Kemira – Targeting for profitable growth

- Kemira today (slides # 2-11)
- Latest news and financials (# 12-35)
- Pulp & Paper (# 36-44)
- Industry & Water (# 45-52)
  - Oil & Gas (# 53-57)
- Appendix (# 58-63)
Kemira in brief

FY2016: Revenue EUR 2,363 billion, Operative EBITDA EUR 302.5 million, margin 12.8%

SEGMENT SPLIT

- 38% Industry & Water
  - #1 in water treatment in NA and Europe
  - #1 in shale in NA

- 62% Pulp & Paper
  - #1 globally

GEOGRAPHIES

- 38% AMERICAS
  - 1. USA
  - 2. Canada
  - 3. Brazil

- 52% EUROPE
  - 1. Finland
  - 2. Sweden
  - 3. Germany

- 10% APAC
  - 1. China
  - 2. Indonesia
  - 3. South Korea

PRODUCTS

- 25% Bleaching and pulping
- 20% Coagulants
- 20% Polymers
- 15% Sizing and strength
- 20% Other: e.g. defoamers, dispersants, and biocides

CUSTOMERS

- 8,000 Sold-to customers
- 16,000 Ship-to customers

Examples of largest customers

Municipalities, e.g.
- Frankfurt
- London
- New York City
- Paris
- Shanghai
- Singapore

Examples of largest customers:
- UPM
- International Paper
- Schlumberger
- Brenntag
- Carlsberg
- Store enso
- Klabin
- Metsä
- Halliburton
- Boliden

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Kemira has managed to improve EBITDA even with the downturn in the oil & gas market

Between 2014-2016, Oil & Mining revenue and operative EBITDA dropped EUR 70 million and EUR 30 million respectively.

LTM = Last Twelve Months ending September 2017
Pulp & Paper – market leader with solid track record

**MARKET ENVIRONMENT**

<table>
<thead>
<tr>
<th>Company</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kemira (pulp and paper)</td>
<td>#1</td>
</tr>
<tr>
<td>BASF (paper)</td>
<td>#2</td>
</tr>
<tr>
<td>Solenis (paper)</td>
<td>#3</td>
</tr>
<tr>
<td>AkzoNobel (pulp)</td>
<td>#4</td>
</tr>
<tr>
<td>Ecolab (paper)</td>
<td>#5</td>
</tr>
</tbody>
</table>

**REVENUE AND OPERATIVE EBITDA**

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1047</td>
</tr>
<tr>
<td>2013</td>
<td>1068</td>
</tr>
<tr>
<td>2014</td>
<td>1170</td>
</tr>
<tr>
<td>2015</td>
<td>1417</td>
</tr>
<tr>
<td>2016</td>
<td>1457</td>
</tr>
</tbody>
</table>

**REVENUE BY CUSTOMER TYPE AND MARKET GROWTH**

- **40%** Pulp
  - Market growth: 1%-2%
- **40%** Board & tissue
  - Market growth: 2%-3%
- **20%** Printing & writing papers
  - Market growth: -1%-2%

**REVENUE BY PRODUCT CATEGORY**

- **35%** Bleaching & pulping
- **25%** Sizing & strength
- **20%** Defoamers, dispersants, biocides and other process chemicals
- **10%** Polymers
- **10%** Other

**REVENUE BY GEOGRAPHIES AND MARKET GROWTH BY REGION**

<table>
<thead>
<tr>
<th>Region</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>35%</td>
</tr>
<tr>
<td>EMEA</td>
<td>50%</td>
</tr>
<tr>
<td>APAC</td>
<td>15%</td>
</tr>
</tbody>
</table>

Note: Revenue by industry, product and geography rounded to the nearest 5%

**CUSTOMER EXAMPLES**

- **Kemira** (pulp and paper) - #1
- **BASF** (paper) - #2
- **Solenis** (paper) - #3
- **AkzoNobel** (pulp) - #4
- **Ecolab** (paper) - #5

**Investor Presentation - October 2017**
Industry & Water – strong positions in chosen categories

**MARKET POSITION**
- Market share in water treatment in Europe and North America: 30%
- Market share in polymers used for friction reduction in US shale fracking: >30%

**REVENUE AND ORGANIC GROWTH (Y-O-Y)**
- EUR million:
  - Q1 2016: 220
  - Q2 2016: 227
  - Q3 2016: 231
  - Q4 2016: 228
  - Q1 2017: 238
  - Q2 2017: 248
  - Q3 2017: 259
  - +7% - 5% - 5% 0% +6% +9% +15%

**REVENUE BY APPLICATION TYPE AND MARKET GROWTH**
- 70%: Water treatment
  - Market growth: 2-3%
- 15%: Oil & Gas
  - Market growth: 5-6%
- 15%: Other
  - Market growth: 2-3%

**REVENUE BY GEOGRAPHIES AND MARKET GROWTH BY REGION**
- 40%: Americas
  - Market growth: 3-4%
- 55%: EMEA
  - Market growth: 3-4%
- 5%: APAC
  - Market growth: 5-6%

**REVENUE BY PRODUCT CATEGORY**
- 45%: Coagulants
- 35%: Polymers
- 20%: Other products such as defoamers and biocides

**CUSTOMER EXAMPLES**
- Municipal (40%), customer examples:
  - Amsterdam
  - Barcelona
  - Frankfurt
  - London
  - Oslo
  - Paris
  - Stockholm
  - Los Angeles
  - Montreal
  - New York City
  - Toronto
  - Melbourne
  - Shanghai
  - Singapore
- Industrial (60%), customer examples:
  - Carlsberg
  - Orkla
  - Rio Tinto
  - Boliden
  - Haldor Topsoe
  - Halliburton
  - UniVair
  - Olivetti

Note: Revenue by industry, product and geography rounded to the nearest 5%

Investor Presentation - October 2017
Our targets and actions for profitable growth

**ORGANIC GROWTH**
- Investments in capacity expansion
- Seize opportunities in growth pockets
- Shale oil & gas business
- CEOR and oil sands
- Digitalization
- APAC
- R&D, new products

**ACQUISITIONS**
- Very selective approach
- Strategic and synergistic fit
- Accretive to profitability
- Reasonable valuation

**EFFICIENCY**
- Manufacturing footprint and utilization optimization
- BOOST – Operational excellence
- Organizational efficiencies with new structure
- Complexity reduction
- Efficient processes

Above-the-market growth and operative EBITDA of 14-16%
Our key actions to improve margins

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017 LTM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Margin</td>
<td>12.1%</td>
<td>12.8%</td>
<td>12.3%</td>
</tr>
</tbody>
</table>

- **AkzoNobel’s paper chemicals business**
- **Efficiencies from new two segment structure**
- **New bleaching chemical capacity (Joutseno, Finland)**
- **Acquisition in China**
- **Optimization of operations: majority of savings in Logistics**
- **Oil sands**
- **Chemical Enhanced Oil Recovery**
- **Advanced Water Treatment**
- **Market and raw material related volatility**
- **Mid- to long-term target**

**Operative EBITDA margin 14-16%**

<table>
<thead>
<tr>
<th>Estimated end of 2017 run-rate</th>
<th>100%</th>
<th>100%</th>
<th>75%</th>
<th>0%</th>
<th>Low</th>
<th>25%</th>
<th>Low</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full run-rate by</td>
<td>EO 2017</td>
<td>EO 2017</td>
<td>2018</td>
<td>1-2 yrs</td>
<td>2-3 yrs</td>
<td>2-3 yrs</td>
<td>3-5 yrs</td>
<td></td>
</tr>
</tbody>
</table>

LTM = Last Twelve Months ending September 2017
Progress in profitable growth

- Opening / expansion of site
- Acquisition
- Operational efficiencies
- Closure of site

11.3%
2013 operative EBITDA

12.8%
2016 operative EBITDA

- Opening of Nanjing (CN) site
- Acquisition BASF AKD emulsion business
- Opening of Tarragona coagulant site (ES)
- Acquisition of Soto Industries (US)
- Expansion of dry and emulsion polyacrylamide (US)
- Expansion of pulp chemicals, Oulu (FI)
- Closure of Longview (US)
- Acquisition of Polymer Services (US)
- Closure of Soave (IT)
- Start-up of Ortigueira (BR) sodium chlorate site and announcement of Joutseno (FI) expansion
- Start-up of Ortigueira (BR) sodium chlorate site and announcement of Joutseno (FI) expansion
- Transportation agreement with Odyssey
- Bradford (UK) expansion
- San Giorgio (IT) expansion
- Closures of Ottawa (CA) and Zaramillo (ES)
- Botlek (NL) modernization
- BOOST operational excellence program launch
- Announcement of acquisition via JV in China

- Q1 14
- Q2 14
- Q3 14
- Q4 14
- Q1 15
- Q2 15
- Q3 15
- Q4 15
- Q1 16
- Q2 16
- Q3 16
- Q4 16
- Q1 17
- Q2 17
- Q3 17
- Q4 17
Kemira’s relevant market expected to show healthy growth
Market growth by business areas: Pulp & Paper 1%, Water treatment 2-3%, Oil & Gas 5-6% p.a.

Long-term drivers for growth, including:
• E-commerce drives the need for packaging material
• Growing middle class, increased standards of living and urbanization leads to higher usage of water, energy, tissue, and board
• Recycling and use of renewables leads to e.g. higher usage of strength chemicals
• Regulation increases water treatment
• Scarcity of resources accelerates need to produce more with less

Challenges
• Risks to global GDP growth
• Decline in demand for printing and writing paper demand

Relevant target market (EUR billion)

Management estimation based on various sources
Innovation sales on track – pipeline strong
Sales from new products (launched within the last 5 years)

Best selling new products in 2016
1. Oil & Gas – Freeze tolerant friction reducer
2. Oil & Gas – Stabilizing additives for CEOR polymers
3. Pulp & Paper – Strength for tissue
Kemira offers stable and competitive dividends

- Kemira’s dividend policy is to pay a stable and competitive dividend
- Kemira has paid dividends every year since listing of shares in 1994
- Kemira offers attractive dividend yield
  - Average dividend yield in relevant indices
    - EuroStoxx Chemicals 2.3%
    - OMX Helsinki 25 3.5%

Kemira’s dividend yield calculated using the share price at year-end
Latest news and financials
Key financial and operational highlights Q3 2017

Q3 2017

• Revenue and operative EBITDA improvement driven by Oil & Gas
  – Good organic growth – Group +7%
  – Volume growth led to higher operative EBITDA
  – Net profit impacted by EUR 13 million settlement for damage claim related to alleged infringement of competition law during 1994-2000
• First full quarter for new two segment structure with benefits becoming visible
• Hurricanes had only limited impact

<table>
<thead>
<tr>
<th>EUR million (except ratios)</th>
<th>Q3 2017</th>
<th>Q3 2016</th>
<th>Δ%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>622.2</td>
<td>596.3</td>
<td>+4</td>
</tr>
<tr>
<td>Operative EBITDA</td>
<td>84.5</td>
<td>80.8</td>
<td>+5</td>
</tr>
<tr>
<td>of which margin, %</td>
<td>13.6</td>
<td>13.6</td>
<td>-</td>
</tr>
<tr>
<td>Operative EBIT</td>
<td>47.7</td>
<td>46.5</td>
<td>+3</td>
</tr>
<tr>
<td>of which margin, %</td>
<td>7.7</td>
<td>7.8</td>
<td>-</td>
</tr>
<tr>
<td>Net profit to equity owners</td>
<td>18.4</td>
<td>25.6</td>
<td>-28</td>
</tr>
<tr>
<td>EPS, EUR</td>
<td>0.12</td>
<td>0.16</td>
<td>-28</td>
</tr>
</tbody>
</table>

Investor Presentation - October 2017
Agreed to form joint venture with Tiancheng

NewCo will produce mainly AKD wax and its key raw material fatty acid chloride (FACL)
  - AKD is sizing chemical used in board and paper to create resistance against liquid absorption
  - NewCo also plans to produce coagulants for water treatment

Kemira strengthens its position and secures supply of key raw material for AKD wax

Kemira will have 80% of NewCo
  - Investment for 80% around EUR 55 million
  - Closing expected in H1 2018

Ramp-up in H2/18 after completion investments
  - Good contribution to P&L in 2019 after ramp-up
We leverage acquisition synergies with our global production

AKD wax supplied from Yanzhou, China to Kemira sites globally
Acquisition in China is excellent strategic fit

Acquired asset fulfills our key criteria for acquisitions

- **Growth** – End-products in growing markets
- **APAC** – Enables profitable growth in APAC
- **Supply** – Backward integr. & self-sufficiency (FACL)
- **Sustainability** – FACL from renewable raw material
- **Location** – Close to our existing production
- **Profitability** – Accretive in 2019 after ramp-up
Growth in CEOR supported by approximately EUR 30 million investment

- We will expand our polymer capacity for Chemical Enhanced Oil Recovery within Oil & Gas business
- After prudent development in R&D and successful field trials, the investment will be done on the basis of anticipated uptake in customer demand
- Additional capacity will be built to Kemira’s existing manufacturing site at Botlek, Netherlands
- New capacity is expected to be in commercial operation by the beginning of 2019
- Investment is part of earlier announced EUR 160-200 million capital expenditure for 2018
Progressing our strategy for profitable growth

GROUP’S MID- TO LONG-TERM TARGETS

Above-the-market growth
Operative EBITDA **14-16%**
Gearing below **60%**

Dividend policy: stable and competitive dividend

Balanced cash flow and capex
Increase efficiency
Grow by investing, innovating and capturing market opportunities
Pulp & Paper – solid underlying revenue growth

January-September

- Underlying organic growth +2% driven by bleaching and strength chemicals
- Operative EBITDA at 12.9%
  - Impacted by higher variable costs
- Akzo synergies – final step-up in Q4
- New sodium chlorate production line successfully started up in Finland
  - Capacity doubled in Joutseno with around EUR 50 million investment
- Partnership agreement signed with Valmet for development of digitalized data-based applications and services
Industry & Water – Oil & Gas driven growth continues

January-September

- New organization now fully in place
- Strong growth in Oil & Gas continued – 57% revenue growth YTD
- Sales prices started to improve in Q3
- Volume growth in water treatment at healthy level
- YTD profitability adversely impacted by raw material prices, particularly in NA coagulants

Revenue and revenue growth
EUR million

<table>
<thead>
<tr>
<th></th>
<th>YTD 2016</th>
<th>YTD 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD 2016</td>
<td>678</td>
<td></td>
</tr>
<tr>
<td>+10%</td>
<td></td>
<td>745</td>
</tr>
<tr>
<td>YTD 2017</td>
<td></td>
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</tbody>
</table>

Operative EBITDA and operative EBITDA margin
EUR million

<table>
<thead>
<tr>
<th></th>
<th>YTD 2016</th>
<th>YTD 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD 2016</td>
<td></td>
<td>88</td>
</tr>
<tr>
<td>+6%</td>
<td>12.3%</td>
<td>11.8%</td>
</tr>
<tr>
<td>YTD 2017</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Group’s organic revenue growth continued

**Q3 2017**

- **Group’s organic growth 7%**
  - Sales volumes grew in both segments, +13% in Industry & Water
- **Operative EBITDA margin 13.6% at prior year level**
  - Volume growth main driver, variable costs increased. Sales prices were above prior year

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**Kemira Group revenue bridge Q3 2017**

<table>
<thead>
<tr>
<th>EUR million</th>
<th>Q3 2016</th>
<th>Q3 2017</th>
<th>Sales volumes</th>
<th>Sales prices</th>
<th>Currency impact</th>
<th>M&amp;A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3 2016</td>
<td>596</td>
<td>622</td>
<td>+6%</td>
<td>+1%</td>
<td>-2%</td>
<td>0%</td>
</tr>
</tbody>
</table>

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**Operative EBITDA and operative EBITDA margin trend**

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</tr>
</thead>
<tbody>
<tr>
<td>Q1 2015</td>
<td>66.4</td>
<td>74.7</td>
<td>78.2</td>
<td>68.0</td>
<td>72.8</td>
<td>78.9</td>
<td>80.8</td>
<td>70.0</td>
<td>69.0</td>
<td>77.1</td>
<td>84.5</td>
</tr>
<tr>
<td>2015</td>
<td>12.0%</td>
<td>12.6%</td>
<td>12.5%</td>
<td>11.3%</td>
<td>12.5%</td>
<td>13.4%</td>
<td>13.6%</td>
<td>11.7%</td>
<td>11.3%</td>
<td>12.5%</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

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Kemira
Pulp & Paper organic growth improved

- Volume growth at good level (+2%)
- Absolute revenue impacted by FX
- Sales prices were at prior year level
- Profitability improving sequentially, y-o-y below due to raw material prices
Industry & Water – Organic growth accelerated

• Growth driven by Oil & Gas – partly due to equipment sales in oil sands
  – Oil & Gas grew by 75% to EUR 57 million in Q3
  – In water treatment volume growth continued at 2%
• Profitability improved clearly
  – Higher sales volumes and increased sales prices main reasons. Fixed costs below prior year

Revenue and organic revenue growth (y-on-y) EUR million

Operative EBITDA and operative EBITDA margin trend EUR million

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Sales prices starting to offset increase in raw material costs

Sales price vs variable cost trend

Sales prices and variable costs on EBITDA level (change y-o-y)

* 12-month rolling change vs previous year in EUR million
Kemira’s variable cost split and top raw materials

**VARIABLE COST SPLIT 2016**
EUR 1.3 billion

- 20% Logistics
- 15% Electricity & energy
- 65% Raw materials

**EXPOSURE TO OIL RELATED RAW MATERIALS**

- 30% Oil related
- 70% Not oil related

**TOP 10 RAW MATERIALS BY SPEND**

1. Sodium hydroxide
2. Acrylonitrile (OR)
3. Colloidal silica dispersion
4. Fatty acid
5. Aluminium hydrate
6. Amines (OR)
7. Alpha olefin (OR)
8. Acrylic ester (acrylic acid and methyl acrylate) (OR)
9. Petroleum solvents (OR)
10. Sodium chloride

Top 10 account for almost 50% of Kemira’s raw material spend
Investing in value creating growth

Recent largest value creating investments
- New chlorate plant in Brazil and new chlorate line in Finland
- Capacity additions due to integration of acq.
- Polymer capacity in Italy and UK

CAPEX guidance and return criteria
- In 2018, depending on timing of opportunities, EUR 160-200 million
  - Includes capacity expansion in Oil & Gas
- Thereafter, around 5-6% of revenue
  - Flexibility maintained for selected major expansion projects
- Expansion projects in strategic investment areas with sufficient financial returns

Capital expenditure excluding acquisitions EUR million

<table>
<thead>
<tr>
<th>Year</th>
<th>Expansion</th>
<th>Improvement</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>134</td>
<td>3</td>
<td>96</td>
</tr>
<tr>
<td>2013</td>
<td>139</td>
<td>4</td>
<td>93</td>
</tr>
<tr>
<td>2014</td>
<td>146</td>
<td>5</td>
<td>95</td>
</tr>
<tr>
<td>2015</td>
<td>182</td>
<td>6</td>
<td>95</td>
</tr>
<tr>
<td>2016</td>
<td>213</td>
<td>7</td>
<td>94</td>
</tr>
<tr>
<td>2017</td>
<td>200</td>
<td>8</td>
<td>93</td>
</tr>
</tbody>
</table>

Around EUR 200m
Debt portfolio is well diversified

Net debt / operative EBITDA and Gearing

<table>
<thead>
<tr>
<th>Year</th>
<th>Net debt (m)</th>
<th>Operative EBITDA (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>532m</td>
<td>249m</td>
</tr>
<tr>
<td>2013</td>
<td>456m</td>
<td>252m</td>
</tr>
<tr>
<td>2014</td>
<td>486m</td>
<td>253m</td>
</tr>
<tr>
<td>2015</td>
<td>642m</td>
<td>287m</td>
</tr>
<tr>
<td>2016</td>
<td>634m</td>
<td>303m</td>
</tr>
<tr>
<td>Sep-16</td>
<td>690m</td>
<td>298m</td>
</tr>
<tr>
<td>Sep-17</td>
<td>701m</td>
<td>301m (r12m)</td>
</tr>
</tbody>
</table>

- Net debt / operative EBITDA ratios:
  - 2012: 42% (2.1x)
  - 2013: 41% (1.8x)
  - 2014: 42% (1.9x)
  - 2015: 54% (2.2x)
  - 2016: 54% (2.1x)
  - Sep-16: 58% (2.2x)
  - Sep-17: 63% (2.3x)

Gross debt maturity profile, end of Q3 2017
EUR 861 million

- EIB
- NIB
- Bilaterals
- Bonds
- Undrawn RCF
- Others

- Net debt maturity:
  - 2017: 119
  - 2018: 77
  - 2019: 110
  - 2020: 205
  - 2021: 400
  - 2022: 150
  - 2023: 200
  - 2024: 200
# Key figures and ratios – 5-year summary

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>2,240.9</td>
<td>2,229.1</td>
<td>2,136.7</td>
<td>2,373.1</td>
<td>2,363.3</td>
</tr>
<tr>
<td>Operative EBITDA</td>
<td>249.4</td>
<td>251.9</td>
<td>252.9</td>
<td>287.3</td>
<td>302.5</td>
</tr>
<tr>
<td>of which margin</td>
<td>11.1%</td>
<td>11.3%</td>
<td>11.8%</td>
<td>12.1%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Operative EBIT</td>
<td>155.5</td>
<td>164.2</td>
<td>158.3</td>
<td>163.1</td>
<td>170.1</td>
</tr>
<tr>
<td>of which margin</td>
<td>6.9%</td>
<td>7.4%</td>
<td>7.4%</td>
<td>6.9%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Cash flow from operations</td>
<td>176.3</td>
<td>200.3</td>
<td>74.2</td>
<td>247.6</td>
<td>270.6</td>
</tr>
<tr>
<td>Capital expenditure, excluding acq.</td>
<td>134.1</td>
<td>133.5</td>
<td>140.6</td>
<td>181.7</td>
<td>212.6</td>
</tr>
<tr>
<td>Gearing at period-end</td>
<td>42</td>
<td>41</td>
<td>42</td>
<td>54</td>
<td>54</td>
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<tr>
<td>Inventories</td>
<td>182</td>
<td>170</td>
<td>197</td>
<td>207</td>
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<tr>
<td>Personnel at period-end</td>
<td>4,857</td>
<td>4,453</td>
<td>4,248</td>
<td>4,685</td>
<td>4,818</td>
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</table>

* Restated figures reflect the change of IAS 19, Employee Benefits
## Per share figures – 5-year summary

<table>
<thead>
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<tr>
<td>Earnings per share, EUR</td>
<td>0.12</td>
<td>-0.21</td>
<td>0.59</td>
<td>0.47</td>
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<td>Cash flow from operating activities per share, EUR</td>
<td>1.16</td>
<td>1.32</td>
<td>0.49</td>
<td>1.63</td>
<td>1.78</td>
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<td>Equity per share, EUR</td>
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<td>7.32</td>
<td>7.57</td>
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<tr>
<td>Dividend per share, EUR (*2016 proposal to the AGM)</td>
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<td>0.53</td>
<td>0.53</td>
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<td>Share price, EUR, end of period</td>
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<td>12.16</td>
<td>9.89</td>
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<td>Number of shares, million (excl. treasury shares)</td>
<td>152.0</td>
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<td>P/CF ratio</td>
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<td>P/B ratio</td>
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<td>1.3</td>
<td>1.4</td>
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<tr>
<td>Dividend yield, %</td>
<td>4.5</td>
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## Key figures

<table>
<thead>
<tr>
<th>EUR million</th>
<th>Q3 2017</th>
<th>Q3 2016</th>
<th>Δ%</th>
<th>1-9 2017</th>
<th>1-9 2016</th>
<th>Δ%</th>
<th>2016</th>
<th>2015</th>
<th>Δ%</th>
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<tr>
<td>Revenue</td>
<td>622.2</td>
<td>596.3</td>
<td>+4</td>
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<td>84.5</td>
<td>80.8</td>
<td>+5</td>
<td>230.6</td>
<td>232.5</td>
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<td>302.5</td>
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<td>12.8%</td>
<td>12.1%</td>
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<td>Operative EBIT</td>
<td>47.7</td>
<td>46.5</td>
<td>+3</td>
<td>126.3</td>
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<td>Finance costs, net</td>
<td>-7.4</td>
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<td>-</td>
<td>-21.8</td>
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<td>-19.1</td>
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<tr>
<td>Earnings per share, EUR</td>
<td>0.12</td>
<td>0.16</td>
<td>-28</td>
<td>0.36</td>
<td>0.49</td>
<td>-28</td>
<td>0.60</td>
<td>0.47</td>
<td>+28</td>
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<tr>
<td>Cash flow from operations</td>
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<td>85.0</td>
<td>+9</td>
<td>133.7</td>
<td>168.2</td>
<td>-21</td>
<td>270.6</td>
<td>247.6</td>
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<td>Capex excl. acquisitions</td>
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<td>-10</td>
<td>125.9</td>
<td>123.2</td>
<td>2</td>
<td>212.6</td>
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<td>Net debt</td>
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<td>666</td>
<td>+5</td>
<td>701</td>
<td>666</td>
<td>+5</td>
<td>634</td>
<td>642</td>
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<tr>
<td>Gearing, % at period-end</td>
<td>63</td>
<td>58</td>
<td>-</td>
<td>63</td>
<td>58</td>
<td>-</td>
<td>54</td>
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<tr>
<td>Inventories</td>
<td>224</td>
<td>214</td>
<td>+5</td>
<td>224</td>
<td>214</td>
<td>+5</td>
<td>217</td>
<td>207</td>
<td>+5</td>
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<tr>
<td>Personnel at period-end</td>
<td>4,749</td>
<td>4,843</td>
<td>-2</td>
<td>4,749</td>
<td>4,843</td>
<td>-2</td>
<td>4,818</td>
<td>4,685</td>
<td>+3</td>
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## Cash flow

<table>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Net profit for the period</td>
<td>20</td>
<td>27</td>
<td>60</td>
<td>80</td>
<td>98</td>
<td>77</td>
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<tr>
<td>Total adjustments</td>
<td>61</td>
<td>49</td>
<td>167</td>
<td>137</td>
<td>187</td>
<td>189</td>
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<tr>
<td>Change in net working capital</td>
<td>13</td>
<td>22</td>
<td>-52</td>
<td>-18</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Finance expenses</td>
<td>2</td>
<td>-3</td>
<td>-19</td>
<td>-9</td>
<td>-20</td>
<td>-27</td>
</tr>
<tr>
<td>Income taxes paid</td>
<td>-3</td>
<td>-10</td>
<td>-21</td>
<td>-22</td>
<td>-23</td>
<td>-12</td>
</tr>
<tr>
<td><strong>Net cash gen. from operating activities</strong></td>
<td><strong>93</strong></td>
<td><strong>85</strong></td>
<td><strong>134</strong></td>
<td><strong>168</strong></td>
<td><strong>271</strong></td>
<td><strong>248</strong></td>
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<tr>
<td>Purchases of subsidiaries and acquisit.</td>
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<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>-123</td>
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<td>Capital expenditure</td>
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<td>-49</td>
<td>-126</td>
<td>-123</td>
<td>-213</td>
<td>-182</td>
</tr>
<tr>
<td>Proceeds from sale of assets</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>37</td>
<td>37</td>
<td>3</td>
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<tr>
<td>Change in long-term loan receivables</td>
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<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
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<tr>
<td><strong>Cash flow after investing activities</strong></td>
<td><strong>50</strong></td>
<td><strong>37</strong></td>
<td><strong>9</strong></td>
<td><strong>84</strong></td>
<td><strong>98</strong></td>
<td><strong>-54</strong></td>
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</table>
## Pulp & Paper

### Key financials

<table>
<thead>
<tr>
<th>EUR million</th>
<th>Q3 2017</th>
<th>Q3 2016</th>
<th>Δ%</th>
<th>1-9 2017</th>
<th>1-9 2016</th>
<th>Δ%</th>
<th>2016</th>
<th>2015</th>
<th>Δ%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>363.0</td>
<td>365.2</td>
<td>-1</td>
<td>1,104.1</td>
<td>1,088.7</td>
<td>+1</td>
<td>1,457.3</td>
<td>1,417.3</td>
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<tr>
<td>Operative EBITDA</td>
<td>48.5</td>
<td>51.8</td>
<td>-6</td>
<td>142.4</td>
<td>149.0</td>
<td>-4</td>
<td>195.3</td>
<td>171.0</td>
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<td>-</td>
<td>12.9%</td>
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<td>13.4%</td>
<td>12.1%</td>
<td>-</td>
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<td>Operative EBIT</td>
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<td>30.0</td>
<td>-19</td>
<td>73.9</td>
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<td>111.6</td>
<td>96.8</td>
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<td>margin</td>
<td>6.7%</td>
<td>8.2%</td>
<td>-</td>
<td>6.7%</td>
<td>8.0%</td>
<td>-</td>
<td>7.7%</td>
<td>6.8%</td>
<td>-</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>32.3</td>
<td>28.1</td>
<td>+15</td>
<td>97.3</td>
<td>68.7</td>
<td>+42</td>
<td>125.1</td>
<td>240.1</td>
<td>-48</td>
</tr>
<tr>
<td>Cash flow after investing activities</td>
<td>25.3</td>
<td>27.3</td>
<td>-7</td>
<td>11.3</td>
<td>85.9</td>
<td>-87</td>
<td>105.7</td>
<td>-63.2</td>
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</tbody>
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Investor Presentation - October 2017
## Industry & Water

### Key financials

<table>
<thead>
<tr>
<th>EUR million</th>
<th>Q3 2017</th>
<th>Q3 2016</th>
<th>Δ%</th>
<th>1-9 2017</th>
<th>1-9 2016</th>
<th>Δ%</th>
<th>2016</th>
<th>2015*</th>
<th>Δ%</th>
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</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>259.2</td>
<td>231.1</td>
<td>+12</td>
<td>745.3</td>
<td>678.1</td>
<td>+10</td>
<td>906.0</td>
<td>955.8</td>
<td>-5</td>
</tr>
<tr>
<td>Operative EBITDA</td>
<td>36.0</td>
<td>29.0</td>
<td>+24</td>
<td>88.3</td>
<td>83.5</td>
<td>+6</td>
<td>107.2</td>
<td>116.3</td>
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<td>12.5%</td>
<td>-</td>
<td>11.8%</td>
<td>12.3%</td>
<td>-</td>
<td>11.8%</td>
<td>12.2%</td>
<td>-</td>
</tr>
<tr>
<td>Operative EBIT</td>
<td>23.4</td>
<td>16.5</td>
<td>+42</td>
<td>52.4</td>
<td>46.9</td>
<td>+12</td>
<td>58.5</td>
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<td>-</td>
<td>6.5%</td>
<td>6.9%</td>
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<tr>
<td>Capital expenditure</td>
<td>11.5</td>
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<td>28.6</td>
<td>52.6</td>
<td>-46</td>
<td>85.5</td>
<td>64.9</td>
<td>32</td>
</tr>
<tr>
<td>Cash flow after investing activities</td>
<td>26.1</td>
<td>22.3</td>
<td>+17</td>
<td>38.6</td>
<td>28.8</td>
<td>+34</td>
<td>35.6</td>
<td>48.9</td>
<td>-27</td>
</tr>
</tbody>
</table>

* Sum of Oil & Mining and Municipal & Industrial segments.
Revenue split by country

FY 2016

- **AMERICAS**
  - USA 27%
  - Canada 5%
  - Brazil 3%
  - Uruguay 2%
  - Other Americas 1%

- **APAC**
  - Other APAC 6%
  - Indonesia 1%
  - China 3%
  - Other 6%
  - Indonesia 1%

- **EMEA**
  - EMEA 8%
  - Norway 2%
  - Netherlands 2%
  - France 2%
  - Italy 2%
  - Russia 2%
  - Spain 2%
  - UK 3%
  - Poland 3%
  - Sweden 6%
  - Germany 6%
  - Finland 14%
  - Norway 2%
  - Russia 2%
  - Netherlands 2%
  - France 2%
  - Italy 2%
  - Spain 2%
  - UK 3%
  - Poland 3%
  - Sweden 6%
  - Germany 6%
  - Finland 14%
Revenue and cost distribution per currency

- Currency exchange rates had around EUR 0 million impact on the operative EBITDA in Q3 2017 and around +6 million in January-September 2017.
- Guidance: 10% change in our main foreign currencies would approximately have EUR 10 million impact on operative EBITDA on an annualized basis.
Pulp & Paper – driving growth as market leader
Our winning formula to continue growth

Invest in growth and R&D
- Capacity additions
- 9 new products in 2016

Enhance performance culture
- New mgmt. structure
- Employee engagement – 15/16 survey items improved since 2015

Reduce complexity
- Group: 240 products out
- Target to reduce by 200 in 2017

Improve customer experience
- TOP 50 customers are EUR 1bn
- Customer satisfaction to 98%

Maximize capacity utilization
- Bleaching ran flat out 9 years
- Paper chemicals varying

Manage fixed costs
- H1 2017 business overheads below 2016 level

Above-the-market growth and operative EBITDA 14-16%
Growth of board and paper production by region 2015-2030

- 55mt growth in APAC by 2030

**BIGGEST PRODUCERS ARE:**
China, USA, Japan, Germany, India, Sweden, Korea, Canada, Finland, Brazil

**BIGGEST GROWTH AREAS ARE:**
China, India, Indonesia, Brazil, Russia, Vietnam

**TOTAL BOARD & PAPER PRODUCTION:**
- 2015: 402 million tons
- 2030: 461 million tons
- CAGR: around 1% / annum

**Growth by Region:**
- **North America**
  - 2015: 82 mt
  - 2030: 75 mt
- **W. Europe**
  - 2015: 85 mt
  - 2030: 78 mt
- **E. Europe**
  - 2015: 18 mt
  - 2030: 26 mt
- **Japan**
  - 2015: 26 mt
  - 2030: 21 mt
- **China**
  - 2015: 106 mt
  - 2030: 139 mt
- **Latin America**
  - 2015: 21 mt
  - 2030: 31 mt
- **Africa**
  - 2015: 4 mt
  - 2030: 6 mt
- **Rest of Asia**
  - 2015: 55 mt
  - 2030: 82 mt
- **Oceania**
  - 2015: 4 mt
  - 2030: 4 mt

**Source:** Pöyry
### Strong market positions and strategic investments

<table>
<thead>
<tr>
<th>REGION</th>
<th>MARKET POSITION</th>
<th>GROWTH TREND</th>
<th>GROWTH STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMEA</td>
<td>#1</td>
<td>🔄</td>
<td>Exceptional customer experience</td>
</tr>
<tr>
<td>North America</td>
<td>#2/3</td>
<td>🔄</td>
<td>Transformation from paper to board</td>
</tr>
<tr>
<td>APAC</td>
<td>#1</td>
<td>🔄</td>
<td>Continue to grow with major players (TCM) and assess future investments</td>
</tr>
<tr>
<td>South America</td>
<td>#3</td>
<td>🔄</td>
<td>Assess future bleaching investments</td>
</tr>
</tbody>
</table>

TCM = Total Chemistry Management

kemira
Market position strengthened through successful acquisition

- AkzoNobel’s paper chemicals acquired in May 2015
  - Target initially EUR 15 million
  - Run-rate ahead of plan, close to EUR 20 million
- Acquisition strengthened our position especially in APAC
  - 4 of 6 sites acquired were in APAC
- APAC capacity addition in Nanjing, China executed well and ramping up according to plan
We have become market leader in APAC

- Board and paper production in APAC will be bigger than Europe and North America combined by 2020
- >90% of global board and paper production growth in APAC
  - Revenue doubled to around EUR 200 million in 3 years
- Kemira now #1 with close to 10% share in APAC
- Fragmented market provides good potential for profitable growth
- Continue to grow revenue and market share

Pulp & Paper relevant chemicals market 2017
EUR million

<table>
<thead>
<tr>
<th>Region</th>
<th>2017</th>
<th>2020</th>
<th>CAGR 2017-2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMEA</td>
<td></td>
<td></td>
<td>0-1%</td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td></td>
<td>-1-0%</td>
</tr>
<tr>
<td>APAC</td>
<td></td>
<td></td>
<td>2-3%</td>
</tr>
<tr>
<td>South America</td>
<td></td>
<td></td>
<td>2-3%</td>
</tr>
</tbody>
</table>

Source: Pöyry, management estimation
Strong demand in pulp market creating growth opportunities

- New pulp mill projects are driven by increasing demand for board and tissue
  - Food and liquid packaging board is growing particularly fast in Asia
  - Pulp is produced close to wood sources and then shipped to board, paper, and tissue mills
  - Growth in board = 1 new pulp mill per year

- Multiple pulp mill projects realised and expected in Northern Europe creating opportunities for Kemira to grow with the market

- In addition, a few large scale pulp mill projects expected in South America
Successful value creating investments – case Joutseno

- Kemira’s capacity in sodium chlorate was fully utilized, hence the need for additional capacity
- Capacity doubled in Joutseno with around EUR 50 million investment
- Investment realized according to budget and start-up was ahead of schedule in early September 2017
- Targeting maximum capacity utilization in H1 2018
  - Part of the production will be shipped to APAC to support the growth in the region
Pulp & Paper – Technology and market leader

**RAW MATERIALS**
- Electricity
- Sodium chloride (salt)
- Crude tall oil
- Cationic monomer
- Acrylonitrile
- Acrylic acid
- Olefins
- Fatty acids
- Maleic anhydride
- Sulfur

**INTERMEDIATES**
- Tall oil rosin
- AKD Wax
- Isomerized olefins
- Acrylamide

**PRODUCTS**
- Sodium chlorate
- Hydrogen peroxide
- Polymers
- Defoamers
- Coagulants
- Biocides
- Sizing
- Strength Additives
- Surface additives
- Colorants
- Sulfuric acid

**APPLICATIONS**
- Pulping
- Bleaching
- Retention
- Wet-end process control
- WQQM
- Sizing
- Strength
- Surface treatment
- Coloring

**CUSTOMER INDUSTRIES**
- Pulp
- Packaging and board
- Printing and writing
- Tissue

**CUSTOMERS**
- All the major global paper and pulp producers

Value chain part covered by Kemira

Main competitors:
- BASF, Akzo Nobel, Solenis, Ecolab, SNF

Investor Presentation - October 2017
Industry & Water – stronger platform for profitable growth
Stronger platform for profitable growth

• Strengthened business in growing market
• New structure enables greater agility and higher profitability
• Profitable growth opportunities driven by innovation
• Oil & Gas returned to growth
New structure creates growth and efficiency opportunities

- Leveraging the full potential of new combined segment
  - Full geographical reach in all regions
  - Global polymer expert network
  - Water treatment expertise for O&G and Mining
- Structural change means faster decision making
- More efficient development and roll-out of new innovations
- Important part of segment’s profitability improvement
  - On Group-level cost savings EUR 15-20 million
Profitable growth opportunities ahead...

- 1-9/2017 showed good volume growth
  - +2% in water treatment
  - +57% in Oil & Gas

- Multiple initiatives ongoing to boost growth in both businesses

<table>
<thead>
<tr>
<th>BUSINESS AREA</th>
<th>REGION</th>
<th>GROWTH INITIATIVES IN 2015-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER TREATMENT</td>
<td>EMEA</td>
<td>Desalination</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BioGas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sludge dewatering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Middle East and Africa</td>
</tr>
<tr>
<td>NA</td>
<td></td>
<td>Odor control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sludge dewatering</td>
</tr>
<tr>
<td>APAC</td>
<td></td>
<td>Deep sludge dewatering</td>
</tr>
<tr>
<td>OIL &amp; GAS</td>
<td>GLOBAL</td>
<td>CEOR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oil sands in Canada</td>
</tr>
</tbody>
</table>

![Revenue in Growth Initiatives](chart.png)
…fueled by strong innovation pipeline

EUR 110 million, 12% of Industry & Water revenue from innovation in 2016

<table>
<thead>
<tr>
<th>Projects under evaluation</th>
<th>Projects under development and early commercialization</th>
<th># of projects</th>
<th>Projected 10-yr NPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced Oil Recovery</td>
<td></td>
<td>8</td>
<td>EUR 650 million</td>
</tr>
<tr>
<td>Oil sands</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Shale oil &amp; gas</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Solid liquid separation (incl. AWT)</td>
<td>Sludge dewatering, nutrients recovery, mining processes</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
| Desalination, re-use & disinfection (incl. AWT) | | 1 | |}

AWT = Advanced Water Treatment

Investor Presentation - October 2017
The next generation of sludge treatment will focus on customer performance and value created.

KemConnect Smart Dewatering combines a complete chemicals portfolio, continuous chemistry optimization and real-time monitoring to a new business model.
Industry & Water – Technology and market leader in water treatment as well as in niche applications in oil & gas

- **RAW MATERIALS**
  - Acrylonitrile
  - Acrylic acid
  - Sulfuric acid
  - Hydrochloric acid
  - Aluminium hydrate
  - Iron ore
  - Pickling liquor
  - Copperas
  - Various monomers

- **INTERMEDIATES**
  - Acrylamide
  - Cationic monomer

- **PRODUCTS**
  - Polymers (EPAM, DPAM)
  - Al Coagulants
  - Fe Coagulants
  - Dispersants & antiscalants
  - Biocides
  - Emulsifiers
  - Defoamers
  - Formulations

- **APPLICATIONS**
  - Raw water & waste water treatment
  - Sludge treatment
  - Friction reduction
  - Enhanced oil recovery
  - Tailings treatment
  - Mining processes

- **SALES CHANNEL**
  - Direct sales
  - Distributor/reseller
  - Service companies

- **CUSTOMERS**
  - Municipalities
  - Private operators
  - Industrial customers
  - Pumpers
  - Oil & Gas operators
  - Service companies
  - Mine operators

- **Value chain part covered by Kemira**
- Main competitors:
  - Coagulants: mainly local small companies, Feralco, USALCO
  - Polymers: SNF, Solvay, Ecolab, Solenis, BASF
Oil & Gas – well positioned for growth in niche areas
Resilient business set for growth

- Growing market demand with our selective market diversification assuring growth
- Kemira’s offering
  - Process efficiencies: polymers that reduce energy consumption by 60% in shale oil fields
  - Cost reduction: higher concentrated liquids that make offshore oil recovery more cost effective (CEOR)
  - Addressing environmental regulations: tailing treatment in oil sands
- New innovative technologies driving expansion

KEMIRA OIL & GAS REVENUE

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (EUR m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>100</td>
</tr>
<tr>
<td>2014</td>
<td>150</td>
</tr>
<tr>
<td>2015</td>
<td>200</td>
</tr>
<tr>
<td>2016</td>
<td>250</td>
</tr>
<tr>
<td>LTM</td>
<td>177</td>
</tr>
</tbody>
</table>

Figures rounded to closest 5%

LTM = Last Twelve Months ending September 2017
Our innovations make shale industry more efficient

Shale Market
- Polymer market size +200M EUR and growing at double digit today
- Polymer more favorable product based on cost/performance

KEMIRA
- Provides unique chemistries, friction reducers, that reduce energy needed during hydraulic fracturing
- Volume growth over 100% in 1-9/2017
- Differentiating from competitors with innovative products

#1 market position with over 30% market share

Investor Presentation - October 2017
Long-term growth potential in CEOR

Chemical Enhanced Oil Recovery market
- CEOR market size EUR 1bn of which EUR 500 million accessible to Kemira
- Market growth estimated to be 5% driven by decline of production from existing fields

KEMIRA
- Kemira’s MaxXtract solution tailored specifically to customer needs, incorporating chemistry, equipment and services
- Kemira’s knowhow in polymers helps oil producers
- Potential for > EUR 100 million revenue in 5 years

Substantial long-term growth potential within existing CEOR projects and through new projects
Oil sands has grown from 0 to above EUR 20m in 2 years

Oil sands market
• Market size is around EUR 400 million
• Projects are capex-heavy but developed projects are considered as sunken costs

KEMIRA
• Offers total solutions to reduce environmental concerns
• Customer base expanding
• Revenue has grown to above EUR 20 million in 2 years
• Target to more than double current revenues in 2-3 years

Companies operating in oil sands market (examples)
Oil & Gas well positioned for growth in niche areas

2009 Phase I
New business – EUR 30 million
Niche position in niche market

Oil & Mining

Diversification – EUR 177 million (LTM)
Growing in shale, oil sands and CEOR

Industry & Water: Global Oil and Gas

Bigger and better
Strong player in three core areas (shale, oil sands, CEOR), including service capabilities

LTM = Last Twelve Months ending September 2017
Appendix
Kemira – largest shareholders and Board of Directors

Shareholders on September 30, 2017

<table>
<thead>
<tr>
<th>Rank</th>
<th>Shareholder</th>
<th>% of shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Oras Invest</td>
<td>18.2%</td>
</tr>
<tr>
<td>2.</td>
<td>Solidium (owned by State of Finland)</td>
<td>16.7%</td>
</tr>
<tr>
<td>3.</td>
<td>Varma Mutual Pension Insurance Company</td>
<td>3.4%</td>
</tr>
<tr>
<td>4.</td>
<td>Ilmarinen Mutual Pension Insurance Comp.</td>
<td>2.3%</td>
</tr>
<tr>
<td>5.</td>
<td>Kemira Oyj</td>
<td>1.9%</td>
</tr>
<tr>
<td></td>
<td><strong>Total number of shares</strong></td>
<td><strong>155,342,557</strong></td>
</tr>
</tbody>
</table>

Foreign ownership of shares 24.0%

Total number of shareholders 36,511

Kemira Board of Directors

Jari Paasikivi, Chairman
Member since 2012
Oras Invest Oy, CEO

Kerttu Tuomas, Vice Chairman
Member since 2010

Wolfgang Büchele
Member in 2009-2012 and since 2014

Shirley Cunningham
Member since 2017

Kaisa Hietala
Member since 2016

Timo Lappalainen
Member since 2014
Jukka Hakkila, Chief Legal Officer, acts as secretary of Management Board and Board of Directors
## Targets & Performance: Q3/2017

<table>
<thead>
<tr>
<th>Focus area</th>
<th>Issue, KPI, target value</th>
<th>Comments</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INNOVATION SALES</strong></td>
<td><strong>Sustainable products &amp; solutions</strong>&lt;br&gt;Share of innovation revenue of total revenue, %&lt;br&gt;→ 10% by the end of 2017&lt;br&gt;→ KPI reported quarterly</td>
<td>New products launched this year have succeeded in replacing the old best seller products from the five years</td>
<td></td>
</tr>
<tr>
<td><strong>SUPPLIER MANAGEMENT</strong></td>
<td><strong>Responsibility in our supply chain</strong>&lt;br&gt;Number of onsite sustainability audits for highest risk suppliers (with lowest sustainability assessment score)&lt;br&gt;→ 5 suppliers audited every year during 2016-2020, average&lt;br&gt;→ KPI reported quarterly</td>
<td>During Q3/2017, two Sustainability audits were conducted, one in China and one in India. Another two audits have been scheduled and confirmed and will be conducted during Q4/2017. One audit is in the scheduling phase of the process.</td>
<td></td>
</tr>
<tr>
<td><strong>CLIMATE CHANGE</strong></td>
<td><strong>Responsible manufacturing</strong>&lt;br&gt;Carbon index&lt;br&gt;→ Kemira Carbon Index ≤ 80 by end of 2020 (2012 = 100)&lt;br&gt;→ KPI reported annually</td>
<td>Sourcing of low carbon energy continued according to plan. During Q3/2017, three Energy Review site visits were conducted as part of the E3 Plus program. The Energy Review program covers more than 90% of the Kemira’s total energy consumption. Additionally, the Energy Management System of Helsingborg site was 50001-audited by an external auditor.</td>
<td></td>
</tr>
</tbody>
</table>

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**Investor Presentation - October 2017**
### CORPORATE RESPONSIBILITY UPDATE 2/2

**Targets & Performance: Q3/2017**

<table>
<thead>
<tr>
<th>Focus area</th>
<th>Issue, KPI, target value</th>
<th>Comments</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OCCUPATIONAL HEALTH AND SAFETY</strong></td>
<td><strong>Number of Total Recordable Injury Frequency (TRIF)</strong> (per million hours, Kemira + contractor, year-to-date)</td>
<td>Root cause analysis of safety performance in Q3/2017 is showing weaknesses in risk management and implementation of some EHSQ standards. As an improvement action, EHSQ function will have now more focus on to support the sites to implement some critical EHSQ standards. New EHSQ professional organization structure implemented.</td>
<td><img src="image" alt="Bar chart" /></td>
</tr>
<tr>
<td>Responsibility towards the employees</td>
<td>Achieve zero injuries (TRIF 2.0 by end of 2020)</td>
<td></td>
<td>![Behind target] ![In progress] ![Achieved]</td>
</tr>
<tr>
<td></td>
<td>KPI reported quarterly</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EMPLOYEE ENGAGEMENT</strong></td>
<td>Employee engagement index based on Voices@Kemira biennial survey</td>
<td>We envisage that the next employee engagement survey will be in Spring 2018.</td>
<td><img src="image" alt="Bar chart" /></td>
</tr>
<tr>
<td></td>
<td>The index at or above the external industry norm</td>
<td></td>
<td>![Behind target] ![In progress] ![Achieved]</td>
</tr>
<tr>
<td></td>
<td>Participation rate in Voices@Kemira</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>75% or above</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KPI reported biennially</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LEADERSHIP DEVELOPMENT</strong></td>
<td>Leadership development activities provided, average</td>
<td>Strong level of leadership development activity in Q3 2017. Year to date 341</td>
<td><img src="image" alt="Bar chart" /></td>
</tr>
<tr>
<td></td>
<td>Two (2) leadership development activities per people manager position during 2016-2020</td>
<td></td>
<td>![Behind target] ![In progress] ![Achieved]</td>
</tr>
<tr>
<td></td>
<td>KPI reported annually</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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1. The TRIF reporting has been changed to a year-to-date figure instead of 12 month rolling average that was previously used.
2. The cumulative amount of leadership development required to reach two (2) leadership development activities per people manager position during 2016-2020 equals 1500 leadership activities (when number of people manager positions is 650-850). Development activities include job rotations, coaching, and development programs.
Where water meets chemistry™