Investor presentation

Kemira – Targeting for profitable growth

- Kemira today (slides # 2-14)
- Latest news and financials (# 15-33)
- Pulp & Paper (# 34-39)
- Industry & Water (# 40-48)
- Appendix (# 49-54)
Kemira Capital Markets Day 2017

at Haberdashers’ Hall, 18 W Smithfield, London EC1A 9HQ
Thursday, September 21, 2017

To register for the event please follow: Kemira CMD 2017

Program (UK time)
11.00 Registration & breakfast
11.30 Presentations (with a lunch break at 13.00)
   • Strategy review by President and CEO: Jari Rosendal
   • Pulp & Paper: Kim Poulsen
   • Industry & Water: Antti Salminen
     - Oil & Gas: Pedro Materan
   • Sourcing: Thierry Blomet
   • Presentation by the CFO: Petri Castrén
14.50 Breakout sessions with the management
16.05 Cocktails

Presentations may also be viewed live on a webcast at:
www.kemira.com/investors

For further information, please contact tiina.huoponen@kemira.com
Kemira today

Kemira is a global chemicals company serving customers in water-intensive industries

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue in EUR billion (FY 2016)</strong></td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Operative EBITDA margin (FY 2016)</strong></td>
<td>12.8%</td>
</tr>
<tr>
<td><strong>Personnel (2016)</strong></td>
<td>4,818</td>
</tr>
<tr>
<td><strong>Manufacturing sites</strong></td>
<td>63</td>
</tr>
<tr>
<td><strong>Ship-to-countries</strong></td>
<td>110</td>
</tr>
<tr>
<td><strong>Shareholders</strong></td>
<td>32,000</td>
</tr>
</tbody>
</table>

**Pulp & Paper**
Revenue EUR 1,457 million
#1-2 in all regions
~17% market share globally

**Industry & Water**
Revenue EUR 906 million
#1 in raw and waste water treatment
~30% market share in Europe and North America
#2 in polyacrylamide polymers
Pulp & Paper
FY2016: Revenue EUR 1,457 billion, Operative EBITDA EUR 195 million, margin 13.4%

Note: Revenue by industry, product and geography rounded to the nearest 5%.
Industry & Water
FY2016: Revenue EUR 906 million, Operative EBITDA EUR 107 million, margin 11.8%

- **Application split**
  - 40% Other applications
  - 15% Oil & Gas
  - 75% Water treatment

- **Products**
  - 45% Coagulants
  - 35% Polymers
  - 20% Other products such as defoamers and biocides

- **Geographies**
  - 40% Americas
  - 55% EMEA
  - 5% APAC

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

Municipal (40%), customer examples
- London
- Frankfurt
- Toronto
- Singapore
- Miami
- Amsterdam

Industrial (60%), customer examples
- New York City
- Shanghai
- Los Angeles
- Las Vegas
- Oslo
- Barcelona
- Berlin
- Paris
- Washington DC

Other applications
- 15% Municipal (40%), customer examples
- 55% Industrial (60%), customer examples
- 5% Other products such as defoamers and biocides
- 10% Other applications
Stable business and sustainable profitability improvement

### Revenue
**EUR million**
- **2012**: 2,241
- **2013**: 2,229
- **2014**: 2,137
- **2015**: 2,373
- **2016**: 2,363

### Operative EBITDA and operative EBITDA margin
**EUR million**
- **2012**: 249 (11.1%)
- **2013**: 252 (11.3%)
- **2014**: 253 (11.8%)
- **2015**: 287 (12.1%)
- **2016**: 303 (12.8%)
Our strategy for profitable growth

Growth
- Investments in capacity expansions
- Seize opportunities in growth pockets
- Recovery of shale oil & gas business
- CEOR and oil sands
- R&D, new products

Acquisitions
Very selective approach
- Strategic fit
- Accretive to profitability
- Modest valuation

Efficiency
- Site footprint optimisation
- BOOST
- Organizational efficiencies with new structure

Cost discipline
Prudent cost culture

Above-the-market revenue growth & operative EBITDA margin of 14-16%
Our key actions for higher margins

- 11.8% in 2014
- 12.1% in 2015
- 12.8% in 2016

- Acquisition synergies
- Group synergies
- Pulp & Paper operational excellence
- Oil & Mining
- Municipal & Industrial
- Mid- to long-term target

- New investments (Brazil and Finland), New TCM contracts
- Optimization of operations: e.g. Logistics, Sourcing, Manufacturing
- Chemical Enhanced Oil Recovery & oil sands
- Advanced Water Treatment

<table>
<thead>
<tr>
<th>Estimated end of 2017 run-rate</th>
<th>100%</th>
<th>100%</th>
<th>Approx. 50%</th>
<th>Low</th>
<th>Low</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full run-rate by</td>
<td>End of 2017</td>
<td>End of 2017</td>
<td>2018</td>
<td>2-3 yrs</td>
<td>3-5 yrs</td>
<td>3-5 yrs</td>
</tr>
</tbody>
</table>
New organization effective as of June 2017

- Oil & Mining and Municipal & Industrial merged into new segment “Industry & Water”
- Organization structures streamlined
- Management layers decreased and span of control increased
- Support functions adjusted
- Reduction mainly from top and middle management
- Cost savings of EUR 15-20 million with full run-rate by end of 2017
  - Majority of restructuring costs booked in Q2/17 (EUR 8 million)

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Segment figures as of FY2016
Profitable growth – achievements & ongoing projects

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

11.3% → 12.8%
2013 operative EBITDA → 2016 operative EBITDA

- Opening of Nanjing (CN) multi-purpose site
- Acquisition of BASF AKD emulsion
- Opening of Tarragona coagulant site (ES)
- Acquisition of Soto Industries (US)
- Start-up of Ortigueira (BR) sodium chlorate site and announcement of Joutseno (FI) expansion
- Acquisition of Polymer Services (US)
- Transportation agreement with Odyssey
- Start-up of Ortigüera (BR) sodium chlorate site and announcement of Joutseno (FI) expansion
- New organization operational

- Q1/14: Start-up of EMEA service center
- Q2/14: Expansion of dry and emulsion polyacrylamide (US)
- Q3/14: Acquisition of Polymer Services (US)
- Q4/14: Closure of Longview (US)
- Q1/15: AkzoNobel’s paper chemicals acquisition
- Q2/15: Expansion of pulp chemicals, Oulu (FI)
- Q3/15: Decision to close Zaramillo (ES)
- Q4/15: Closure of Soave (IT)
- Q1/16: Botlek (NL) modernization
- Q2/16: BOOST operational excellence program launch
- Q3/16: Ottawa (CA) closure
- Q4/16: Bradford (UK) expansion
- Q1/17: San Giorgio (IT) expansion
- Q2/17: Odyssey go-live in North America
Kemira’s market environment

Long-term drivers for growth, including:
- Recycling leading to higher usage of strength chemicals
- Online shopping increasing need for packaging material
- Growing middle class in emerging markets leading to higher usage of tissue, board, paper
- Regulation driving better water quality
- Increased oil drilling from existing fields

Challenges
- Modest global GDP growth
- Low oil price impacts negatively activity in oil industry, particularly shale market

Source: Management estimation based on various sources
BOOST - targeting EUR 20-30 million of cost savings and EUR 50 million of inventory reduction
Kemira offers stable dividend, yield attractive

- Kemira’s dividend policy is to pay a stable and competitive dividend
- Kemira has paid dividend 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
Innovation and R&D – cornerstone for competitive edge

• Kemira has built expertise in chosen fields of chemistry and customer applications since decades
• More than 1,200 granted patents represent the vast amount of knowhow
• Currently 250 R&D experts located in Finland, USA and China
• Latest development areas, e.g.
  – Lighter and stronger board
  – Sludge dewatering
  – Tailored polymers for harsh conditions (CEOR)
Latest news and financials
Key financial and operational highlights Q2 2017

Q2 2017

- Revenue increased 5% driven by volume growth, especially in Oil & Gas
  - Organic growth 4%
- Operative EBITDA below prior year mainly due to higher variable costs
  - Financial impact due to Huntsman/Venator covered by insurance in Q2
- Segment structure reorganized during Q2
- Earnings per share impacted by severance payments related to restructuring and capital gain in prior year
- BOOST progressing – Logistic management outsourcing rolled out in North America, Europe to follow

<table>
<thead>
<tr>
<th>EUR million (except ratios)</th>
<th>Q2 2017</th>
<th>Q2 2016</th>
<th>Δ%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>617.2</td>
<td>587.8</td>
<td>+5</td>
</tr>
<tr>
<td>Operative EBITDA</td>
<td>77.1</td>
<td>78.9</td>
<td>-2</td>
</tr>
<tr>
<td>of which margin, %</td>
<td>12.5</td>
<td>13.4</td>
<td>-</td>
</tr>
<tr>
<td>Operative EBIT</td>
<td>43.6</td>
<td>46.6</td>
<td>-6</td>
</tr>
<tr>
<td>of which margin, %</td>
<td>7.1</td>
<td>7.9</td>
<td>-</td>
</tr>
<tr>
<td>Net profit to equity owners</td>
<td>17.7</td>
<td>25.0</td>
<td>-29</td>
</tr>
<tr>
<td>EPS, EUR</td>
<td>0.12</td>
<td>0.17</td>
<td>-29</td>
</tr>
</tbody>
</table>
Pulp & Paper – Revenue growth continued

- Organic revenue growth continued driven by bleaching chemicals
  - Continued market pressure on sales prices
- Major contract manufacturing agreements with AkzoNobel ending
  - Step-up in synergies expected in H2
  - EUR 20 million run-rate to be achieved by end of 2017
- Chlorate capacity addition in Joutseno, Finland progressing well
  - Several long-term deals agreed with customers

### Revenue and revenue growth

<table>
<thead>
<tr>
<th></th>
<th>H1 2016</th>
<th>H1 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>723</td>
<td>741</td>
</tr>
<tr>
<td>Growth</td>
<td>+2%</td>
<td></td>
</tr>
</tbody>
</table>

### Operative EBITDA and operative EBITDA margin

<table>
<thead>
<tr>
<th></th>
<th>H1 2016</th>
<th>H1 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA</td>
<td>97</td>
<td>94</td>
</tr>
<tr>
<td>Margin</td>
<td>13.4%</td>
<td>12.7%</td>
</tr>
</tbody>
</table>
Industry & Water – Strong revenue growth

• New organization in place as planned
• Strong demand in Oil & Gas led to good growth for Industry & Water
  – North American shale market shows resilience with increasing rig count even with recent oil price decline
• Water treatment revenue above prior year level
• Profitability impacted by increase in raw material prices
• Sales prices have stabilized during Q2

Revenue and revenue growth
EUR million

<table>
<thead>
<tr>
<th></th>
<th>H1 2016</th>
<th>H1 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>447</td>
<td>486</td>
</tr>
<tr>
<td>+9%</td>
<td></td>
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</tr>
</tbody>
</table>

Operative EBITDA and operative EBITDA margin
EUR million

<table>
<thead>
<tr>
<th></th>
<th>H1 2016</th>
<th>H1 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA</td>
<td>54</td>
<td>52</td>
</tr>
<tr>
<td>-4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Margin</td>
<td>12.2%</td>
<td>10.8%</td>
</tr>
</tbody>
</table>
FY 2017 operative EBITDA H2 weighted

- Headwind in H1 2017 from increase in raw material prices being mitigated by own actions
- Actions contributing to H2 2017 profitability improvement
  - Increasing synergy capture from AkzoNobel paper chemicals acquisition
  - Savings from new two segment structure
  - BOOST program (savings from logistics)
  - New chlorate line in Finland in Q4 2017
- Raw material price situation has stabilized during Q2 2017
Group’s organic revenue growth continued

Q2 2017

- Group’s organic growth 4%
  - Sales volumes grew in both segments, +9% in Industry & Water
- Operative EBITDA margin 12.5%
  - Growth in sales volumes offset by increased variable costs, sales prices almost flat

Kemira Group revenue bridge Q2 2017

<table>
<thead>
<tr>
<th>EUR million</th>
<th>Q2 2016</th>
<th>Sales volumes</th>
<th>Sales prices</th>
<th>Currency impact</th>
<th>M&amp;A</th>
<th>Q2 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>588</td>
<td>+5%</td>
<td>-1%</td>
<td>+1%</td>
<td>0%</td>
<td></td>
<td>617</td>
</tr>
</tbody>
</table>

Operative EBITDA and operative EBITDA margin trend

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<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>12.0%</td>
</tr>
<tr>
<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>12.5%</td>
<td></td>
</tr>
</tbody>
</table>
Pulp & Paper returned back to organic growth

- Organic growth positive after three weaker quarters
- Volume growth at good level (+2%) despite lost revenue due to supply issues
- Profitability impacted by higher raw material prices
Industry & Water – Growth driven by shale oil and gas

- Oil & Gas demonstrated around 60% growth to EUR 45 million
- Volumes grew 2% in water treatment
- Profitability below prior year level due to higher variable costs
- Negative impact from supply issue in Pori, Finland now covered by insurance
Raw material costs increased in Q2 as expected

Changes in propylene prices
January 2016 – June 2017

Variable cost vs sales price trend

Source: IHS and ICIS

* 12-month rolling change vs previous year in EUR million
Update on Huntsman/Venator force majeure issue

- On January 30, 2017 an extensive fire occurred at Huntsman Pigments’ (now Venator) plant in Pori, Finland
- Venator is a key raw material supplier and customer for Kemira
- Venator officially commented in March that they expect to be fully operational around year end 2018, with around 40% capacity within the second quarter of 2018
- Kemira estimates that revenue loss is approximately EUR 20 million in 2017
  - Kemira has business interruption insurance limit of EUR 10 million per occurrence for critical suppliers, and Kemira expects to receive compensation for most of the gross margin loss in 2017
  - In Q1, the negative EBITDA impact was around EUR 1 million and there was no insurance coverage recognised
  - In Q2, the negative EBITDA impact was around EUR 2 million, the insurance coverage was EUR 2.5 million
Solid balance sheet – new bond issued in May

- Net debt EUR 758 million with avg cost of debt 1.8% and duration of 36 months
- In May, Kemira utilized low-interest rates
  - EUR 100 million of notes maturing in 2019 were exchanged to EUR 200 million issuance of new senior unsecured notes
  - The new bond will mature on May 30, 2024 and it carries a fixed annual interest of 1.750%

**Gross debt maturity profile** (EUR 872 million)

**Q2 2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>EUR million</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>100</td>
</tr>
<tr>
<td>2018</td>
<td>75</td>
</tr>
<tr>
<td>2019</td>
<td>69</td>
</tr>
<tr>
<td>2020</td>
<td>250</td>
</tr>
<tr>
<td>2021</td>
<td>160</td>
</tr>
<tr>
<td>2022</td>
<td>105</td>
</tr>
<tr>
<td>2023</td>
<td>69</td>
</tr>
<tr>
<td>2024</td>
<td>69</td>
</tr>
</tbody>
</table>

**Net debt / Operative EBITDA and Gearing**

- Q2 2016: Net debt 690m, Gearing 2.3%
- Q2 2017: Net debt 758m, Gearing 61%

Investor Presentation - July 2017
Investments into growth

In 2017 capital expenditure is expected to be approximately EUR 200 million

Largest investments in 2015-2017

- New chlorate plant in Brazil
- New chlorate line in Joutseno, Finland
- Capacity additions due to acquisition of AkzoNobel paper chemicals business
- Polymer capacity additions in Italy and UK

Capital expenditure excluding acquisitions

EUR million

<table>
<thead>
<tr>
<th>Year</th>
<th>CAPEX split in 2015-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>44% Expansion</td>
</tr>
<tr>
<td></td>
<td>28% Maintenance</td>
</tr>
<tr>
<td></td>
<td>28% Improvement</td>
</tr>
</tbody>
</table>

- 182 for 2015
- 213 for 2016
- 75 for H1 2016
- 82 for H1 2017
## Key figures and ratios – 5-year summary

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<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>
</tr>
<tr>
<td>Inventories</td>
<td>182</td>
<td>170</td>
<td>197</td>
<td>207</td>
<td>217</td>
</tr>
<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>
</tr>
</tbody>
</table>

* Restated figures reflect the change of IAS 19, Employee Benefits
## Key figures – 2017 vs 2016

<table>
<thead>
<tr>
<th>EUR million</th>
<th>Q2 2017</th>
<th>Q2 2016</th>
<th>Δ%</th>
<th>H1 2017</th>
<th>H1 2016</th>
<th>Δ%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>617.2</td>
<td>587.8</td>
<td>+5</td>
<td>1,227.3</td>
<td>1,170.5</td>
<td>+5</td>
</tr>
<tr>
<td>Operative EBITDA</td>
<td>77.1</td>
<td>78.9</td>
<td>-2</td>
<td>146.1</td>
<td>151.7</td>
<td>-4</td>
</tr>
<tr>
<td>margin</td>
<td>12.5%</td>
<td>13.4%</td>
<td>-</td>
<td>11.9%</td>
<td>13.0%</td>
<td>-</td>
</tr>
<tr>
<td>Operative EBIT</td>
<td>43.6</td>
<td>46.6</td>
<td>-6</td>
<td>78.6</td>
<td>87.5</td>
<td>-10</td>
</tr>
<tr>
<td>margin</td>
<td>7.1%</td>
<td>7.9%</td>
<td>-</td>
<td>6.4%</td>
<td>7.5%</td>
<td>-</td>
</tr>
<tr>
<td>Finance costs, net</td>
<td>-7.7</td>
<td>-0.3</td>
<td>-</td>
<td>-14.4</td>
<td>-6.3</td>
<td>-</td>
</tr>
<tr>
<td>Earnings per share, EUR</td>
<td>0.12</td>
<td>0.17</td>
<td>-29</td>
<td>0.24</td>
<td>0.33</td>
<td>-27</td>
</tr>
<tr>
<td>Cash flow from operations</td>
<td>28.6</td>
<td>57.0</td>
<td>-50</td>
<td>40.8</td>
<td>83.2</td>
<td>-51</td>
</tr>
<tr>
<td>Capex excl. acquisitions</td>
<td>45.2</td>
<td>43.3</td>
<td>+4</td>
<td>82.1</td>
<td>74.7</td>
<td>+10</td>
</tr>
<tr>
<td>Net debt</td>
<td>758</td>
<td>690</td>
<td>+10</td>
<td>758</td>
<td>690</td>
<td>+10</td>
</tr>
<tr>
<td>Gearing, % at period-end</td>
<td>69</td>
<td>61</td>
<td>-</td>
<td>69</td>
<td>61</td>
<td>-</td>
</tr>
<tr>
<td>Inventories</td>
<td>227</td>
<td>214</td>
<td>+6</td>
<td>227</td>
<td>214</td>
<td>+6</td>
</tr>
<tr>
<td>Personnel at period-end</td>
<td>4,849</td>
<td>4,873</td>
<td>0</td>
<td>4,849</td>
<td>4,873</td>
<td>0</td>
</tr>
</tbody>
</table>
## Per share figures – 5-year summary

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings per share, EUR</td>
<td>0.12</td>
<td>-0.21</td>
<td>0.59</td>
<td>0.47</td>
<td>0.60</td>
</tr>
<tr>
<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>
</tr>
<tr>
<td>Equity per share, EUR</td>
<td>8.20</td>
<td>7.32</td>
<td>7.57</td>
<td>7.76</td>
<td>7.68</td>
</tr>
<tr>
<td>Dividend per share, EUR (2016 proposal to the AGM)</td>
<td>0.53</td>
<td>0.53</td>
<td>0.53</td>
<td>0.53</td>
<td>0.53*</td>
</tr>
<tr>
<td>Share price, EUR, end of period</td>
<td>11.81</td>
<td>12.16</td>
<td>9.89</td>
<td>10.88</td>
<td>12.13</td>
</tr>
<tr>
<td>Market capitalization, EUR million</td>
<td>1,796</td>
<td>1,849</td>
<td>1,504</td>
<td>1,654</td>
<td>1,848</td>
</tr>
<tr>
<td>Number of shares, million (excl. treasury shares)</td>
<td>152.0</td>
<td>152.0</td>
<td>152.1</td>
<td>152.1</td>
<td>152.4</td>
</tr>
<tr>
<td>P/E ratio</td>
<td>98.4</td>
<td>-</td>
<td>16.7</td>
<td>23.3</td>
<td>20.2</td>
</tr>
<tr>
<td>P/CF ratio</td>
<td>10.2</td>
<td>9.2</td>
<td>16.7</td>
<td>6.7</td>
<td>6.8</td>
</tr>
<tr>
<td>P/B ratio</td>
<td>1.4</td>
<td>1.7</td>
<td>1.3</td>
<td>1.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Dividend yield, %</td>
<td>4.5</td>
<td>4.4</td>
<td>5.4</td>
<td>4.9</td>
<td>4.4</td>
</tr>
</tbody>
</table>
# Pulp & Paper

## Key financials

<table>
<thead>
<tr>
<th>EUR million</th>
<th>Q2 2017</th>
<th>Q2 2016</th>
<th>Δ%</th>
<th>H1 2017</th>
<th>H1 2016</th>
<th>Δ%</th>
<th>2016</th>
<th>2015</th>
<th>Δ%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>368.9</td>
<td>361.1</td>
<td>+2</td>
<td>741.1</td>
<td>723.5</td>
<td>+2</td>
<td>1,457.3</td>
<td>1,417.3</td>
<td>+3</td>
</tr>
<tr>
<td>Operative EBITDA</td>
<td>47.8</td>
<td>49.3</td>
<td>-3</td>
<td>93.8</td>
<td>97.2</td>
<td>-3</td>
<td>195.3</td>
<td>171.0</td>
<td>+14</td>
</tr>
<tr>
<td>margin</td>
<td>13.0%</td>
<td>13.7%</td>
<td>-</td>
<td>12.7%</td>
<td>13.4%</td>
<td>-</td>
<td>13.4%</td>
<td>12.1%</td>
<td>-</td>
</tr>
<tr>
<td>Operative EBIT</td>
<td>25.7</td>
<td>28.9</td>
<td>-11</td>
<td>49.6</td>
<td>57.1</td>
<td>-13</td>
<td>111.6</td>
<td>96.8</td>
<td>+15</td>
</tr>
<tr>
<td>margin</td>
<td>7.0%</td>
<td>8.0%</td>
<td>-</td>
<td>6.7%</td>
<td>7.9%</td>
<td>-</td>
<td>7.7%</td>
<td>6.8%</td>
<td>-</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>35.2</td>
<td>25.8</td>
<td>+37</td>
<td>65.0</td>
<td>40.6</td>
<td>+60</td>
<td>125.1</td>
<td>240.1</td>
<td>-48</td>
</tr>
<tr>
<td>Cash flow after investing</td>
<td>8.9</td>
<td>59.3</td>
<td>-85</td>
<td>-14.0</td>
<td>58.6</td>
<td>-</td>
<td>105.7</td>
<td>-63.2</td>
<td>-</td>
</tr>
</tbody>
</table>

*Investor Presentation - July 2017*
## Industry & Water

### Key financials

<table>
<thead>
<tr>
<th>EUR million</th>
<th>Q2 2017</th>
<th>Q2 2016</th>
<th>Δ%</th>
<th>H1 2017</th>
<th>H1 2016</th>
<th>Δ%</th>
<th>2016</th>
<th>2015*</th>
<th>Δ%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>248.3</td>
<td>226.7</td>
<td>+10</td>
<td>486.1</td>
<td>447.0</td>
<td>+9</td>
<td>906.0</td>
<td>955.8</td>
<td>-5</td>
</tr>
<tr>
<td>Operative EBITDA</td>
<td>29.3</td>
<td>29.6</td>
<td>-1</td>
<td>52.3</td>
<td>54.5</td>
<td>-4</td>
<td>107.2</td>
<td>116.3</td>
<td>-8</td>
</tr>
<tr>
<td>margin</td>
<td>11.8%</td>
<td>13.1%</td>
<td>-</td>
<td>10.8%</td>
<td>12.2%</td>
<td>-</td>
<td>11.8%</td>
<td>12.2%</td>
<td>-</td>
</tr>
<tr>
<td>Operative EBIT</td>
<td>17.9</td>
<td>17.7</td>
<td>+1</td>
<td>29.0</td>
<td>30.4</td>
<td>-4</td>
<td>58.5</td>
<td>66.3</td>
<td>-12</td>
</tr>
<tr>
<td>margin</td>
<td>7.2%</td>
<td>7.8%</td>
<td>-</td>
<td>6.0%</td>
<td>6.8%</td>
<td>-</td>
<td>6.5%</td>
<td>6.9%</td>
<td>-</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>10.0</td>
<td>17.6</td>
<td>-43</td>
<td>17.1</td>
<td>32.3</td>
<td>-47</td>
<td>85.5</td>
<td>64.9</td>
<td>32</td>
</tr>
<tr>
<td>Cash flow after investing activities</td>
<td>3.3</td>
<td>5.1</td>
<td>-36</td>
<td>12.5</td>
<td>6.5</td>
<td>+90</td>
<td>35.6</td>
<td>48.9</td>
<td>-27</td>
</tr>
</tbody>
</table>

* Sum of Oil & Mining and Municipal & Industrial segments.

Investor Presentation - July 2017
Revenue split by country
FY 2016

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

- APAC
  - Indonesia: 6%
  - China: 3%
  - Other APAC: 6%
  - Finland: 14%
  - Singapore: 6%
  - Indonesia: 6%
  - Other APAC: 6%
  - Indonesia: 6%

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

- Currency exchange rates had around EUR +4 million impact on the operative EBITDA in Q2 2017 and around +5 million in H1 2017.
- Guidance: 10% change in our main foreign currencies would approximately have EUR 10 million impact on operative EBITDA on an annualized basis.

Kemira revenue distribution 2016

- EUR 44%
- USD 35%
- CAD 4%
- BRL 3%
- CNY 3%
- Others 11%

Kemira cost distribution 2016

- EUR 41%
- USD 31%
- SEK 8%
- CAD 4%
- CNY 4%
- Others 12%
Pulp & Paper on track for profitable growth
Pulp & Paper
FY2016: Revenue EUR 1,457 billion, Operative EBITDA EUR 195 million, margin 13.4%

Geographies

Customer mills
40%

Pulp production
20%

Paper production

Products

Defoamers, dispersants, biocides and other process chemicals
20%

Bleaching and pulping
35%

Sizing & strength
25%

10%

Polymers

Note: Revenue by industry, product and geography rounded to the nearest 5%
Pulp & Paper market is expected to grow at 1% CAGR*

Relevant target market (EUR billion) – market data updated in September 2016

*) Management estimation based on various sources
### Long-term commitment to pulp and paper

<table>
<thead>
<tr>
<th>Year</th>
<th>Companies</th>
<th>Comp. Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Ciba</td>
<td>#1</td>
</tr>
<tr>
<td></td>
<td>AkzoNobel</td>
<td>#2</td>
</tr>
<tr>
<td></td>
<td>BASF</td>
<td>#3</td>
</tr>
<tr>
<td></td>
<td>Hercules</td>
<td>#4</td>
</tr>
<tr>
<td></td>
<td>Kemira</td>
<td>#5</td>
</tr>
<tr>
<td></td>
<td>Nalco</td>
<td>#6</td>
</tr>
<tr>
<td>2016*</td>
<td>Kemira (pulp and paper)</td>
<td>#1</td>
</tr>
<tr>
<td></td>
<td>BASF (paper)</td>
<td>#2</td>
</tr>
<tr>
<td></td>
<td>Solenis (paper)</td>
<td>#3</td>
</tr>
<tr>
<td></td>
<td>AkzoNobel (pulp)</td>
<td>#4</td>
</tr>
<tr>
<td></td>
<td>Ecolab (paper)</td>
<td>#5</td>
</tr>
</tbody>
</table>

*) Management estimation based on various sources

---

**Kemira**

Investor Presentation - July 2017
INNOVATION CASES

PULP & PAPER

We enable more efficient raw material use
We improve process efficiency and runnability
We enhance end-product quality

Superior print quality and fast ink drying in high speed inkjet printing
*Kemira KemPrint™ - The new normal in high speed inkjet printing*

Improved cleanliness of process means more tons of board produced in highest hygiene standards
*Kemira FennoClean™ - Meeting high hygiene targets of food-packaging board*

FennoBond enables usage of lower quality furnishes with maintained strength properties
*Kemira FennoBond™ - Stronger board using less fibers*

Improved paper machine operational efficiency and less defects in the final paper and board
*Kemira KemFlite™ - Increased paper machine performance and resource efficiency*
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

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

- **Value chain part covered by Kemira**
Industry & Water – driving growth and improved profitability
Industry & Water

FY2016: Revenue EUR 906 million, Operative EBITDA EUR 107 million, margin 11.8%

Geographies

- **40%** Americas
- **55%** EMEA
- **5%** APAC

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

Application split

- **10%** Other applications
- **15%** Oil & Gas
- **75%** Water treatment

Municipal (40%), customer examples
- London
- Frankfurt
- Toronto
- Singapore
- Miami
- Amsterdam
- New York City
- Shanghai
- Los Angeles
- Las Vegas
- Oslo
- Barcelona
- Berlin
- Melbourne
- Paris
- Washington DC

Industrial (60%), customer examples

- HALLIBURTON
- E-BOLIDEN
- BRENNTAG
- FIRST QUANTUM
- NOVOZYMES
- CARLSBERG
- UNIVER
- ORKLA
- HENKEL

Other applications

- **40%** Municipal, customer examples
- **60%** Industrial, customer examples

Products

- **45%** Coagulants
- **35%** Polymers
- **20%** Other products such as defoamers and biocides

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Investor Presentation - July 2017
Water treatment market expected to grow at 2% CAGR*

Relevant target market (EUR billion)

*) Management estimation based on various sources
Growing water treatment business in Middle East, Africa and APAC

Strong overall market position in North America and Europe with some pockets of underrepresentation

Growth opportunities

- Middle East, Africa, APAC

Growth also possible with expansion in application offering, e.g.:

- Polymers in North America
- Anti-scalants in Middle East
Advanced Water Treatment is source of future growth

- AWT is combination of chemicals & intelligence
  - Control, monitoring and dosing service
  - Digitalization of application and data management
  - Performance based business models
- Why focus on AWT
  - In raw & waste water treatment, customers are receptive for AWT innovations that improve their efficiency
  - High market growth
  - Sticky business model

Chemicals market by application method “Conventional” vs. “AWT”

- Conventional chemicals sales
  - In-process
  - 3-4%
  - 10%
  - Flat
  - ~10%
  - ~flat
  - CAGR +2%

Investor Presentation - July 2017
Growing revenues and gaining market share in Chemical Enhanced Oil Recovery

**CEOR remains the largest growth opportunity**…

- Market size is estimated to be around EUR 1 billion and it is expected to grow 12-15% CAGR in the long-term
- Polymer flooding improves recovery rate of conventional oil producers
- Kemira well positioned to capture this growth opportunity through knowhow and patented R&D of polymer technology
- Kemira supplying polymers to major O&G operator
- Business development opportunities for additional CEOR supplies being pursued

…with Kemira gaining traction across the industry

<table>
<thead>
<tr>
<th>Type of client</th>
<th>Success story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major global O&amp;G operator</td>
<td>Significant progress made both in new product development and commercialization</td>
</tr>
</tbody>
</table>
Growing revenues and gaining market share in oil sands

Oil sands another key growth market…

• Market size is estimated to be around EUR 400 million
• Canadian Producers expect oil sands production to grow ~3% p.a. through 2030
• Legislation in Canada requires treatment of oil sands tailings
• Kemira entered market in 2015
• Kemira offers a fully-tailored offering including patented chemistries, equipment and services

...and Kemira is gaining traction with industry leaders

Kemira is engaged in a multi year contract supplying products to a major, Canadian oil sands owner and operator

Kemira is engaged in the supply of polymer hydration equipment and dry polyacrylamide to a major, multinational, oil & gas company with significant oil sands assets
Industry & Water – Technology and market leader in water treatment as well as in niche applications in oil & gas
INNOVATION CASES

MUNICIPAL & INDUSTRIAL

We have a proven track record of successful innovation

Reducing the amount of sludge helps reducing disposal costs. With Kemira Superfloc™ the solid content of sludge increased from 20% to 40%, while the total cost was kept constant.

Shanghai, China

Eliminating odor from sewer systems through smart combination of chemicals, and online control and monitoring with Kemira S-Guard™

Palm Beach, Florida US

Increasing yield and conversion capacity, and reducing sludge handling cost in biogas applications

NSR, Helsingborg, Sweden

Enabling compliance with the EU Bathing Water Directive fast and reliably with Kemira DesinFix™

Biarritz, France
Appendix
Kemira – largest shareholders and Board of Directors

Shareholders on June 30, 2017

<table>
<thead>
<tr>
<th>Shareholder</th>
<th>% of shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Oras Invest</td>
<td>18.2%</td>
</tr>
<tr>
<td>2. Solidium (owned by State of Finland)</td>
<td>16.7%</td>
</tr>
<tr>
<td>3. Varma Mutual Pension Insurance Company</td>
<td>5.3%</td>
</tr>
<tr>
<td>4. Ilmarinen Mutual Pension Insurance Comp.</td>
<td>2.5%</td>
</tr>
<tr>
<td>5. Kemira Oyj</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>Total number of shares</strong></td>
<td><strong>155,342,557</strong></td>
</tr>
<tr>
<td>Foreign ownership of shares</td>
<td>26.0%</td>
</tr>
<tr>
<td><strong>Total number of shareholders</strong></td>
<td><strong>33,080</strong></td>
</tr>
</tbody>
</table>

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

- **Kaisa Hietala**
  - Member since 2016

- **Shirley Cunningham**
  - Member since 2017

- **Timo Lappalainen**
  - Member since 2014
Kemira’s Management Board

President and CEO
Jari Rosendal

Pulp & Paper
Kim Poulsen

Industry & Water
Antti Salminen

Operational Excellence
Esa-Matti Puputti

CFO
Petri Castrén

Human Resources
Eeva Salonen

CTO
Heidi Fagerholm

Jukka Hakkila, Chief Legal Officer, acts as secretary of Management Board and Board of Directors
## Targets & Performance: Q2/2017

<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>Share of innovation revenue of total revenue, %</td>
<td>During Q2/2017 several new products or solutions were commercialized and Kemira expects to achieve the 10% target during 2017.</td>
<td><img src="image1" alt="Graph" /></td>
</tr>
<tr>
<td>Sustainable products &amp; solutions</td>
<td>→ 10% by the end of 2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>→ KPI reported quarterly</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUPPLIER MANAGEMENT</strong></td>
<td>Number of onsite sustainability audits for highest risk suppliers (with lowest sustainability assessment score¹)</td>
<td>All earlier low-scored suppliers improved their performance in re-assessments, and no new high risk raw material suppliers were detected. However, a few suppliers have refused to take EcoVadis assessments this year due to lack of resources or company policies. Those will be audited in Q3 and Q4 2017.</td>
<td><img src="image2" alt="Graph" /></td>
</tr>
<tr>
<td>Responsibility in our supply chain</td>
<td>→ 5 suppliers audited every year during 2016-2020, average</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>→ KPI reported annually</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CLIMATE CHANGE</strong></td>
<td>Carbon index</td>
<td>Sourcing of low carbon energy continued according to plan. As part of the E3 Plus program, four Energy Review site visits were performed during Q2 2017. The performed energy reviews cover more than 90% of Kemira’s total energy consumption.</td>
<td><img src="image3" alt="Graph" /></td>
</tr>
<tr>
<td>Responsible manufacturing</td>
<td>→ Kemira Carbon Index ≤ 80 by end of 2020 (2012 = 100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>→ KPI reported annually</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## CORPORATE RESPONSIBILITY UPDATE 2/2

### Targets & Performance: Q2/2017

#### Focus area | Issue, KPI, target value | Comments | Status
---|---|---|---
**OCCUPATIONAL HEALTH AND SAFETY**

**Number of Total Recordable Injury Frequency (TRIF)** (per million hours, Kemira + contractor, year-to-date\(^1\))

→ Achieve zero injuries (TRIF 2.0 by end of 2020)

→ KPI reported quarterly

Behaviour Based Safety (BBS) program pilots moving ahead as planned, and next 10 sites implementation starts in Q3 (YTD: 4). To improve our contractor safety we have launched Contractor Safety Program which is looking contractor safety from contracting to materialization of the contracted work.

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017 Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIF</td>
<td>7.1</td>
<td>5.8</td>
<td>7.2</td>
<td>3.4</td>
<td>3.8</td>
<td></td>
</tr>
</tbody>
</table>

#### EMPLOYEE ENGAGEMENT

**Employee engagement index based on Voices@Kemira biennial survey**

→ The index at or above the external industry norm

**Participation rate in Voices@Kemira**

→ 75% or above

→ KPI reported biennially

We aim to confirm the next Voices@Kemira survey by Q4 2017.

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>70%</td>
<td>58%</td>
<td>67%</td>
</tr>
<tr>
<td>Participation</td>
<td>84%</td>
<td>75%</td>
<td>85%</td>
</tr>
</tbody>
</table>

#### LEADERSHIP DEVELOPMENT

**Leadership development activities provided, average**

→ Two (2) leadership development activities per people manager position during 2016-2020\(^2\)

→ KPI reported annually

High level of activity continued, with 191 leadership development activities provided during Q2 2017 (target: 75 per quarter).

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017 Q2</th>
<th>Target 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>494</td>
<td>685</td>
<td>1500</td>
</tr>
</tbody>
</table>

---

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 mentoring, and development programs.
Where water meets chemistry™