



Knowledge grows

## Yara International ASA Bernstein Conference

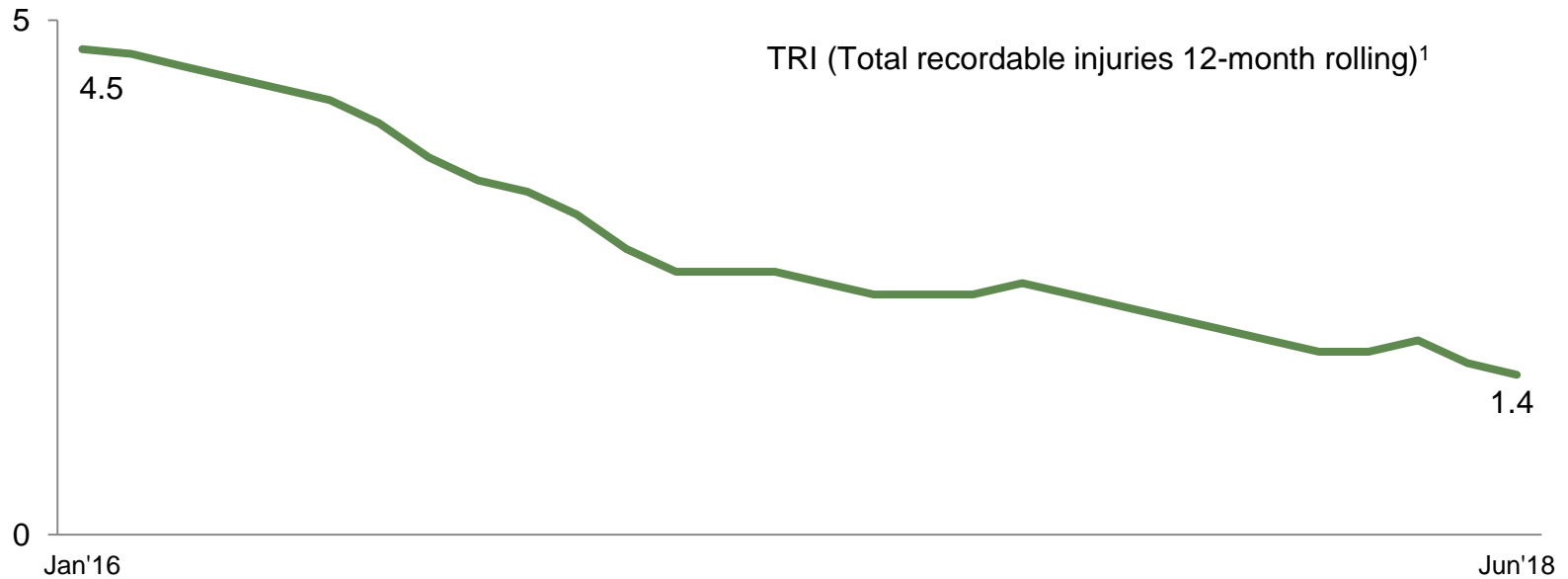
Petter Østbø, EVP, Chief Financial Officer  
26 September 2018



# Agenda

- **Yara introduction**
- Market fundamentals
- Yara strategy
- Targets

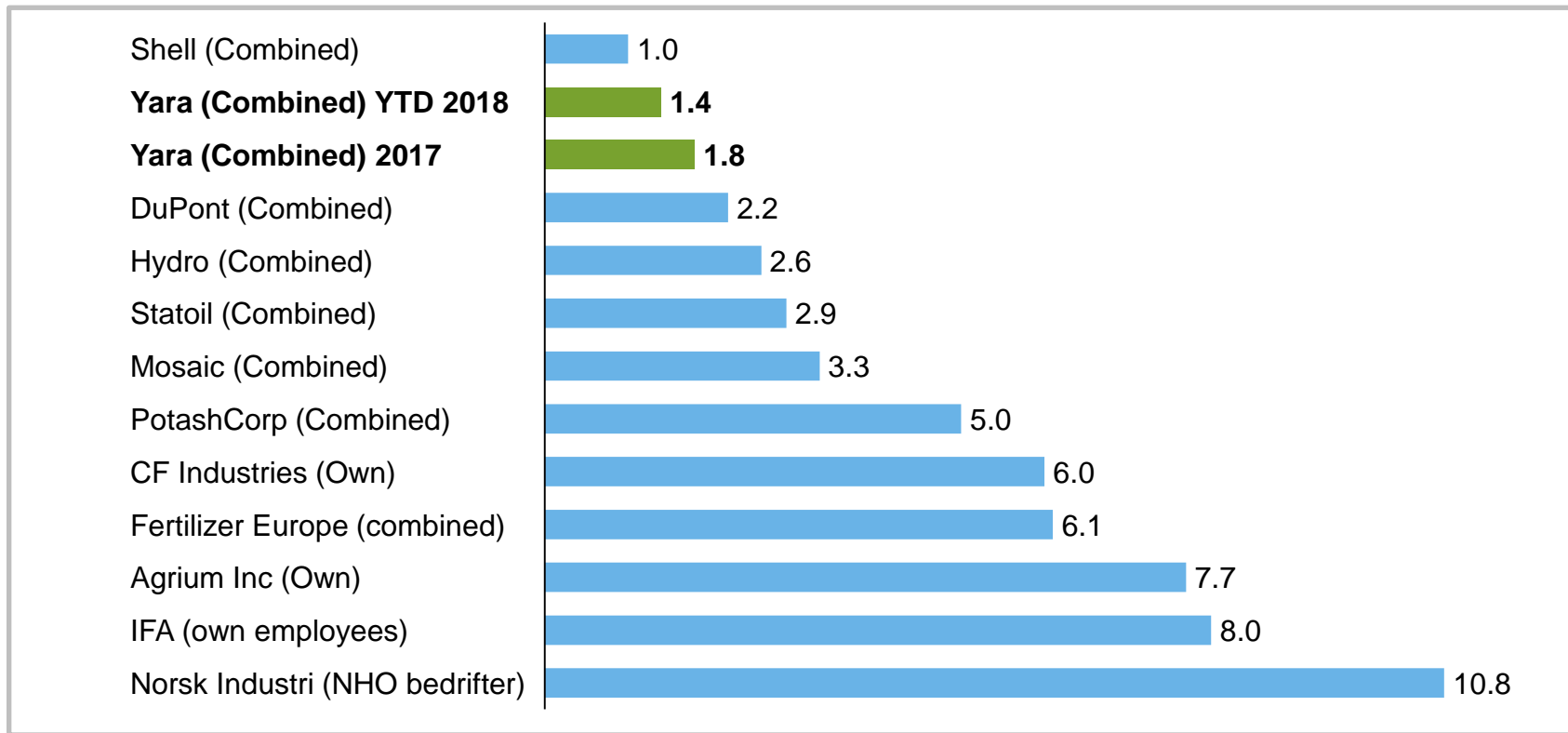
# Safe operations is our first priority



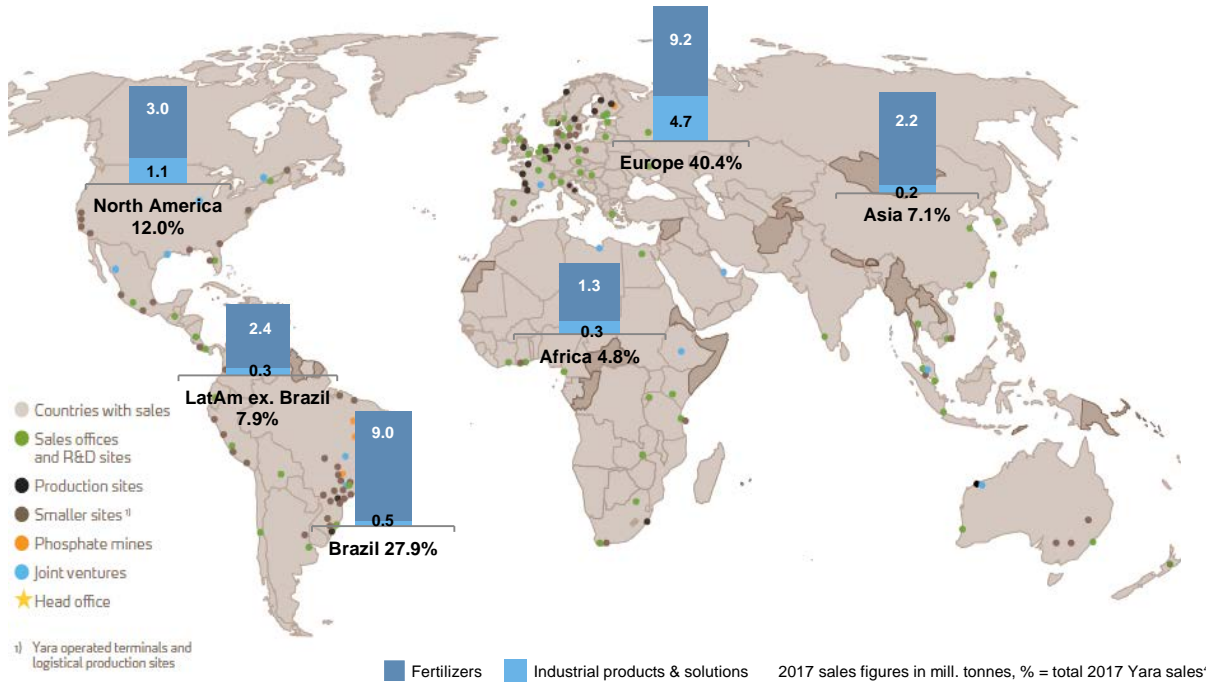
1) TRI: Total recordable injuries, lost time (absence from work), restricted work and medical treatment cases per one million work hours.

# External safety benchmark

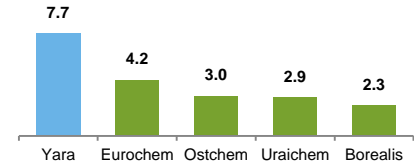
TRIs per million hours worked



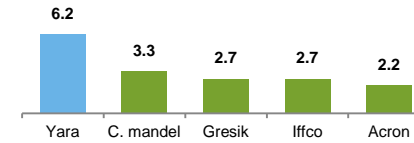
# Yara's leading global position and differentiated product portfolio represent key sources of competitive edge



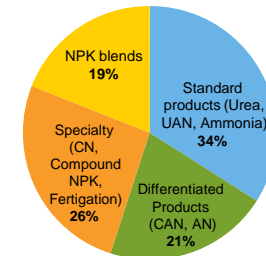
## Global #1 in Nitrates<sup>1</sup>



## Global #1 in NPK<sup>2</sup>



## Fertilizer product portfolio<sup>3</sup>



1) Including TAN and CN – Including companies' share of JVs 2016YE  
 2) Compound NPK, excluding blends  
 3) 2016/2017 season volume  
 4) Ammonia trade not included in chart above

# Why is nitrate fertilizer the better nitrogen fertilizer?



**2-20% yield**



**best fit for precision agriculture**



**up to 90% reduced ammonia emissions**



**improved local environment**

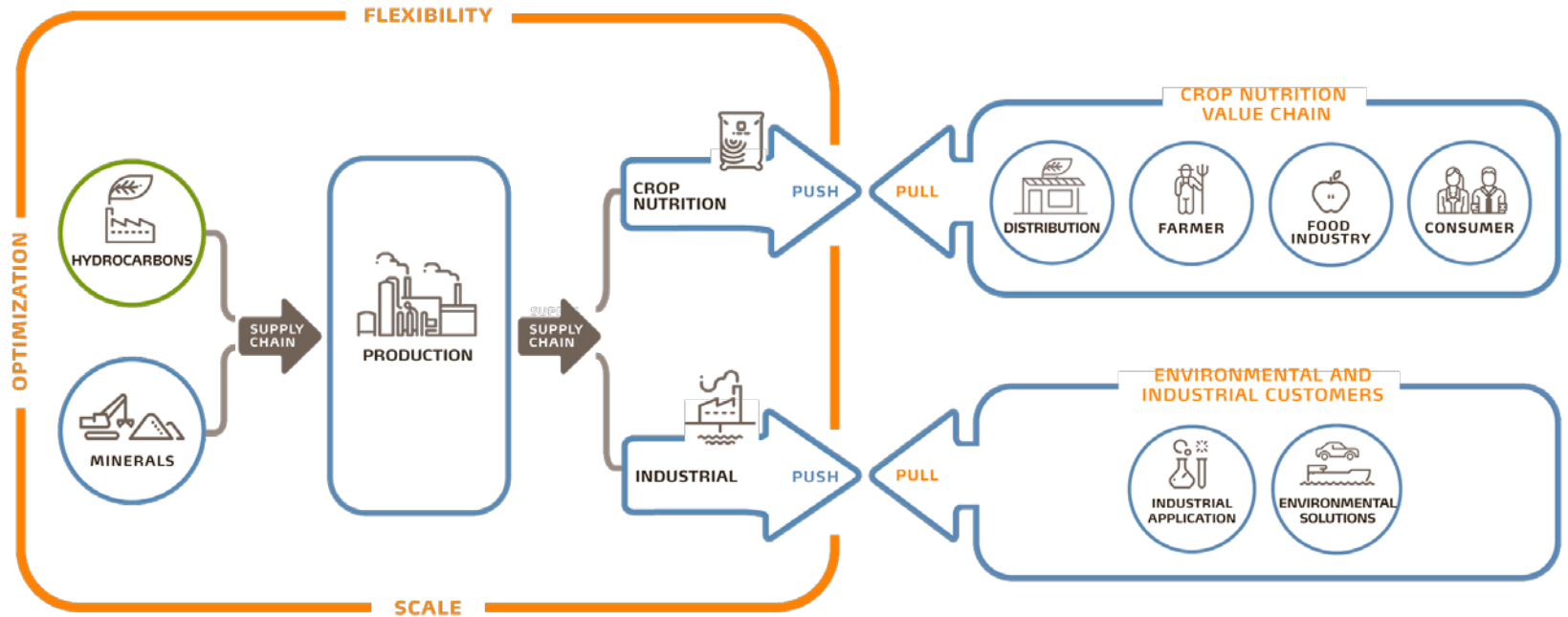


**up to 15 % lower GHG emissions**



**only N-source in a carbon neutral future**

# Yara's integrated business model is unique within the fertilizer industry

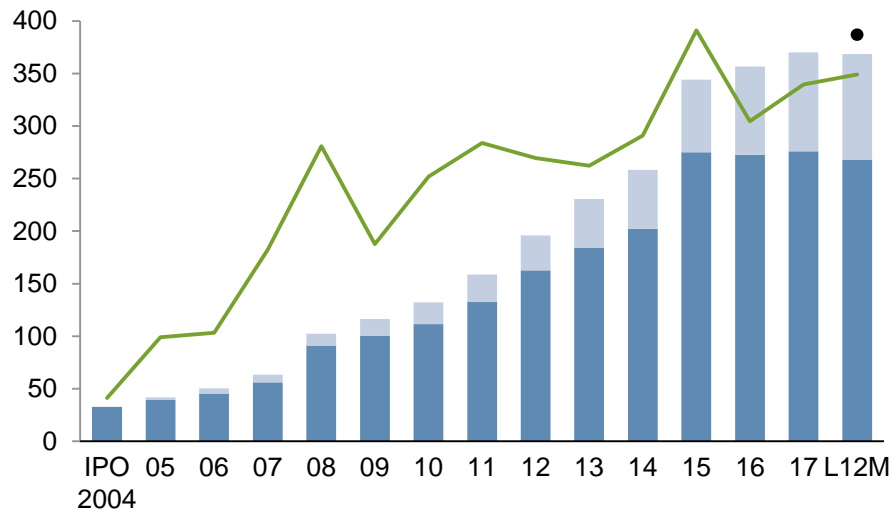




# Profitable growth through the cycle

Average annual shareholder return of 20%<sup>1</sup>

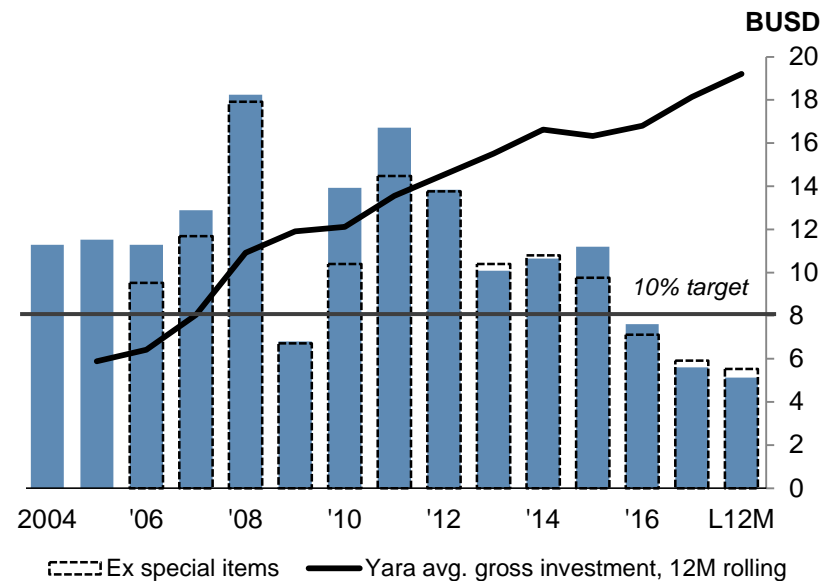
NOK/share



■ Accumulated cash dividend payments    — Average annual share price  
■ Book equity    ● Share price 24 Sep 2018

1) Share price appreciation (end 2Q 18) plus dividend payments

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



Ex special items    — Yara avg. gross investment, 12M rolling



# Agenda

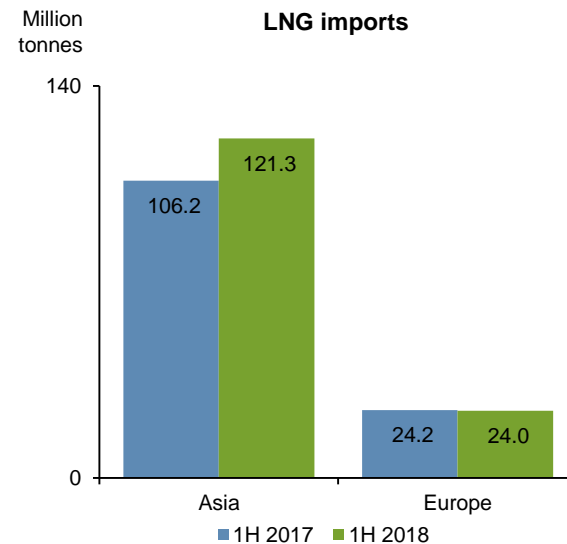
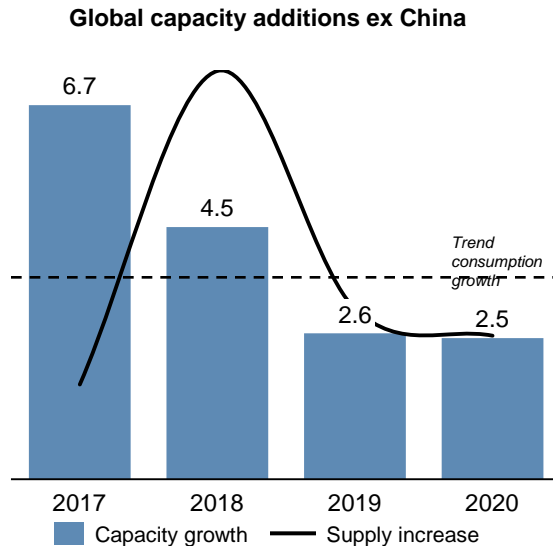
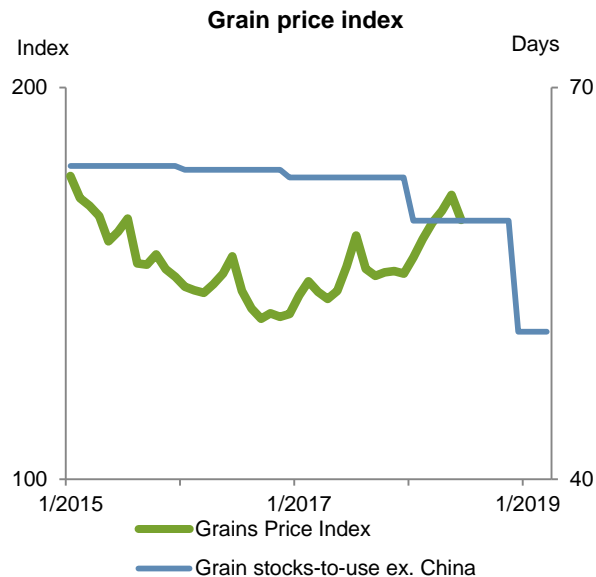
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# Market fundamentals improving, with positive developments towards 2019 on grain stocks and urea supply

Grain prices rising slowly, and stocks are falling

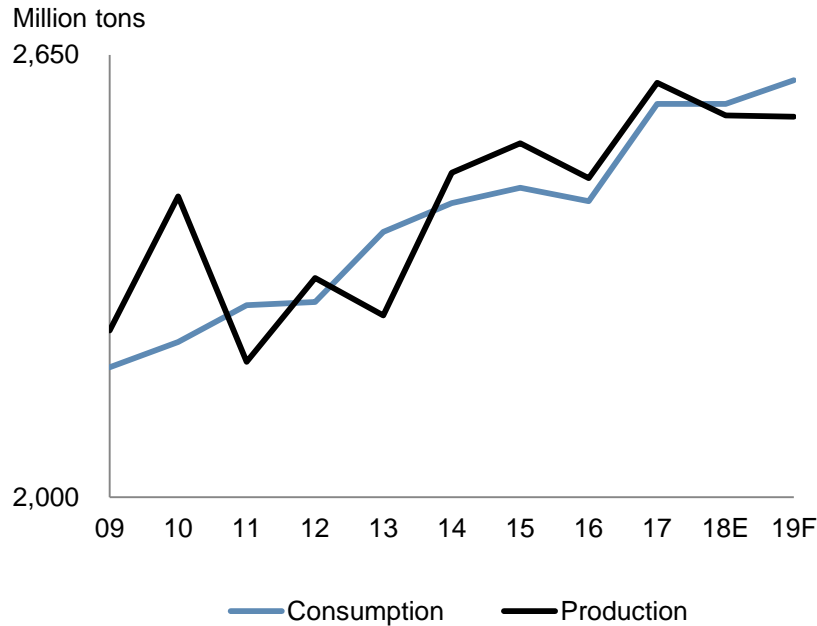
Urea supply increases high in 2018, falling thereafter

Strong Asian demand drives LNG prices higher

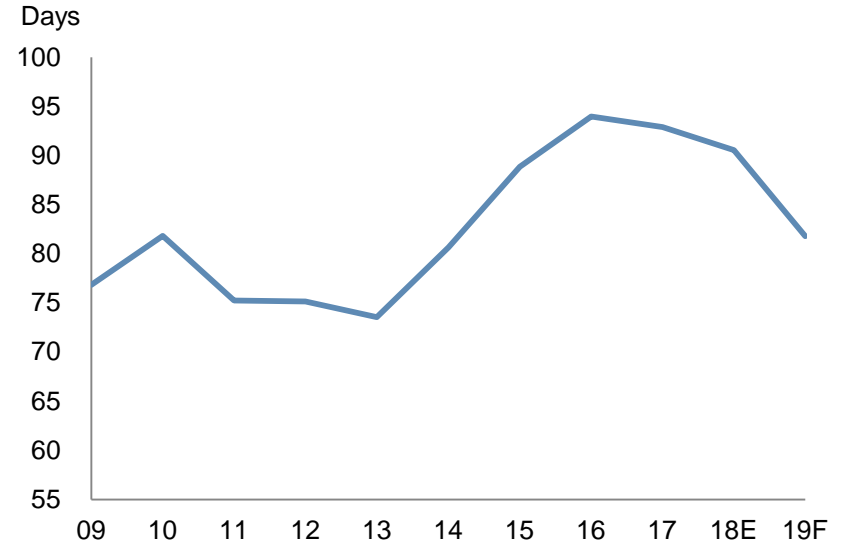


# Steady growth in grain consumption, production expected to fall short for the 2018/19 season

## Grain consumption and production



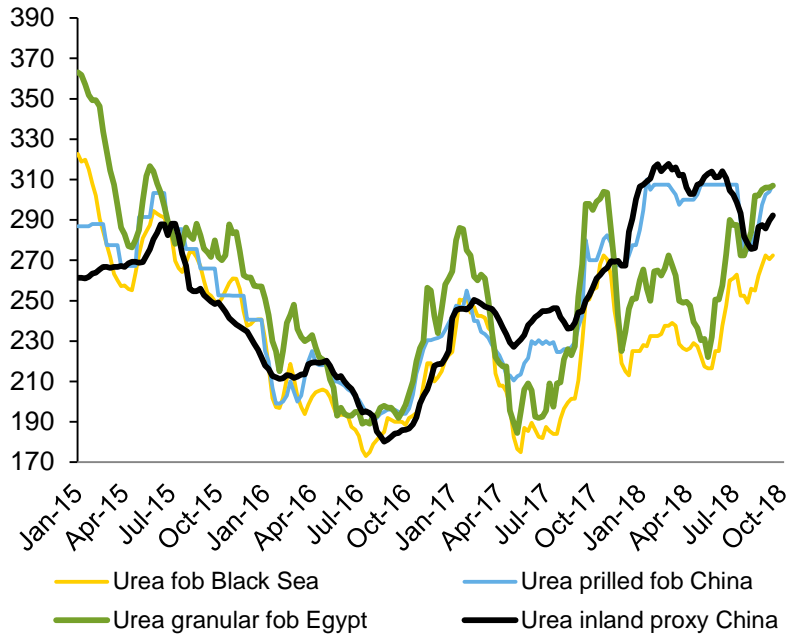
## Days of consumption in stocks



Source: USDA August 2018

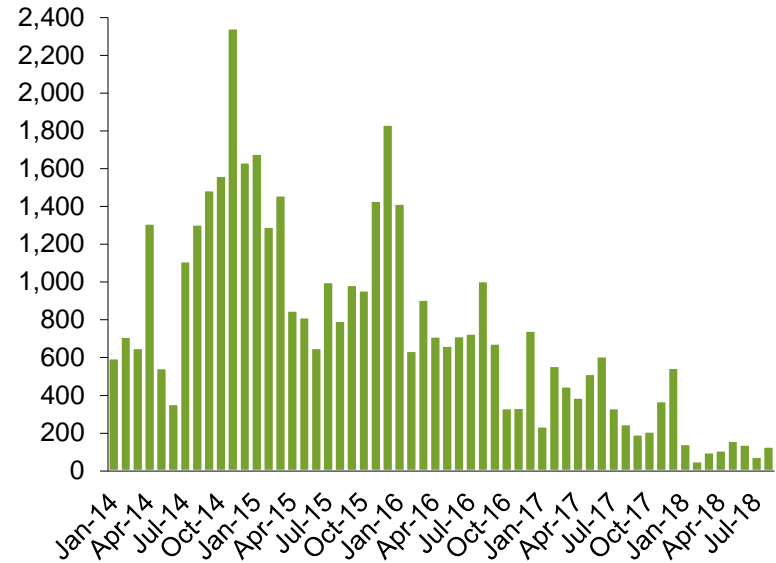
# Stronger global pricing, pulling Chinese pricing higher as well

## Increasing urea pricing (USD/ton)



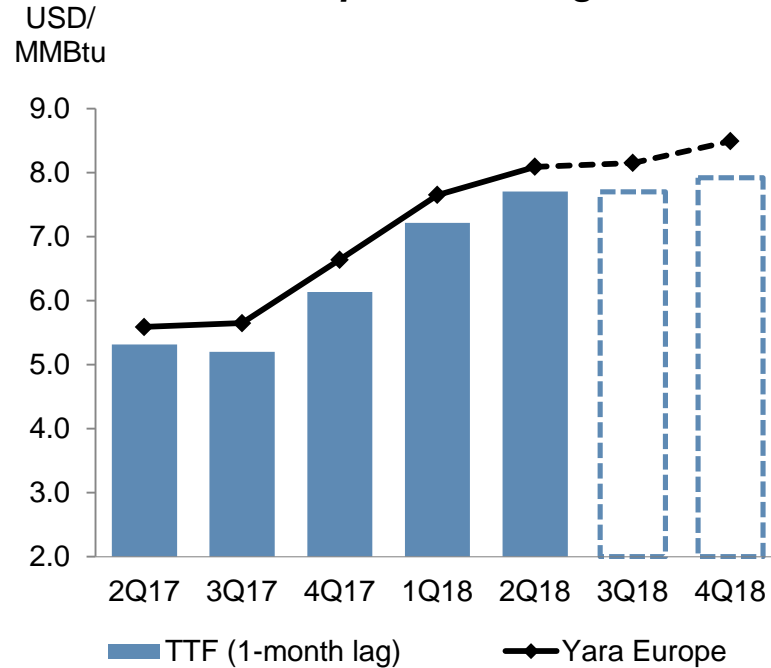
Source: BOABC, CFMW

## Lower Chinese export (thousand tonnes)



# Higher natural gas cost expected for the next two quarters

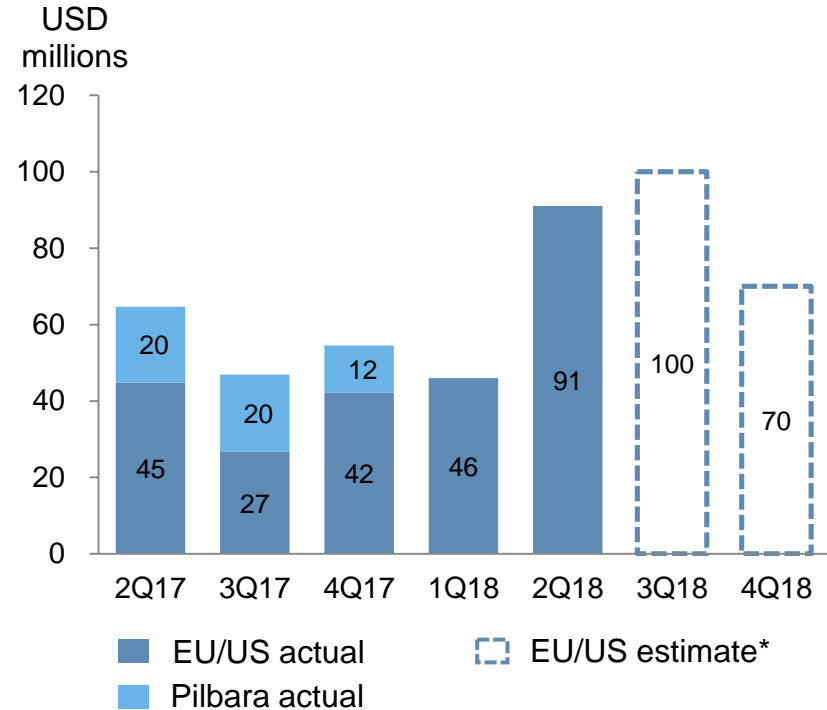
## Yara European natural gas cost



\*Dotted lines denote forward prices as of 10 July 2018

Source: Yara, World Bank, Argus/ICIS Heren

## Y-o-Y change in Yara gas cost



# Agenda

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# Yara's mission and vision guides our strategy

## 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 Leader

We will grow responsible solutions to farmers, industry and society, while delivering superior return on capital



# Advance Operational excellence; Yara Improvement Program delivering ahead of plan

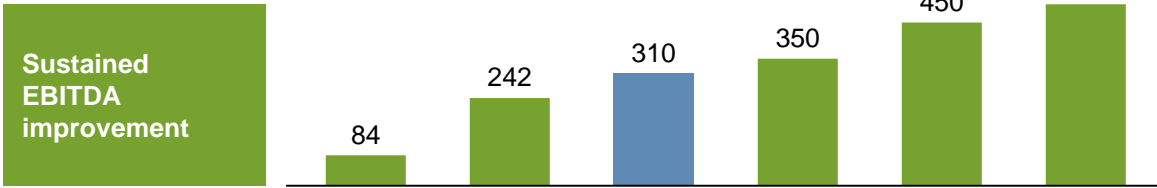


- The Yara Improvement Program has so far delivered 310 million US dollars of annual sustained benefits, measured at 2015 margins

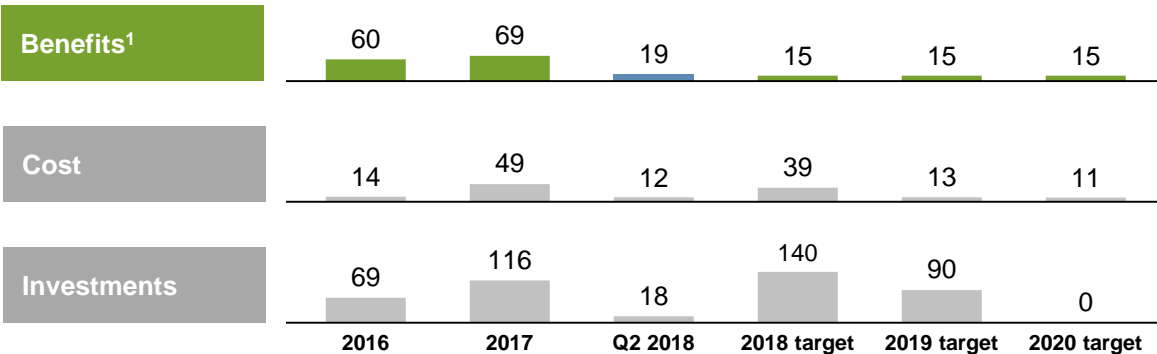
- The equivalent number using 2018 margins is ~300 million US dollars

- Improvements on Production volume, Consumption factor and Variable unit costs are on or ahead of target

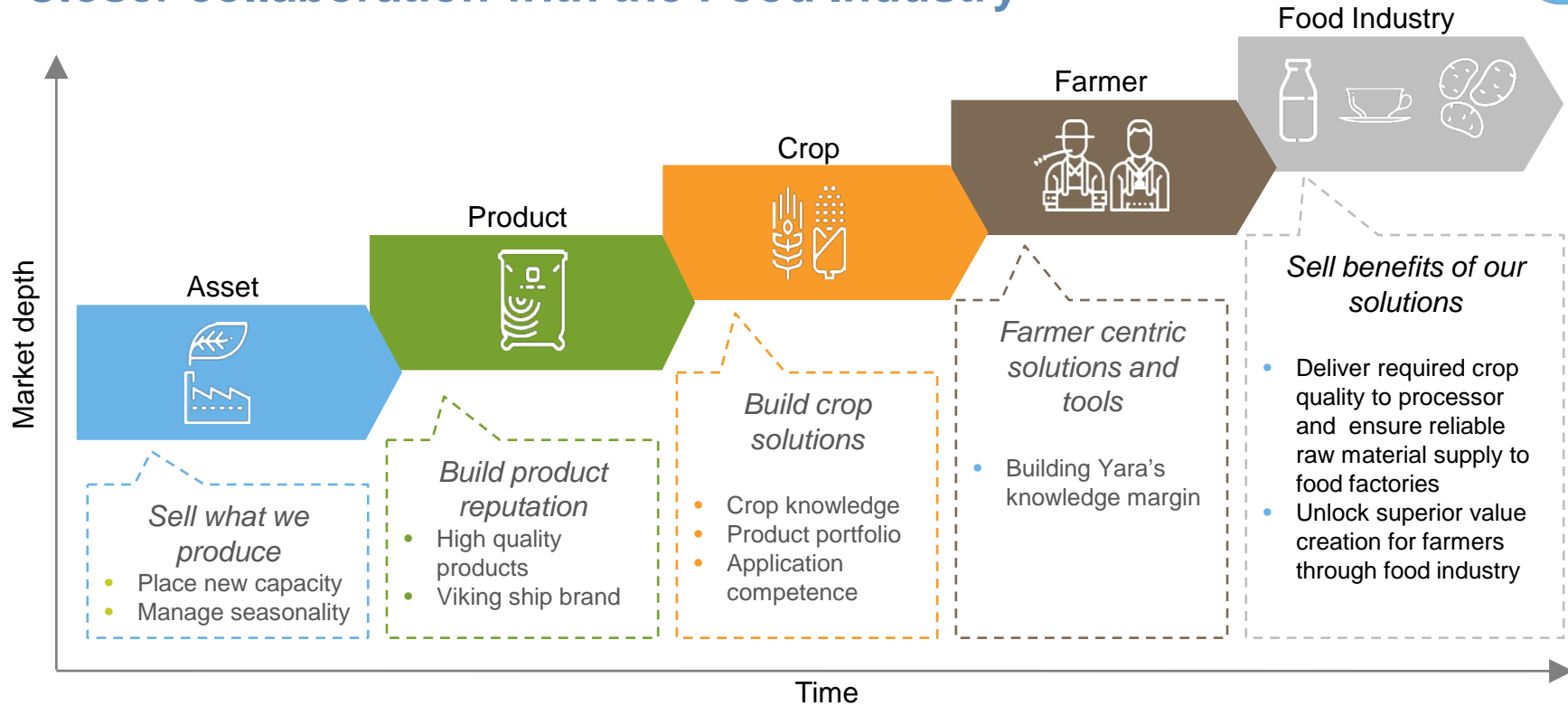
Annual impact, USD million, vs. 2015 baseline, at 2015 margins



One-off



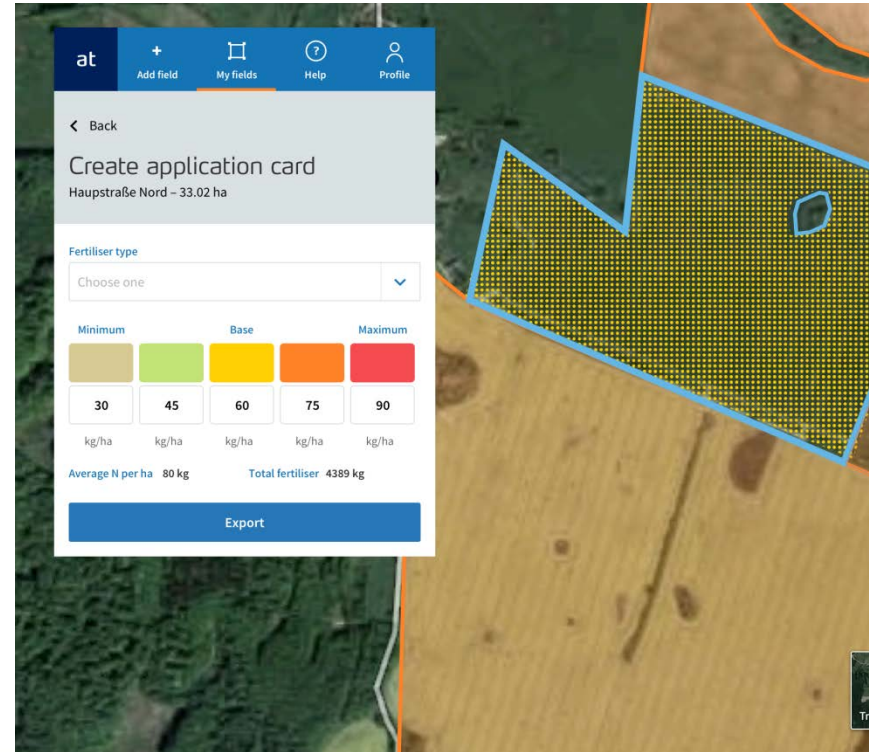
# Create Scalable Solutions; Closer collaboration with the Food Industry



# Precision fertilization made simple - atfarm

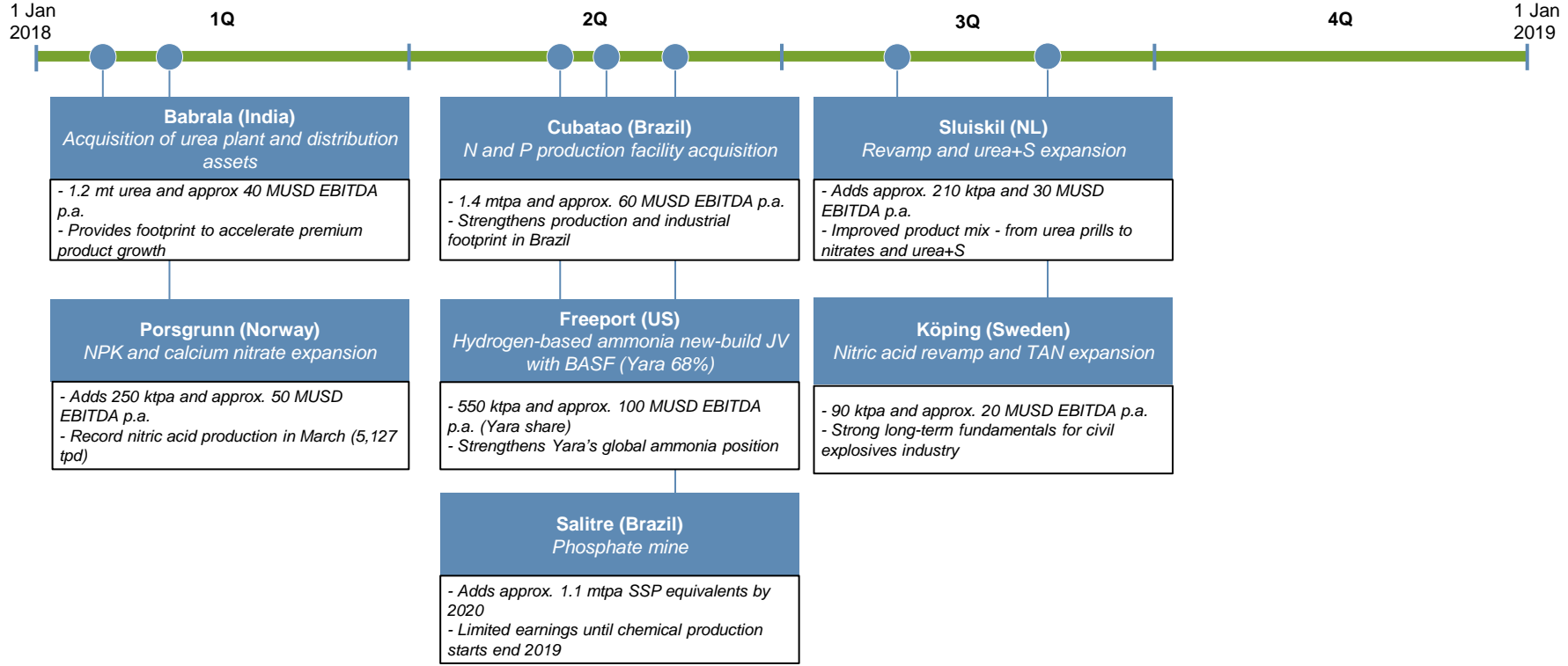


- 10x10m precision application of fertilizer
- Quantitative recommendation “in only 5 clicks”
- Empowered by decades of Yara precision fertilization R&D
- Benefits for farmers
  - Higher yield
  - Reduced waste
  - Higher protein content





# Drive Innovative Growth; Yara is delivering on its growth pipeline



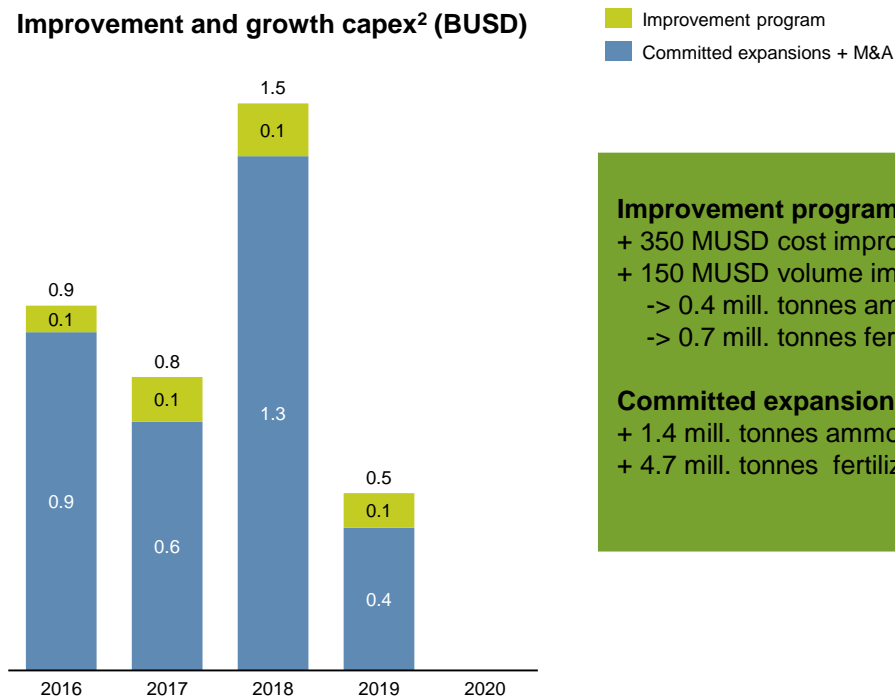
EBITDA figures at 2015 prices except Cubatão which reflects business case prices

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# Major improvement and growth investments in 2018; main earnings improvement from 2019 onwards<sup>1</sup>

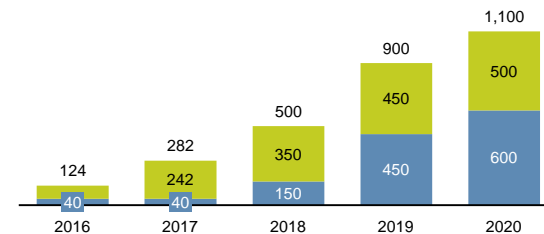
Improvement and growth capex<sup>2</sup> (BUSD)



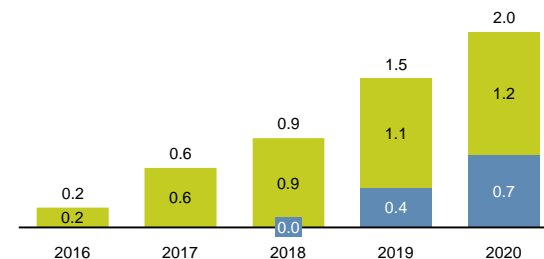
**Improvement program:**  
 + 350 MUSD cost improvement  
 + 150 MUSD volume improvement:  
 -> 0.4 mill. tonnes ammonia  
 -> 0.7 mill. tonnes fertilizer

**Committed expansions + M&A:**  
 + 1.4 mill. tonnes ammonia  
 + 4.7 mill. tonnes fertilizer

EBITDA improvement<sup>3</sup> (MUSD)



Earnings improvement<sup>3</sup> (USD per share)



<sup>1</sup> Currency assumptions for 2018 onwards: USD/NOK 8,01, EUR/USD: 1.18 , USD/BRL: 3.83

<sup>2</sup> Excluding maintenance capex on existing assets . Yara's share of capex. Fully consolidated entities presented at 100% basis

<sup>3</sup> 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





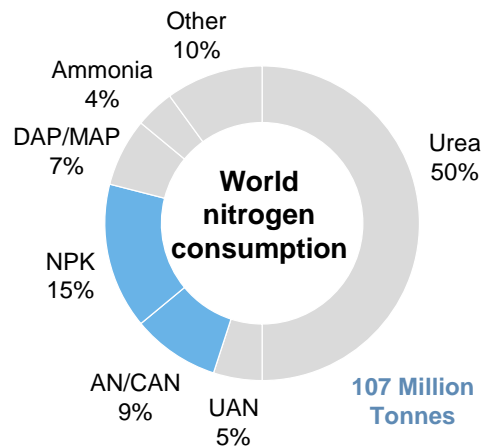
Knowledge grows

IR - 17 July 2018

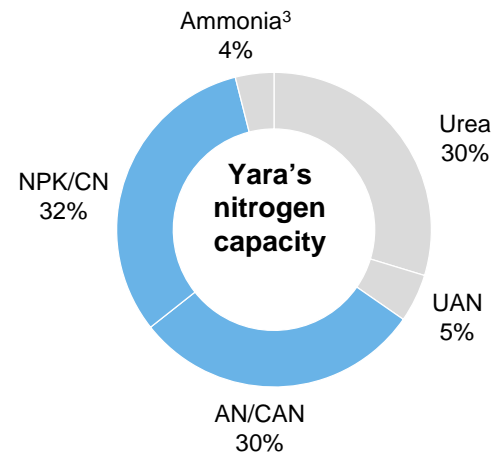
# Market

# Yara's margins contain both commodity and premium elements

Urea is the key commodity  
Nitrogen product<sup>1</sup>



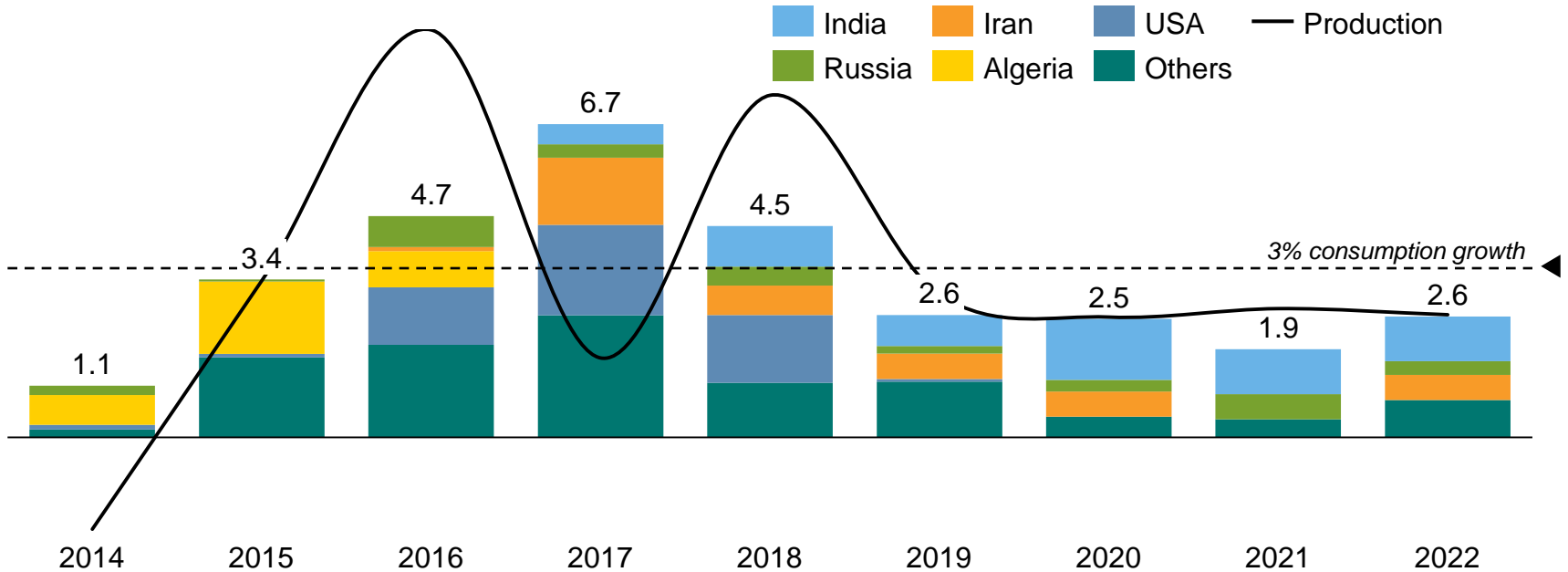
Yara's nitrogen production capacity with  
high premium share<sup>2</sup>



■ Premium    ■ Commodity

# Strong urea supply growth this year, but supply-demand balance set to gradually improve after 2018

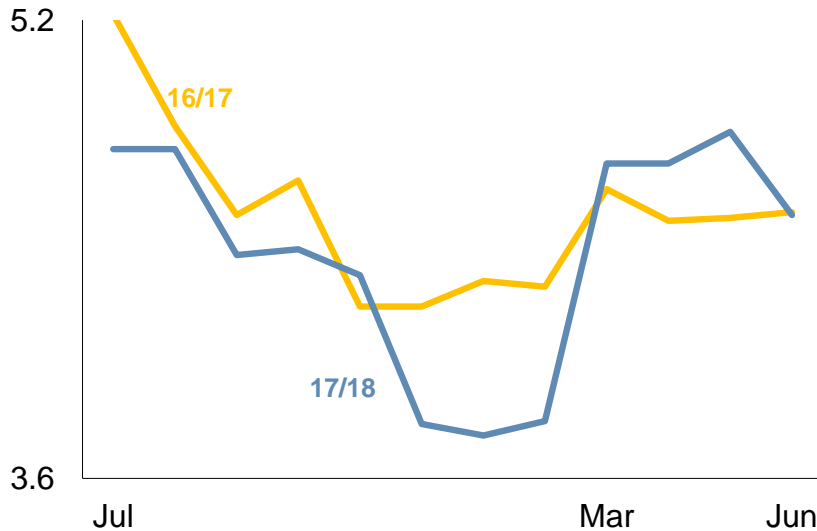
Global urea capacity additions excl. China (mill. tonnes)



Source: CRU June 2018 - CRU has removed Dangote Fertilizer, Nigeria (3 mill tons) from the medium-term forecast and shifted the project to 2023

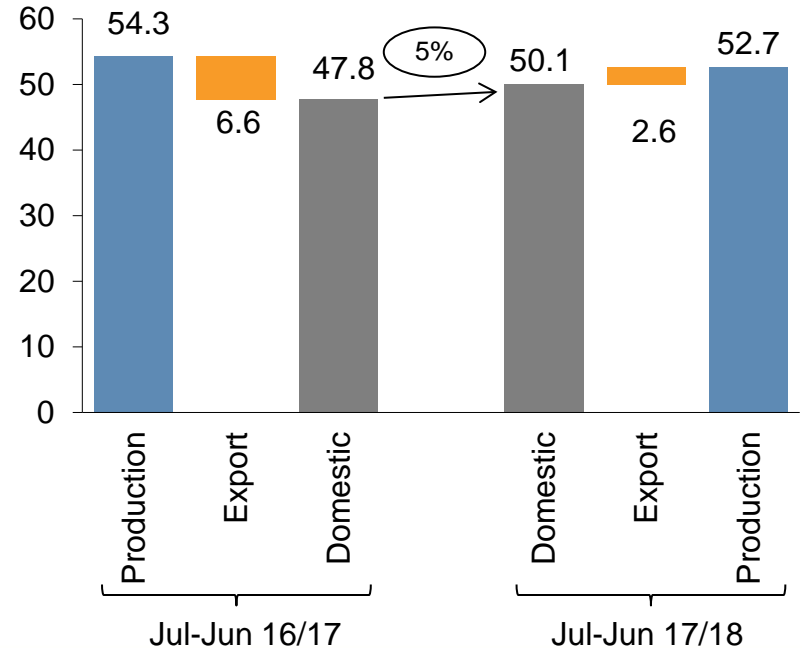
# Chinese domestic supply slightly up, as export decline more than offsets lower production

Chinese urea production down vs last year (million tons)



Source: CFMW, covering close to 100% of production

Export reduction exceed production decline (million tons)



# Grain prices significantly up from last year

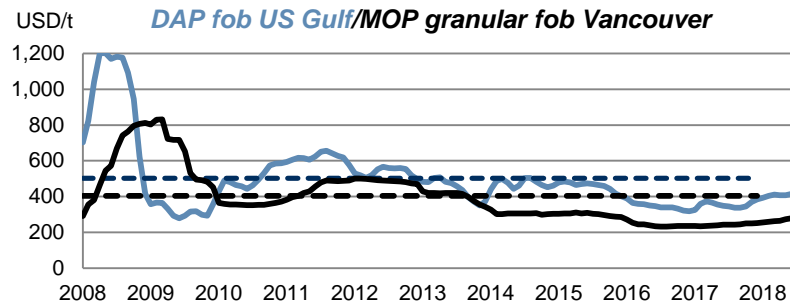
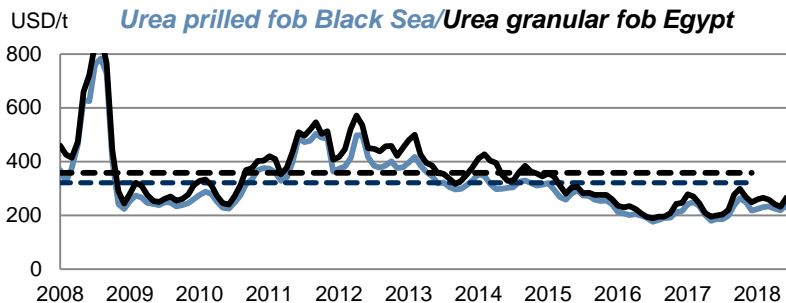
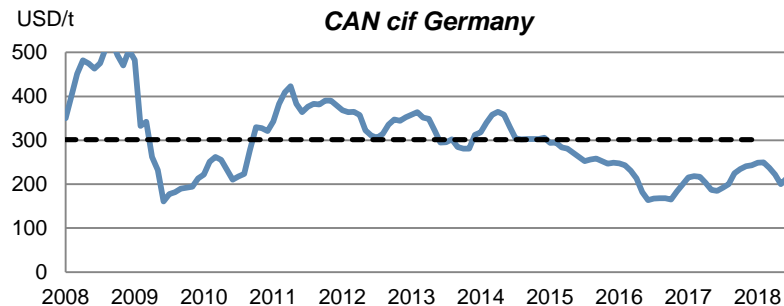
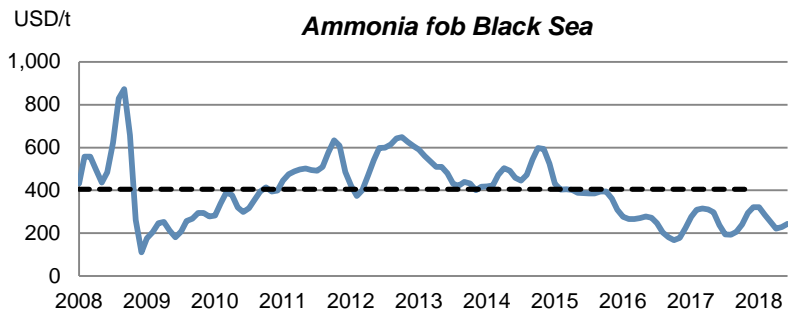
**Corn Nov 2018 contract France (EUR/tonnes)**



**Wheat (milling) Dec 2018 contract France (EUR/tonnes)**



# 10-year fertilizer prices – monthly averages



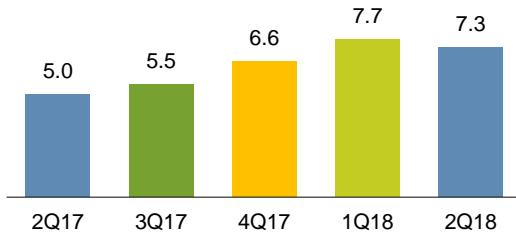
Source: Fertilizer Market Publications

--- Average prices 2008 - 2017

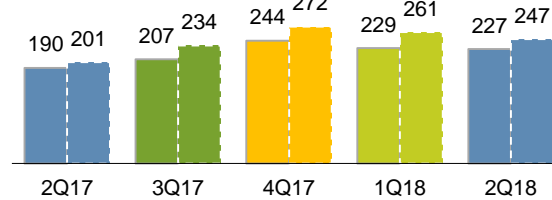


# Key value drivers – quarterly averages

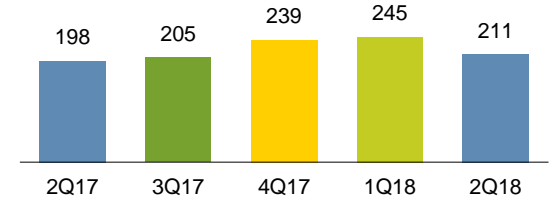
TTF day ahead (USD/MMBtu)



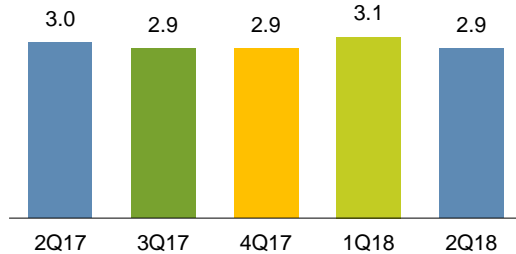
Urea prilled fob Black Sea (USD/t)/Urea granular fob Egypt (dotted line, USD/t)



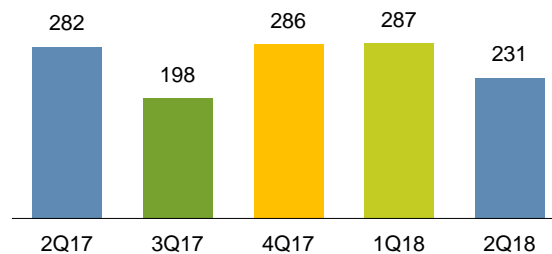
CAN cif Germany (USD/t)



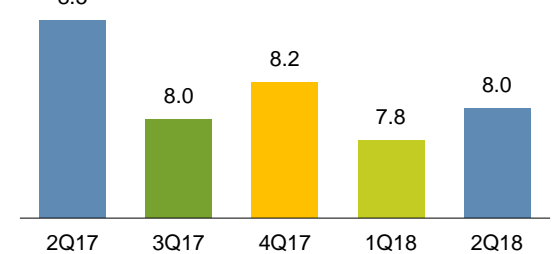
US gas price Henry Hub (USD/MMBtu)



Ammonia fob Black Sea (USD/t)







NOK/USD exchange rate



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

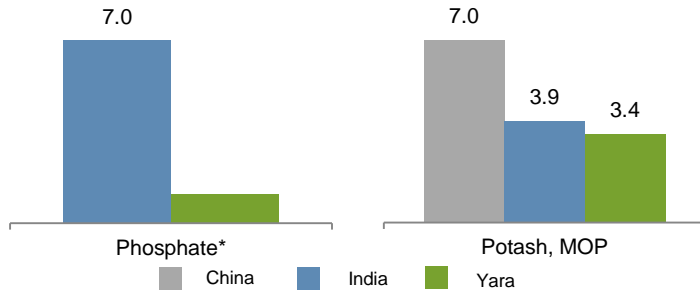
	Production	Crop Nutrition	Industrial
			
<b>Description</b>	Runs large-scale production of nitrogen-based products, the starting point for our crop nutrition and industrial solutions	Provides worldwide sales, marketing and distribution of a range of crop nutrition products and programs	Develops and markets environmental solutions and products for industrial applications
<b>Credit highlight</b>	Production has plants and mines globally, providing scale and flexibility	Crop Nutrition creates resilience in earnings with distribution and agronomic competence	Industrial segment reduces cyclicity and seasonality
<b>2017 Revenues<sup>1</sup></b>	0.9 BUSD 8%	8.7 BUSD 76%	1.8 BUSD 16%
<b>2017 EBITDA<sup>2</sup></b>	0.7 BUSD 54%	0.5 BUSD 36%	0.2 BUSD 12%
<b>Supply Chain</b>	 <ul style="list-style-type: none"> <li>• Global function responsible for optimization of energy, raw materials and third party sourcing</li> <li>• 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</li> </ul>		

# 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**

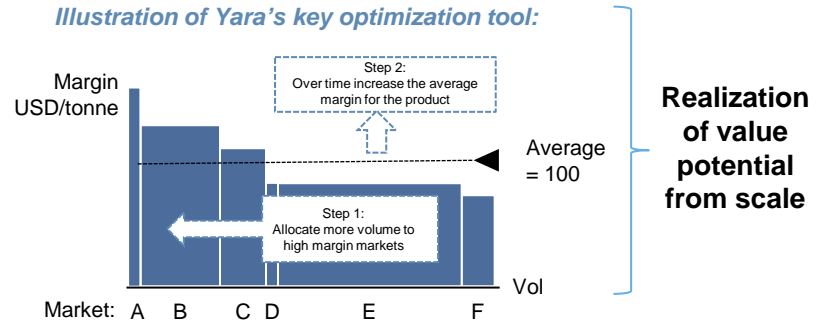
2016 P&K purchases (mt)



## Global optimization of value potential

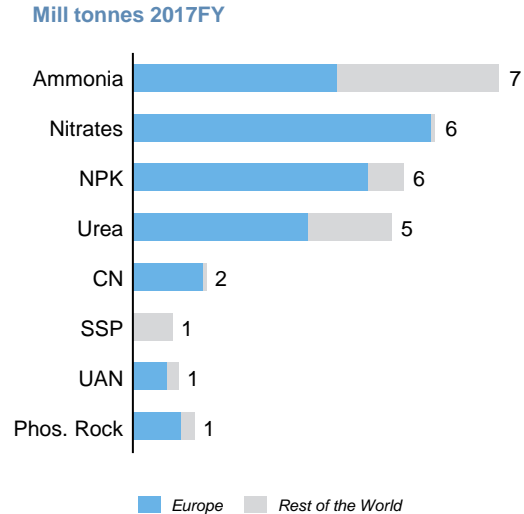
- Large number of plant, product and market combinations
- Flexibility in the allocation of production amount various plants, markets and products to optimize overall value potential
- Long-term view combined with short-term arbitrage opportunities

### Illustration of Yara's key optimization tool:

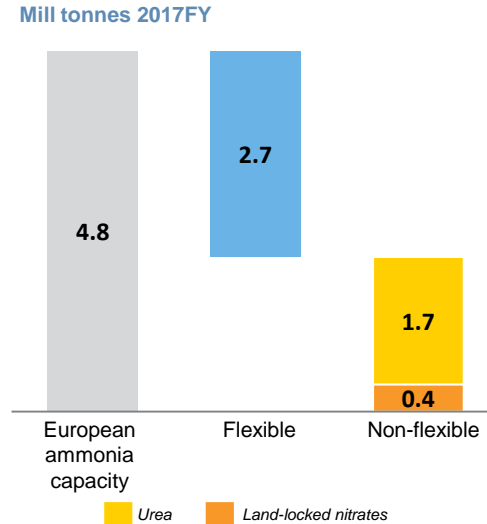


# Production scale advantage and variable cost flexibility due to asset set-up and product mix

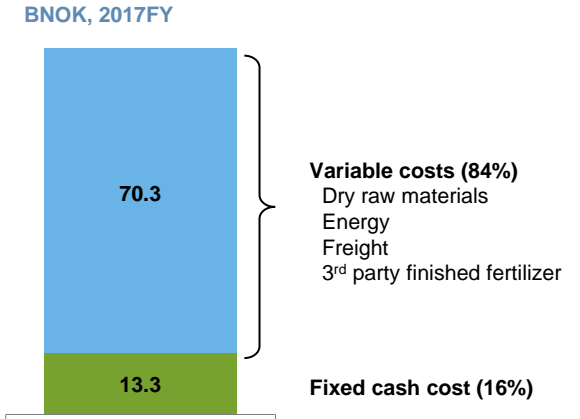
## Diversified product portfolio<sup>1</sup>



## High ammonia flexibility

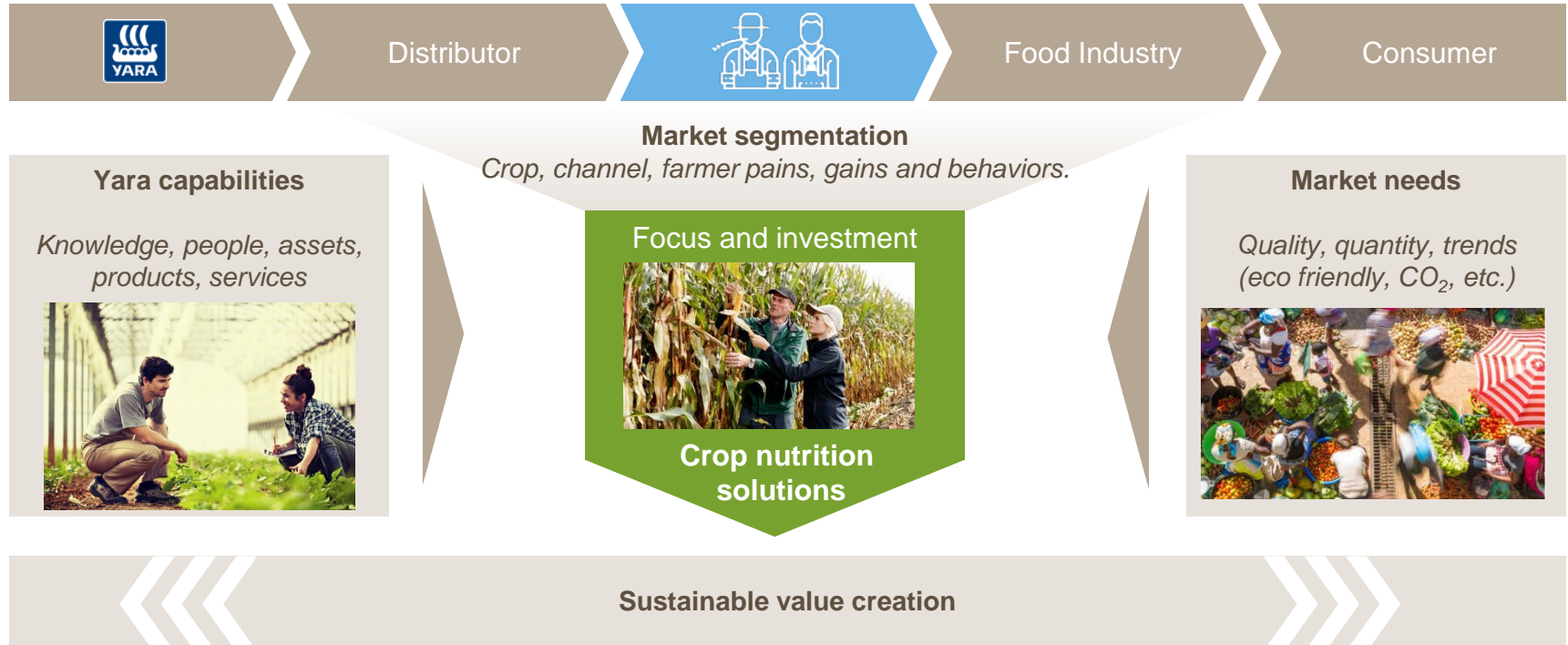


## Yara's operating cash costs are mostly variable









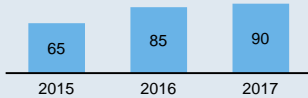
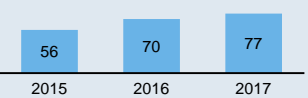
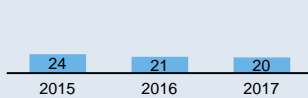
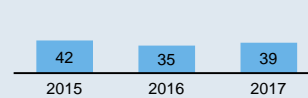


~90% of nitrate and NPK production can operate independently of ammonia production

# Crop Nutrition creates resilience in earnings through distribution of crop nutrition solutions in response to farmer needs



# Industrial segment delivers opportunities for growth and offsets fertilizer cyclicalty and seasonality

	Base Chemicals	Environmental Solutions	Mining Applications	Industrial Applications <sup>1</sup>
<b>Key product and service offering</b>	 Chemical applications used in paints and packaging, glues, foam, medical products and feed additives	 NO <sub>x</sub> and SO <sub>x</sub> abatement of emissions from heavy duty vehicles and industry	 Technical nitrates and solutions for mining and construction industries	 CN and associated solutions for industrial applications; feed urea and phosphates for animal nutrition
<b>Strategic fit</b>	Optimization of Upstream assets	Utilize logistics advantage and infrastructure footprint	Utilize technology, logistics and infrastructure advantage	Monetize products into higher value markets
<b>Geographical market</b>	 Europe	 Global	 Global	 Global
<b>Market drivers</b>	GDP growth	Legislation, GDP growth	GDP growth, mining industry	GDP growth, standard of living
<b>EBITDA 2015-2017 (MUSD)</b>				



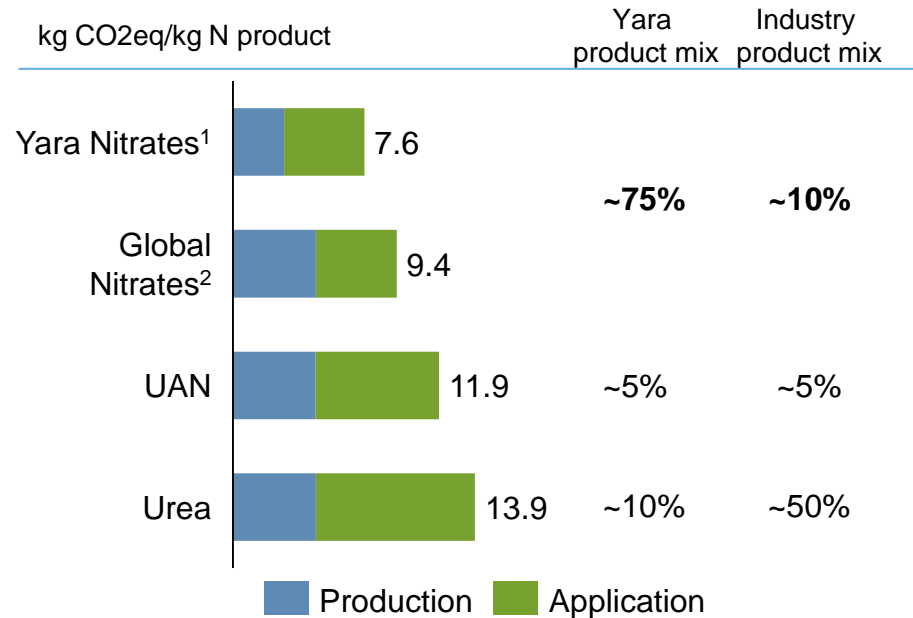
# Yara's solutions improves food production per hectare, delivered through products with lower emissions per ton

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

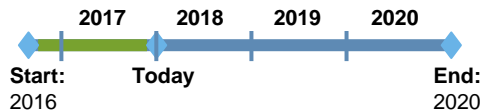
Yara's product mix has significant less emissions than most of our competitors'



# Growth & Improvement

# Yara Improvement Program – 2017 status

## Program progress

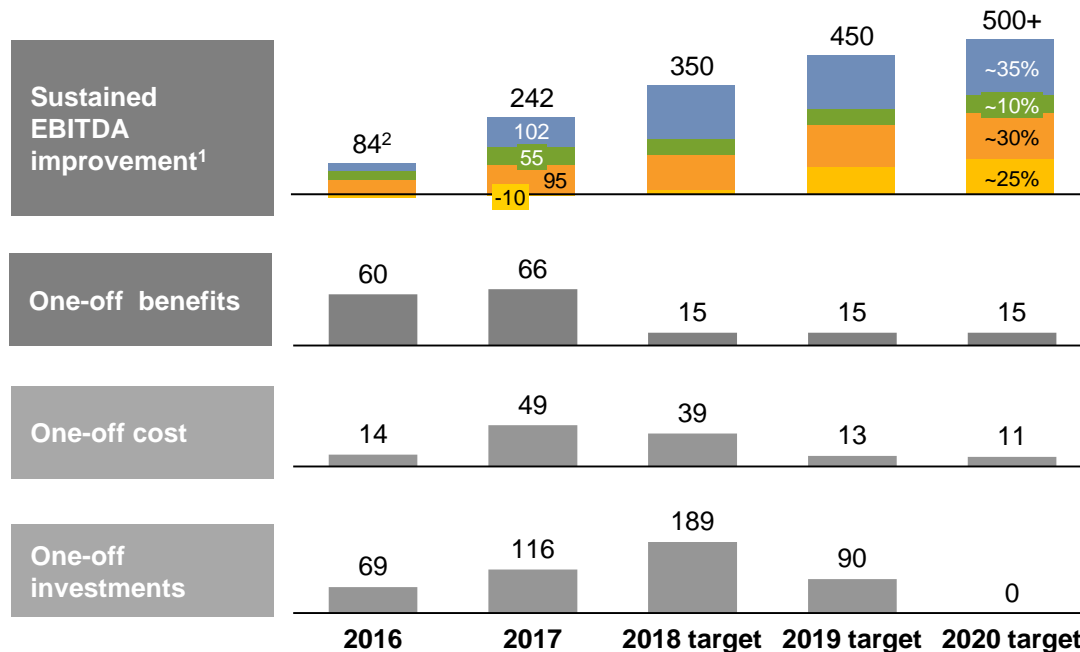


- 2017 EBITDA benefits ahead of target (in 2015 terms):
  - Production volume improvement according to plan
  - Energy consumption improvement ahead of plan
  - Variable cost improvement ahead of plan
  - Fixed cost improvement behind plan
  - One-off program costs higher than original estimate

## Financial benefits

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

■ Production volume    ■ Variable unit cost<sup>3</sup>  
■ Consumption factor    ■ Fixed cost

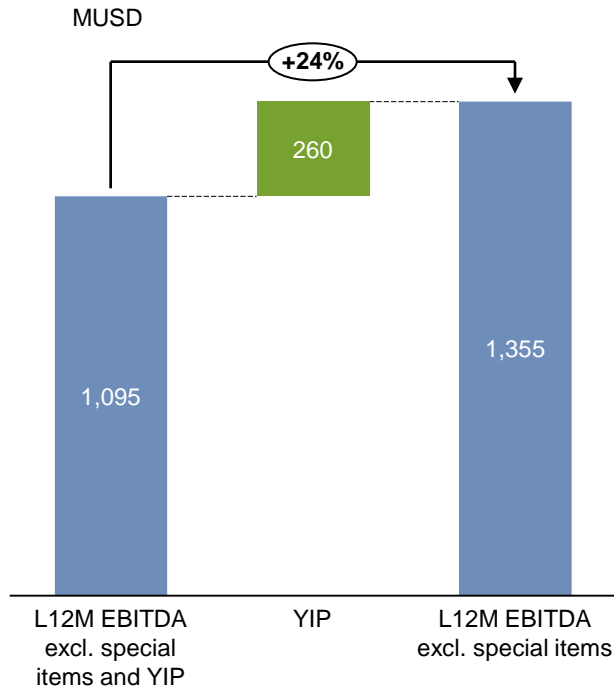


1. Additional details in the backup section;  
 2. Adjusted for corrected full-year procurement savings (e.g., full-year bonuses)  
 3. Includes improvements to direct and indirect categories, as well as value of additional steam and reduced cost of emissions

# Benefits are realized through improvements to core value drivers

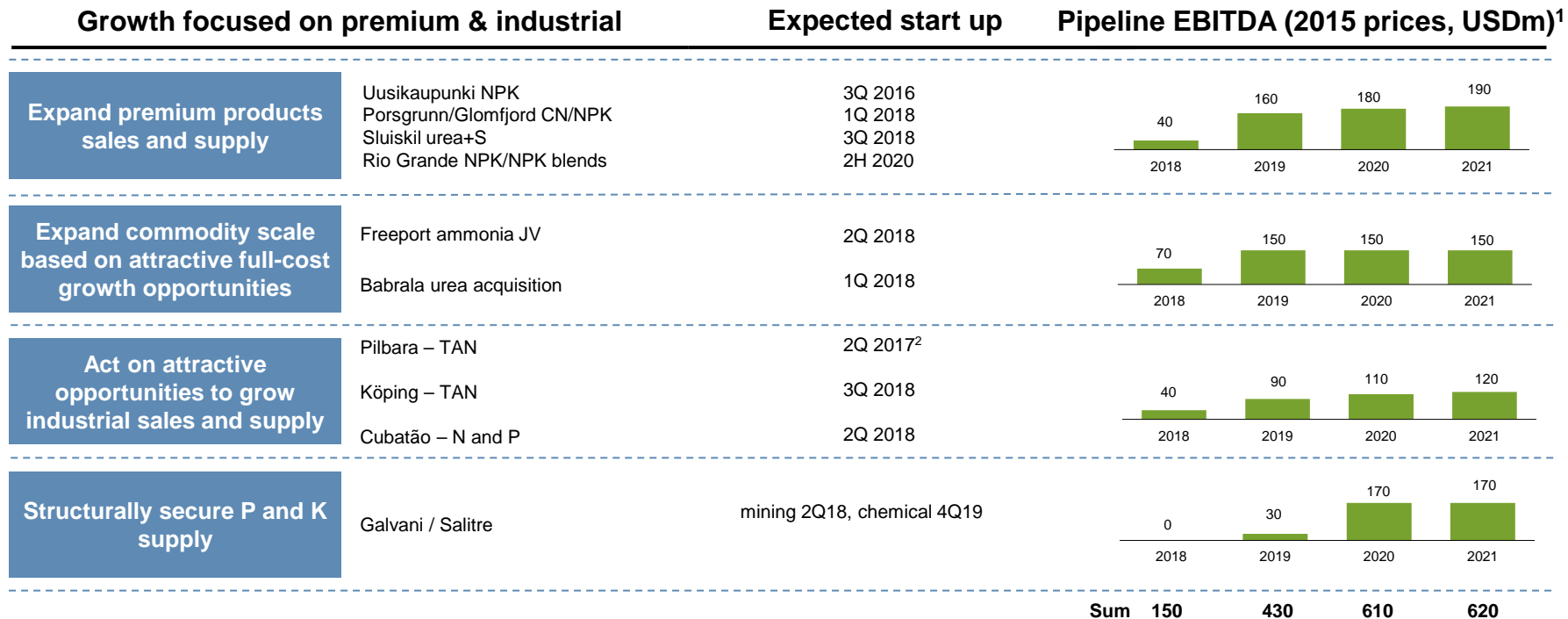
	Value driver	How we improve	How we know	
More for less	Volume <sup>1</sup>	Increase production in our existing plants by improving reliability	~400 kt additional ammonia and ~700 kt additional finished fertilizer production by 2020 <sup>6</sup>	\$500MM sustained EBITDA improvement by 2020 <sup>7</sup>
	Consumption factor <sup>2</sup>	Reduce spend on consumption factors, primarily energy, through better reliability and new technology	~3 % improved energy efficiency by 2020 <sup>6</sup>	
	Variable unit cost <sup>3</sup>	Leverage global scale, apply advanced category management and collaborative procurement approaches	Reduced spend in direct and indirect categories	
	Fixed cost <sup>4</sup>	Increase focus on standardization and realizing scale benefits	Reduced spend on fixed costs in production and support functions	
	Cash effects <sup>5</sup>	Capex: Increased standardization, more focus on execution strategy and capability building in the organization Working capital: Better targets and training	Capex: Lower spend for the same project portfolio Working Capital: Reduced inventory and credit days	
Added value	Commercial effects	Profitable growth of value added products through more targeted offerings and sales channels development	Volumes and margins enhancement	

# Yara Improvement Program accounts for ~20% of L12M EBITDA



- L12M earnings impacted by lower fertilizer prices and higher natural gas cost (~900 MUSD)
- Yara Improvement Program is (1) a driver of improved long-term Yara performance and (2) a response to challenging market conditions
- Measured at L12M margins and prices, the equivalent number is approximately 260 MUSD. This represents almost 20% of Yara L12M EBITDA excluding special items.

# Yara has expected commodity nitrogen oversupply, and has focused its growth pipeline on premium & industrial products

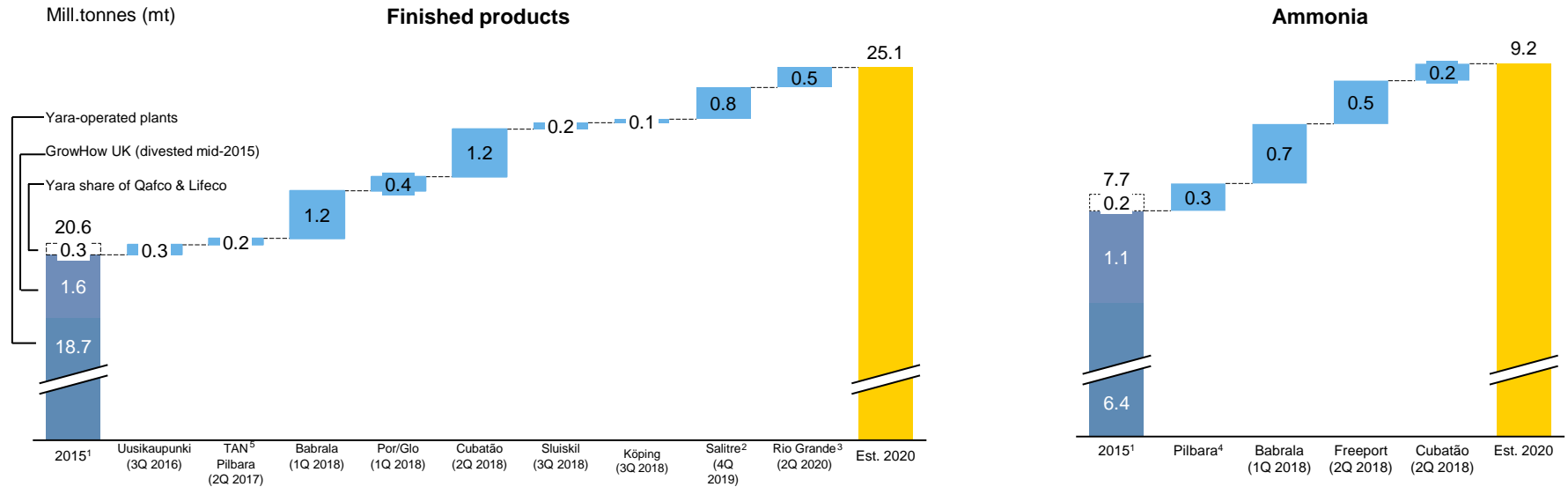


<sup>1</sup>) Including Yara's share of volume in equity accounted investees. Fully consolidated entities presented at 100% basis

<sup>2</sup>) 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

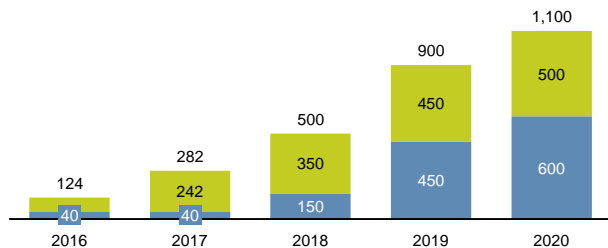
## Production growth 2015 - 2020



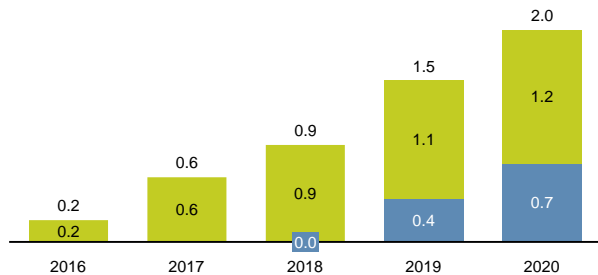
- 1) Adjusted to normalized / 2016 turnaround level (0.7mt finished fertilizer and 0.2mt NH<sub>3</sub>) and regularity level (0.7mt finished fertilizer and 0.4mt NH<sub>3</sub>)
- 2) Salitre will reach 1.1 mill.tonnes in 2022
- 3) Rio Grande expansion also adds 1 million tonnes NPK blends by 2020
- 4) Including 100% ownership in Pilbara NH<sub>3</sub> 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<sup>1</sup> (MUSD)

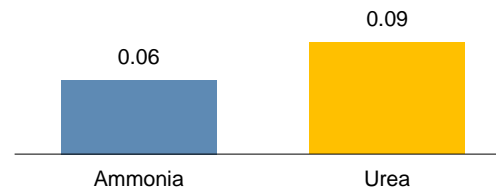


Earnings improvement<sup>1</sup> (USD per share)

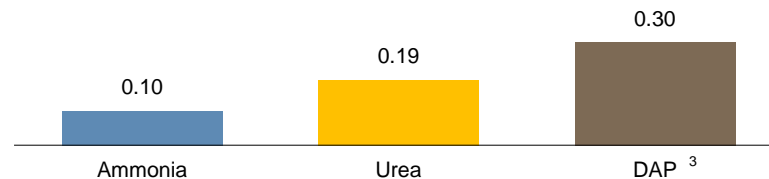


Improvement program  
Growth

Improvement program: Impact<sup>2</sup> of +100 USD/t price change (USD/share)



Growth: Impact<sup>2</sup> of +100 USD/t price change (USD/share)



<sup>1</sup> 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.

<sup>2</sup> Improvement: 2020 numbers. Growth: At full capacity (2019 for urea and ammonia, 2020 for DAP).

<sup>3</sup> Phosphate-driven price change, equivalent to 138 USD/t phosphate rock (72 bpl)

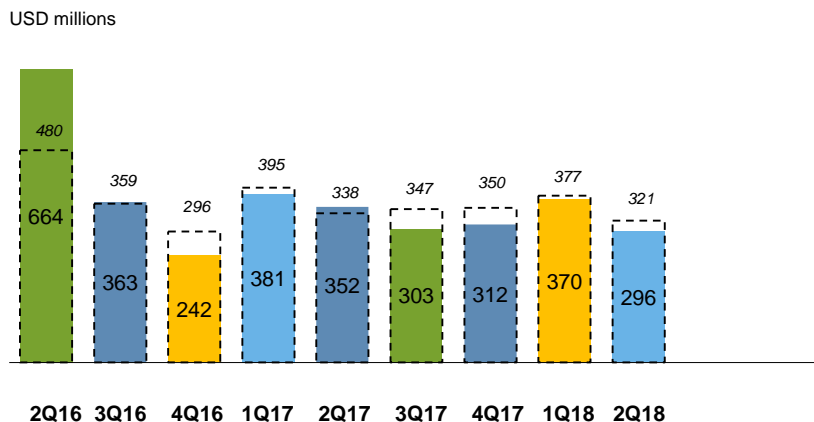


# Financial

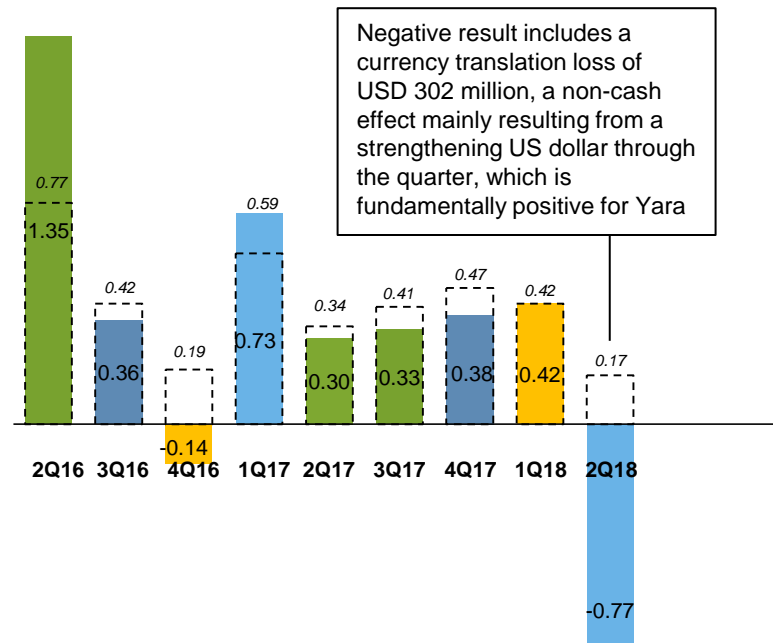
# Earnings per share impacted by higher energy cost and currency translation loss

<sup>x.xx</sup> EPS excluding currency and special items

## EBITDA



## Earnings per share

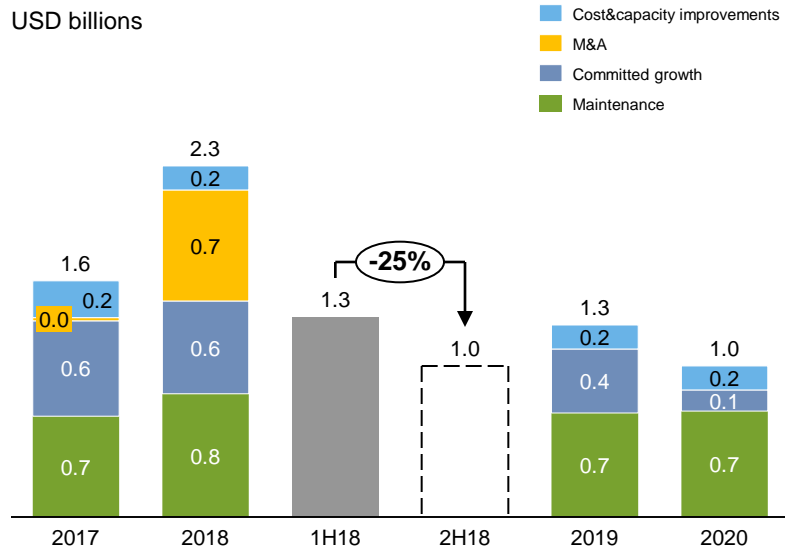


Average number of shares for 2Q 2018: 273.2 million (2Q 2017: 273.2 million).

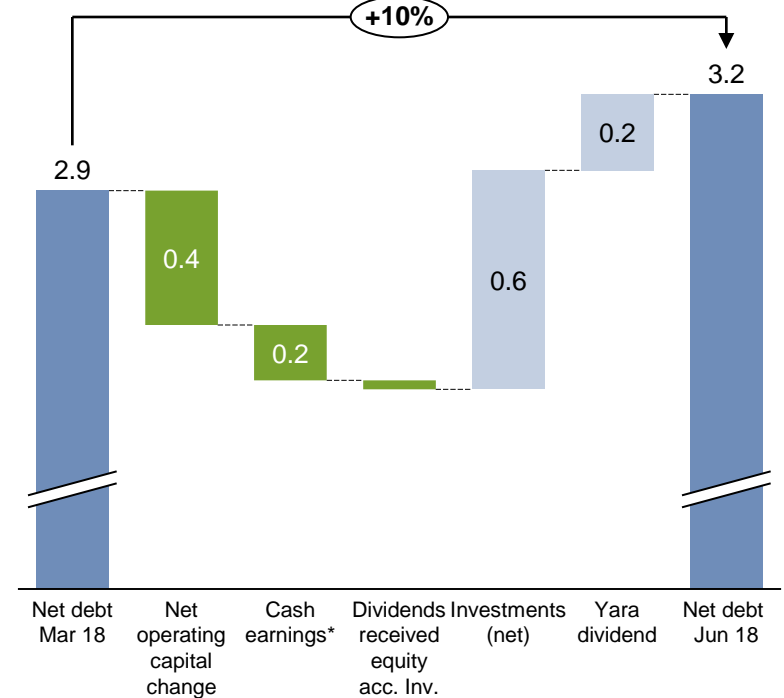
# Yara investment activity peaked in first half 2018

## Capex plan

USD billions



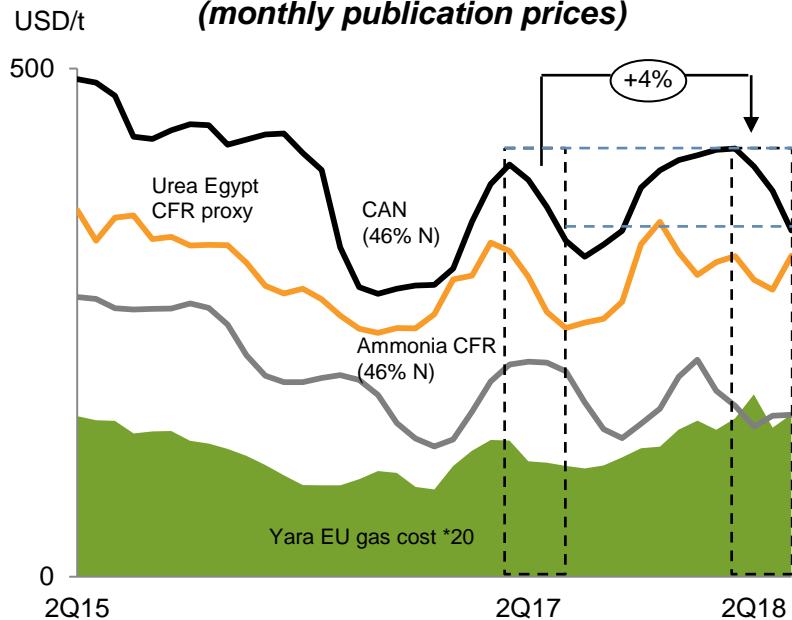
## Net interest-bearing debt



\* Operating income plus depreciation and amortization, minus tax paid, net gain/(loss) on disposals, net interest expense and bank charges

# European market nitrate prices up 4%; Yara realized NPK prices up 7%

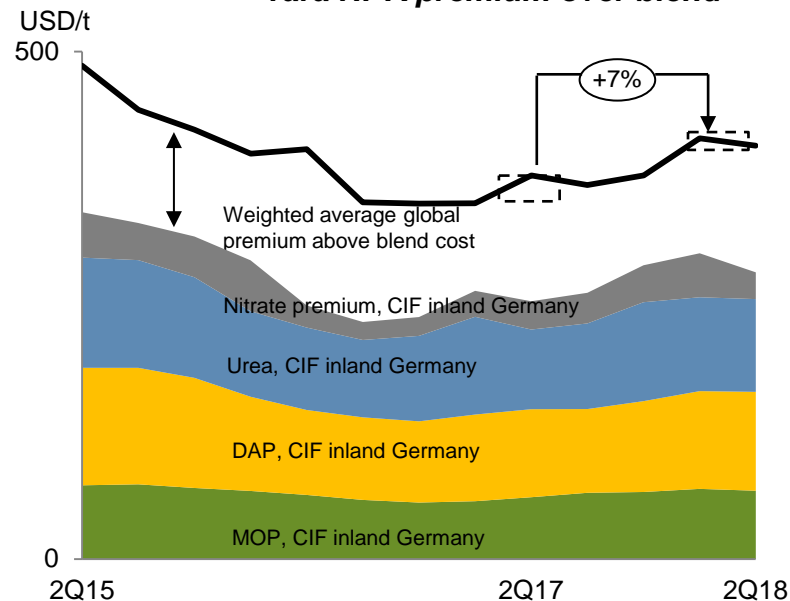
**Nitrogen upgrading margins<sup>1</sup>  
(monthly publication prices)**



Upgrading margin from gas to nitrates in 46% N (USD/t):

1) All prices in urea equivalents, with 1 month time lag

**Yara NPK premium over blend<sup>1</sup>**

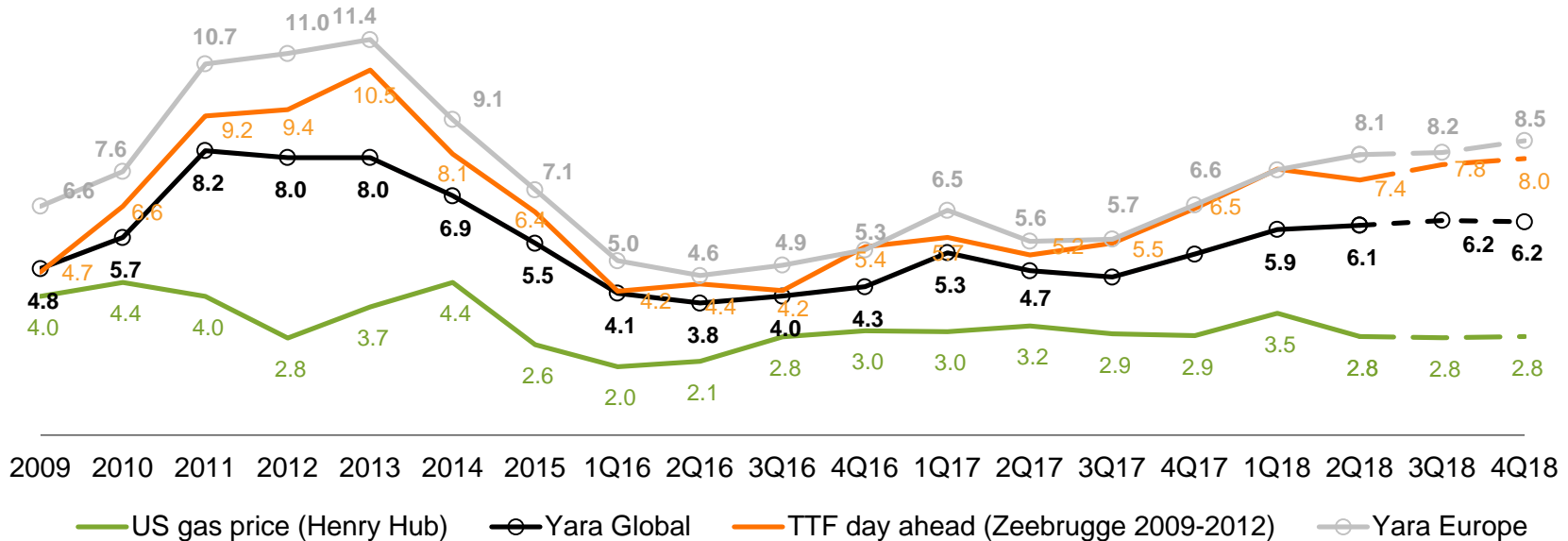


1) Yara NPK (average grade 19-10-13) net of transport and handling cost., compared with nitrate, urea, DAP and MOP publication prices

Source: Fertilizer Market Publications

# Energy cost

Yearly averages 2009 – 2015, quarterly averages for 2016-18 with forward prices\* for 3Q18 and 4Q18.



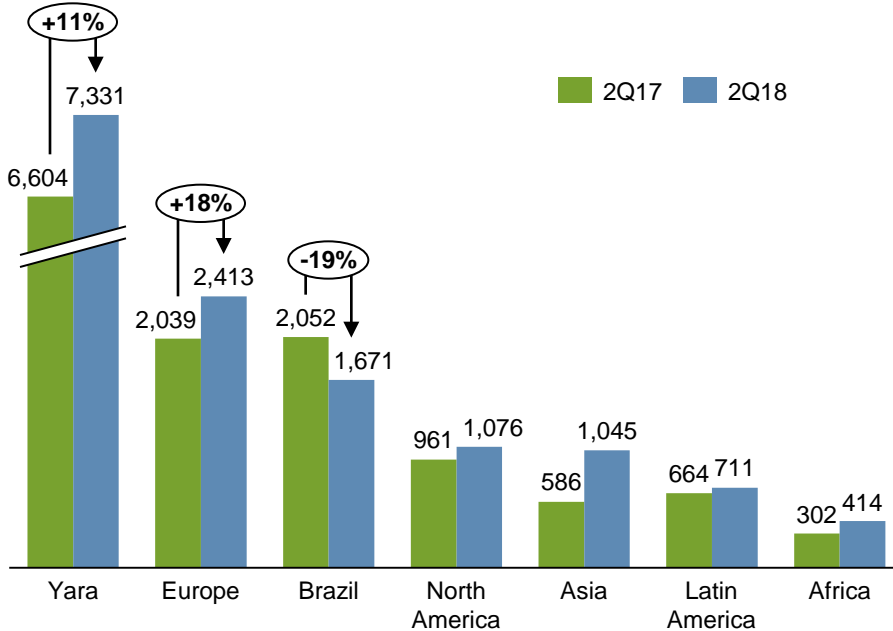
\*Dotted lines denote forward prices as of 10 July 2018

Source: Yara, World Bank, Argus/ICIS Heren

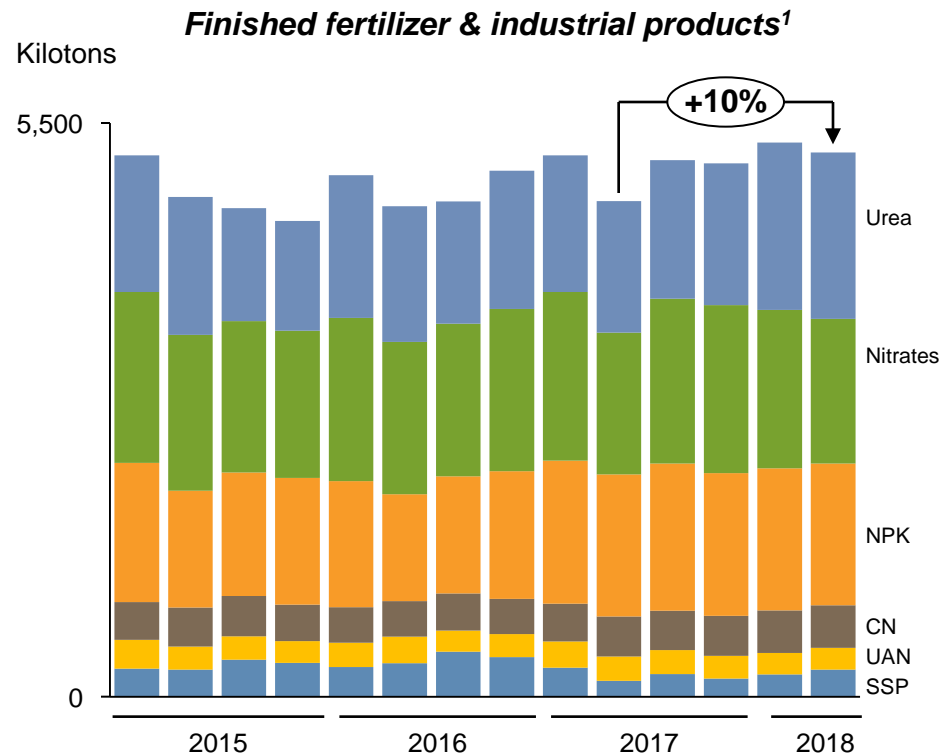
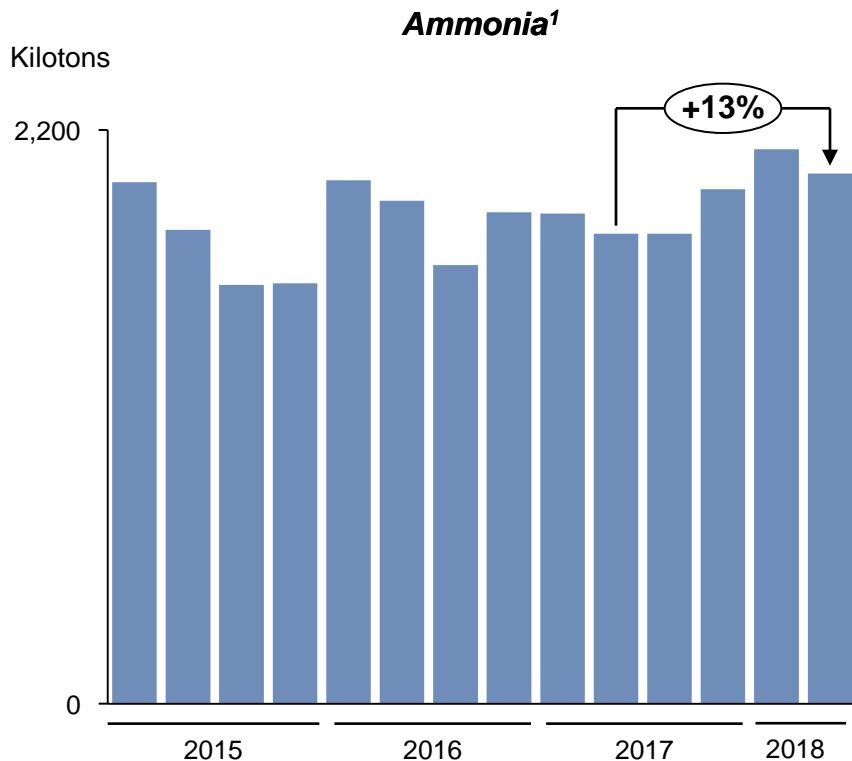
# Production and Deliveries

# Increased deliveries in all main markets except Brazil, where truck strike impacts negatively

Kilotons



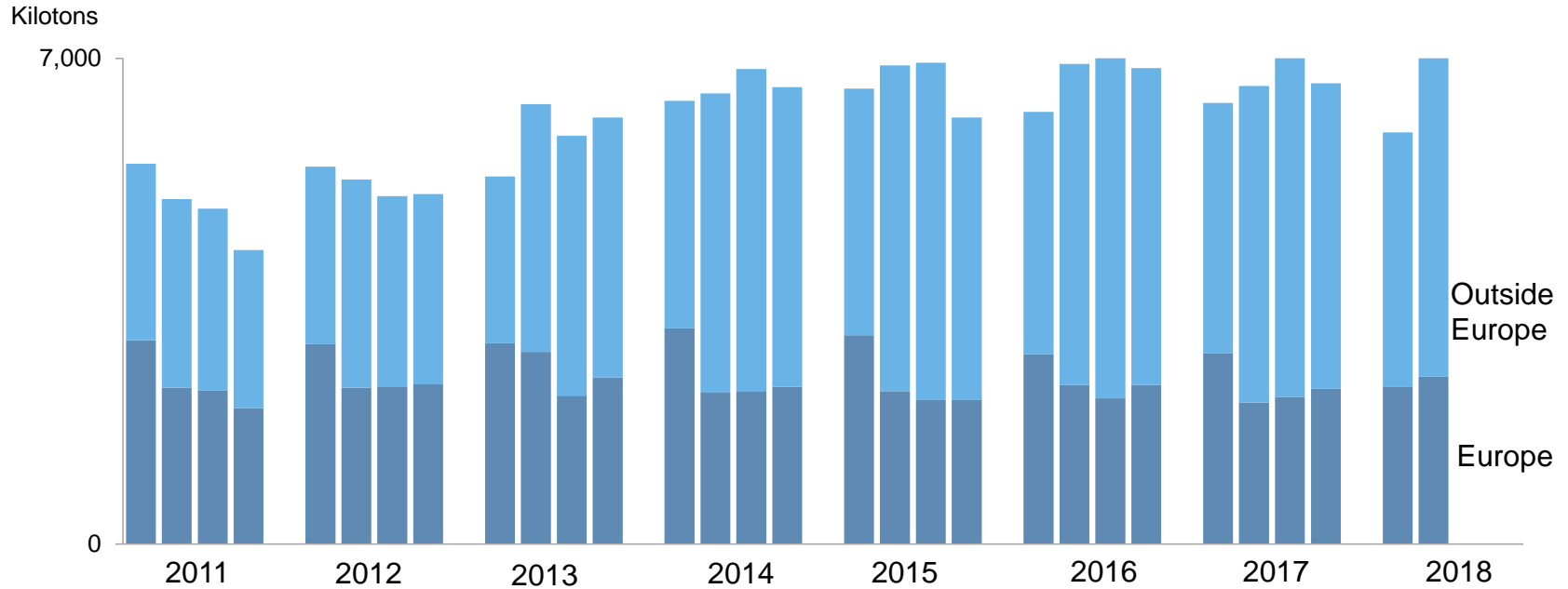
# Increased ammonia and finished products production



1) Including share of equity-accounted investees

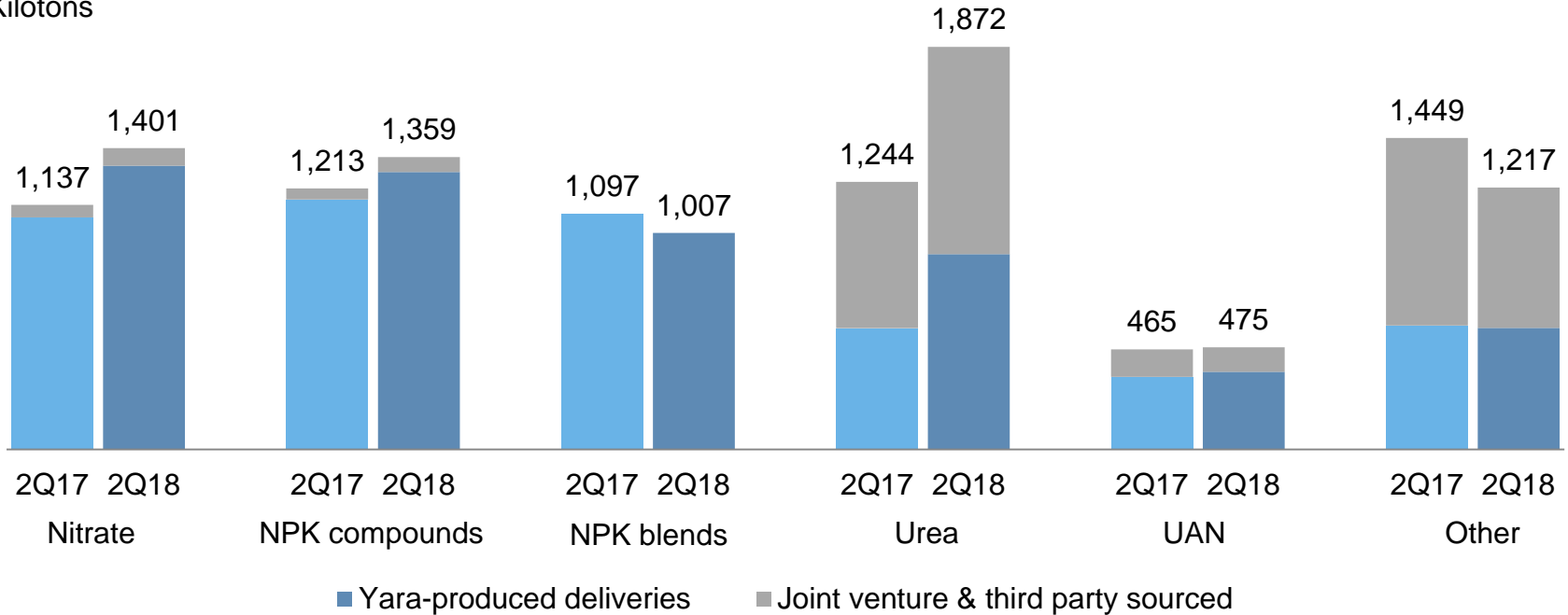


# Fertilizer deliveries



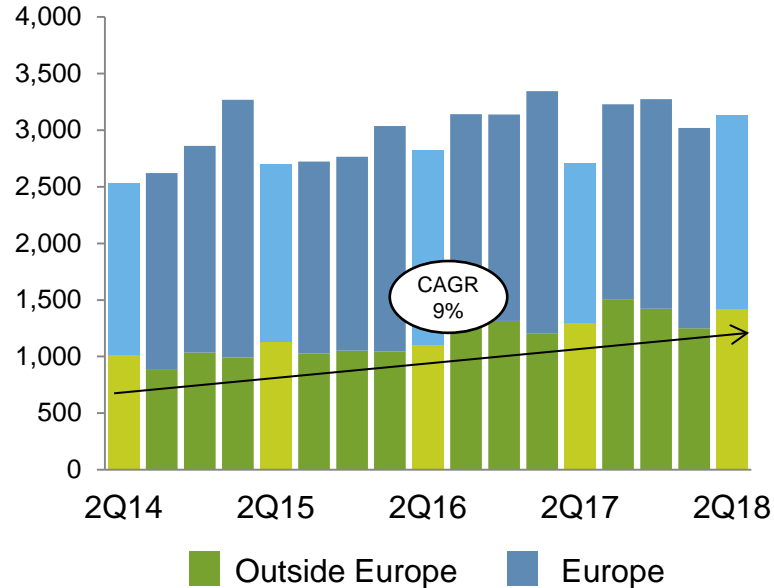
# Fertilizer deliveries by product and source

Kilotons

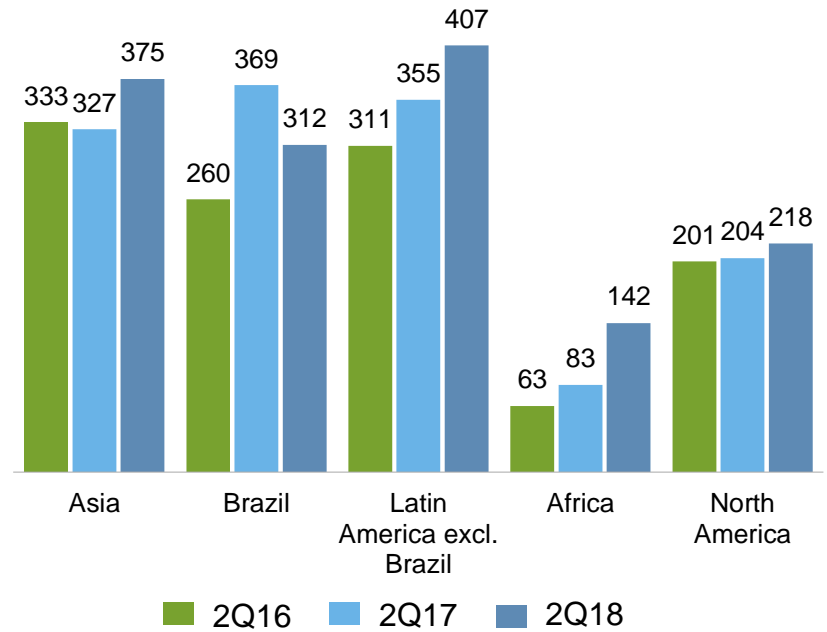


# Strong premium product deliveries

**Value-added fertilizer deliveries<sup>1</sup>**



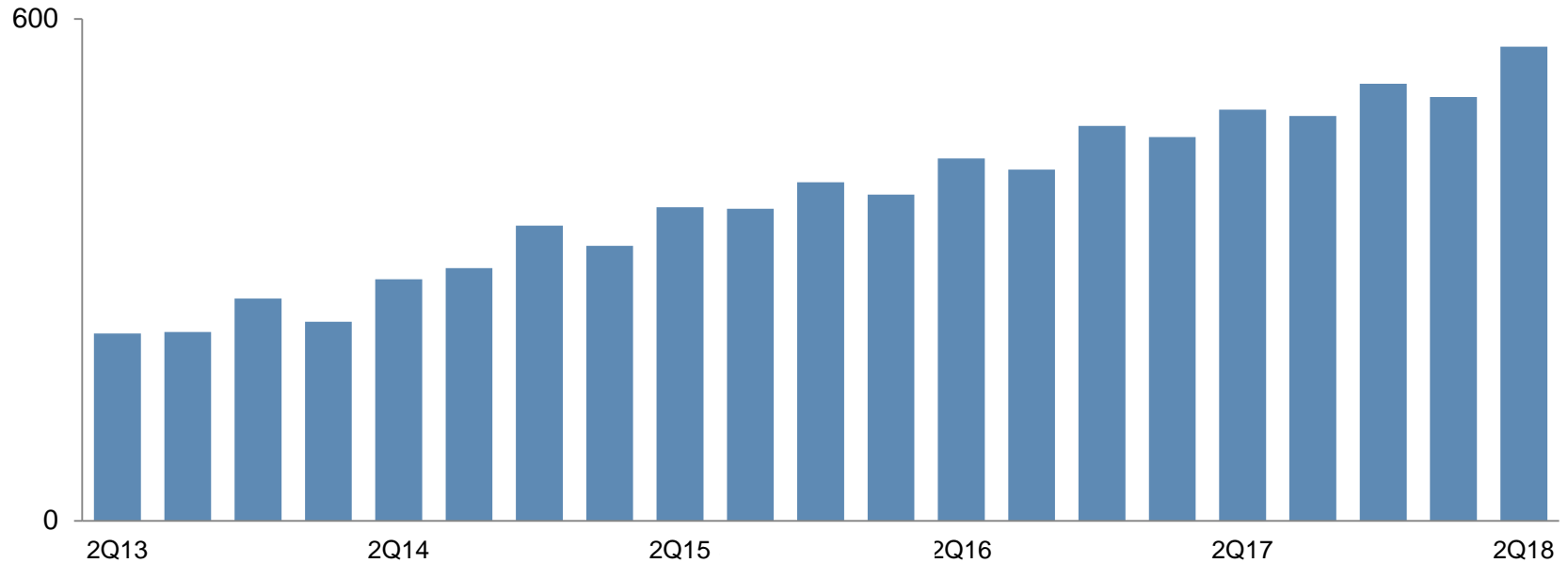
**Value-added fertilizer deliveries<sup>1</sup>**



1) YaraBela, YaraMila and YaraLiva deliveries

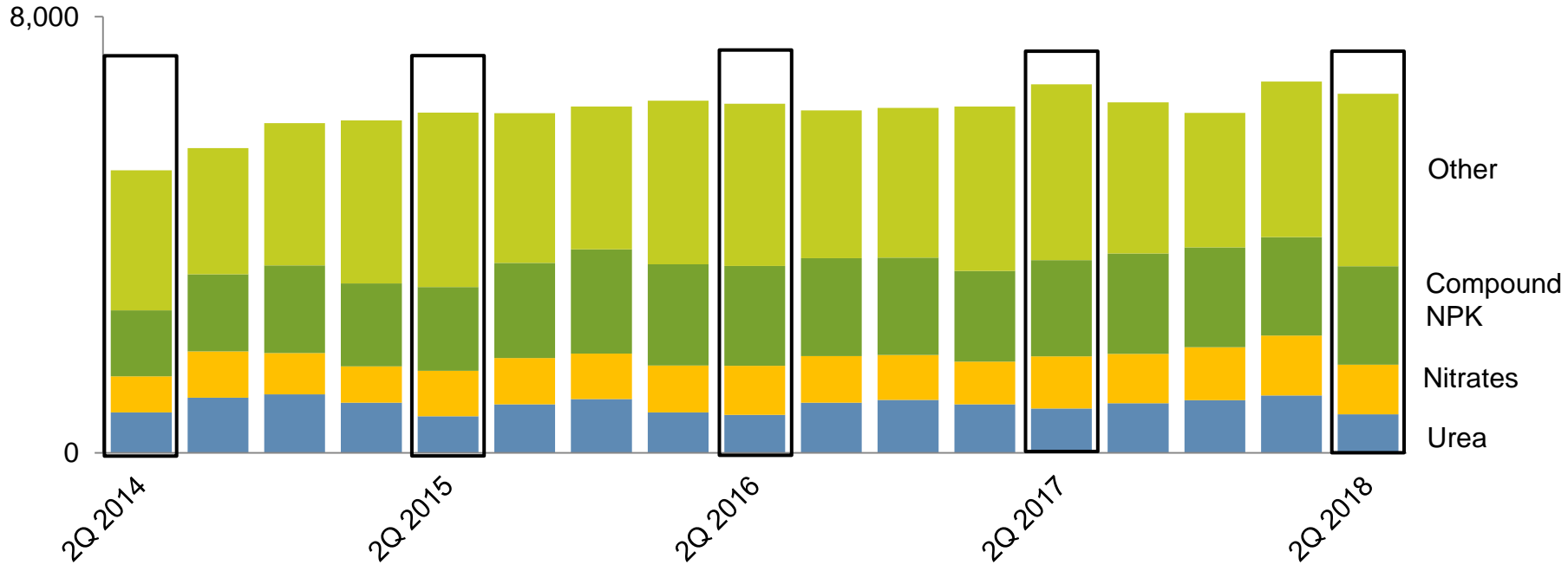
# AdBlue deliveries

Kilotons



# Yara stocks

Kilotons  
Finished fertilizer





Knowledge grows

IR - September 2018