Agenda

- Yara introduction
  - Market fundamentals
  - Yara strategy
  - Targets and prospects
Safe operations is our first priority

TRI\(^1\) (12-month rolling)

\(^1\) TRI: Total recordable injuries, lost time (absence from work), restricted work and medical treatment cases per one million work hours.
Yara’s leading global position and differentiated product portfolio represent key sources of competitive edge

Global #1 in Nitrates

- Yara: 7.7
- Eurochem: 4.2
- Ostchem: 3.0
- Uraichem: 2.9
- Borealis: 2.3

Global #1 in NPK

- Yara: 6.2
- C. mandel: 3.3
- Gresik: 2.7
- Iffco: 2.7
- Acron: 2.2

Fertilizer product portfolio

- Standard products (Urea, UAN, Ammonia): 34%
- Differentiated Products (CAN, Compound NPK, Fertigation): 26%
- Speciality (CN, Compound NPK, Fertilization): 19%
- NPK blends: 19%
- Others: 3%

2017 sales figures in mill. tonnes, % = total 2017 Yara sales

1 Including TAN and CN – Including companies’ share of JVs 2017YE
2 Compound NPK, excluding blends
3 2016/2017 season volume
4 Ammonia trade not included in chart above
Yara’s integrated business model is unique within the fertilizer industry.
Profitable growth through the cycle

Average annual shareholder return of 20%¹

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

¹ Share price appreciation (end 3Q 18) plus dividend payments
Agenda

• Yara introduction

• **Market fundamentals**

• Yara strategy

• Targets and prospects
Grain prices rising slowly, and stocks are falling as production is expected to fall short of consumption.

**Improving market environment**

**Grain prices index**

**Global grain consumption and production**

**Global capacity additions ex China**

**Source:** USDA, CRU
Higher urea prices with no Chinese supply response so far, but LNG price increases impact several regions

**Higher global urea prices**

Urea price development (USD/t)

- Urea inland proxy China
- Urea granular fob Egypt

**No supply response from China so far**

Chinese production and export (million tonnes)

- Chinese production and export (million tonnes)
  - Jul/Sep 17: 5.5
  - Jul/Sep 18: 5.5
  - Export: 0.8 (Jul/Sep 17) - 0.4 (Jul/Sep 18)

**Tight LNG market drives gas prices higher**

Spot gas prices (USD/mmbtu)

- Europe: 5.5 (Jul/Sep 17) - 8.4 (3Q 17)
- Japan: 5.5 (Jul/Sep 17) - 9.9 (3Q 18)
- US: 2.9 (3Q 17) - 2.9 (3Q 18)

Source: BOABC, CFMW, IHS
Agenda

- Yara introduction
- Market fundamentals
- **Yara strategy**
- Targets and prospects
Our Mission

Responsibly feed the world and protect the planet.

Our Vision

A collaborative society; a world without hunger; a planet respected.
The Crop Nutrition Company for the Future

We will grow responsible solutions to farmers, industry and society, while delivering superior return on capital.
Advance Operational excellence; Improved safety, increased savings

Safe operations 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.
Yara Improvement Program on track

- 2018 EBITDA benefits on track (in 2015 terms):
  - Yara Productivity System on track and in final implementation phase.
  - The creation of a Shared Service Center in Vilnius, Lithuania for Customer Service, transport management and operational planning in Europe, has started.
- Focus increasingly shifting towards ensuring the sustainability of the benefits already for the long term

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

#### Sustained EBITDA improvement

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits</td>
<td>84</td>
<td>242</td>
<td>330</td>
<td>350</td>
<td>500</td>
</tr>
</tbody>
</table>

#### One-off

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>Q3 2018</th>
<th>2018 target</th>
<th>2019 target</th>
<th>2020 target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits</td>
<td>60</td>
<td>69</td>
<td>22</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Cost</td>
<td>14</td>
<td>49</td>
<td>16</td>
<td>35^3</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Investments</td>
<td>69</td>
<td>116</td>
<td>56</td>
<td>100^3</td>
<td>90</td>
<td>0</td>
</tr>
</tbody>
</table>

1 Calendar year / YTD numbers
2 One-off benefits are related to working capital improvements and white certificates
3 2018 estimates for implementation costs and investments are reduced from 39 to 35 and from 140 to 100 respectively (all figures in USD million)
Create Scalable Solutions; Closer collaboration with the Food Industry

**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**
- Building Yara’s knowledge margin

**Sell benefits of our solutions**
- Deliver required crop quality to processor and ensure reliable raw material supply to food factories
- Unlock superior value creation for farmers through food industry

**Market depth**

**Time**

**Food Industry**

**Farmer**

**Crop**

**Product**

**Asset**
Precision fertilization made simple - atfarm

- 10x10m precision application of fertilizer
- Quantitative recommendation “in only 5 clicks”
- Empowered by 20 years of Yara precision fertilization R&D
- Benefits for farmers
  - Higher yield
  - Reduced waste
  - Higher protein content
Drive Innovative Growth; Yara is delivering on its growth pipeline

1 Jan 2018

1Q

Babrala (India)
Acquisition of urea plant and distribution assets
- 1.2 mt urea and approx 40 MUSD EBITDA p.a.
- Provides footprint to accelerate premium product growth

Porsgrunn (Norway)
NPK and calcium nitrate expansion
- Adds 250 ktpa and approx. 50 MUSD EBITDA p.a.
- Record nitric acid production in March (5,127 tpd)


2Q

Cubatao (Brazil)
N and P production facility acquisition
- 1.4 mtpa and approx. 60 MUSD EBITDA p.a.
- Strengthens production and industrial footprint in Brazil

Freeport (US)
Hydrogen-based ammonia new-build JV with BASF (Yara 68%)
- 550 ktpa and approx. 100 MUSD EBITDA p.a. (Yara share)
- Strengthens Yara’s global ammonia position

Sluiskil (NL)
Revamp and urea+S expansion
- Adds approx. 210 ktpa and 30 MUSD EBITDA p.a.
- Improved product mix - from urea prills to nitrates and urea+S


3Q

Salitre (Brazil)
Phosphate mine
- Adds approx. 1.1 mtpa SSP equivalents by 2020
- Limited earnings until chemical production starts end 2019

Köping (Sweden)
Nitric acid revamp and TAN expansion
- 90 ktpa and approx. 20 MUSD EBITDA p.a.
- Strong long-term fundamentals for civil explosives industry


4Q

1 Jan 2019

EBITDA figures at 2015 prices except Cubatão which reflects business case prices
Yara has invested for the long term in Brazil; Bunge acquisition brought critical mass in distribution

Volume (MM tons)

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>0.8</td>
</tr>
<tr>
<td>2001</td>
<td>1.3</td>
</tr>
<tr>
<td>2002</td>
<td>1.5</td>
</tr>
<tr>
<td>2003</td>
<td>1.8</td>
</tr>
<tr>
<td>2004</td>
<td>2.0</td>
</tr>
<tr>
<td>2005</td>
<td>1.7</td>
</tr>
<tr>
<td>2006</td>
<td>1.8</td>
</tr>
<tr>
<td>2007</td>
<td>2.8</td>
</tr>
<tr>
<td>2008</td>
<td>2.4</td>
</tr>
<tr>
<td>2009</td>
<td>2.2</td>
</tr>
<tr>
<td>2010</td>
<td>2.2</td>
</tr>
<tr>
<td>2011</td>
<td>2.7</td>
</tr>
<tr>
<td>2012</td>
<td>3.2</td>
</tr>
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<td>2013</td>
<td>3.3</td>
</tr>
<tr>
<td>2014</td>
<td>7.8</td>
</tr>
<tr>
<td>2015</td>
<td>8.2</td>
</tr>
<tr>
<td>2016</td>
<td>9.3</td>
</tr>
<tr>
<td>2017</td>
<td>9.0</td>
</tr>
<tr>
<td>2018</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Yara combines large-scale local market presence with leading global product portfolio and crop nutrition expertise

- Optimization of asset footprint
- Modernization of blending units
- Process improvements

Main growing area in Cerrado, target area for Galvani expansion

Traditional blender vs. New blender: CRC/t -20%

Yara Brasil operations
Galvani operations (mining, fertilizer plant and port)
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
Agenda

- Yara introduction
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  - Targets and prospects
Major improvement and growth investments in 2018; main earnings improvement from 2019 onwards

**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
- + 4.7 mill. tonnes fertilizer

---

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
Attractive Yara prospects

Cycle improvement underway

- Improving grain prices and fertilizer demand
- Slow-down in nitrogen supply growth
- 3-5 year lead time for new projects

Cash flow improvement

- Operating cash flow improving with cycle
- Further growth and improvement boost to earnings into 2019
- Capex peaked in 1H 2018, current focus on project ramp-up and integration

Focused and sustainable long-term strategy

- Crop nutrition focus
- Further advance operational excellence & innovative growth
- Create scalable solutions through food chain partnerships and digital farming
- Active portfolio management
Market
Yara’s margins contain both commodity and premium elements

**Urea is the key commodity Nitrogen product**

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

- **107 Million Tonnes**

**Both crop and fertilizer markets are key margin drivers for Yara**

- The majority of Yara’s business is related to nitrogen, which represents 57%\(^1\) of the main nutrient consumption
- Standardised 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

**... however Yara margins also contain premium elements**

- 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

---

\(^1\) Source: International Fertilizer Association ("IFA") 2016/2017 season (June 2017 estimates)
Nitrogen supply growth is forecast to reduce significantly

Global urea capacity additions excl. China (mill. tonnes)

Source: CRU September 2018
Chinese domestic supply starting the new season slightly down on last year

**Chinese urea production down vs last year** (million tons)

![Graph showing Chinese urea production](image)

**Production decline exceed export decline** (million tons)

![Bar chart showing production decline](image)

Source: CFMW, covering close to 100% of production
Global grain stocks are now in decline

**Grain consumption and production**

- Consumption: Blue line
- Production: Black line

**Days of consumption in stocks**

- Days: Y-axis
- Years: 2009 to 2019

Source: USDA November 2018
Grain prices up from last year

**Corn Mar 2019 contract France** (EUR/tonnes)

**Wheat (milling) Mar 2019 contract France** (EUR/tonnes)
Improving grain economics – the cereal index at 5-year average, the food index 5% below

Source: FAO
10-year fertilizer prices – monthly averages

**Ammonia fob Black Sea**

**Urea prilled fob Black Sea/Urea granular fob Egypt**

**CAN cif Germany**

**DAP fob US Gulf/MOP granular fob Vancouver**

---

Source: Fertilizer Market Publications
### Key value drivers – quarterly averages

<table>
<thead>
<tr>
<th>TTF day ahead (USD/MMBtu)</th>
<th>Urea prilled fob Black Sea (USD/t)</th>
<th>Urea granular fob Egypt (dotted line, USD/t)</th>
<th>CAN cif Germany (USD/t)</th>
<th>Ammonia fob Black Sea (USD/t)</th>
<th>NOK/USD exchange rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>3Q17</td>
<td>5.5</td>
<td>207</td>
<td>205</td>
<td>198</td>
<td>8.0</td>
</tr>
<tr>
<td>4Q17</td>
<td>6.6</td>
<td>234</td>
<td>239</td>
<td>286</td>
<td>8.2</td>
</tr>
<tr>
<td>1Q18</td>
<td>7.7</td>
<td>272</td>
<td>245</td>
<td>287</td>
<td>8.2</td>
</tr>
<tr>
<td>2Q18</td>
<td>7.3</td>
<td>261</td>
<td>241</td>
<td>231</td>
<td>7.8</td>
</tr>
<tr>
<td>3Q18</td>
<td>8.4</td>
<td>293</td>
<td>211</td>
<td>303</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Source: Fertilizer Market Publications, CERA, World Bank, Norges Bank
Business model and strategy
Three operating segments supported by a global supply chain function cover the value chain

<table>
<thead>
<tr>
<th>Description</th>
<th>Production</th>
<th>Crop Nutrition</th>
<th>Industrial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Runs large-scale production of nitrogen-based products, the starting point for our crop nutrition and industrial solutions</td>
<td>Provides worldwide sales, marketing and distribution of a range of crop nutrition products and programs</td>
<td>Develops and markets environmental solutions and products for industrial applications</td>
</tr>
<tr>
<td>Credit highlight</td>
<td>Production has plants and mines globally, providing scale and flexibility</td>
<td>Crop Nutrition creates resilience in earnings with distribution and agronomic competence</td>
<td>Industrial segment reduces cyclicality and seasonality</td>
</tr>
<tr>
<td>2017 Revenues$^1$</td>
<td>0.9 BUSD 8%</td>
<td>8.7 BUSD 76%</td>
<td>1.8 BUSD 16%</td>
</tr>
<tr>
<td>2017 EBITDA$^2$</td>
<td>0.7 BUSD 54%</td>
<td>0.5 BUSD 36%</td>
<td>0.2 BUSD 12%</td>
</tr>
</tbody>
</table>

- Global function responsible for optimization of energy, raw materials and third party sourcing
- Sourcing and trade of 4,175 kilotonnes of ammonia and purchases of 286 mm MMBtu of energy, 3,456 kilotonnes of potassium and 1,042 kilotonnes of phosphate rock

---

$^1$ External revenues and other income
$^2$ Excluding other and eliminations
USD translations use USD/NOK exchange rate of 8.12
Supply Chain creates global scale in raw material purchases and optimization

Global scale in raw material purchasing

- A major buyer of key raw materials and one of the largest buyers of phosphate and potash globally
- Provides scale and secures **reliable access** and **competitive pricing**

![2016 P&K purchases (mt)](image)

Global optimization of value potential

- Large number of plant, product and market combinations
- Flexibility in the allocation of production amount various plants, markets and products to optimize overall value potential
- Long-term view combined with short-term arbitrage opportunities

**Illustration of Yara’s key optimization tool:**

1. Allocate more volume to high margin markets
2. Over time increase the average margin for the product

**Realization of value potential from scale**

Source: International Fertilizer Association («IFA»)

* In P₂O₅ equivalents
Production scale advantage and variable cost flexibility due to asset set-up and product mix

Diversified product portfolio

<table>
<thead>
<tr>
<th>Product</th>
<th>Mill tonnes 2017FY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>7</td>
</tr>
<tr>
<td>Nitrates</td>
<td>6</td>
</tr>
<tr>
<td>NPK</td>
<td>6</td>
</tr>
<tr>
<td>Urea</td>
<td>5</td>
</tr>
<tr>
<td>CN</td>
<td>2</td>
</tr>
<tr>
<td>SSP</td>
<td>1</td>
</tr>
<tr>
<td>UAN</td>
<td>1</td>
</tr>
<tr>
<td>Phos. Rock</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Yara internal accounts

1 Including Yara’s share of joint venture plants

High ammonia flexibility

<table>
<thead>
<tr>
<th>Product</th>
<th>European ammonia capacity</th>
<th>Flexible</th>
<th>Non-flexible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td>4.8</td>
<td>2.7</td>
<td>0.4</td>
</tr>
<tr>
<td>Land-locked nitrates</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Yara’s operating cash costs are mostly variable

<table>
<thead>
<tr>
<th>Product</th>
<th>BNOK, 2017FY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td>70.3</td>
</tr>
<tr>
<td>Land-locked nitrates</td>
<td>13.3</td>
</tr>
</tbody>
</table>

Variable costs (84%)
- Dry raw materials
- Energy
- Freight
- 3rd party finished fertilizer

Fixed cash cost (16%)

~90% of nitrate and NPK production can operate independently of ammonia production

Source: Yara internal accounts

1 Including Yara’s share of joint venture plants
Crop Nutrition creates resilience in earnings through distribution of crop nutrition solutions in response to farmer needs.

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

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

Yara capabilities
Knowledge, people, assets, products, services

Focus and investment
Crop nutrition solutions

Sustainable value creation
**Industrial segment delivers opportunities for growth and offsets fertilizer cyclicality and seasonality**

<table>
<thead>
<tr>
<th>Key product and service offering</th>
<th>Chemical applications used in paints and packaging, glues, foam, medical products and feed additives</th>
<th>NO\textsubscript{x} and SO\textsubscript{y} abatement of emissions from heavy duty vehicles and industry</th>
<th>Technical nitrates and solutions for mining and construction industries</th>
<th>CN and associated solutions for industrial applications; feed urea and phosphates for animal nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic fit</td>
<td>Optimization of Upstream assets</td>
<td>Utilize logistics advantage and infrastructure footprint</td>
<td>Utilize technology, logistics and infrastructure advantage</td>
<td>Monetize products into higher value markets</td>
</tr>
<tr>
<td>Geographical market</td>
<td>Europe</td>
<td>Global</td>
<td>Global</td>
<td>Global</td>
</tr>
<tr>
<td>Market drivers</td>
<td>GDP growth</td>
<td>Legislation, GDP growth</td>
<td>GDP growth, mining industry</td>
<td>GDP growth, standard of living</td>
</tr>
</tbody>
</table>

1 2015-2017 EBITDA figures restated to exclude divested business (CO\textsubscript{2} gas, liquid and dry ice)
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>kg CO2eq/kg N product</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>
<td>~10%</td>
</tr>
<tr>
<td>Global Nitrates²</td>
<td>9.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAN</td>
<td>11.9</td>
<td>~5%</td>
<td>~5%</td>
</tr>
<tr>
<td>Urea</td>
<td>13.9</td>
<td>~10%</td>
<td>~50%</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
Growth & Improvement
Yara Improvement Program – 2017 status

Program progress:
- 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

Financial benefits:

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

- **Sustained EBITDA improvement**:
  - 2017: 84
  - 2018: 242
  - 2019: 350
  - 2020: 450
  - Total: ~35%

- **One-off benefits**:
  - 2017: 60
  - 2018: 66
  - 2019: 15
  - 2020: 15

- **One-off cost**:
  - 2017: 14
  - 2018: 49
  - 2019: 39
  - 2020: 13

- **One-off investments**:
  - 2016: 69
  - 2017: 116
  - 2018 target: 189
  - 2019 target: 90
  - 2020 target: 0

---

1. Additional details in the backup section;
2. Includes improvements to direct and indirect categories, as well as value of additional steam and reduced cost of emissions
Benefits are realized through improvements to core value drivers

<table>
<thead>
<tr>
<th>Value driver</th>
<th>How we improve</th>
<th>How we know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume¹</td>
<td>Increase production in our existing plants by improving reliability</td>
<td>~400 kt additional ammonia and ~700 kt additional finished fertilizer production by 2020⁶</td>
</tr>
<tr>
<td>Consumption factor²</td>
<td>Reduce spend on consumption factors, primarily energy, through better reliability and new technology</td>
<td>~3 % improved energy efficiency by 2020⁶</td>
</tr>
<tr>
<td>Variable unit cost³</td>
<td>Leverage global scale, apply advanced category management and collaborative procurement approaches</td>
<td>Reduced spend in direct and indirect categories</td>
</tr>
<tr>
<td>Fixed cost⁴</td>
<td>Increase focus on standardization and realizing scale benefits</td>
<td>Reduced spend on fixed costs in production and support functions</td>
</tr>
<tr>
<td>Cash effects⁵</td>
<td>Capex: Increased standardization, more focus on execution strategy and capability building in the organization Working capital: Better targets and training</td>
<td>Capex: Lower spend for the same project portfolio Working Capital: Reduced inventory and credit days</td>
</tr>
<tr>
<td>Added value</td>
<td>Commercial effects</td>
<td>Volumes and margins enhancement</td>
</tr>
</tbody>
</table>

More for less

- ~400 kt additional ammonia and ~700 kt additional finished fertilizer production by 2020⁶
- ~3 % improved energy efficiency by 2020⁶
- Reduced spend on fixed costs in production and support functions
- Reduced spend in direct and indirect categories
- Reduced spend on fixed costs in production and support functions
- Capex: Lower spend for the same project portfolio Working Capital: Reduced inventory and credit days
- Volumes and margins enhancement

$500MM sustained EBITDA improvement by 2020⁷

1 Production volume; 2 Energy cost and other input factors; 3 Direct and indirect procurement; 4 Fixed costs in production, IT, supply chain and expert functions; 5 Capex and working capital; 6 Targets are not final and subject to change as additional plant assessment deep-dives are completed; 7 Against 2015 baseline
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>Expansion Area</th>
<th>Products/Projects</th>
<th>Expected Start Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand premium products sales &amp; supply</td>
<td>Uusikaupunki NPK</td>
<td>3Q 2016</td>
</tr>
<tr>
<td></td>
<td>Porsgrunn/Glomfjord CN/NPK</td>
<td>1Q 2018</td>
</tr>
<tr>
<td></td>
<td>Sluiskil urea+S</td>
<td>3Q 2018</td>
</tr>
<tr>
<td></td>
<td>Rio Grande NPK/NPK blends</td>
<td>2H 2020</td>
</tr>
<tr>
<td>Expand commodity scale based on attractive full-cost growth opportunities</td>
<td>Freeport ammonia JV</td>
<td>2Q 2018</td>
</tr>
<tr>
<td></td>
<td>Babrala urea acquisition</td>
<td>1Q 2018</td>
</tr>
<tr>
<td>Act on attractive opportunities to grow industrial sales &amp; supply</td>
<td>Pilbara – TAN</td>
<td>2Q 2017(^2)</td>
</tr>
<tr>
<td></td>
<td>Köping – TAN</td>
<td>4Q 2018</td>
</tr>
<tr>
<td></td>
<td>Cubatão – N and P</td>
<td>2Q 2018</td>
</tr>
<tr>
<td>Structurally secure P and K supply</td>
<td>Galvani / Salitre</td>
<td>mining 2Q18, chemical 4Q19</td>
</tr>
</tbody>
</table>

### Pipeline EBITDA (2015 prices, USDm)\(^1\)

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>40</td>
<td>160</td>
<td>180</td>
<td>190</td>
</tr>
<tr>
<td>2019</td>
<td>70</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>2020</td>
<td>40</td>
<td>90</td>
<td>110</td>
<td>120</td>
</tr>
<tr>
<td>2021</td>
<td>0</td>
<td>30</td>
<td>170</td>
<td>170</td>
</tr>
</tbody>
</table>

**Sum**

| Year | 150 | 430 | 610 | 620 |

---

\(^1\) Including Yara’s share of volume in equity accounted investees. Fully consolidated entities presented at 100% basis

\(^2\) Plant started up in 2Q 2017, but has suffered from technical difficulties and the site is currently undergoing a turnaround.
Yara is delivering on its growth pipeline; multiple plant expansions and M&A coming on stream in 2018

Production growth 2015 - 2020

Mill. tonnes (mt)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Köping</td>
<td>1.6</td>
<td>1.2</td>
<td>1.2</td>
<td>0.8</td>
<td>0.5</td>
<td>25.1</td>
</tr>
<tr>
<td>TAN Pilbara</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>GrowHow UK (divested mid-2015)</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Salitre</td>
<td>0.1</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Uusikaupunki (3Q 2016)</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Babrala (1Q 2018)</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Porvoo (1Q 2018)</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Cubatão (3Q 2018)</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Sluis (3Q 2018)</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Kolding (4Q 2018)</td>
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<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>TAN Pilbara (2Q 2017)</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Pilbara</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Babrala (1Q 2018)</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Freeport (2Q 2018)</td>
<td>0.3</td>
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<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Cubatão</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Est. 2020</td>
<td>7.7</td>
<td>0.7</td>
<td>0.5</td>
<td>0.2</td>
<td>9.2</td>
<td></td>
</tr>
</tbody>
</table>

1) Adjusted to normalized / 2016 turnaround level (0.7mt finished fertilizer and 0.2mt NH₃) and regularity level (0.7mt finished fertilizer and 0.4mt NH₃)
2) Salitre will reach 1.1 mill. tonnes in 2022
3) Rio Grande expansion also adds 1 million tonnes NPK blends by 2020
4) Including 100% ownership in Pilbara NH₃ plant (not included in committed growth pipeline)
5) TAN Pilbara started up in 2Q 2017, but has suffered from technical difficulties and the site is currently undergoing a turnaround
Improvement and growth investments; earnings and sensitivities

**EBITDA improvement** (MUSD)

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>124</td>
<td>242</td>
<td>500</td>
<td>900</td>
<td>500</td>
<td>1,100</td>
</tr>
</tbody>
</table>

**Earnings improvement** (USD per share)

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2</td>
<td>0.6</td>
<td>0.9</td>
<td>1.5</td>
<td>1.2</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Improvement program: Impact** of +100 USD/t price change (USD/share)

- **Ammonia**: 0.06 USD/share
- **Urea**: 0.09 USD/share

**Growth: Impact** of +100 USD/t price change (USD/share)

- **Ammonia**: 0.10 USD/share
- **Urea**: 0.19 USD/share
- **DAP**: 0.30 USD/share

---

1 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.


3 Phosphate-driven price change, equivalent to 138 USD/t phosphate rock (72 bpl)
Financial
Yara’s 3Q results: increased prices partly offset by higher gas costs

**Increased realized nitrate and NPK prices**

Realized NPK and CAN price1 (USD/t)

- 3Q 17
- 3Q 18

**Higher premium product deliveries**

Volume development (mill. tonnes)

**Tight LNG market drives gas prices higher**

Global weighted average gas cost

---

1 Global NPK price at German proxy CIF, CAN 27 equivalents ex. sulphur European deliveries
Improving EBITDA and Earnings per share

**EBITDA**

USD millions

- Excluding special items
- Reported

**Earnings per share**

USD/share

- Excluding currency and special items
- Reported

Average number of shares for 3Q 2018: 273.2 million (3Q 2017: 273.2 million).
EBITDA 16% higher YoY as higher sales prices and a stronger USD more than offset higher energy cost

EBITDA, USD millions

+16%

EBITDA ex. SI 3Q17: 347
Price/Margin: 129
Currency: 30
Energy costs: 108
Volume: 2
Other: 6
EBITDA ex. SI 3Q18: 402

Main deviations compared with applying Yara price sensitivities to publication prices with 1-month lag:

**Urea**
-20 MUSD
*Mainly Industrial contracts*

**Nitrate/NPK**
-40 MUSD
*Mainly longer nitrate time lag in Europe*
Increased nitrogen upgrading margins, but premiums compressed short term

Nitrogen upgrading margins\(^1\)

USD/t (monthly publication prices)

NPK premium over blend\(^2\)

USD/t

1 Upgrading margin from gas to nitrates in 46% N (USD/t); All prices in urea equivalents, with 1 month time lag

2 Export NPK plants, average grade 19-10-13, net of transport and handling cost.

Source: Fertilizer Market Publications
Higher natural gas cost expected through this winter

Yara European natural gas cost

USD/MMBtu

Y-o-Y change in Yara gas cost

USD Millions

Dotted lines denote forward prices as of 5 October 2018

Source: Yara, World Bank, Argus/ICIS Heren
## Energy cost

Yearly averages 2010 – 2015, quarterly averages for 2016-18 with forward prices\(^1\) for 4Q18 and 1Q19.

### Yearly Averages 2010 – 2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>US gas price (Henry Hub)</td>
<td>4.4</td>
<td>4.0</td>
<td>2.8</td>
<td>3.7</td>
<td>4.4</td>
<td>2.6</td>
<td>2.0</td>
<td>2.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Yara Global</td>
<td>5.7</td>
<td>6.9</td>
<td>6.9</td>
<td>5.5</td>
<td>4.9</td>
<td>4.6</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>TTF day ahead (Zeebrugge 2010-2012)</td>
<td>8.2</td>
<td>9.4</td>
<td>9.2</td>
<td>11.0</td>
<td>11.4</td>
<td>10.7</td>
<td>10.5</td>
<td>10.3</td>
<td>10.1</td>
</tr>
<tr>
<td>Yara Europe</td>
<td>7.6</td>
<td>8.2</td>
<td>8.0</td>
<td>8.0</td>
<td>8.1</td>
<td>7.1</td>
<td>4.1</td>
<td>3.8</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Quarterly Averages for 2016-18

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1Q16</th>
<th>2Q16</th>
<th>3Q16</th>
<th>4Q16</th>
<th>1Q17</th>
<th>2Q17</th>
<th>3Q17</th>
<th>4Q17</th>
<th>1Q18</th>
<th>2Q18</th>
<th>3Q18</th>
<th>4Q18</th>
<th>1Q19</th>
</tr>
</thead>
<tbody>
<tr>
<td>US gas price (Henry Hub)</td>
<td>4.1</td>
<td>4.2</td>
<td>4.0</td>
<td>3.8</td>
<td>3.0</td>
<td>3.0</td>
<td>2.9</td>
<td>2.9</td>
<td>2.9</td>
<td>2.9</td>
<td>3.1</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>Yara Global</td>
<td>5.3</td>
<td>5.4</td>
<td>5.2</td>
<td>5.3</td>
<td>5.7</td>
<td>5.6</td>
<td>5.6</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
<td>5.4</td>
<td>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>TTF day ahead (Zeebrugge 2010-2012)</td>
<td>6.9</td>
<td>5.5</td>
<td>4.1</td>
<td>4.4</td>
<td>4.3</td>
<td>4.6</td>
<td>4.7</td>
<td>5.0</td>
<td>6.1</td>
<td>6.3</td>
<td>7.0</td>
<td>9.5</td>
<td>9.9</td>
</tr>
<tr>
<td>Yara Europe</td>
<td>7.6</td>
<td>7.1</td>
<td>5.0</td>
<td>4.6</td>
<td>4.2</td>
<td>4.3</td>
<td>4.6</td>
<td>4.6</td>
<td>4.9</td>
<td>4.9</td>
<td>5.3</td>
<td>5.3</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Source: Yara, World Bank, Argus/ICIS Heren

\(^1\) Dotted lines denote forward prices as of 5 October 2018
Production and Deliveries
Increased ammonia and finished products production

**Ammonia**

<table>
<thead>
<tr>
<th>Year</th>
<th>Kilotons</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
</tr>
</tbody>
</table>

1 Including share of equity-accounted investees

**Finished fertilizer & industrial products**

<table>
<thead>
<tr>
<th>Year</th>
<th>Kilotons</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
</tr>
</tbody>
</table>

1 Including share of equity-accounted investees
Yara 3Q fertilizer deliveries by market and product

Kilotons

<table>
<thead>
<tr>
<th>Region</th>
<th>3Q17</th>
<th>3Q18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>2,145</td>
<td>2,157</td>
</tr>
<tr>
<td>Brazil</td>
<td>3,167</td>
<td>3,650</td>
</tr>
<tr>
<td>Latin America</td>
<td>652</td>
<td>635</td>
</tr>
<tr>
<td>North America</td>
<td>655</td>
<td>470</td>
</tr>
<tr>
<td>Asia</td>
<td>557</td>
<td>1,041</td>
</tr>
<tr>
<td>Africa</td>
<td>322</td>
<td>404</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>3Q17</th>
<th>3Q18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compound NPK</td>
<td>1,473</td>
<td>1,545</td>
</tr>
<tr>
<td>Blend NPK</td>
<td>1,484</td>
<td>1,509</td>
</tr>
<tr>
<td>Nitrate</td>
<td>1,193</td>
<td>1,338</td>
</tr>
<tr>
<td>Urea</td>
<td>1,319</td>
<td>1,743</td>
</tr>
<tr>
<td>Other products</td>
<td>281</td>
<td>238</td>
</tr>
<tr>
<td>UAN</td>
<td>284</td>
<td>308</td>
</tr>
</tbody>
</table>

1 Yara-produced compound NPK and third party sourced (Total NPK excluding blend NPK)
Strong premium product deliveries

Value-added fertilizer deliveries\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>3Q14</th>
<th>3Q15</th>
<th>3Q16</th>
<th>3Q17</th>
<th>3Q18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Europe</td>
<td>300</td>
<td>332</td>
<td>384</td>
<td>354</td>
<td>440</td>
</tr>
<tr>
<td>Europe</td>
<td>302</td>
<td>354</td>
<td>440</td>
<td>128</td>
<td>118</td>
</tr>
<tr>
<td>Latin America excl. Brazil</td>
<td>108</td>
<td>84</td>
<td>74</td>
<td>77</td>
<td>84</td>
</tr>
<tr>
<td>North America</td>
<td>118</td>
<td>108</td>
<td>74</td>
<td>77</td>
<td>84</td>
</tr>
</tbody>
</table>

CAGR 17%

\(^1\) YaraBela, YaraMila and YaraLiva deliveries
AdBlue deliveries

Kilotons

3Q13 3Q14 3Q15 3Q16 3Q17 3Q18

58
Yara stocks

Kilotons
Finished fertilizer

8,000


Other
Compound
NPK
Nitrates
Urea