWR)
    - Contaminant Candidate List (CCL)
- The state of California is often one step ahead of the U.S. EPA in setting its own standards

EPA = Environmental Protection Agency

EU



EU Water Directives

- Drinking Water Directive (98/83/EC)
- Water Framework Directive (2000/60/EC)
  - Groundwater Directive (2006/118/EC)
  - Priority Substances Directive (2008/105/EC)
- Urban Wastewater Directive (98/15/EC)
- Bathing Water Directive (2006/7/EC)
- Industrial Emissions Directive (2010/75/EU)
- Sludge Directive (86/278/EEC)

- "80% of the environmental legislation in the EU member countries originates from EU water directives" -Frost & Sullivan
- Implementation of the directives varies in different member countries
- The trend has been to integrate and unifying the directives
  - Water Framework Directive and Industrial Emissions Directive
- Older directives are being reviewed
  - Revision of Sludge or Drinking water directive will not take place in the near future, the focus will be on implementing these directives better

EC = European Commission

Drinking water regulation: the U.S. and EU

WHO Drinking Water Quality Guidelines

The U.S.

Congress
- Safe Drinking Water Act (SWDA)

EPA
- Contaminate Candidate List (CCL)
- National Primary Drinking Water Regulations (NPDWR)

States
- Implementation of EPA regulations
- State regulations

EU

EC
- Drinking Water Directive (98/83/EC)

Member States
- Implementation of (98/83/EC)
- National legislation

Drinking Water Directive is based on WHO guidelines for drinking water quality

WHO Drinking water guidelines 4th edition was published in 2011

EPA = Environmental Protection Agency

EC = European Commission

China

National People's Congress

- Highest legislative authority
- Constitution
- Major legal codes and laws

The State Council

- Highest executive organ of State power
- Guideline principles and policies
- Decisions and orders
- Ministries operate under the State Council

Provincial level congresses

- The lowest level with real legislative power
- Local environmental regulations
- Implementation of higher level regulatory

- Enforcement of the law is inadequate, compliance only ca. 10 %
- The penalties of non-compliance are often light
- Implementation of the law remains a huge challenge
- Main water laws
  - Water Law 2002
  - Law on Prevention and Control of Water Pollution 2008 (1984)
  - Soil and Water Conservation Law 1991
- There are also different water quality standards

South America, India, Australia

South America

•Brazil has 27 States and there are both State level and national level environmental legislation. Brazilian water legislation has become stricter in last ten years. However, the enforcement of the national legislation is varying and often poor.

•Much of Argentina's water legislation is provincial and not federal

India

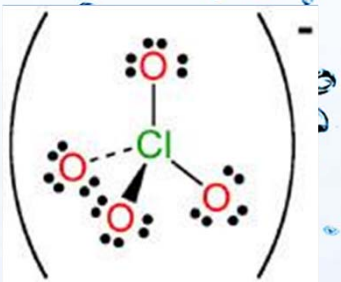
•In India individual states have relatively much power over the water bodies in their region compared to the central government. Similarly as in China, the laws are appropriate but the problem lays in poor enforcement.

Australia

•There are states in Australia similarly to U.S. and they have their own legislation though also nationwide Commonwealth legislation exists

Case: Perchlorate in drinking water, USA

- Perchlorate is an endocrine disruptor
  - it can disrupt the thyroid's ability to produce hormones required for growth and development
- EPA included perchlorate in the first (1998), second (2005) and third (2009) Contaminant Candidate List (CCL)
- California established limits for perchlorate in drinking water in 2007



Perchlorate structure
http://www.chemistry.wustl.edu/~edudev/LabTutorials/PeriodicProperties/Ions/ions.html

SDWA = Safe Drinking Water Act

NPDWR = National Primary Drinking Water Regulation

Key regional trends related to water

Tar sands (IW)
Hydraulic fracturing (DW)
Hexavalent chromium (DW)
Micropollutants (DW)
Endocrine disrupters (DW)
Perchlorate (DW)
Pharmaceuticals (DW)
Biocides (DW)
Fluoride (DW)
Phosphorus & Nitrogen (MW, IW)
Water reuse (MW, IW)

Micropollutants (DW)
Endocrine disrupters (DW, MW)
Pharmaceuticals (DW)
Biocides (DW)
Cocktail effects (DW)
Unification of legislation
Water pricing

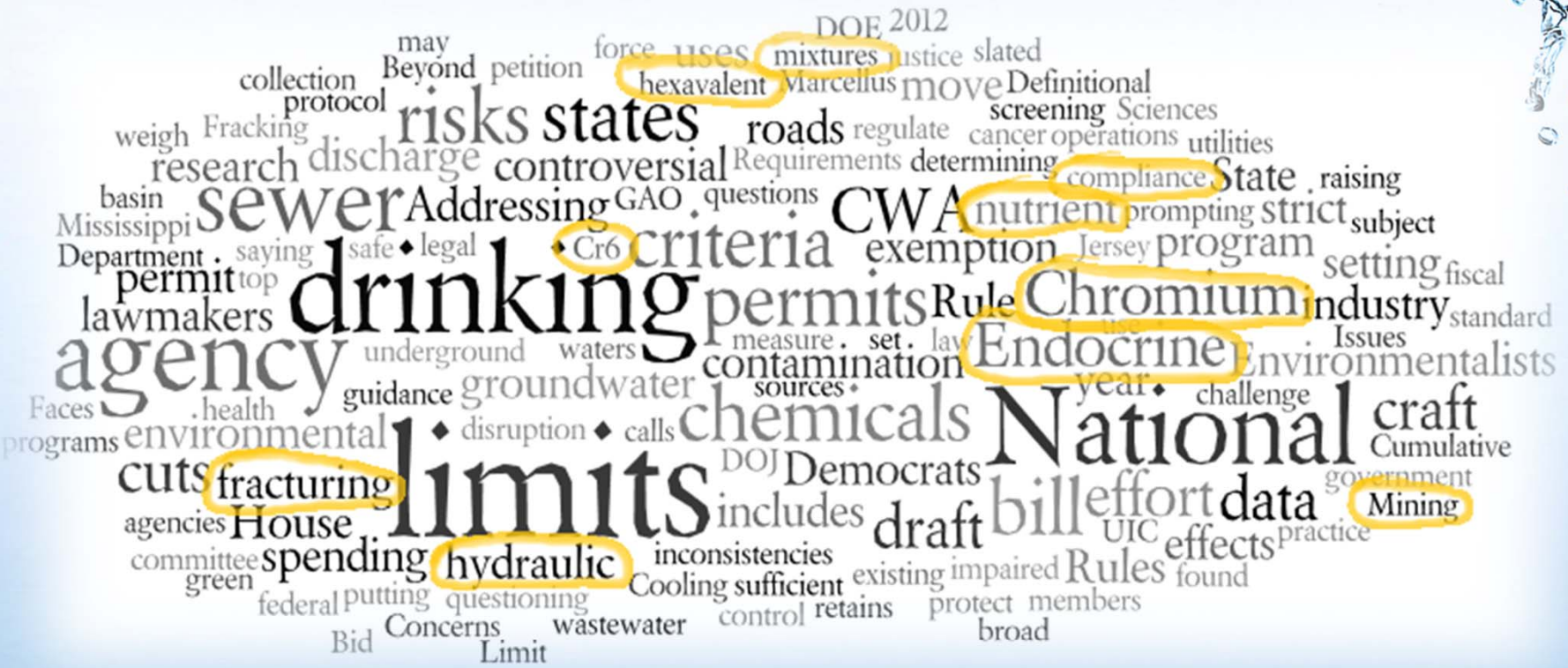
Water supply & sanitation (DW, MW)
Protecting the rivers (IW, MW)
Enforcement of the law

Water supply & sanitation (DW, MW)
Enforcement of the law

Argentina's glaciers (IW)
Water supply & sanitation (DW, MW)
Enforcement of the law

IW = Industrial waters, DW = Drinking water, MW = Municipal wastewater

Regional hot spots
Word Cloud: Trends in the U.S.



Made with Wordle (http://www.wordle.net/) from InsideEPA's water legislation news (July 2011- August 2011)

Regional hot spots
Word Cloud: Trends in EU/Europe

Made with Wordle (http://www.wordle.net/) from ENDs Europe's water legislation news (July 2010 - August 2011)

Appendix – Oil & Mining

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Case Study

KemFlow® A-4251 Friction Reducer and AMA®-324 Biocide Improve Hydraulic Fracturing Performance

The Challenge:

Frac performance in tight gas shale is critical to the final production rate of the well. Friction reduction (FR) helps to obtain that frac performance, but must function in a variety of process situations using water of various quality levels. The ability to use brine flowback waters would reduce the need for other water sources including fresh water supplies if FR performance could be achieved in the higher brines.

The frac job must also not contaminate the well with bacteria that could produce sour gas later. While most biocides used in frac applications are quick-kill, short-duration products, the use of a long-term preservative biocide injected with the frac fluids has been shown to help assure continued quality production.

The unmet need is to develop an product that provides friction reduction and meets performance demands consistently in high brine flowback waters, and works well with a biocide that provides long-term well preservation

Customer Benefits:

- Reliable, consistent FR during the job allows operators to improve the job performance.
- The combination of KemFlow A-4251 friction reducer and AMA-324 biocide provided improved FR performance compared to the friction reducer alone.
- Lower surface pressure reduced required horsepower requirements on location lowering pumping cost.
- Where equal FR was sufficient (compared to competitive offerings), the lower product dose of KemFlow A-4251 friction reducer reduced the chemical cost of the program.
- Reduced dosage of KemFlow A-4251 friction reducer coupled with the improved environmental profile of this FR provides the user with a much smaller environmental footprint.

Case Study

Superfloc® Flocculants Improve Separation Process In Leach Plant

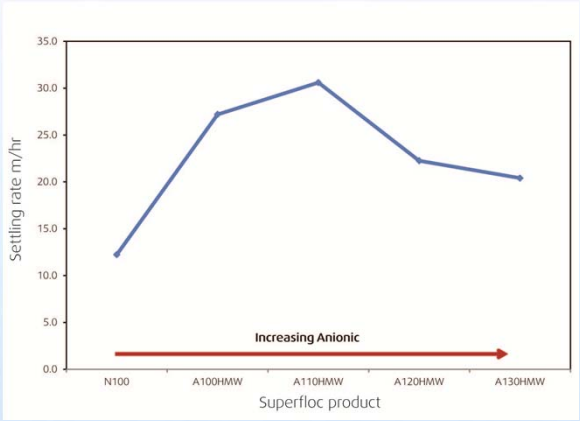
The Challenge:

A large copper cobalt leach plant in central Africa wanted to both simplify their process and improve the flocculation in their thickeners. The process consists of milling followed by leaching with sulphuric acid to dissolve the metals. The copper is then extracted using a sequential solvent extraction process where pH is raised to precipitate three other metals before precipitating cobalt in the final stage. Solids/liquids separation is used at several stages with each stage utilizing a unique flocculant leading to four different products being required to operate the plant.

The Solution:

Field trials with various types of flocculants demonstrated that the non-ionic flocculant Superfloc® N100 had superior performance in this application.

Cobalt Precipitate Thickening- Product Screen



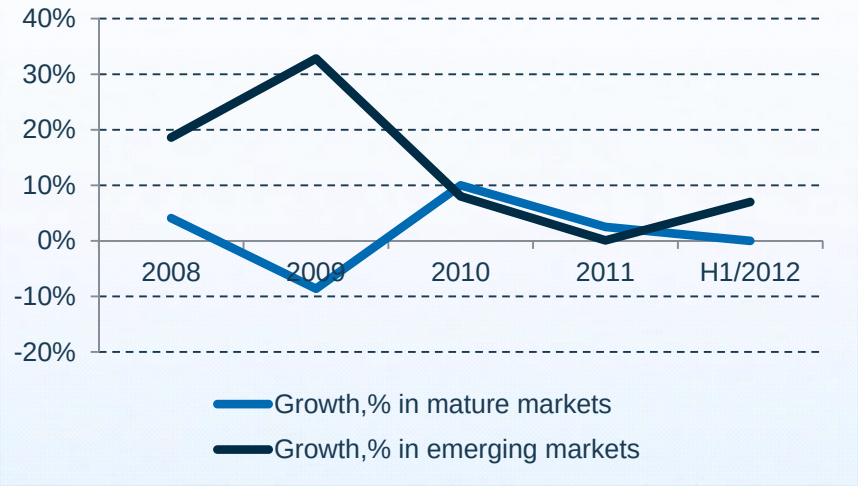
Customer Benefits:

- Improved overall solvent extraction compatibility by using non-ionic type polymer on the pre-leach thickeners
- Simplification of the customer's process and logistics by reducing the number of flocculant products used
- Improved settling performance

Appendix – Financials

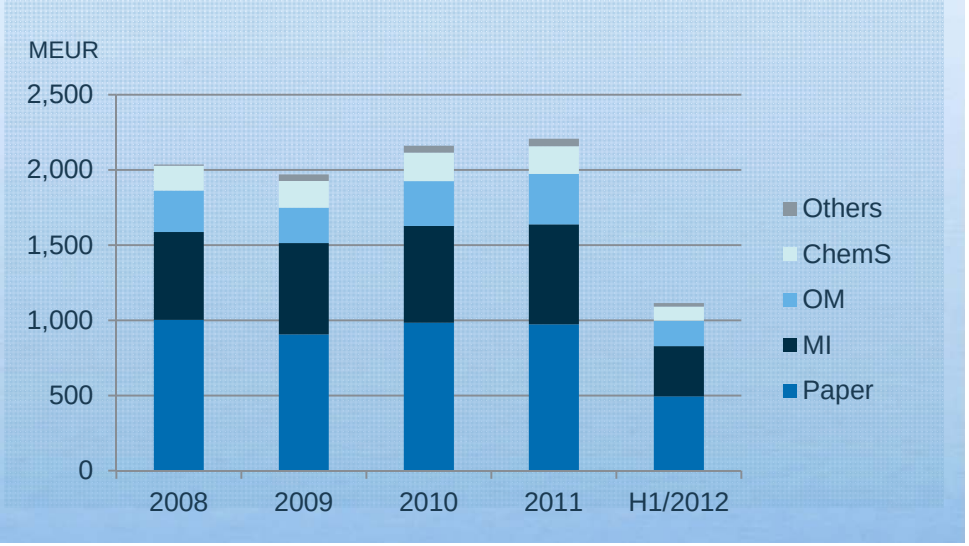
Water is the connection kemira

Financial target | Sales growth



- Mature market growth target, 3% (YTD 2012: 0%)
- Emerging market growth target, 7% (YTD 2012: 7%)

- Paper Segment 44% of the total
- Municipal & Industrial 30%
- Oil & Mining 15%
- ChemSolutions 8%
- Other revenue related to service revenues in Finland and in Sweden

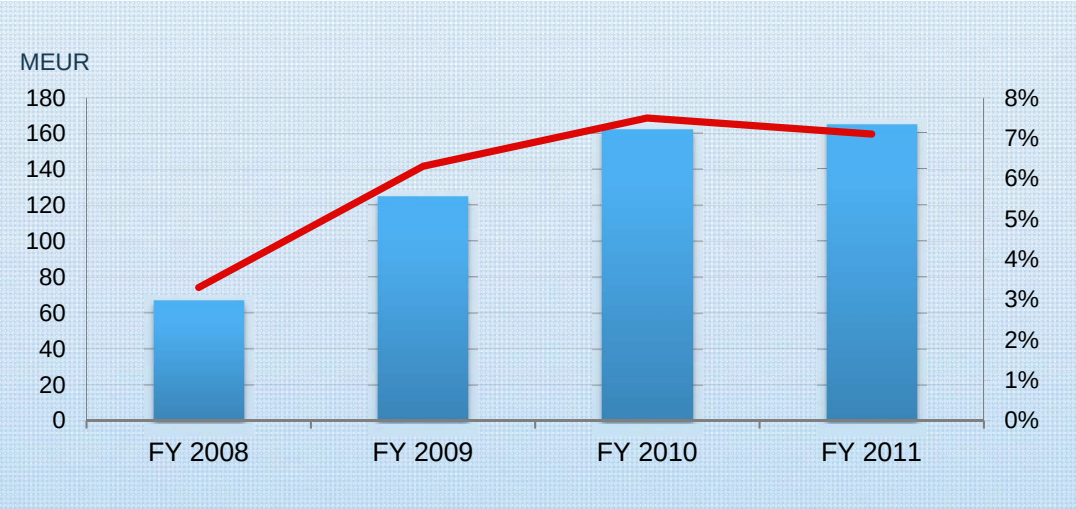


Kemira CMD 2012 appendix

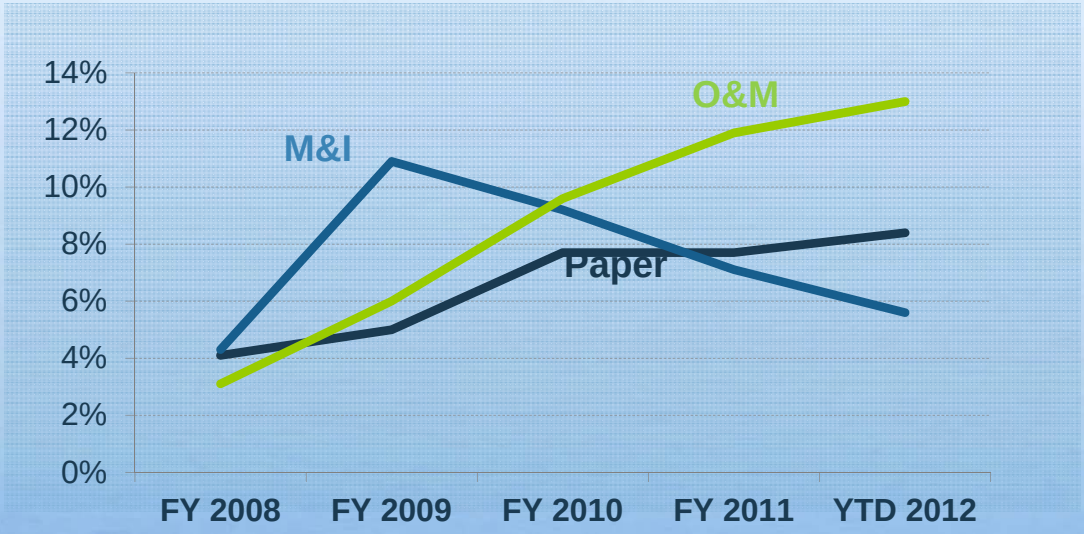
Excl. Tikkurila and Pigments
*12-month rolling

kemira

Financial target | EBIT margin 10%



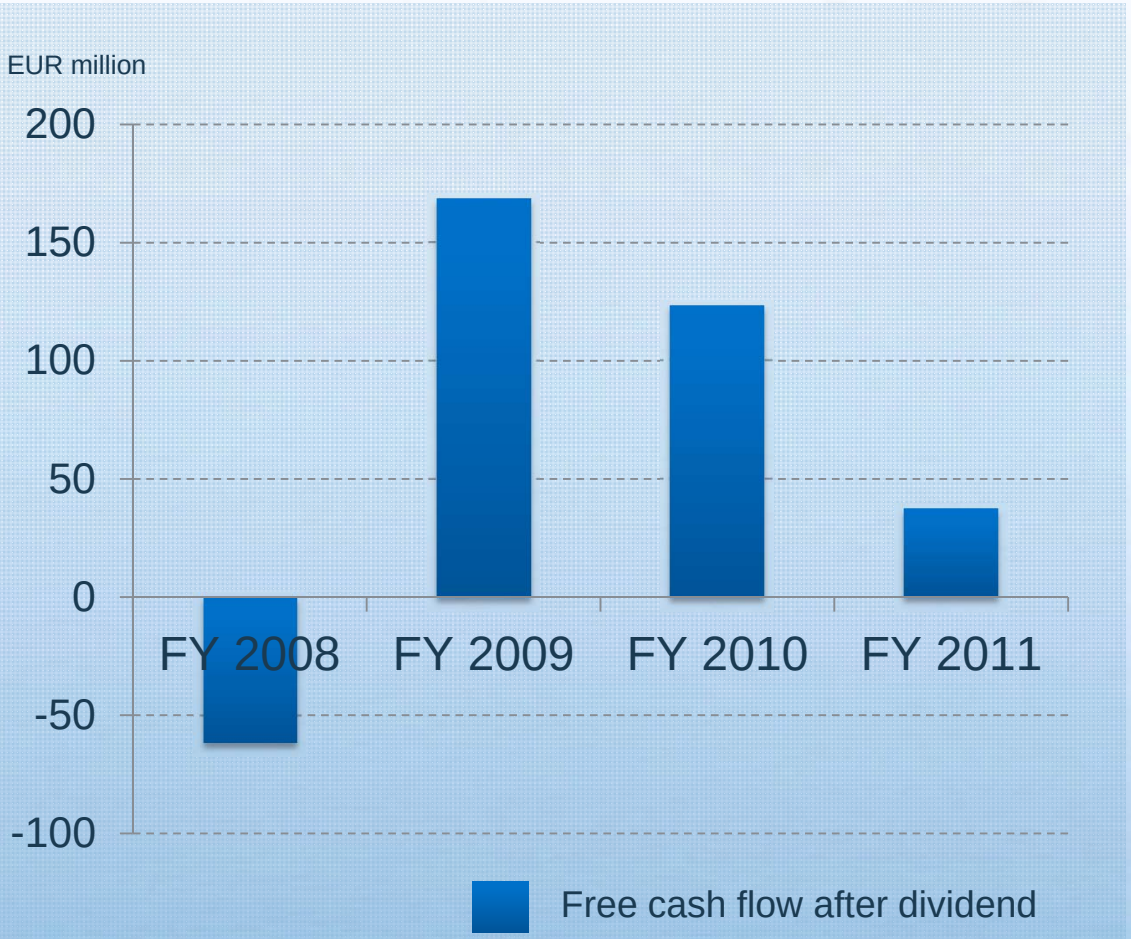
- EBIT margin >10%
- ”Fit for Growth” -restructuring program to deliver the target by 2014



- Paper has a steady improvement 2008-12
- M&I focus on turnaround
- O&M already above target

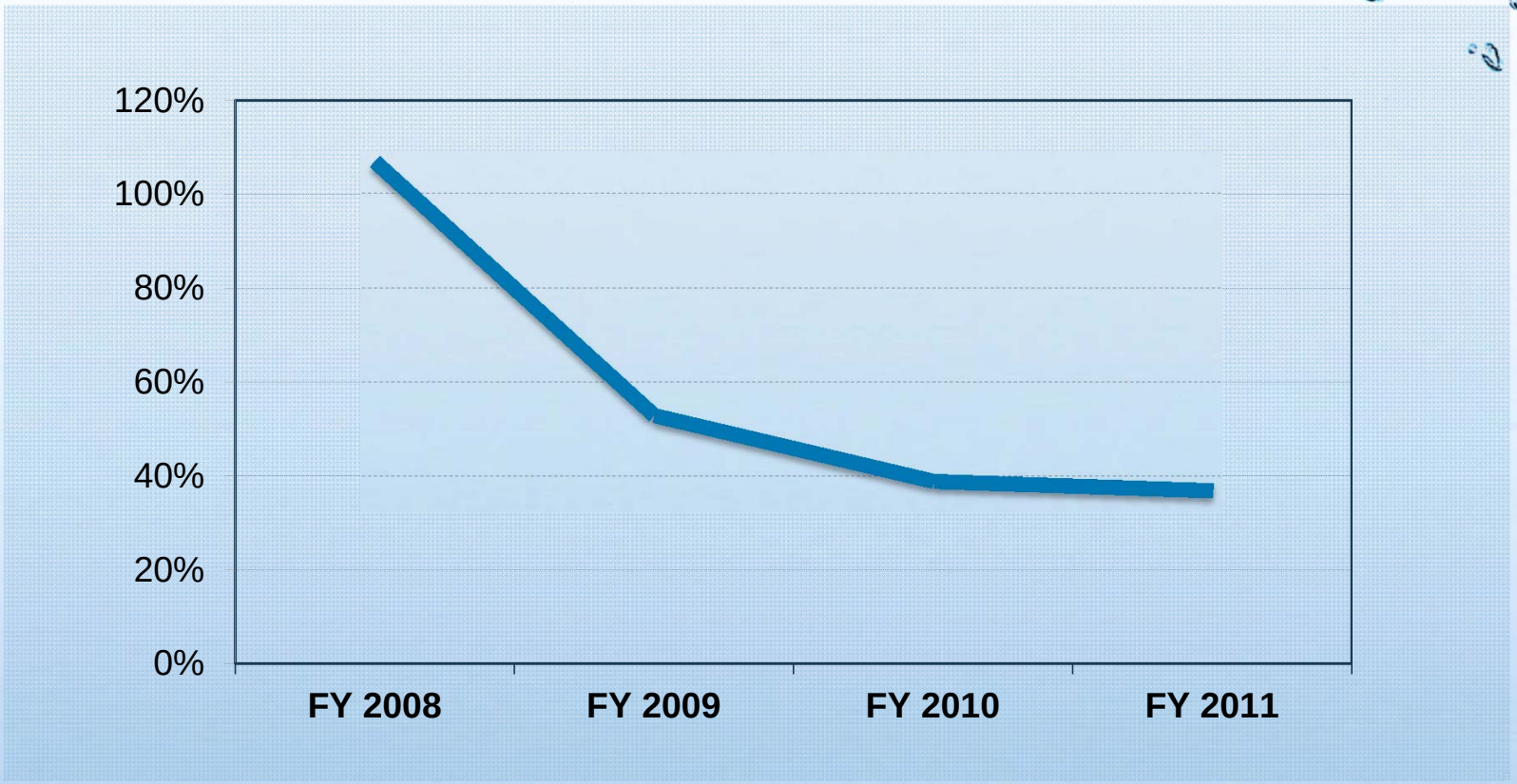
*12-month rolling

Financial target | Cash flow after dividend positive



- Positive cash flow after investments and dividends
- 2008 start to change the focus on cash flow
- 2009 improved financials and NWC management
- 2010 and 2011 improved financials and Tikkurila shares
- 2012 cash flow after dividend will be positive

Financial target | Gearing below 60%



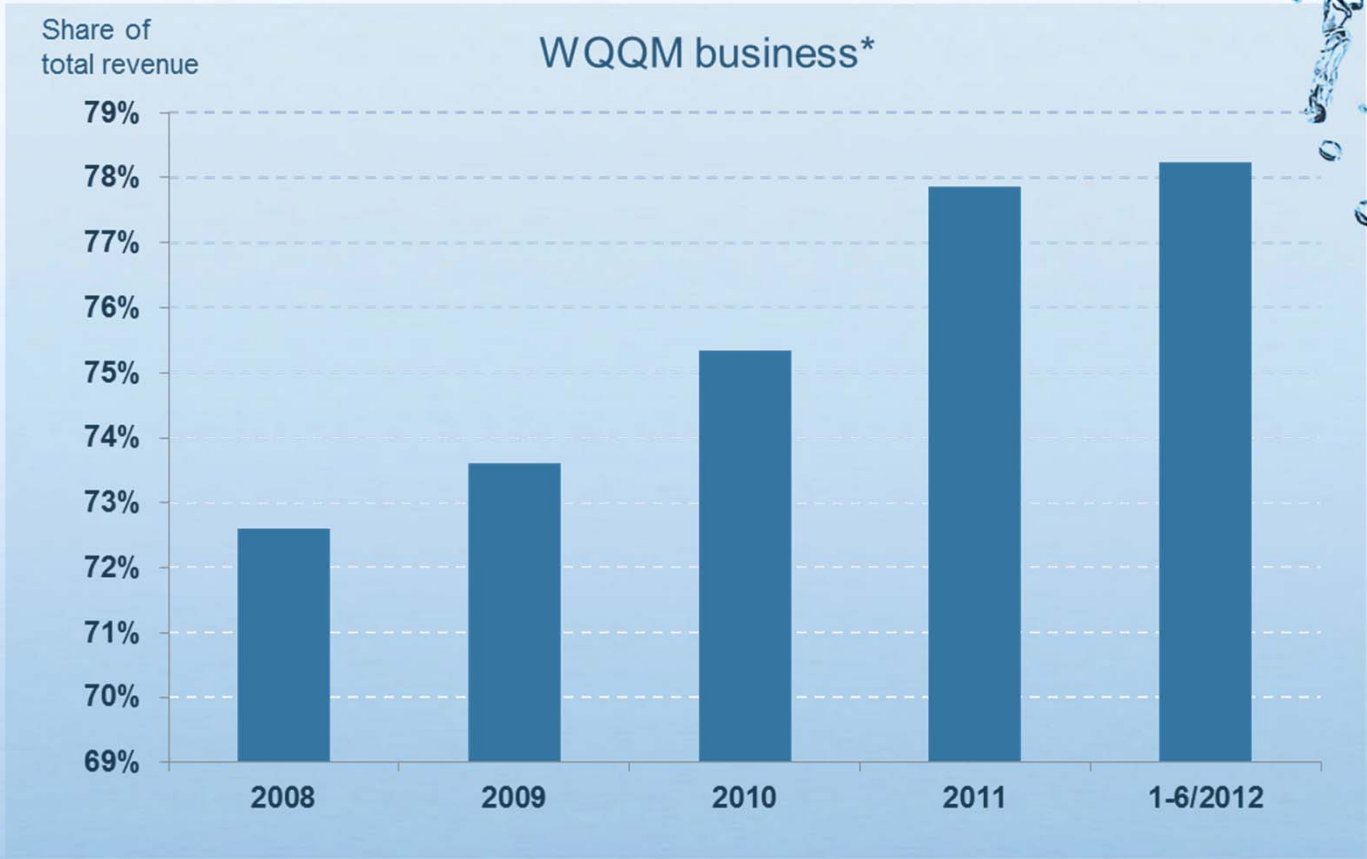
- Rights issue in 2009
- Tikkurila listed in 2010 and all shares sold in 2011
- Overall cash management improvement

Kemira's water quality and quantity management business

- WQQM revenue 78% of the total revenue YTD 2012

WQQM business:
- 100% of M&I and O&M segment revenues
- ~75% of Paper segment revenues

Non-WQQM related business:
- ~25% Paper segment revenues (e.g. certain bleaching chemicals)
- ChemSolutions and other business unit



* Water quality and quantity management , FY08, FY09 and FY10 including Tikkurila and Pigments

Kemira financial highlights – Q2 2012

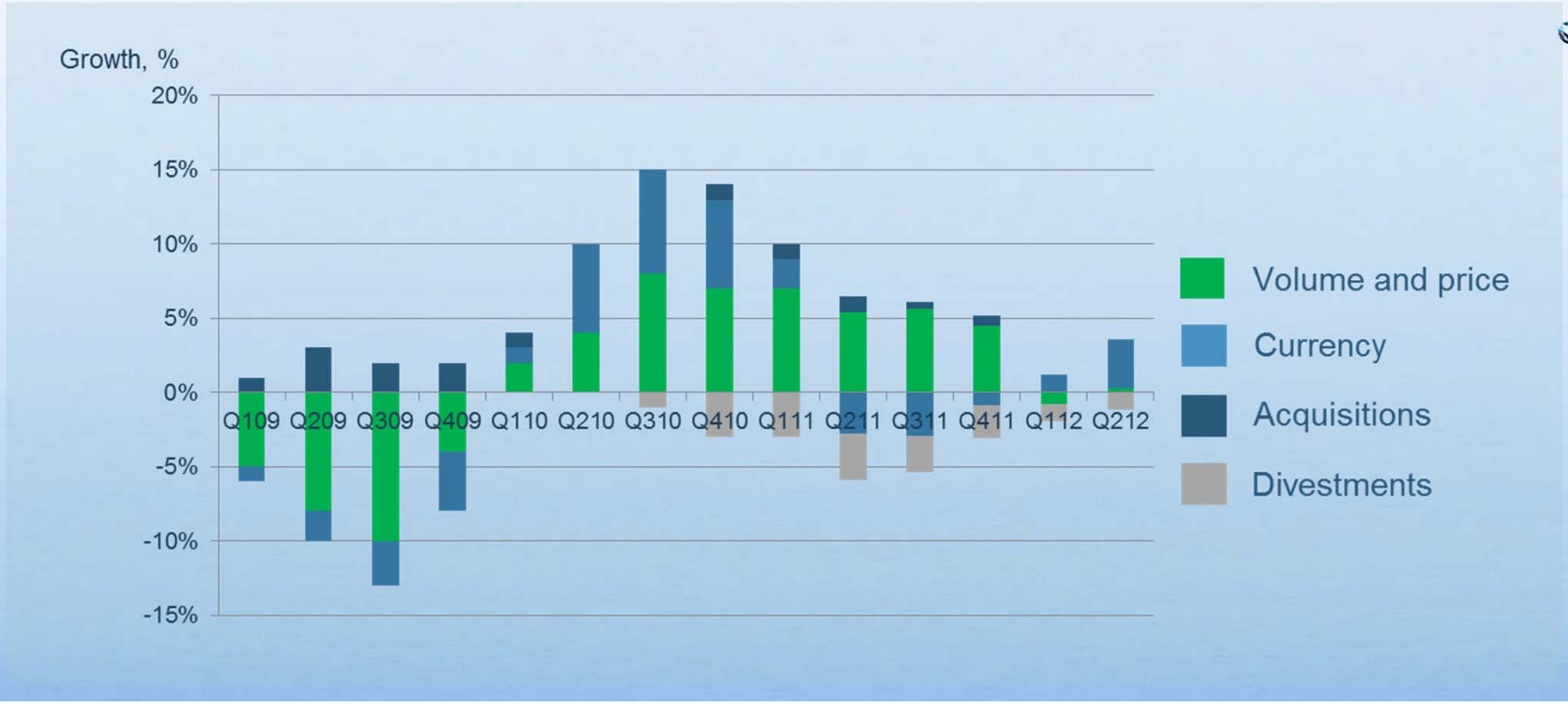
- Operative EBIT margin 6.3% (6.8%) impacted by higher variable and fixed costs
- Cash flow affected negatively by higher capex and too high NWC
- A total of EUR 40 million dividends and paid-in-capital received from Pohjolan Voima and JV Sachtleben
- Sale of Tikkurila shares had EUR 97 million positive impact in Q2 2011

EUR million	Apr-Jun 2012	Apr-Jun 2011	%	Jan-Jun 2012	Jan-Jun 2011	%
Revenue	562.3	548.8	2	1,115	1,106	1
Operative EBIT	35.7	37.3	-4	73.9	82.2	-10
Operative EBIT, %	6.3	6.8	-	6.6	7.4	-
Income from associated companies	5.8	7.3	-21	16.6	14.8	12
Financial income and expenses	1.4	-3.9	-	-8.9	-7.7	-
EPS, EUR	0.20	0.20	0	0.39	0.44	-11
Cash flow after financing activities	24.2	65.2	-	16.1	85.9	-

Kemira Group revenue growth trend

Q2/12 vs Q2/11:

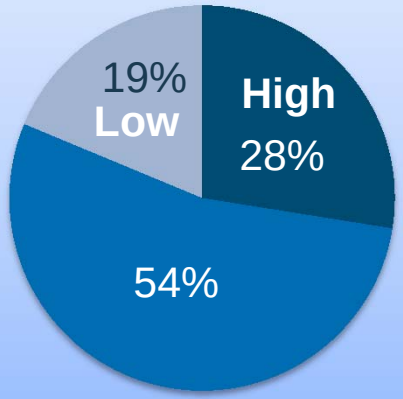
- Pricing was favourable, but volumes declined slightly in each segment
  - *Volumes increased vs. Q1-12; especially in M&I and Paper*
- Reported revenue growth supported by favorable currency exchange (+3%)
- Maitland divestment had a negative impact on revenues (-1%)



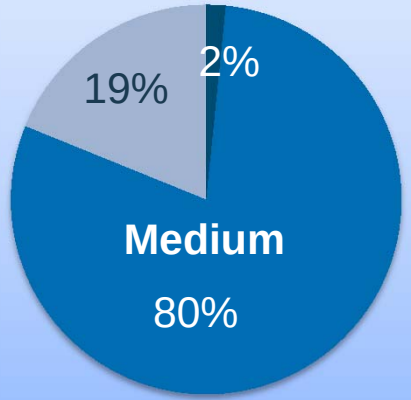
Risk of the slowdown of the economy has a different impact in Mature markets vs. Emerging markets

- **Principle:** Revenues impacted in case of slowdown in the economy; high correlation (1), medium (0.5) and low (0)
- Higher correlation with slowdown of economy (28%) clearly on **Matured markets;** mainly in Oil & Gas and Pulp business portfolio
- **25% of our global business** has a high correlation with the impact of slowdown of economy

Mature market revenue
(EUR 1.9 billion sensitivity*)



Emerging market revenue
(EUR 0.3 billion sensitivity*)

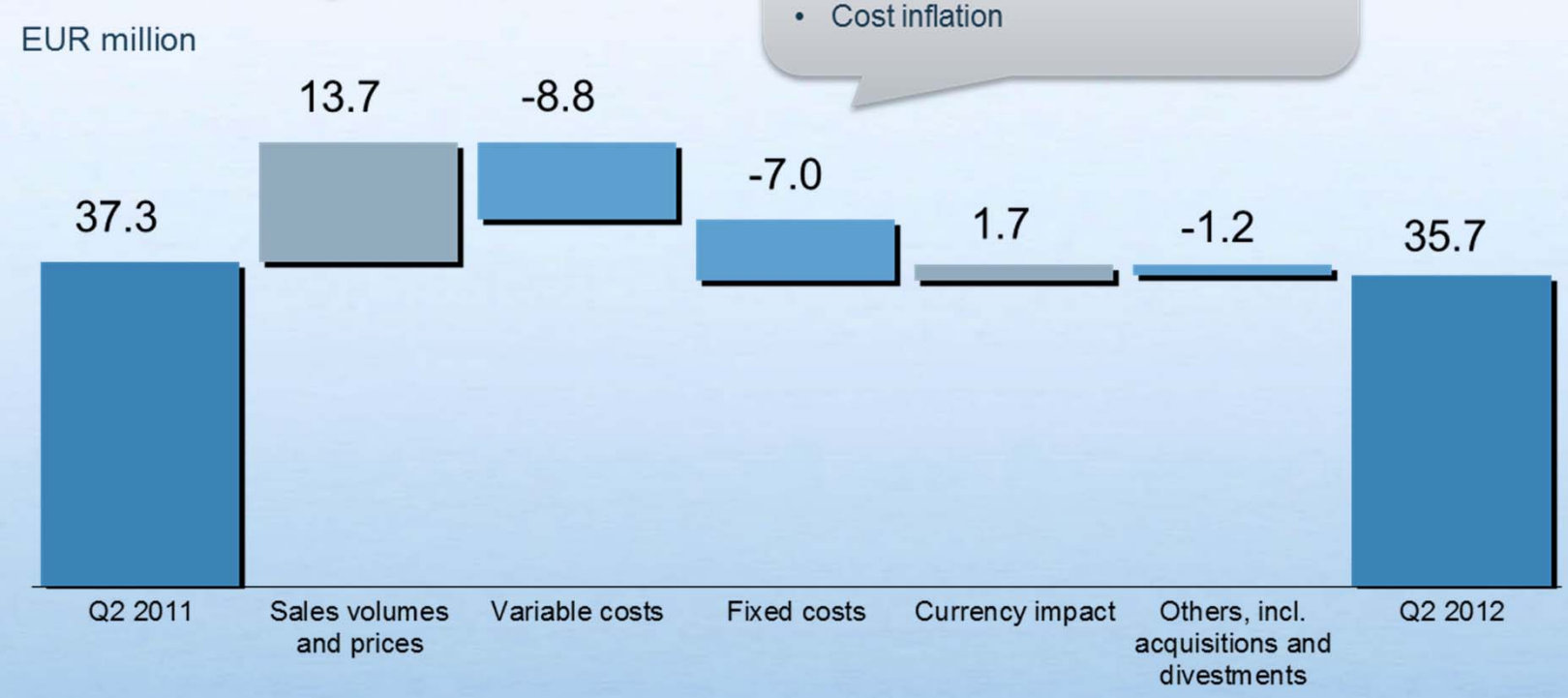


*Sensitivity based on management estimate

Kemira operative EBIT Q2 2012 vs Q2 2011

Higher sales prices offset lower sales volumes and higher variable costs

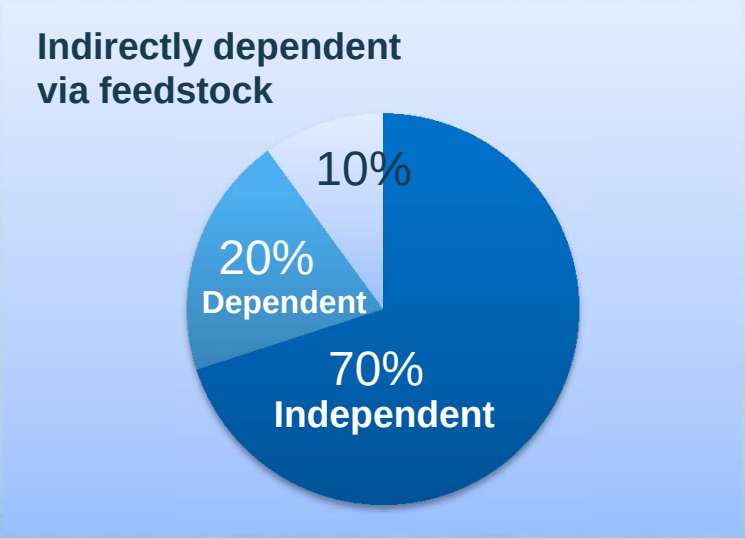
Higher personnel and other fixed costs
- Increased number of employees in APAC
- Cost inflation



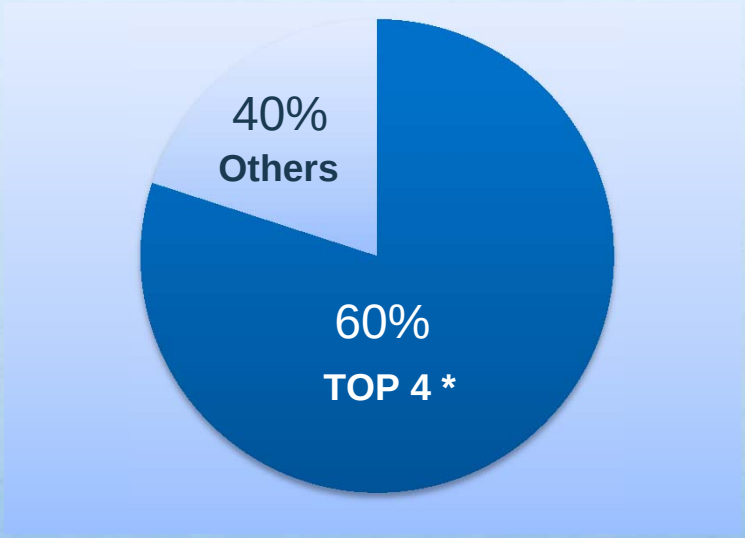
Oil price has a limited direct impact on profitability

- Kemira's annual raw material spend is approximately **EUR 950 million**
- Polymers is Kemira's biggest product group measured **by sales**
- Through Kemira's ownership in Finnish power companies, exposure to electricity market prices in Finland is limited

Oil dependency
(share of raw material spend)



Product categories (share of sales)



*Polymers, Electrolysis, coagulants and sizing

Kemira key figures in Q2 2012

- Key ratios at a reasonably good level
- Net debt increase due to derived from dividend paid, higher capex and too high NWC
- Headcount increase mainly in the APAC region

EUR million, except key ratios and personnel	June, 30 2012	Dec, 31 2011
Capital employed*	1,722.4	1,705.0
ROCE, %*	10.3%	11.1%
Equity ratio, % at period-end	52%	51%
Gearing, % at period-end	44%	38%
Net debt	592.5	515.8
Personnel	5,181	5,006

* 12-month rolling average

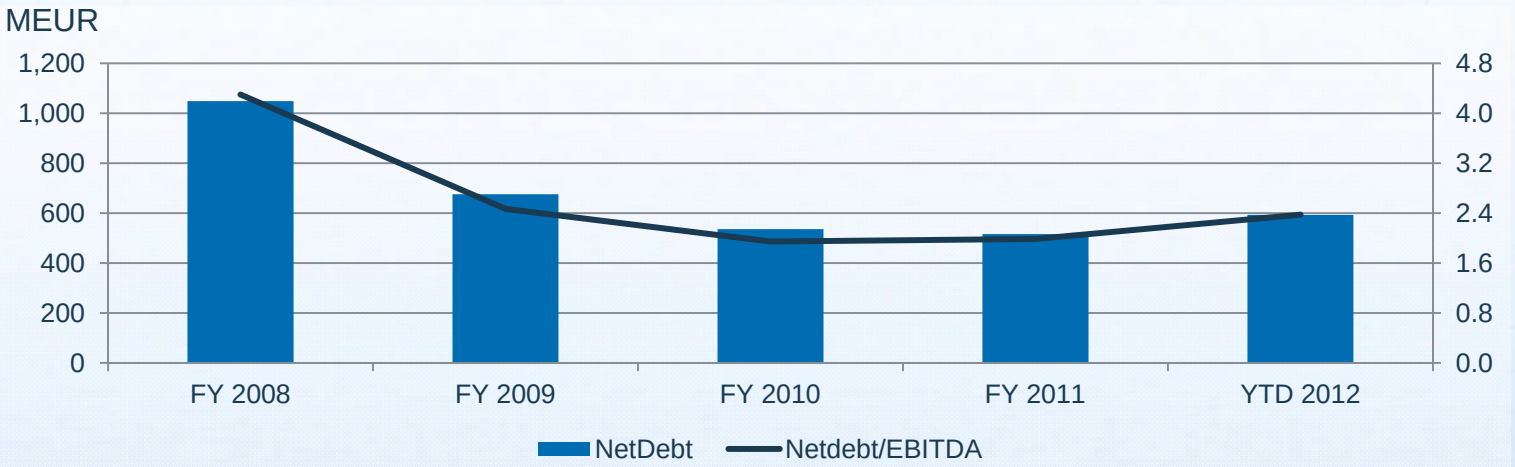
Kemira cash flow statement

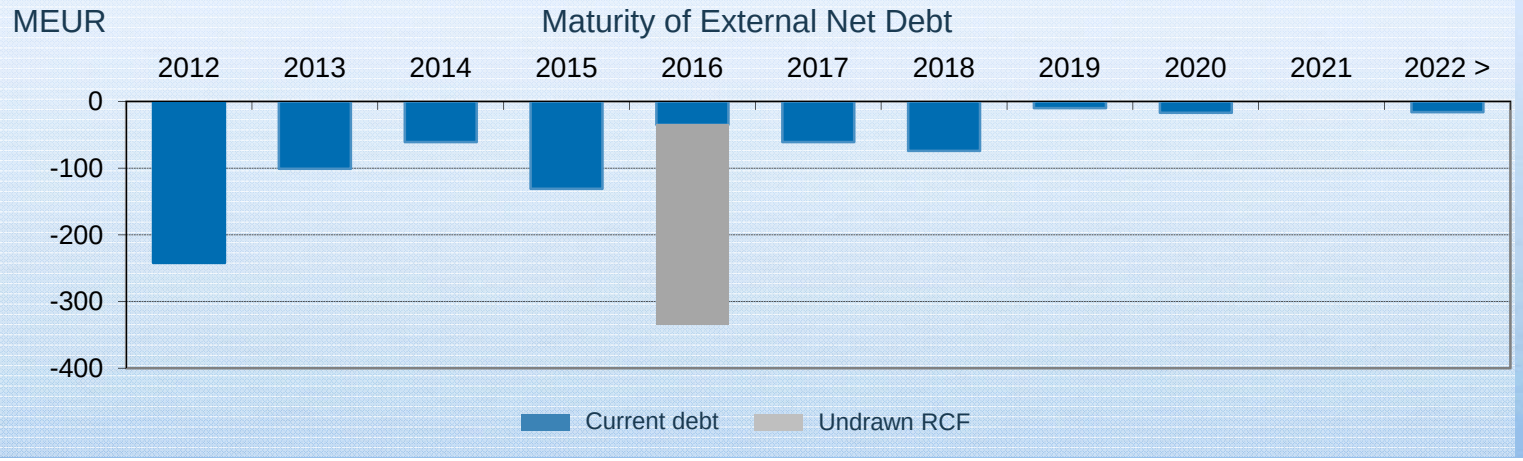
- Cash flow 41 MEUR lower than in Q2 2011
- NWC increase coming from inventories and trade receivables
- Investments mainly focused on emerging markets in China
- Sale of Tikkurila shares had EUR 97 million positive impact in Q2 2011

EUR million	Q2 2012	Q2 2011
EBITDA	57.6	61.1
Change in net working capital	-0.6	-49.8
Cash flow from operations	47.5	-11.5
Capital expenditure	-51.0	-20.1
Other investing activities	27.7	96.8
Cash flow after investing activities	24.2	65.2

Kemira net debt

Targeted capital structure
- Net debt to EBITDA below 2.5 level
- Balanced fixed- vs floating-rate debt (49% of the net debt was fixed in June, 2012)





Paper segment - stable revenue and operative EBIT

Revenue increased by 3% vs. Q2/2011

- Higher sales prices
- Some sales volume recovery

Operative EBIT EUR 20.3 million (20.0)

- Higher sales prices offset lower sales volumes
- Higher variable and fixed costs
- Margin 8.1% (8.3%)

(EUR million)	Q2/12	Q2/11	%	1-6/12	1-6/11	%
Revenue	249.2	242.2	3	493.8	495.4	0
Operative EBIT	20.3	20.0	2	41.3	42.7	-3
Operative EBIT, %	8.1	8.3	-	8.4	8.6	-
Cash flow*	14.5	9.9	46	21.9	30.8	-29

*After investing activities, excluding interest and taxes

Municipal & Industrial segment - profitability improved

Revenue increased 4% to EUR 173.7 million (166.6)

- Higher sales prices
- Sales volumes were close to the level of Q2 2011

Operative EBIT EUR 12.7 million (10.9)

- Sales prices could offset higher variable and fixed costs
- Operative EBIT margin 7.3% (6.5%)

(EUR million)	Q2/12	Q2/11	%	1-6/12	1-6/11	%
Revenue	173.7	166.6	4	334.7	324.4	3
Operative EBIT	12.7	10.9	17	18.8	22.5	-16
Operative EBIT, %	7.3	6.5	-	5.6	7.0	-
Cash flow*	2.4	-8.0	-	-5.1	-1.6	-

*After investing activities, excluding interest and taxes

Oil & Mining segment, stable revenue, profitability improved

Revenue remained stable at EUR 84.5 million (84.8)

- -6% impact related to some exited low margin products
- +6% currency exchange
- Low natural gas price in North America and market softness slowed down demand for some of our key products

Operative EBIT increased 23% to EUR 10.0 million (8.1)

- Higher sales prices
- Lower volumes of some low-margin products
- Operative EBIT margin improved to 11.8% (9.6%)

(EUR million)	Q2/12	Q2/11	%	1-6/12	1-6/11	%
Revenue	84.5	84.8	0	169.6	168.5	1
Operative EBIT	10.0	8.1	23	22.1	17.5	26
Operative EBIT, %	11.8	9.6	-	13.0	10.4	-
Cash flow*	1.9	-0.3	-	-0.4	-0.2	-

*After investing activities, excluding interest and taxes

Other (ChemSolutions and Group expenses)

ChemSolutions has an important role in Kemira's business portfolio

- Strong market position in each of its three businesses (Food & Feed, Chemicals & Pharma, De-icers)
- Revenue EUR 44.2 million (43.7) in Q2 2012
- Operative EBIT-% decreased to 0.7% (8.7%) in Q2 2012 due to higher raw material costs and the maintenance shutdown of Oulu manufacturing site

Group expenses slightly higher compared to Q2 2011

- Increased costs related to long term R&D and other strategic projects

(EUR million)	Q2/12	Q2/11	%	1-6/12	1-6/11	%
Revenue*	54.9	55.2	0	117.1	117.3	0
of which ChemSolutions	44.2	43.7	1	93.4	93.2	0
Operative EBIT	-7.3	-1.7	-	-8.3	-0.5	-
of which ChemSolutions	0.3	3.8	-92	5.9	12.2	-52

*Including eliminations

Guidance for 2012 remains unchanged

Outlook for 2012 is unchanged from the Q2 2012 Interim Report

Revenue expected to be at approximately the same level as in 2011

-H1 2012 revenue: EUR 1,115 million (1,106), +1%

Operative EBIT expected to be at approximately at the same level as in 2011

- H1 2012 operative EBIT: EUR 73.9 million (82.2), -10%

- Oil price level assumption for the rest of the 2012 is 115$ / barrel
- Guidance is assuming current exchange rates

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