Presenters

Svein Tore Holsether
President and CEO

Dag Tore Mo
Head of Market Intelligence

Kajsa Rytberg Wallgren
VP, Innovation

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EVP, Production

Kristin Kaggerud
Head of YPS and TPO Productivity

Tove Andersen
EVP, Supply Chain

Terje Knutsen
EVP, Crop Nutrition

Stefan Fürnsinn
SVP, Digital Farming

Torgeir Kvidal
EVP, Chief Financial Officer
Safety is our first priority

TRI (Total recordable injuries 12-month rolling)\(^1\)

1) TRI: Total recordable injuries, lost time (absence from work), restricted work and medical treatment cases per one million work hours.
Summary fourth quarter

- Improvement program ahead of schedule
- Improved results reflecting higher margins
- Strong full-year Industrial performance
- Proposed dividend NOK 6.50 per share, 45% of net income

Earnings per share*

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual</td>
<td>NOK</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23.25</td>
<td>14.45</td>
</tr>
</tbody>
</table>

*Average number of shares for 4Q 2017: 273.2 million (4Q 2016: 273.2 million).
EBITDA development: improved margins offset higher energy cost and weaker US dollar

NOK millions

<table>
<thead>
<tr>
<th>Volume</th>
<th>Price/Margin</th>
<th>Energy costs</th>
<th>Currency translation</th>
<th>Special items</th>
<th>Other</th>
<th>EBITDA 4Q16</th>
<th>EBITDA 4Q17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,015</td>
<td>1,274</td>
<td>531</td>
<td>207</td>
<td>139</td>
<td>91</td>
<td></td>
<td>2,526</td>
</tr>
</tbody>
</table>

EBITDA 4Q16: 2,015
Volume: 74
Price/Margin: 1,274
Energy costs: 531
Currency translation: 207
Special items: 139
Other: 91
EBITDA 4Q17: 2,526
Our leading global footprint and differentiated product portfolio set us apart

1. Yara operated terminals and logistical production sites

Fertilizer product portfolio

- Standard products (Urea, UAN, Ammonia) 19%
- Commodity 24%
- Premium 21%
- NPK blends 19%
- CAN, Compound NPK, Fertilization 26%

Global #1 in Nitrates

<table>
<thead>
<tr>
<th>Company</th>
<th>Share of JVs 2016YE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yara</td>
<td>7.4</td>
</tr>
<tr>
<td>Eurochem</td>
<td>4.5</td>
</tr>
<tr>
<td>Ostchem</td>
<td>3.2</td>
</tr>
<tr>
<td>Uraichem</td>
<td>2.7</td>
</tr>
<tr>
<td>Borealis</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Global #1 in NPK

<table>
<thead>
<tr>
<th>Company</th>
<th>Share of JVs 2016YE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yara</td>
<td>5.3</td>
</tr>
<tr>
<td>C. mandel</td>
<td>3.3</td>
</tr>
<tr>
<td>Gresik</td>
<td>2.7</td>
</tr>
<tr>
<td>Ifcco</td>
<td>2.7</td>
</tr>
<tr>
<td>Phosagro</td>
<td>1.9</td>
</tr>
</tbody>
</table>

1) Including TAN and CN – Including companies’ share of JVs 2016YE
2) Compound NPK, excluding blends
3) 2016/2017 season volume
*Ammonia trade not included in chart above
Yara’s margins are influenced by the supply / demand situations for crops, commodity fertilizer and premium fertilizer

Urea is the key commodity N-product

- Urea 50%
- DAP/MAP 7%
- NPK 15%
- AN/CAN 9%
- UAN 5%
- Ammonia 4%
- Other 10%

107 million tons

Both crop and fertilizer markets are key for Yara

- The majority of Yara’s business is related to nitrogen
- Standardized commodity products like urea make up almost ¾ of the global nitrogen industry
- The supply / demand situation for both commodity and premium fertilizer is important for pricing
- In addition, the supply / demand situation for crops also influences demand and pricing for fertilizer

Source: IFA 2016/2017 season (June 2017 estimates)
Steady growth in grain consumption, but grain prices are below the 5-year average

Grain production and consumption reaching record levels (Million tons)

Prices are however not supporting, below 5-years average (Index)

Source: FAO, USDA
Global grain stocks are stable, leaving weather as a key driver of grain price development

Chinese grain stocks have grown significantly since 2009 (Grain stocks, Million tons)

This has led to large stocks in China, stable in RoW (Days of grain consumptions in stock)

Source: USDA January 2018
Urea gaining market share in the nitrogen product mix, as almost all new nitrogen capacity is in the form of urea

Urea growth faster than other nitrogen products (Global consumption ex China, Million tons)

- 2016 was a slow year for nitrogen consumption, with a growth of 0.7% comparing to 10-years historic trend of 2.2%
- Apparent urea consumption outside China grew 2.6%, only modestly lower than the 10-years historic trend of 3.0%
- For Yara’s premium business, the implication is two-fold
  - This underlines that there is limited new products competing against Yara’s premium products
  - Urea reference is the starting point for most nitrogen fertilizer products

Source: IFA
Apparent consumption outside China increased by 2.6% in 2016, Global supply grew more, compensated by lower Chinese export

Change in apparent consumption 2016
(Urea, Million tons)

<table>
<thead>
<tr>
<th>Region</th>
<th>Change in apparent consumption 2016 (Urea, Million tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>1.750</td>
</tr>
<tr>
<td>Latin America</td>
<td>1.268</td>
</tr>
<tr>
<td>Africa</td>
<td>857</td>
</tr>
<tr>
<td>North America</td>
<td>469</td>
</tr>
<tr>
<td>Asia ex China</td>
<td>1.258</td>
</tr>
<tr>
<td>Total demand increase</td>
<td>3.086</td>
</tr>
</tbody>
</table>

Change in production 2016
(Urea, Million tons)

<table>
<thead>
<tr>
<th>Region</th>
<th>Change in production 2016 (Urea, Million tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>3.235</td>
</tr>
<tr>
<td>Asia ex China</td>
<td>1.759</td>
</tr>
<tr>
<td>North America</td>
<td>1.511</td>
</tr>
<tr>
<td>Europe</td>
<td>1.082</td>
</tr>
<tr>
<td>Latin America</td>
<td>0.376</td>
</tr>
<tr>
<td>China export</td>
<td>4.877</td>
</tr>
<tr>
<td>Total export</td>
<td>3.086</td>
</tr>
</tbody>
</table>

Source: IFA Annual statistics
The surge of new capacity is past its peak

Global capacity additions ex China (Urea, Million tons)

- Nigeria
- Iran
- USA
- Russia
- Algeria
- Others

Source: CRU December 2017
~2/3 of the world’s ammonia capacity is more than 30 years old; older capacity may struggle to maintain utilization rates

World’s ammonia capacity (ex. China) per geography and vintage (kt)

- **<40 years**: 34.936
- **30-40 years**: 46.109
- **20-30 years**: 17.557
- **10-20 years**: 19.211
- **0-10 years**: 12.030

Others include Africa, Oceania

Source: CRU, IFA. Yara analysis
Growth in global urea production driven by new plants – output from existing plants has fallen

Source: IFA

Under the assumption that new capacity runs at 100% capacity utilization, the output from the capacity already installed in 2010 has trended lower, by 0.8% p.a.

In reality, several new plants are not operating 100%, and there may be different reasons for lower utilization of existing plants (turn-arounds, gas curtailments, etc.)

In conclusion, it seems appropriate to consider a “replacement factor” taking into account reduced production from existing plants.

Comments
….but higher domestic price and lower exports from China are offsetting oversupply elsewhere
Unclear if supply is sufficient to cover Chinese urea demand this season

Chinese urea production down vs last year (million tons)

Source: CFMW, covering close to 100% of production
Premium product margins typically contain both commodity and premium elements

Nitrogen upgrading margins\(^1\)

- Premium products are key in Yara’s portfolio and business model
- Premium product margins typically contain both commodity and premium elements
- The size of the premium is typically linked to crop prices for fertilizer products, and economic activity for Industrial products
Market backdrop: summary

- Supply-driven global grain situation, but inventories outside China are not high

- Urea has gained market share globally, but new-build activity has peaked

- The main new development in the urea market is significantly higher urea prices in China, caused by higher coal prices and increased focus on environmental impact, including limitations to natural gas available to the fertilizer industry

- Higher urea prices in China means larger upside risks also for global pricing, but the reduced demand for Chinese exports also introduce higher volatility

- Yara’s integrated business model and differentiation strategy gives Yara robustness and flexibility to manage and potentially take advantage of the more volatile market conditions
Improving agricultural productivity is fundamental to achieve the SDGs: Yara is uniquely positioned to contribute

- Agriculture accounts for ~25% of the world’s greenhouse gas emissions
- More than half of this results from land use change
- Improving productivity of land is among the most efficient levers to achieve the SDGs
- Yara is uniquely positioned to deliver solutions to meet this challenge
Sustainability represents a huge business opportunity

"Business leaders need to strike out in new directions to embrace more sustainable and inclusive economic models"

“Achieving the Global Goals creates at least US$12 trillion in opportunities”
“Society is demanding that companies, both public and private, serve a social purpose. To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society.

Without a sense of purpose, no company, either public or private, can achieve its full potential, (…) and ultimately, that company will provide subpar returns to the investors”

Larry Fink, Chairman and CEO Blackrock, annual letter to CEOs January 2018
Sustainability has long been integrated in Yara’s way of working

### Sustainability has long had strong focus in Yara

- **Defining a crop nutrition strategy** focused on delivering value to farmers while achieving better agricultural and environmental outcomes

- **Driving ‘on the ground’ activities** such as implementing further energy efficiency improvements

- **Investing in and driving innovations** such as N2O catalysts, AdBlue, and digital agriculture technologies such as the N-sensor

- **Driving programs** such as the Farm to Market Alliance and Cool Farm Alliance

### Yara is actively engaging in multi-stakeholder platforms

Source: Yara GRI reporting
Yara is investing in solutions for NOx abatement in transportation

Yara deliveries of reagent for NOx abatement

<table>
<thead>
<tr>
<th>Year</th>
<th>Million tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1.8</td>
</tr>
<tr>
<td>2015</td>
<td>2.1</td>
</tr>
<tr>
<td>2016</td>
<td>2.3</td>
</tr>
<tr>
<td>2017</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Yara is investing in further growth

- Yara produces AdBlue at 5 plants and is the world’s largest producer of AdBlue for NOx abatement
- Yara recently expanded our Brunsbüttel plant, making it the largest AdBlue producing plant in the world with 1.1 million tonnes capacity
- The NOK 250 million expansion project was delivered with no safety incidents, on time and within budget

- Urea and Ammonia are used as reagent for NOx abatement in road transport (AdBlue), maritime transport and land based industry
- It can remove up to 96% of the NOx emissions and the growing demand has been driven by legislation
- The customers require high product quality, 24/7 deliveries and strong reliability of supply
Our strategy and targets are guided by our mission and vision

**Our Mission**

Responsibly feed the world and protect the planet.

**Our Vision**

A collaborative society; a world without hunger; a planet respected.
Yara’s solutions improves food production per hectare, delivered through products with lower emissions per ton

Yara crop nutrition practices enables farmers to optimize application – and thus lower emissions

- Precision farming promotes best agricultural practices
- Yara’s N-sensor, N-tester and water sensor help optimize application rates and water use
- Yara’s solutions help farmers comply with environmental legislation while supporting their competitiveness

Yara’s product mix has significant less emissions than most of our competitors’

<table>
<thead>
<tr>
<th></th>
<th>Yara product mix</th>
<th>Industry product mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yara Nitrates¹</td>
<td>7.6</td>
<td>~75%</td>
</tr>
<tr>
<td>Global Nitrates²</td>
<td>9.4</td>
<td>~10%</td>
</tr>
<tr>
<td>UAN</td>
<td>11.9</td>
<td>~5%</td>
</tr>
<tr>
<td>Urea</td>
<td>13.9</td>
<td>~10%</td>
</tr>
</tbody>
</table>

1. Assumed 15% lower application rates for nitrates, due to lower volatilization
2. Average emissions from production higher, partly driven by plants running without N2O catalysts
Yara takes a holistic view of the climate impact of its operations

Fertiliser use is 60% of Yara’s assessed footprint

Emissions related to volatilization of nitrogen after application. In addition the emissions, this also represents losses for the farmer, as the volatilized nitrogen is not contributing to the yield

Yara’s strive to improve farmer productivity and economics through better and more precise application of fertilizer reduces the losses – and as such also the emissions

Source: Yara
Yara’s integrated business model is unique within the fertilizer industry
Strategy execution is focused on strengthening competitive edge.
Two main responses to strengthen our competitive edge

Improving returns

Profitable growth

1. Organic market development
2. Step growth – M&A and new-builds

Sustainable business

*Sustainability is integrated in Yara’s strategy, and is reflected across our strategic responses*
Yara Improvement Program

“Making Yara fit for the future”

Strengthening competitive edge through improving returns

- Knowledge Margin
- Operational Excellence
- Competitive edges
- Competitive raw material costs
- Global Optimization and Scale

Better value proposition to farmers and industrial customers through Crop Roadmaps and Sales Excellence

Improved efficiency and quality in IT and support functions

Continuous improvement to our operations through the Yara Productivity System in Production and Crop Nutrition

Better procurement and improved cooperation through Procurement Excellence in Supply Chain

Improved efficiency and quality in IT and support functions
Strengthening our competitive edge through profitable growth

Yara can use our competitive edge to extract value from growth...

... and growth can help to strengthen Yara’s competitive edge
Yara has four different priority areas for growth

1. **Expand premium fertilizer sales and supply**  
   • Demand can be created at healthy premiums  
   • Premiums above commodities and competitors enable profitable investments in new production capacity

2. **Expand commodity scale based on attractive full-cost growth opportunities**  
   • Resilience in attractive cost curve position and diversified gas footprint  
   • Operational excellence  
   • Key enabler for all segments

3. **Act on attractive opportunities to grow Industrial sales and supply**  
   • Strong fundamental growth drivers  
   • Attractive opportunities within four business lines

4. **Structurally secure P and K exposure**  
   • Sourcing security (premium rock, SOP)  
   • High value creation in early stage development, upstream value and market integration
Yara is deliberately building premium positions in the world’s most important agriculture markets

**Brazil and Latin America**

1. Brazil and Latin America represents some of the most important and growing agriculture markets in the world
2. The markets are export oriented, and steadily growing within the important cash-crop segments, i.e. fruits and vegetables – which is well suited for Yara premium products and solutions
3. Net fertilizer import secures demand for Yara products, and underlines strategic importance of logistical footprint

**India**

1. One of the world’s largest fertilizer consumers, and the world’s largest importer of nitrogen fertilizer
2. Yara is very well positioned to develop our premium business, and create value both for Yara and the Indian farmer
   - Large and growing middle class creates strong demand growth for more
   - Inefficient agriculture sector with huge improvement potential from right crop nutrition practices
Innovation is crucial to protecting Yara’s current position and developing its long-term competitiveness.

Yara innovates to protect and disrupt – a balancing act

Yara’s innovation pipeline is measured both in financial terms (Sales & EBIT contribution) and climate impact (CO₂ equivalent reductions).

**Leveraging our own knowledge**
- Releasing the potential of 16,000 innovators
- Ideation campaigns
- Incubation program for training and new venture development

**Open Innovation**
- Cross-industry partnerships
- Research institutes, Academia, Students
- Accelerator and start-up fund
Yara is innovating with a purpose in all parts of our value chain

**Production & Process Technology**
- **Green Tech development** focused on carbon neutral ammonia production and greening of supply chain
- **Small scale, decentralized** production set-up for remote locations
- **New markets** enabler

**Circular Economy Biocycle**
- **From waste back to nutrients**, enabling organo-mineral fertilizer
- **Nutrients back in Fertilizer factory**, mixing our primary production with secondary input
- **Decentralized and territories focused**, Urban short nutrient cycle

**Digital Solutions**
- **Agriculture Technology** innovation focused on enabling efficient sustainable farming
- **Food value chain integration** for nutrition and environmental impact traceability and improvement
- **Industry 4.0** for increased safety, reliability and productivity at our production sites
Yara’s integrated business model and innovation approach drives premiums above commodities

2017 total realized premium for key premium products, USD Million

<table>
<thead>
<tr>
<th>Crop Nutrition</th>
<th>Industrial</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN (over urea)</td>
<td>Ammonia &amp; NA** (over ammonia)</td>
</tr>
<tr>
<td>Nitrate* (over urea)</td>
<td>TAN (over ammonia)</td>
</tr>
<tr>
<td>NPK (over global blend)</td>
<td>CN (over urea)</td>
</tr>
<tr>
<td>171</td>
<td>56</td>
</tr>
<tr>
<td>242</td>
<td>59</td>
</tr>
<tr>
<td>580</td>
<td>71</td>
</tr>
</tbody>
</table>

Premium over commodity

<table>
<thead>
<tr>
<th>CN</th>
<th>Nitrate*</th>
<th>NPK</th>
<th>Ammonia &amp; NA**</th>
<th>TAN</th>
<th>CN</th>
<th>Urea</th>
</tr>
</thead>
<tbody>
<tr>
<td>233%</td>
<td>28%</td>
<td>51%</td>
<td>24%</td>
<td>71%</td>
<td>321%</td>
<td>28%</td>
</tr>
</tbody>
</table>

* Nitrate and other differentiated N-products
** Nitric Acid
Yara Improvement Program

Fit for the future
Yara Improvement Program – 2017 status

- 2017 EBITDA benefits ahead of target (in 2015 terms):
  - Production volume improvement according to plan
  - Energy consumption improvement ahead of plan
  - Variable cost improvement ahead of plan
  - Fixed cost improvement behind plan
  - One-off program costs higher than original estimate

Program progress

Financial benefits

Annual impact, USD million, vs. 2015 baseline, at 2015 margins

<table>
<thead>
<tr>
<th></th>
<th>Production volume</th>
<th>Variable unit cost</th>
<th>Consumption factor</th>
<th>Fixed cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustained EBITDA improvement¹</td>
<td>84²</td>
<td>242</td>
<td>350</td>
<td>450</td>
</tr>
<tr>
<td>One-off benefits</td>
<td>60</td>
<td>66</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>One-off cost</td>
<td>14</td>
<td>49</td>
<td>39</td>
<td>13</td>
</tr>
<tr>
<td>One-off investments</td>
<td>69</td>
<td>116</td>
<td>189</td>
<td>90</td>
</tr>
</tbody>
</table>

1. Additional details in the backup section;
2. Adjusted for corrected full-year procurement savings (e.g., full-year bonuses)
3. Includes improvements to direct and indirect categories, as well as value of additional steam and reduced cost of emissions
Yara Improvement Program - Delivering value across the company

Program status 4Q 2017

Yara Productivity System
- Site diagnostics concluded, with increase in base potential vs original; Rollout completed at eight sites, seven sites currently ongoing

Procurement Excellence
- Wave 1 and 2 savings delivery under implementation; New indirect operating model being rolled out

IT optimization, and support function efficiency and quality
- Ongoing implementation of new IT services contracts; New IT operating model decided, for implementation during 2018; Support function efficiency and quality projects according to plan

Working Capital
- Ongoing work to improve inventory and credit position in Latin America and Africa

Sales & Marketing professionalization
- Detailed and ambitious Crop Roadmap targets established in Crop Nutrition; Sales Excellence initiatives being integrated in Industrial segment’s way of working

Ongoing implementation of new IT services contracts; New IT operating model decided, for implementation during 2018; Support function efficiency and quality projects according to plan

EBITDA target

One-off effects

More for less

Added value

1 Projects contribute primarily towards EBITDA, but also contain elements of capex improvements; 2. Bottom line effects not included in EBITDA target
The Yara Productivity System (YPS) is a structured way of working applied across operations and knowledge work.

The Productivity System covers all of Production

Identified potential higher than expected

Note: Improvement potential identified at the 27 sites covered by deep-dive diagnostic. Does not include potentials identified by YPS for capital projects and YPS for R&D.
A major effect of YPS is sustainable long term improvements to reliability

Uptime has increased for (%)

Ammonia

Dec ’15
Dec ’17

Finished fertilizer

Production volume improvements contributed over 100 USD million EBITDA impact in 2015 terms

Base\(^1\) production (kt)

2015
2017

2015 margins

66

2017 margins

102

Comparing to a plant of capacity between Le Havre (~700kT) and Montoir (~900 kT)

Ammonia and finished fertilizer (including intermediary ammonia). Adjusted for turnarounds, expansions, and selected plants not part of scope (e.g., Qafco). Total production of ~26,250 kT in 2015 and ~27,650 kT in 2017 Note: Uptime = Production / (Max production – [no demand + lack of external raw mat]). Ammonia uptime excluding QAFCO and out of scope production units; Finished products uptime excluding Galvani sites, QAFCO, in addition to out of scope production units. EBITDA impact calculated as volume improvements multiplied by contribution margin (full sales price, less energy and other variable costs). Ammonia contribution margins per relevant plant; Finished fertilizer products contribution margin per relevant plant and product type; 2017 margins applied to volume delta vs 2015
We can see the impact of YPS across the segment: Selected 2017 achievements

- **>150 MUSD improvement delivered**
- **>50 MUSD one-off improvements**

**Fixed costs rising 1% - less than inflation & volume increase**

**Yearly production records**

at Belle Plaine, Glomfjord, Köping, Uusikaupunki, Siilinjärvi plant, Siilinjärvi mine, Rostock, Brunsbuettel, Sluiskil, Ravenna

**TRI rate of 2.0 60% lower than 2 years ago**

**All time TRI records** in Paulinia, Rio Grande, Ponta Grossa, CILEM

**12M rolling finished products production record**

**15 sites with YPS rollout completed / ongoing at end of 2017**
Led by our project office, YPS for capital projects is in progress and showing results

### 19 transformation levers

<table>
<thead>
<tr>
<th>Lever</th>
<th>Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>Value optimization</td>
<td>L11 Systems for engineering</td>
</tr>
<tr>
<td>L2</td>
<td>Project performance management</td>
<td>L12 Hard-skill capabilities</td>
</tr>
<tr>
<td>L3</td>
<td>Capital Value Process</td>
<td>L13 Contracting strategy</td>
</tr>
<tr>
<td>L4</td>
<td>Target setting</td>
<td>L14 Mobility and commuting culture</td>
</tr>
<tr>
<td>L5</td>
<td>YPO positioning</td>
<td>L15 Resource deployment</td>
</tr>
<tr>
<td>L6</td>
<td>Portfolio management</td>
<td>L16 Organizational structure</td>
</tr>
<tr>
<td>L7</td>
<td>Leadership and communication skills</td>
<td>L17 PAP/PAR cycle &amp; HESQ audit</td>
</tr>
<tr>
<td>L8</td>
<td>Talent management</td>
<td>L18 ISO 9001 qualification</td>
</tr>
<tr>
<td>L9</td>
<td>Value assurance in execution</td>
<td>L19 Effective use of Lessons Learned</td>
</tr>
<tr>
<td>L10</td>
<td>Improving YPO tools</td>
<td></td>
</tr>
</tbody>
</table>

**CAPEX reduction potential identified**

![Graph showing original CAPEX estimate and after value optimization with ~10-14% decrease](image)
A key part of YPS for projects is to conduct value optimization for our portfolio of smaller on-site projects.

Yara OCOSHE spend

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>594</td>
<td>517</td>
<td>484</td>
</tr>
</tbody>
</table>

Identifying and capturing value

Example: Siilinjärvi Washing Bay Project

<table>
<thead>
<tr>
<th>Learning and protection</th>
<th>Project requirements</th>
<th>Design Alternatives Matrix</th>
<th>Minimum Technical Solution</th>
<th>Value capture</th>
</tr>
</thead>
</table>

Baseline CAPEX estimate

-42%

MTS

+18%

NPV optimized

1. MEUR. Includes regular OCOSHE, turnarounds, turnaround OCOSHE, catalysts and special projects
2. MTS = Minimum Technical Solution
YPS makes R&D more productive, both shortening time to impact and allowing more focus on improving our plants.

**Improvement example:**

Debottlenecking cooling capacity at Sluiskil with estimated 0.9 mEUR/year OPEX impact.

Note: Capex required to realize potential estimated at 266 kEUR (+/- 40%)
YPS is our framework for continuous improvement – Developed across three dimensions

The way **physical assets and resources are configured and optimized** to create value and minimize losses.

The **formal structures, processes, and Systems** through which the operating Systems are managed to deliver the business objectives.

The **way people think, feel, and conduct themselves** in the workplace, both individually and collectively.
Improvement example: Reduction in weekly cleaning time of blending machine to bring increase of 6.2 kt / year in Rio Grande

50% reduction in weekly cleaning time
Improvement example: Root Cause Problem Solving to improve reliability for plant start-up in Belle Plaine

Identifying the root cause of failure
Yara applies several Industry 4.0 technologies with more to come

<table>
<thead>
<tr>
<th>Area</th>
<th>Example initiative</th>
<th>Area</th>
<th>Example initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additive Manufacturing</td>
<td>3D printing use cases</td>
<td>Advanced Analytics</td>
<td>Advanced analytics for granulation</td>
</tr>
<tr>
<td>Augmented Operator</td>
<td>Augmented Reality proof of concept</td>
<td>Predictive Maintenance</td>
<td>GE Smart Signal for heavy rotating equipment</td>
</tr>
<tr>
<td>Autonomous Operations</td>
<td>Advanced Process Control</td>
<td>Internet of Things</td>
<td>Connected plant</td>
</tr>
<tr>
<td>Big Data</td>
<td>Central Plant Information Management System (PIMS)</td>
<td>Simulation &amp; Digital Twins</td>
<td>Operators Training Simulator</td>
</tr>
</tbody>
</table>
Procurement Excellence 2018 – in a nut shell

**Spend**
- USD 10.2 Billion \(^1\)
  - Total
  - USD 6.5 Billion Direct
  - USD 3.7 Billion Indirect

**Wave 1**
- ~100 cross-functional team members
- 5 categories

**Wave 2**
- ~50 permanent category team members across
- 8 categories

**Improvement**
- > 200 Initiatives identified

**Target**
- > USD 150 Million savings by 2020

**World-class procurement function**
- Cross-functional operating model

**Savings**
- USD 90 Million realized
New cross-functional operating model will provide sustainable impact

- Best practice processes
- Innovative Tools
- Cross functional Teams
Variable cost improvements have contributed ~90 USD million

### Example categories
- Energy
- Phosphate rock and acid
- Nitrogen products
- Potassium
- Other

### Improvement, accumulated USD million
<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26</td>
<td>68</td>
</tr>
</tbody>
</table>

### Target, accumulated USD million
- 2018
- 2019
- 2020
- 150+

### Wave 1:
- MRO
- EU Road
- WH&T
- Travel
- Professional

### Wave 2:
- Packaging
- Maintenance
- Brazil Logistics
- Technical eq.
- Rotating eq.

### Wave 3 (to be started)
- Material handling
- Coating
- IT

Further improvements will mainly come from indirect categories

1. Measured as relative improvement versus industry benchmarks; 2. Measured against historical cost levels; 3. Maintenance Repair and Operations
Procurement Excellence 2018 – Tangible results around the globe - Packaging

1. Convertex project
2. Consolidating demand
3. Invite new suppliers for competition

Supplier Power

17 ➔ 11
Procurement Excellence 2018 – Tangible results around the globe - MRO

Old self retracting lifeline

New self retracting lifeline
Evaluation of "actual cost per tonne"

Optimization of storage and transportation costs

Procurement Excellence 2018 – Tangible results around the globe – Warehouses and terminals
Strategy recap - continuing the journey closer to the farmer

- **Sell what we produce**
  - Place new capacity
  - Manage seasonality

- **Build product reputation**
  - High quality products
  - Viking ship brand

- **Build crop solutions**
  - Crop knowledge
  - Product portfolio
  - Application competence

**Farmer centric solutions and tools**
- Our next strategic step to build Yara’s knowledge margin
Deciding where to focus and how to win is key to profitable growth

Yara capabilities
Knowledge, people, assets, products, services, etc.

Market segmentation
Crop, channel, farmer pains, gains and behaviors.

Focus and investment
Crop nutrition solutions

Market needs
Quality, quantity, trends (eco friendly, CO2, etc.)

Sustainable value creation
Our Crop roadmaps move our strategy into action

- Systematically breaking down the strategy into action plans per crop

56. Country quantitative roadmaps per key crop
- Long term volume targets per group

206. Key crop/country qualitative roadmaps
- Crop-specific strategies, actions, and resource plans

11. Functional global roadmaps
- Roadmaps for key products, agronomy, marketing, digital data, sales, competence, tools, and services and R&D

- Integrated roadmaps
  - Focus and priorities
  - Targets
  - Alignment
  - From strategy to action
  - Tactical growth plan for expansion program

Significant growth planned in all crop categories

- Value
- GROWTH
- Niche
- OTHER CROPS
- 2030

Segmenting crops by volume and value

Responses and actions consolidated for each growth crop
Yara has delivered a growth of 5% in Premium Products and aim for continued growth despite challenging markets

- CAGR of 4.8% between 2015 and 2017
- Annual market growth of 1.8%* for the same period
- Growth rate sustained

*FA Fertilizer demand of N, P and K measured in tons of nutrients
We create value above commodities by focusing on the market segments that best match our offering.

**Realized premium (%)**

- CN above urea
- NPK above GBM
- Nitrate above urea

**Total absolute premiums (12mth rolling USD million)**

- NPKs
- Nitrates and other differentiated N-products
- CN
- YaraVita

Realized premium/t above commodities for main categories of own produced Premium Products

Total realized premium for key premium products
Crop-focused Yara growth in India

2011 - 18
2015 - 54
2017 - 140
2018 - 600

Himachal Pradesh
North India
South India
Central India
Maharashtra
Acquisition of Tata Chemicals’ fertilizer business expands our footprint, enabling accelerated premium product growth

Integrated world scale urea plant in Babrala, Uttar Pradesh
- ~0.7 million tons ammonia production
- ~1.2 million tons urea production
- Commissioned in 1994

World-class operations and energy efficiency
- Workforce is committed to high HESQ standards; solid safety track record
- Energy consumption below 21 mmbtu/t, on par with Sluiskil

Significant distribution footprint
- Warehouses: 4 own and approx. 100 third-party operated
- Salesforce: 60 own, and approx. 300 on contract

Acquisition provides footprint to accelerate premium product growth
- Yara India 17% p.a. growth in premium product sales since 2010
- Yara Brazil premium products growth provides reference case
Yara’s knowledge grows yields, profitability and living standards in India

- Balanced crop nutrition programs
- Best practice demonstrations
- Regular farmer training programs
- On-farm training
- Special crop seminars
- Mobile campaigns
- Participation in agri-fairs
- Tools and Services
Leading the digitalization is key to deliver on our Farmer Centric strategy

Develop **farmer centric solutions** that commercially integrate knowledge, digital tools and services to our product portfolio

Actively develop **aligned market channels** that enable knowledge sharing with the farmer

Actively develop profitable local and global **partnerships** along the **value chain**

Be in the **forefront of innovation and R&D**, and pursue smaller M&A to add new knowledge areas

**Safety and compliance** – key priority in everything we do
Digitization, big data, and precision sensors are disrupting agriculture

Real-time precision sensors and insights

Data science, modelling, machine learning

Automation of application and farm operations

Tailored digital two-way communication

The farm of the future is getting more interconnected, sophisticated, and convenient
The digital disruption can unlock multiple benefits for the farmer

More insights
millions of datapoints

Higher yield
to feed the world

Unmatched precision
< 1 m²

Higher quality
for better food

Smarter choices
"computational agronomy"

Less waste
to protect the planet

Unseen connectivity
reach a universe of knowledge

More value
for the farmer
Yara has a long and successful history in innovation to build on:

- **1905**: The invention
- **1956**: Launch of Crop Nutrition R&D
- **1997**: First prototype N-sensor
- **2005**: Commercialization of broad range of digital tools
- **NOW**: Stepping up Digital
Our Digital Aspiration

Building
the Global Digital Leader
in Crop Nutrition
## Cornerstones of our Crop Nutrition Digital Strategy

**Our offer**
- We innovate **industry-leading digital nutrition solutions** that make a real difference for the farmer
- We stand for **world-leading nutrition knowledge**

**Our customers**
- We have a unique **global reach** into 160 countries
- We target **all farmers** with offers tailored to their specific local needs

**Our benefits**
- We build on the **world leading fertilizer business**
- Our integrated business models allows **holistic value creation** that sets us apart from competition

**Our focus**
- We are building a new way of working around **speed and agility**
- We are quickly **stepping up our digital capabilities** in a new unit: Yara Digital Farming
Our ability to holistically create value will set us apart

- Core product promotion
- Digital business and revenues
- Improved commercial processes

Digital value creation
Where we stand

Rapid expansion of our activities in Digital Farming

> 100 employees implementing our digital strategy

+ 60 employees in the past 6 months in Digital Farming
We have launched 4 Digital Hubs as centers of gravity for our efforts

- **Digital Hub North America**, San Francisco
- **Digital Hub Europe**, Berlin
- **Digital Hub Latin America**, Sao Paulo

[Images of the digital hubs in San Francisco, Berlin, and Singapore.]
We are building new capabilities in Yara

Digital Entrepreneurs

UX Design

Digital commercial models

Agile innovation
We are working in an agile way

**Agile innovation**
*Weekly sprints, first farmer testing in week 1*

**Farmer centricity**
*Tested digital solution with >50 farmers in 6 weeks*

**Fail fast (to succeed)**
*Fundamentally changed hypothesis on digital product value proposition after 4 weeks*

Our Digital teams work as “start-ups in a grown-up”
Ramp-up of digital solutions

• We are quickly building a strong pipeline of digital solutions

• Every 3 months launch of 1-2 digital solution teams

• Commercial pilots in coming season

• Examples
  – Sensor-aided N-application
  – Nutrient optimization tailored to specific fields
  – Crop advisory platforms
Adapt-N – expanding our position in digital farming

• **Leading** Nitrogen recommendation platform

• >15 years of scientific validation

• **Proven benefits for farmers** – well beyond competing digital tools

• **Reducing N-loss** by 35-40%

• **Winner** of Tulane 1 million N-Challenge
Benefits for Yara

- **Unmatched customer engagement**
  Significantly higher reach to farmers, two-way exchange, deeper relationships

- **Knowledge leadership**
  Invaluable insights into farmer needs to catalyze as a differentiator

- **New sources of value**
  Build-up of digital service businesses and integrated fertilizer-service solutions

- **New instruments to fulfill our mission**
  Smarter application of fertilizer to feed the world and protect the planet
Roadmap – Digital Farming

2018
• Capability building
• Innovating
• Piloting

2019
• Launch in core markets
• Prepare for global scale-up

2020+
• Global expansion
• Financial viability
Our Digital Aspiration

Building

the Global Digital Leader

in Crop Nutrition
High on-going Yara growth investment activity

**Capex plan**

<table>
<thead>
<tr>
<th>Year</th>
<th>NOK bn</th>
<th>Cost&amp;capacity improvements 2)</th>
<th>M&amp;A</th>
<th>Committed growth</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>11.1</td>
<td>0.2</td>
<td>0.9</td>
<td>4.8</td>
<td>5.2</td>
</tr>
<tr>
<td>2018</td>
<td>17.9</td>
<td>1.2</td>
<td>1.2</td>
<td>6.4</td>
<td>5.2</td>
</tr>
<tr>
<td>2019</td>
<td>11.1</td>
<td>1.2</td>
<td>5.2</td>
<td>6.4</td>
<td>5.5</td>
</tr>
<tr>
<td>2020</td>
<td>17.9</td>
<td>1.2</td>
<td>6.8</td>
<td>6.8</td>
<td>5.5</td>
</tr>
</tbody>
</table>

**Production growth 2015 - 2020**

<table>
<thead>
<tr>
<th>Year</th>
<th>Mill.tons</th>
<th>Finished products 4</th>
<th>Ammonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>19.2</td>
<td>1.1</td>
<td>7.0</td>
</tr>
<tr>
<td>2016</td>
<td>0.3</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>2017</td>
<td>0.7</td>
<td>0.7</td>
<td>0.3</td>
</tr>
<tr>
<td>2018</td>
<td>1.6</td>
<td>2.8</td>
<td>1.1</td>
</tr>
<tr>
<td>2019</td>
<td>17.3</td>
<td>25.5</td>
<td>5.8</td>
</tr>
<tr>
<td>2020</td>
<td>5.5</td>
<td>20.5</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**Notes:**

1) Yara’s share of capex. Fully consolidated entities presented at 100% basis.
2) Includes Yara Improvement program Capex and other improvements
3) Rio Grande expansion also adds 1 million tonnes NPK blends by 2020
4) Finished fertilizer and industrial products, excl. bulk blends
5) Including Yara share of production in non-consolidated investees
6) Adjustment to normalized / 2016 turnaround level
7) Committed projects only. TAN Pilbara: 160 kt, Porsgrunn: 250kt, Glomfjord: 105kt, Uusikapunki: 250kt, Köping: 90kt, Sluiskil: net 160kt, Galvani (Saltire ~ 0.8 mill.tonnes, reaching 1.1 mill.tonnes in 2022), Rio Grande: 500kt
8) Including 100% ownership in Pilbara NH₃ plant
Yara has expected commodity nitrogen oversupply, and has focused its growth pipeline on premium & industrial products

### Growth focused on premium & industrial

<table>
<thead>
<tr>
<th>Project</th>
<th>Expected start up</th>
<th>Pipeline EBITDA (2015 prices, USDm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand premium products sales and supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uusikaupunki NPK</td>
<td>3Q 2016</td>
<td>70</td>
</tr>
<tr>
<td>Porsgrunn/Glomfjord CN/NPK</td>
<td>1Q 2018</td>
<td>170</td>
</tr>
<tr>
<td>Sluiskik urea+S</td>
<td>2Q 2018</td>
<td>180</td>
</tr>
<tr>
<td>Rio Grande NPK/NPK blends</td>
<td>2H 2020</td>
<td>190</td>
</tr>
<tr>
<td>expected start up</td>
<td>2018</td>
<td>2019</td>
</tr>
<tr>
<td>Expand commodity scale based on attractive full-cost growth opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freeport ammonia JV</td>
<td>1Q 2018</td>
<td>110</td>
</tr>
<tr>
<td>Babrala urea acquisition</td>
<td>1Q 2018</td>
<td>140</td>
</tr>
<tr>
<td>expected start up</td>
<td>2018</td>
<td>2019</td>
</tr>
<tr>
<td>Act on attractive opportunities to grow industrial sales and supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pilbara – TAN</td>
<td>2Q 2017</td>
<td>10</td>
</tr>
<tr>
<td>Köping – TAN</td>
<td>3Q 2018</td>
<td>60</td>
</tr>
<tr>
<td>expected start up</td>
<td>2018</td>
<td>2019</td>
</tr>
<tr>
<td>Structurally secure P and K supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Galvani / Salitre</td>
<td>mining 2Q18, chemical 1H19</td>
<td>0</td>
</tr>
<tr>
<td>expected start up</td>
<td>2018</td>
<td>2019</td>
</tr>
</tbody>
</table>

Sum: 190, 400, 570, 590

---

1) Including Yara’s share of volume in non-consolidated investees. Fully consolidated entities presented at 100% basis
2) Plant started up in 2Q 2017, but has been down for technical reasons since 3Q 2017. Expected re-start 2Q 2018.
350 kt NPK and Calcium Nitrate expansion in Porsgrunn and Glomfjord, Norway

**Investment highlights**
- Project adds 200 kt calcium nitrate and 50 kt compound NPK annual capacity in Porsgrunn.
- Enables further 70 kt NPK and 35 kt calcium nitrate annual capacity in Glomfjord through optimization.
- Expected start up in 1Q 2018.
- 16% IRR at 2015 prices.
- Est. capex USD 330 million.
- First full earnings effect 2Q 2018.

**Business case highlights**

<table>
<thead>
<tr>
<th>Year</th>
<th>Calcium Nitrate (kt)</th>
<th>NPK (kt)</th>
<th>EBITDA (2015 prices, USDm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>20</td>
<td>150</td>
<td>20</td>
</tr>
<tr>
<td>2019</td>
<td>355</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>2020</td>
<td>355</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>2021</td>
<td>355</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

**Calcium nitrate premium above urea (USD/t)**


**Compound NPK premium above commodity blend (USD/t)**

### Joint investment with BASF in world-scale ammonia plant in Freeport, USA

**Business case highlights**

<table>
<thead>
<tr>
<th>Volume phasing (kt, 68%)</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>325</td>
<td>550</td>
<td>550</td>
<td>550</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EBITDA (2015 prices, USDm, 68%)</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

**Investment highlights**

- **Attractive long-term partnership:**
  - BASF has strong existing presence in the United States and ammonia sourcing requirement for US downstream activities
  - Yara has a strong global ammonia production and trade network, investment would further strengthen this position, and increase its North American upstream presence

- **US Gulf location advantageous due to existing industry infrastructure, construction resources and natural gas**

- **Expected start up 1Q 2018. First full earnings effect 2Q 2018**

- **17 % IRR at 2015 prices**

- **Est. capex (68%) USD 434 million**
330 kt technical ammonium nitrate (TAN) plant in Pilbara, Australia

**Investment highlights**
- JV with Orica (50%/50%)
- Plant ideally located in the world’s biggest iron ore mining region
- A distribution and marketing joint venture is established to distribute all ammonium nitrate and associated products and services to mining customers in the Pilbara region
- Start up 2Q 2017. First full earnings effect 1Q 2020
- 6% IRR
- The project return has been negatively impacted by delayed construction and downturn in the mining sector. However a gradual recovery in the sector is anticipated.
- Est. capex (50%) USD 360 million

**Business case highlights**

- **Volume phasing (kt, 50%)**
  - 2018: 80
  - 2019: 100
  - 2020: 160
  - 2021: 160

- **EBITDA (2015 prices, USDm, 50%)**
  - 2018: 0
  - 2019: 10
  - 2020: 25
  - 2021: 25
Phosphate project in Salitre, Brazil

**Investment highlights**

- The Salitre project, located in the state of Minas Gerais, a traditional mining region, will include a chemical plant in addition to the mining operation.
- Start up mining 2Q 2018, chemical production 1H 2019. First full earnings effect 1Q 2022
- Chemical production of MAP, NP, TSP, DAP, SSP
- 24% IRR at 2015 prices
- Est. capex USD 575 million

**Business case highlights**

<table>
<thead>
<tr>
<th>Year</th>
<th>EBITDA (2015 prices, USDm, 100%)</th>
<th>Volume phasing (kt)</th>
<th>Finished fertilizers SSP equivalents (kt)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>170</td>
<td>850</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>Phos. rock 30</td>
<td>Phos. rock 210</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>Finished fertilizer 600</td>
<td>Finished fertilizer 850</td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>1,100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>1,500</td>
<td></td>
</tr>
</tbody>
</table>
Yara to acquire Vale Cubatão Fertilizantes complex in Brazil – and establish Yara as a nitrogen producer in Brazil

Vale Cubatão Fertilizantes:

- Strong competitive position as only nitrate assets in Brazil
- Annual production capacity of 200 kt ammonia, 600 kt nitrates and 980 kt of phosphate fertilizers
- Approx. 970 permanent and 930 contracted employees
- Agreed enterprise value: USD 255 million
- Upgrading investments of USD 80 million up to 2020 to realize annual synergies of USD 25 million
- Closing expected by mid 2018
- Acquisition will strengthen Yara’s production footprint, complement existing distribution position and add significant scale for the IND segment in Brazil
Yara Improvement Program effects

USD million

Sustained EBITDA improvement based on 2015 margins: 242 USD million
- 102 USD million (Production volume)
- 55 USD million (Consumption factor)
- 95 USD million (Variable unit cost)
- 10 USD million (Fixed cost)

Sustained EBITDA improvement based on 2017 margins: 180 USD million
- 66 USD million (Production volume)
- 35 USD million (Consumption factor)
- 89 USD million (Variable unit cost)
- 10 USD million (Fixed cost)

2017 YIP impact: 145 USD million
- 73 USD million (Variable unit cost)
- 56 USD million (Fixed cost)
- 6 USD million (Consumption factor)
- 35 USD million (Production volume)

Additional YIP implementation cost 2017: -35 USD million

Net 2017 YIP impact: 110 USD million
- 73 USD million (Variable unit cost)
- 56 USD million (Fixed cost)
- 10 USD million (Production volume)
- 29 USD million

USD million

- 600 NOK million
- 80 NOK million
- 460 NOK million
- 240 NOK million
Significant positive impact of the Improvement Program in 2017

NOK millions

2016 EBITDA: 15,563

- YiP volume impact: 600
- Turnaround/inventory build-up: 246
- YiP margin impact: 540
- YiP Net cost effect: 240
- Market price/margin effects: 491
- Energy costs: 2,182
- Currency translation: 174
- Special items: 1,776
- Other: 474

2017 EBITDA: 11,120
# Price and currency scenario assumptions

<table>
<thead>
<tr>
<th>Ammonia fob Black sea, USD/t</th>
<th>Urea fob Black sea, USD/t</th>
<th>CAN cif Germany, USD/t</th>
</tr>
</thead>
<tbody>
<tr>
<td>372</td>
<td>270</td>
<td>267</td>
</tr>
<tr>
<td>387</td>
<td>272</td>
<td>271</td>
</tr>
<tr>
<td>267</td>
<td>220</td>
<td>218</td>
</tr>
<tr>
<td>300</td>
<td>230</td>
<td>254</td>
</tr>
<tr>
<td><strong>5Y avg</strong></td>
<td><strong>2015 avg</strong></td>
<td><strong>2017 avg</strong></td>
</tr>
<tr>
<td>372</td>
<td>270</td>
<td>267</td>
</tr>
<tr>
<td>387</td>
<td>272</td>
<td>271</td>
</tr>
<tr>
<td>267</td>
<td>220</td>
<td>218</td>
</tr>
<tr>
<td>300</td>
<td>230</td>
<td>254</td>
</tr>
<tr>
<td><strong>Run rate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NPK compound premium, USD/t</th>
<th>DAP fob US Gulf, USD/t</th>
<th>Phosphate rock fob North Africa, USD/t</th>
</tr>
</thead>
<tbody>
<tr>
<td>119</td>
<td>415</td>
<td>117</td>
</tr>
<tr>
<td>120</td>
<td>459</td>
<td>124</td>
</tr>
<tr>
<td>101</td>
<td>354</td>
<td>90</td>
</tr>
<tr>
<td>120</td>
<td>400</td>
<td>85</td>
</tr>
<tr>
<td><strong>5Y avg</strong></td>
<td><strong>2015 avg</strong></td>
<td><strong>2017 avg</strong></td>
</tr>
<tr>
<td>119</td>
<td>415</td>
<td>117</td>
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<tr>
<td>120</td>
<td>459</td>
<td>124</td>
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<tr>
<td>120</td>
<td>400</td>
<td>85</td>
</tr>
<tr>
<td><strong>Run rate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Based on weighted realized NPK price brought back to CIF Germany and compared with a nitrate based blend
### Price and currency scenario assumptions

<table>
<thead>
<tr>
<th>European gas (TTF), USD/mmbtu</th>
<th>Henry HUB, USD/mmbtu</th>
<th>Yara’s European gas price, USD/mmbtu</th>
</tr>
</thead>
<tbody>
<tr>
<td>5Y avg</td>
<td>2015 avg</td>
<td>2017 avg</td>
</tr>
<tr>
<td>7.1</td>
<td>6.5</td>
<td>5.7</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>NOK per USD</th>
<th>NOK per EUR</th>
<th>NOK per BRL</th>
</tr>
</thead>
<tbody>
<tr>
<td>5Y avg</td>
<td>2015 avg</td>
<td>2017 avg</td>
</tr>
<tr>
<td>7.4</td>
<td>8.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Parameter</td>
<td>Operating income (MUSD)</td>
<td>EBITDA (MUSD)</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>1 Urea + USD 10/t</td>
<td>45</td>
<td>54</td>
</tr>
<tr>
<td>... of which pure urea</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>... of which UAN</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>2 CAN price + USD 10/t</td>
<td>101</td>
<td>101</td>
</tr>
<tr>
<td>... of which pure nitrates</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>... of which NPK</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>3 Compound NPK premium + USD 10/t</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>4 Hub gas Europe + USD 0.1/MMbtu</td>
<td>-16</td>
<td>-16</td>
</tr>
<tr>
<td>5 Hub gas North Am + USD 0.1/MMbtu</td>
<td>3</td>
<td>-3</td>
</tr>
<tr>
<td>6 Ammonia + USD 10/t</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Yara will change to USD as reporting currency as of 1Q 2018

Why?

• The fertilizer business is fundamentally a USD business
• USD as reporting currency would better reflect the underlying business of Yara

What does the change imply?

• Yara’s financial statement will be consolidated and presented in USD from 1Q 2018 reporting
• Listing and dividend currency remains NOK
• 2017 financial statements and key historical figures will be recalculated and presented at yara.com by end February
• Yara’s sensitivities will remain the same except for currency where USD will form the base

<table>
<thead>
<tr>
<th>Currency sensitivities</th>
<th>Operating income</th>
<th>EBITDA</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%-points EUR appreciation versus USD</td>
<td>-120</td>
<td>-95</td>
<td>-0.30</td>
</tr>
<tr>
<td>10%-points NOK appreciation versus USD</td>
<td>-50</td>
<td>-35</td>
<td>-0.10</td>
</tr>
<tr>
<td>10%-points BRL appreciation versus USD</td>
<td>-40</td>
<td>-25</td>
<td>-0.10</td>
</tr>
</tbody>
</table>
Scenario based on current market prices:  
Higher prices offset higher energy cost

Based on market prices as of 1 Feb 2018, 273.2 million shares outstanding, and 25% tax on underlying business.

1) Excl. special items and currency
2015 prices, committed growth and Yara Improvement Program add 3.2 USD to run rate EPS

Value add +0.5 USD
Commodity +0.9 USD

1) Based on market prices as of 1 Feb 2018, 273.2 million shares outstanding, and 25% tax on underlying business.
2) Excl. special items and currency
Strong growth and profitability through the cycle

Average cash return on gross investment (CROGI) well above the Yara CROGI target of 10%

Average annual shareholder return of 20%\(^1\)

1) Share price appreciation (end 2017) plus dividend payments
Major improvement and growth investments in 2018; main earnings improvement from 2019 onwards

**Improvement and growth capex** (BNOK)

<table>
<thead>
<tr>
<th>Year</th>
<th>Improvement Program</th>
<th>Committed expansions + M&amp;A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>7.3</td>
<td>0.5</td>
</tr>
<tr>
<td>2017</td>
<td>5.9</td>
<td>0.9</td>
</tr>
<tr>
<td>2018</td>
<td>10.4</td>
<td>1.7</td>
</tr>
<tr>
<td>2019</td>
<td>2.3</td>
<td>0.8</td>
</tr>
<tr>
<td>2020</td>
<td>1.5</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**EBITDA improvement** (MUSD)

<table>
<thead>
<tr>
<th>Year</th>
<th>Improvement Program</th>
<th>Committed expansions + M&amp;A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>104</td>
<td>40</td>
</tr>
<tr>
<td>2017</td>
<td>282</td>
<td>40</td>
</tr>
<tr>
<td>2018</td>
<td>350</td>
<td>200</td>
</tr>
<tr>
<td>2019</td>
<td>850</td>
<td>400</td>
</tr>
<tr>
<td>2020</td>
<td>1,100</td>
<td>600</td>
</tr>
</tbody>
</table>

**Earnings improvement** (NOK per share)

<table>
<thead>
<tr>
<th>Year</th>
<th>Improvement Program</th>
<th>Committed expansions + M&amp;A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2017</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>2018</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2019</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>2020</td>
<td>16</td>
<td>10</td>
</tr>
</tbody>
</table>

---

2. Excluding maintenance capex on existing assets. Yara’s share of capex. Fully consolidated entities presented at 100% basis
3. Measured at 2015 conditions. Main average market prices: Ammonia fob Yuzhny 390 USD/t, Urea fob Yuzhny 275 USD/t, DAP fob Morocco 495 USD/t

---

**Improvement program:**

- + 350 MUSD cost improvement
- +150 MUSD volume improvement:
  - -> 0.4 mill. tonnes ammonia
  - -> 0.7 mill. tonnes fertilizer

**Committed expansions + M&A:**

- + 1.4 mill. tonnes ammonia
- + 5.1 mill. tonnes fertilizer

**EBITDA improvement**

- 2016: 104 MUSD
- 2017: 282 MUSD
- 2018: 350 MUSD
- 2019: 850 MUSD
- 2020: 1,100 MUSD

**Earnings improvement**

- 2016: 1 NOK per share
- 2017: 5 NOK per share
- 2018: 6 NOK per share
- 2019: 10 NOK per share
- 2020: 16 NOK per share

---

2. Excluding maintenance capex on existing assets. Yara’s share of capex. Fully consolidated entities presented at 100% basis
3. Measured at 2015 conditions. Main average market prices: Ammonia fob Yuzhny 390 USD/t, Urea fob Yuzhny 275 USD/t, DAP fob Morocco 495 USD/t
Additional information
## Sensitivity tables reflecting 2018 production capacities

<table>
<thead>
<tr>
<th></th>
<th>Operating income USD million</th>
<th>EBITDA USD million</th>
<th>EPS USD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urea sensitivity +10 USD/t</strong></td>
<td>45</td>
<td>54</td>
<td>0.16</td>
</tr>
<tr>
<td>...of which pure Urea</td>
<td>38</td>
<td>47</td>
<td>0.14</td>
</tr>
<tr>
<td>...of which UAN</td>
<td>7</td>
<td>7</td>
<td>0.02</td>
</tr>
<tr>
<td><strong>Nitrate sensitivity CAN +10 USD/t</strong></td>
<td>101</td>
<td>101</td>
<td>0.28</td>
</tr>
<tr>
<td>...of which pure Nitrates</td>
<td>61</td>
<td>61</td>
<td>0.17</td>
</tr>
<tr>
<td>...of which NPKs</td>
<td>40</td>
<td>40</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Compound NPK premium over nitrate</strong></td>
<td>-54</td>
<td>54</td>
<td>0.15</td>
</tr>
<tr>
<td><strong>Hub gas Europe + 0.1 USD/MMBtu</strong></td>
<td>-16</td>
<td>-16</td>
<td>-0.04</td>
</tr>
<tr>
<td><strong>Hub gas North Am + 0.1 USD/MMBtu</strong></td>
<td>-2.6</td>
<td>-2.6</td>
<td>-0.01</td>
</tr>
<tr>
<td><strong>Ammonia + 10 USD/t</strong></td>
<td>3</td>
<td>4</td>
<td>0.01</td>
</tr>
</tbody>
</table>

### Currency sensitivity

<table>
<thead>
<tr>
<th></th>
<th>Operating income USD million</th>
<th>EBITDA USD million</th>
<th>EPS USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%-points EUR appreciation versus USD</td>
<td>-120</td>
<td>-95</td>
<td>-0.30</td>
</tr>
<tr>
<td>10%-points NOK appreciation versus USD</td>
<td>-50</td>
<td>-35</td>
<td>-0.10</td>
</tr>
<tr>
<td>10%-points BRL appreciation versus USD</td>
<td>-40</td>
<td>-25</td>
<td>-0.10</td>
</tr>
</tbody>
</table>
Price sensitivities including committed growth projects

<table>
<thead>
<tr>
<th></th>
<th>As Is EBITDA impact</th>
<th>Porsgrunn</th>
<th>Sluiskil</th>
<th>Freeport</th>
<th>Salitre</th>
<th>Updated EBITDA sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea sensitivity +10 USD/t</td>
<td>54</td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>...of which pure Urea</td>
<td>47</td>
<td></td>
<td>2.6</td>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>...of which UAN</td>
<td>7</td>
<td></td>
<td>-1.6</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Nitrate sensitivity CAN +10 USD/t</td>
<td>101</td>
<td>1.4</td>
<td>1.3</td>
<td></td>
<td></td>
<td>104</td>
</tr>
<tr>
<td>...of which pure Nitrates</td>
<td>61</td>
<td></td>
<td>1.3</td>
<td></td>
<td></td>
<td>62</td>
</tr>
<tr>
<td>...of which NPKs</td>
<td>40</td>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>Compound NPK premium over nitrate</td>
<td>54</td>
<td>2.0</td>
<td></td>
<td></td>
<td></td>
<td>56</td>
</tr>
<tr>
<td>Hub gas Europe + 0.1 USD/MMBtu</td>
<td>-16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-16</td>
</tr>
<tr>
<td>Hub gas North Am + 0.1 USD/MMBtu</td>
<td>-2.6</td>
<td></td>
<td></td>
<td>-1.5</td>
<td></td>
<td>-4</td>
</tr>
<tr>
<td>Ammonia + 10 USD/t</td>
<td>4</td>
<td>-0.9</td>
<td>-0.4</td>
<td>5.4</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>
250 kt  NPK expansion in Uusikaupunki, Finland

**Business case highlights**

- **EBITDA (2015 prices, USDm)**
  - 2018: 20
  - 2019: 20
  - 2020: 20
  - 2021: 20

- **Volume phasing (kt)**
  - 2018: 250
  - 2019: 250
  - 2020: 250
  - 2021: 250

**Investment highlights**

- Strong NPK demand growth outside Europe presents solid business case
- Project to install new granulator adds ~250 kt annual capacity
- Completed 2H 2016, UKI NPK production producing at full capacity 1H 2017
- 23% IRR at 2015 prices
- Capex USD 60 million
- First full earnings effect 1Q 2017

**Compound NPK premium above commodity blend (USD/t)**

- 2018: 500
- 2019: 400
- 2020: 300
- 2021: 200

NPK commodity blend

Q1 13 3Q 13 1Q 14 3Q 14 1Q 15 3Q 15 1Q 16 3Q 16 1Q 17 3Q 17
Value-add expansion in Sluiskil, Netherlands

**Investment highlights**
- New urea granulator with capacity of 660 kt per year, replacing old prilling unit with capacity of 400 kt per year
- Granulator will produce urea with sulphur, a product sold with a premium to regular urea
- Investment frees up nitric acid enabling 130 kt of additional CAN production
- 13% IRR at 2015 prices
- Est. capex USD 263 million
- Expected start up 2Q 2018. Full volume effect from 1Q 2019. First full earnings effect 1Q 2022

**Business case highlights**

**EBITDA (2015 prices, USDm)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value add expansion in Sluiskil, Netherlands</td>
<td>30</td>
<td>30</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

**Volume phasing (kt)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea granules</td>
<td>690</td>
<td>690</td>
<td>760</td>
<td></td>
</tr>
<tr>
<td>Urea + S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prilled urea</td>
<td>-550</td>
<td>-550</td>
<td>-550</td>
<td></td>
</tr>
</tbody>
</table>

**Estimated historical urea + S premium (USD/t)**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1Q13</th>
<th>3Q13</th>
<th>1Q14</th>
<th>3Q14</th>
<th>1Q15</th>
<th>3Q15</th>
<th>1Q16</th>
<th>3Q16</th>
<th>1Q17</th>
<th>3Q17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea +S</td>
<td>600</td>
<td>400</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
</tbody>
</table>

**CAN premium (USD/t)**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1Q13</th>
<th>3Q13</th>
<th>1Q14</th>
<th>3Q14</th>
<th>1Q15</th>
<th>3Q15</th>
<th>1Q16</th>
<th>3Q16</th>
<th>1Q17</th>
<th>3Q17</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN 27 fob Sluiskil</td>
<td>400</td>
<td>350</td>
<td>300</td>
<td>250</td>
<td>200</td>
<td>150</td>
<td>100</td>
<td>50</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Nitric acid expansion in Køping, Sweden

**Business case highlights**

**EBITDA (2015 prices, USDm)**

- 2018: 10
- 2019: 50
- 2020: 50
- 2021: 50

**Volume phasing (kt)**

- 2018: 50
- 2019: 260
- 2020: 290
- 2021: 290

**TAN upgrade margins (USD/t)**

- **Other PVC**: Graph showing margins over time
- **Fixed cost**: Graph showing margins over time
- **TAN price**: Graph showing margins over time

**Investment highlights**

- Nitric acid upgrade and expansion in Køping
- The investment includes the construction of a new nitric acid plant replacing an existing plant which is approaching the end of its operating life. Net volume addition is 90 kt TAN
- Strong long-term fundamentals for mining and civil explosives industries
- 20% IRR at 2015 prices
- Est. capex USD 200 million
- Expected start up 3Q 2018. First full earnings effect 1Q 2019
Acquisition of Tata Chemicals’ urea business in India

**Business case highlights**

<table>
<thead>
<tr>
<th>Year</th>
<th>EBITDA (2015 prices, USDm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>38</td>
</tr>
<tr>
<td>2019</td>
<td>40</td>
</tr>
<tr>
<td>2020</td>
<td>43</td>
</tr>
<tr>
<td>2021</td>
<td>45</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume phasing (kt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>1,200</td>
</tr>
<tr>
<td>2019</td>
<td>1,200</td>
</tr>
<tr>
<td>2020</td>
<td>1,200</td>
</tr>
<tr>
<td>2021</td>
<td>1,200</td>
</tr>
</tbody>
</table>

**Investment highlights**

- Integrated world scale urea plant in Babrala, Uttar Pradesh:
  - Commissioned in 1994
  - World-class operations and energy efficiency
- Significant distribution footprint:
  - Warehouses: 4 own and approx. 100 third-party operated
  - Salesforce: 60 own, and approx. 300 on contract
- Acquisition provides footprint to accelerate premium product growth
- Take over January 2018. First full earnings effect 2Q 2018
- IRR 10% in business case
- Est. capex USD 421 million

**Projected value added volume growth (kt)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60</td>
<td>70</td>
<td>90</td>
<td>100</td>
<td>120</td>
<td>130</td>
<td>150</td>
<td>165</td>
</tr>
</tbody>
</table>

1 Assuming present regulatory framework
2 Non-subsidized fertilizer
**Rio Grande expansion and operational improvement**

**Investment highlights**
- Consolidation of 3 sites reduces fixed cost and maintenance investments
- Increased fertilizer production and blending capacity
- Improved safety and lower unit cost
- Increased product quality through improved handling and storage conditions
- Start up 2Q 2020. First full earnings effect 2Q 2020
- IRR 19% at 2015 prices
- Est. capex USD 475 million

**Business case highlights**

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Volume phasing (kt)</strong></td>
<td>700</td>
<td>800</td>
<td>900</td>
<td>950</td>
</tr>
<tr>
<td><strong>EBITDA (2015 prices, USDm)</strong></td>
<td>30</td>
<td>45</td>
<td>49</td>
<td>54</td>
</tr>
</tbody>
</table>

**Net improvement EBITDA (USDm)**

<table>
<thead>
<tr>
<th>Year</th>
<th>CRC/PVC</th>
<th>Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td>2019</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>2020</td>
<td>11</td>
<td>38</td>
</tr>
<tr>
<td>2021</td>
<td>10</td>
<td>43</td>
</tr>
<tr>
<td>2022</td>
<td>11</td>
<td>48</td>
</tr>
<tr>
<td>2023</td>
<td>11</td>
<td>53</td>
</tr>
<tr>
<td>2024</td>
<td>11</td>
<td>58</td>
</tr>
<tr>
<td>2025</td>
<td>11</td>
<td>63</td>
</tr>
</tbody>
</table>
Improvements 90m USD over target for 2017 - target increased by 50m USD for 2018

- 2017 impact over target driven to energy and variable cost
- Volume improvements on track despite ammonia challenges
- 2018 expected 50 USD million over original target driven by volumes
- Volumes and variable unit cost expected to increase as share of total in 2020

---

**Sustained EBITDA improvement**

Annual impact, USD million, vs. 2015 baseline, at 2015 margins

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production volume</strong></td>
<td>150</td>
<td>242</td>
<td>350</td>
<td>450</td>
<td>500+</td>
</tr>
<tr>
<td><strong>Consumption factor</strong></td>
<td>84(^1)</td>
<td>102</td>
<td>95</td>
<td>~10%</td>
<td>~30%</td>
</tr>
<tr>
<td><strong>Variable unit cost(^2)</strong></td>
<td>55</td>
<td>55</td>
<td>300</td>
<td>450</td>
<td>500+</td>
</tr>
<tr>
<td><strong>Fixed cost</strong></td>
<td>-10</td>
<td>-10</td>
<td>-10</td>
<td>~25%</td>
<td>-10%</td>
</tr>
</tbody>
</table>

---

1. Adjusted for corrected full-year procurement savings (e.g., full-year bonuses), updated portfolio and 2015 margins; 2. Includes improvements to direct and indirect categories, as well as value of additional steam and reduced cost of emissions
Production volume improvements have contributed over USD 100 million in 2015 terms

### Annual production volumes, kt

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base</td>
<td>5,755</td>
<td>5,926</td>
<td>5,858</td>
</tr>
<tr>
<td>Total</td>
<td>7,035</td>
<td>7,504</td>
<td>7,459</td>
</tr>
<tr>
<td>Finished fertilizers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base</td>
<td>17,102</td>
<td>19,497</td>
<td>17,728</td>
</tr>
<tr>
<td>Total</td>
<td>19,224</td>
<td>20,199</td>
<td></td>
</tr>
</tbody>
</table>

### Margins (value of each extra ton)

<table>
<thead>
<tr>
<th></th>
<th>2015 margins²</th>
<th>2017 margins³</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA impact⁵, USDm</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>Ammonia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished fertilizers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015 margins⁴</td>
<td>84</td>
<td>40</td>
</tr>
</tbody>
</table>

1. Adjusted for turnarounds, expansions, and selected plants not part of scope (e.g., Qafco); 2. Ammonia contribution margins per relevant plant; 3. Applied to volume delta vs 2015; 4. Finished fertilizer products contribution margin per relevant plant and product type; 5. EBITDA impact calculated as volume improvements multiplied by contribution margin (full sales price, less energy and other variable costs)
Yara Productivity System drives significant energy improvements

**Consumption factor**, GJ (LHV) /ton, based on 12 month rolling average

- **Ammonia**
  - Q1 '15: 42
  - Q2: 40
  - Q3: 38
  - Q4: 39
  - Q1 '16: 41
  - Q2: 39
  - Q3: 37
  - Q4: 38
  - Q1 '17: 40
  - Q2: 38
  - Q3: 36
  - Q4: 37

- **Urea melt**
  - Q1 '15: 13
  - Q2: 11
  - Q3: 9
  - Q4: 10
  - Q1 '16: 14
  - Q2: 12
  - Q3: 10
  - Q4: 11
  - Q1 '17: 13
  - Q2: 11
  - Q3: 9
  - Q4: 10

**Financial Benefit**, Accumulated USD million

- **Ammonia**
  - 2016: 23
  - 2017: 39

- **Urea melt**
  - 2016: 10
  - 2017: 15

1. Calculated based on 12 month rolling average vs. 2015 baseline, on 2015 energy prices
Procurement benefits calculation methodology

Calculation methodology

- Improvements measured against the most relevant industry benchmarks
- Benchmark publications and product details specified to ensure relevant comparisons over time

- Improvements measured against historical cost levels
- Where relevant, the improvements are adjusted for volume (e.g., packaging materials costs measured on a ‘per bag’ basis)
- Guidelines established to tackle potential cost avoidance issues (i.e., for new or incomparable products or services)¹

¹ Improvements are included that are evaluated to be the result of specific and concrete improvement initiatives, (i.e., all improvements are related to concrete changes in specifications, contract terms or similar)

1. Cost avoidance is tracked internally to stimulate good choices for the company, but these are generally not reported against the improvement target