



Knowledge grows

Yara International ASA

Terje Tollefsen, EVP Strategy & Business Development

Citi Basic Materials Conference
27 November 2018

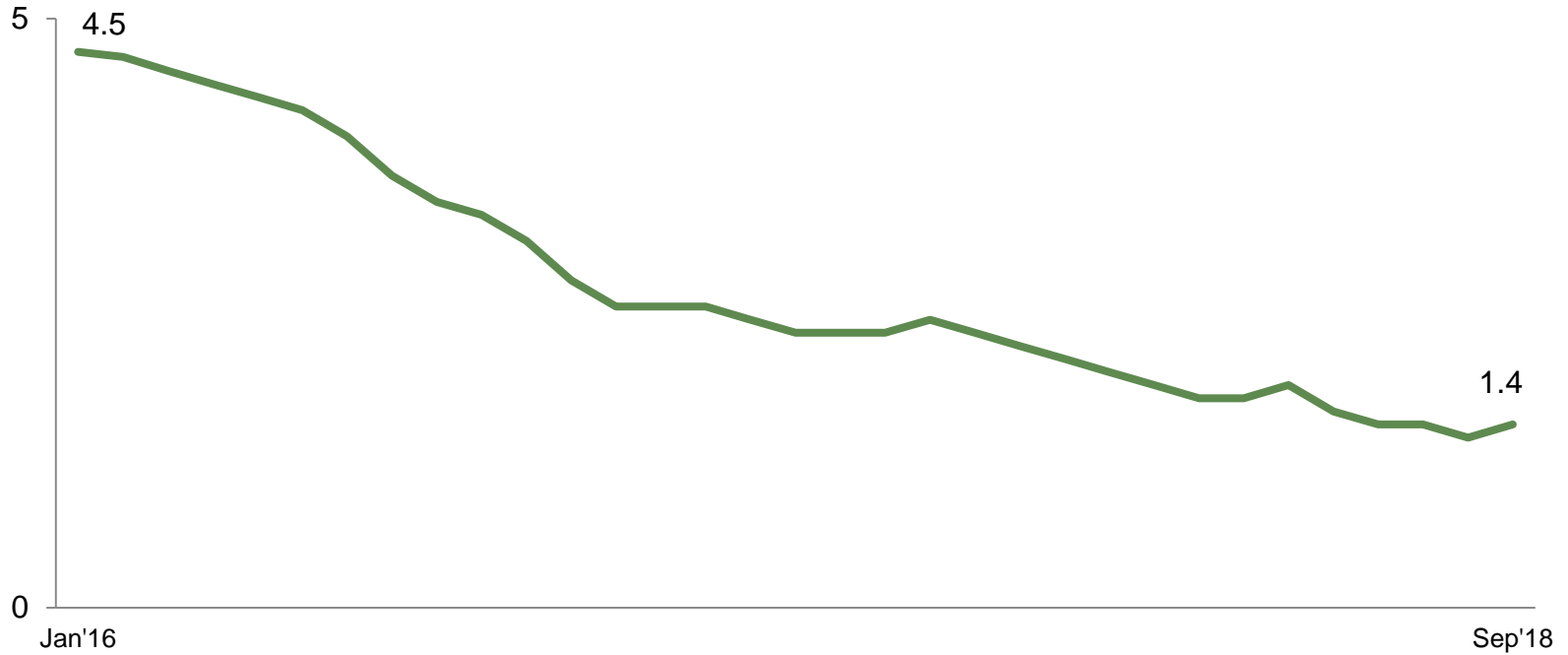


Agenda

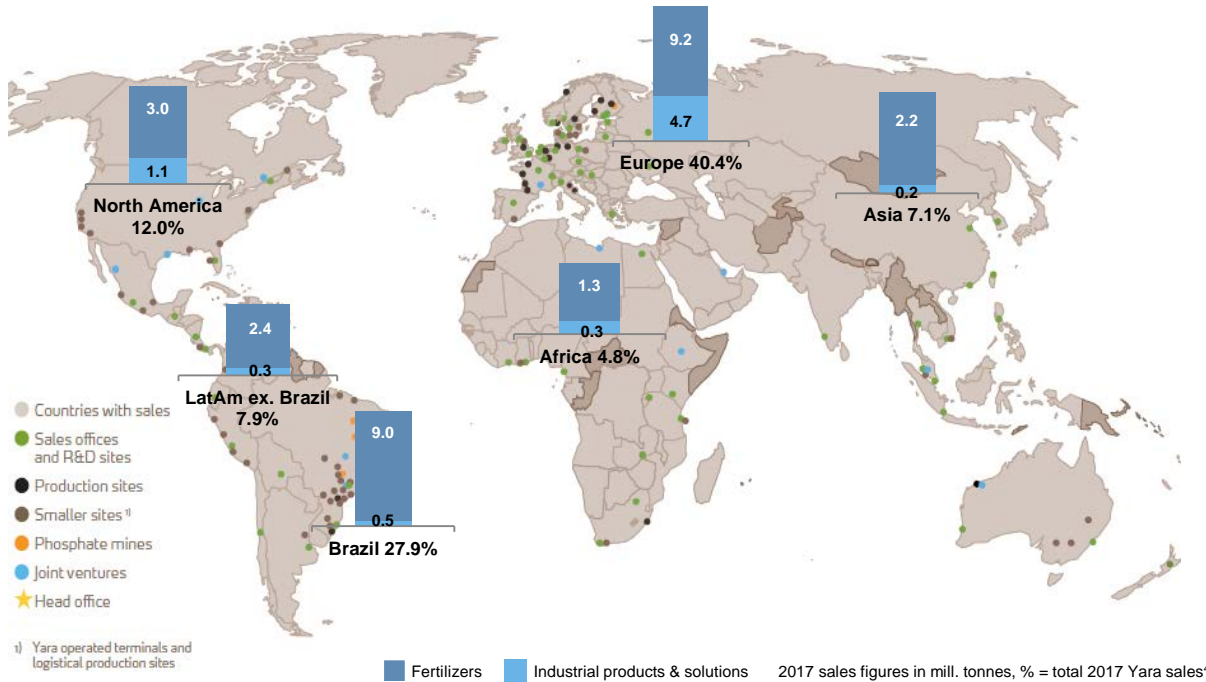
- **Yara introduction**
- Market fundamentals
- Yara strategy
- Targets and prospects

Safe operations is our first priority

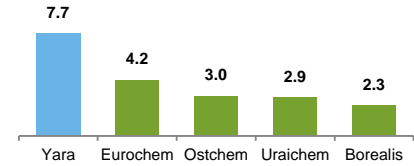
TRI¹ (12-month rolling)



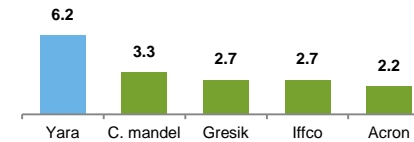
Yara's leading global position and differentiated product portfolio represent key sources of competitive edge



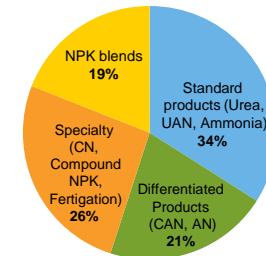
Global #1 in Nitrates¹



Global #1 in NPK²



Fertilizer product portfolio³



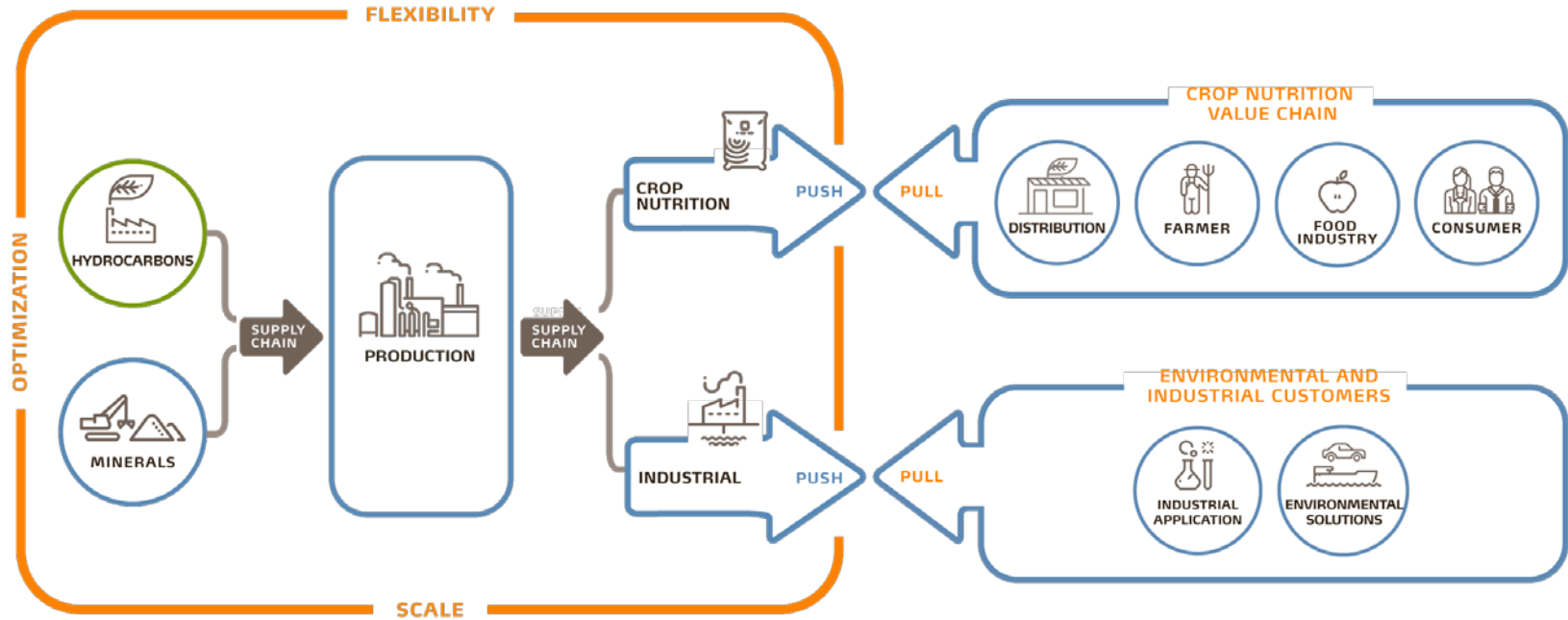
¹ Including TAN and CN – Including companies' share of JVs 2017YE

² Compound NPK, excluding blends

³ 2016/2017 season volume

⁴ Ammonia trade not included in chart above

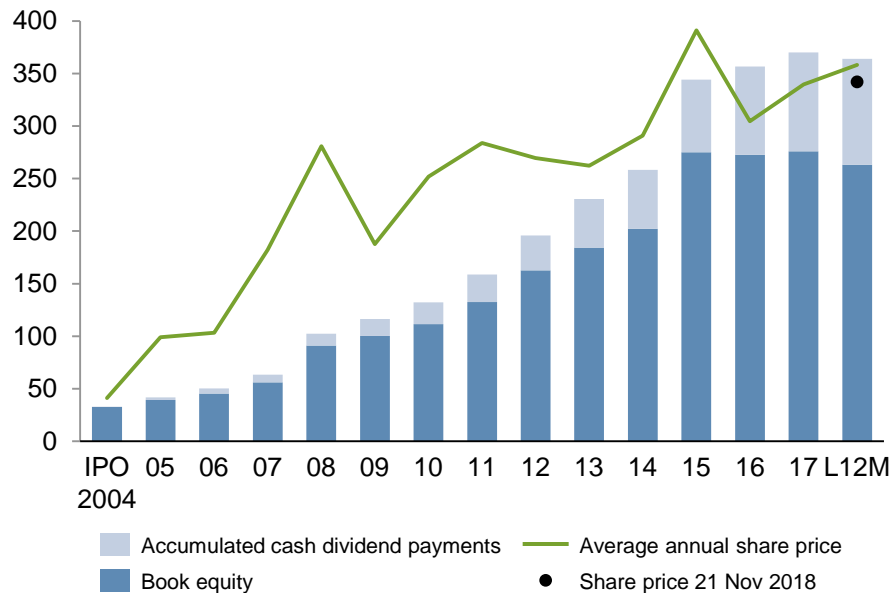
Yara's integrated business model is unique within the fertilizer industry



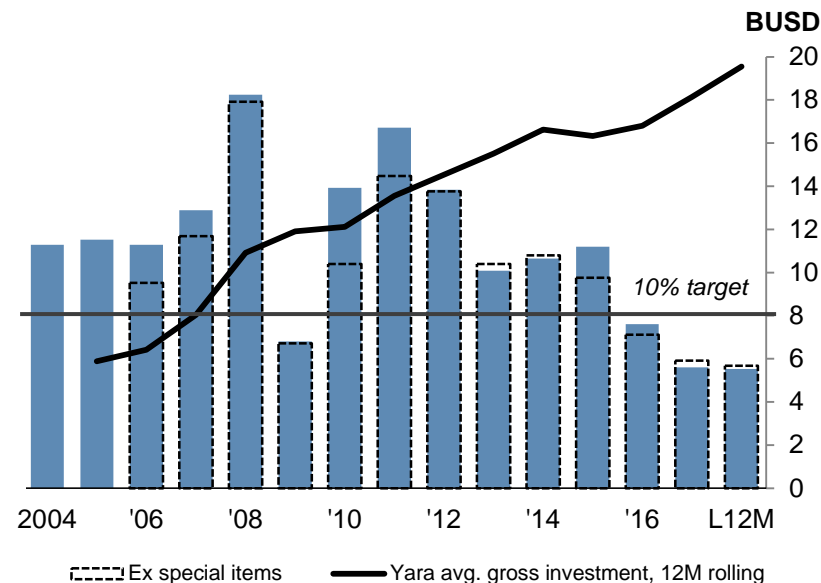
Profitable growth through the cycle

Average annual shareholder return of 20%¹

NOK/share



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

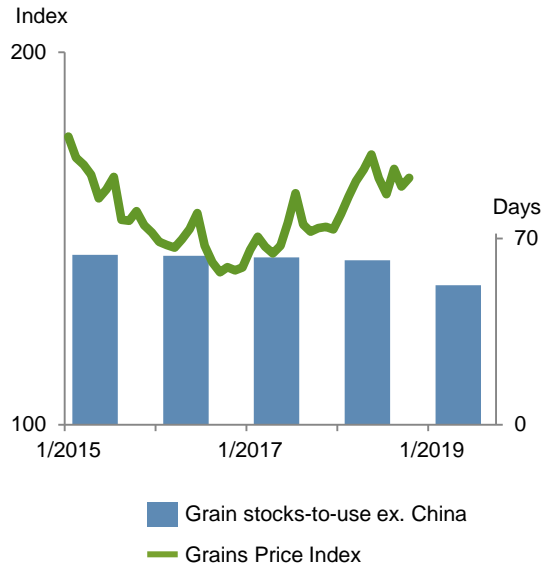
Agenda

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

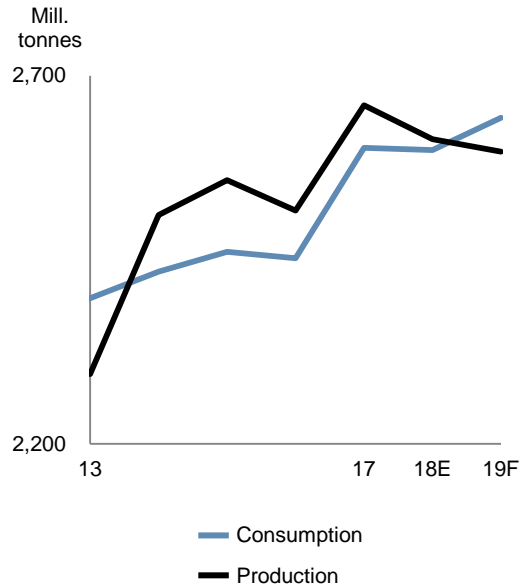
Improving market environment

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

Grain price index

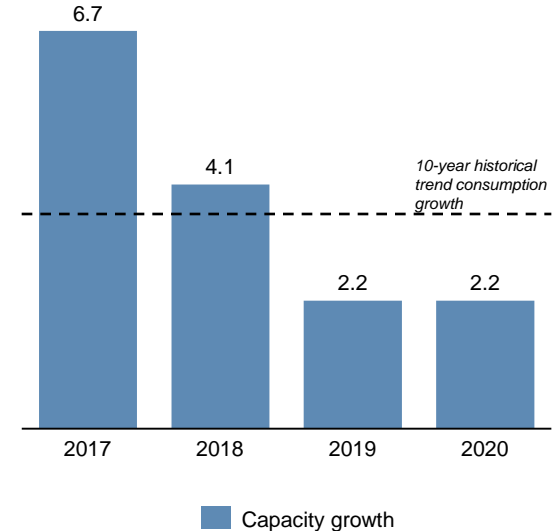


Global grain consumption and production



Slow-down in nitrogen supply growth

Global capacity additions ex China

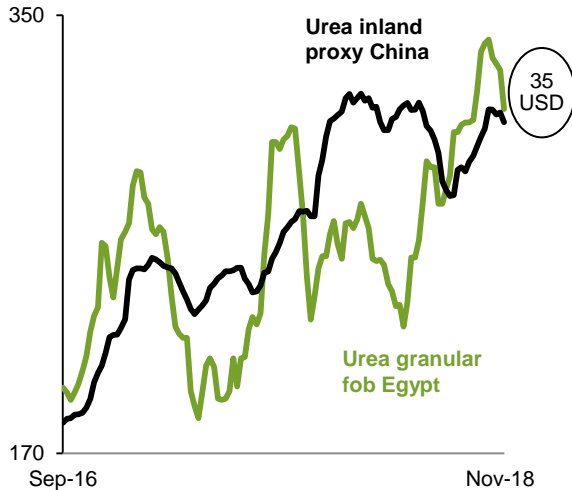


Source: USDA, CRU

Higher urea prices with no Chinese supply response so far, but LNG price increases impact several regions

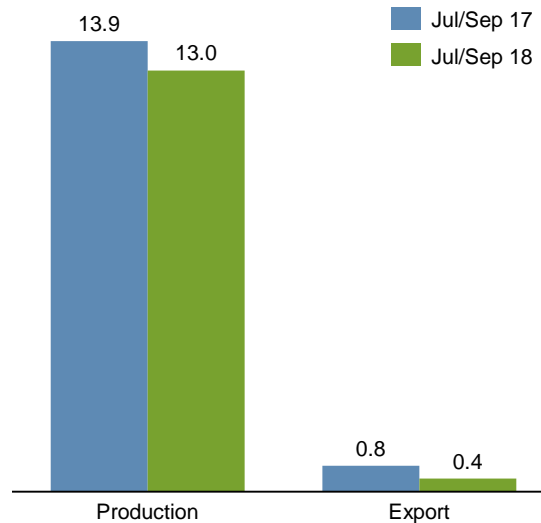
Higher global urea prices

Urea price development (USD/t)



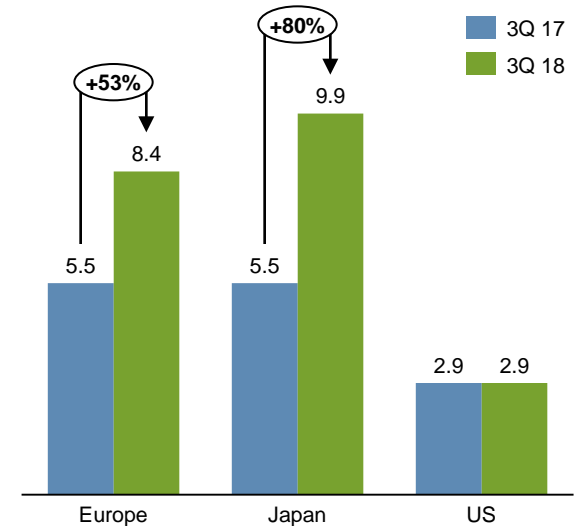
No supply response from China so far

Chinese production and export (million tonnes)



Tight LNG market drives gas prices higher

Spot gas prices (USD/mmbtu)



Agenda

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

Yara's mission and vision guides our strategy

Our Mission

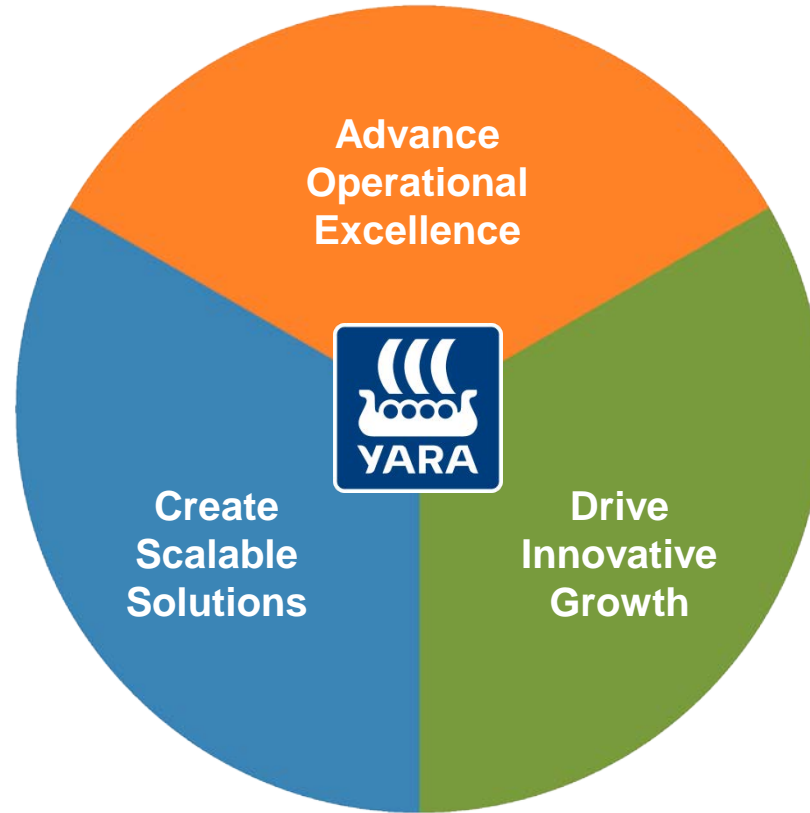
*Responsibly feed
the world and
protect the planet.*

Our Vision

*A collaborative society;
a world without hunger;
a planet respected.*

The Crop Nutrition Company for the Future

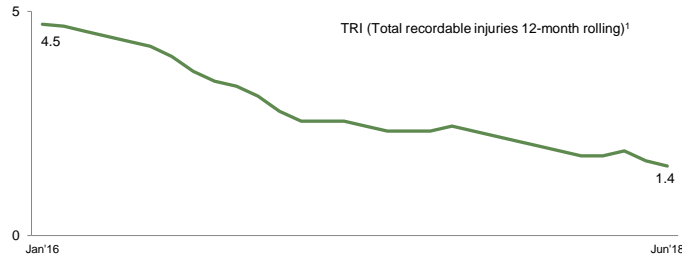
We will grow responsible solutions to farmers, industry and society, while delivering superior return on capital





Advance Operational excellence; Improved safety, increased savings

Safe operations is our first priority



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

IR - 17 July 2018

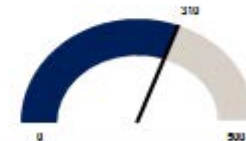
3

Yara Improvement Program delivering ahead of plan



EBITDA Benefits of 310 MUSD delivered

- Yara Productivity System rolled out to 22 out of 30 sites.
- Good reliability improvements in NPK production
- Good improvements in procurement initiatives



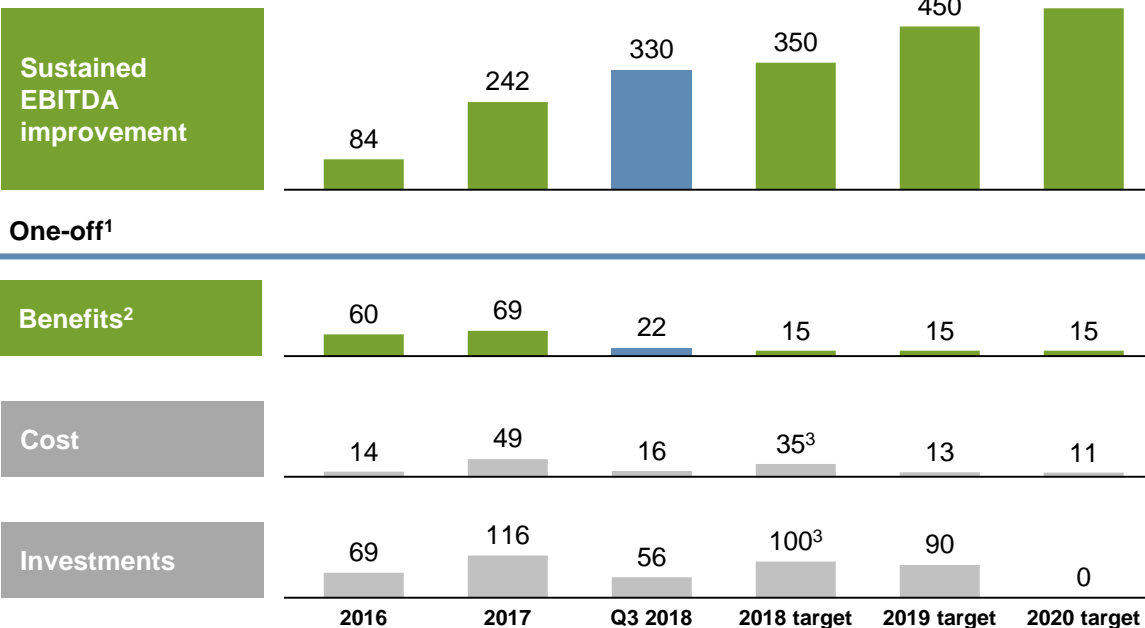
IR - 17 July 2018

5

Yara Improvement Program on track



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



- 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

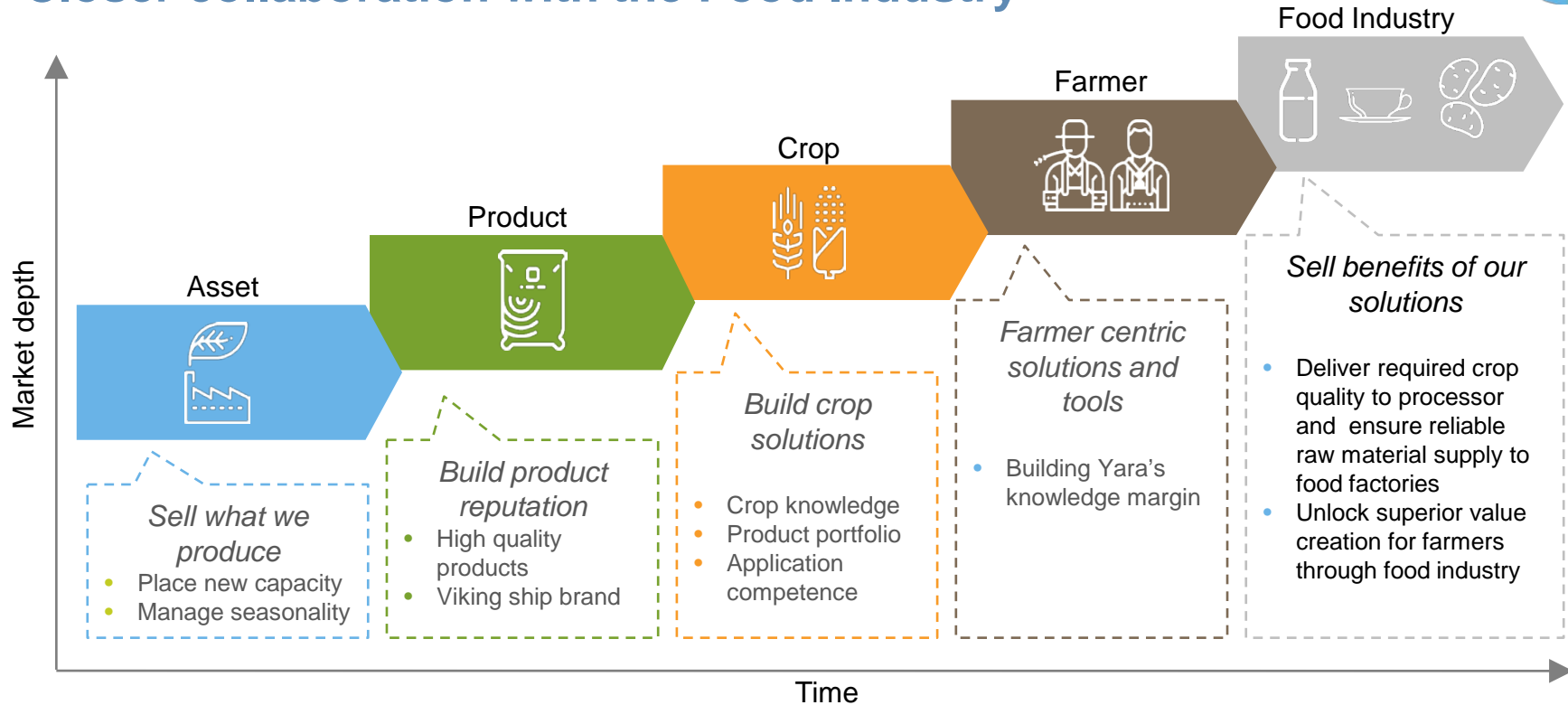
¹ Calendar year / YTD numbers

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)



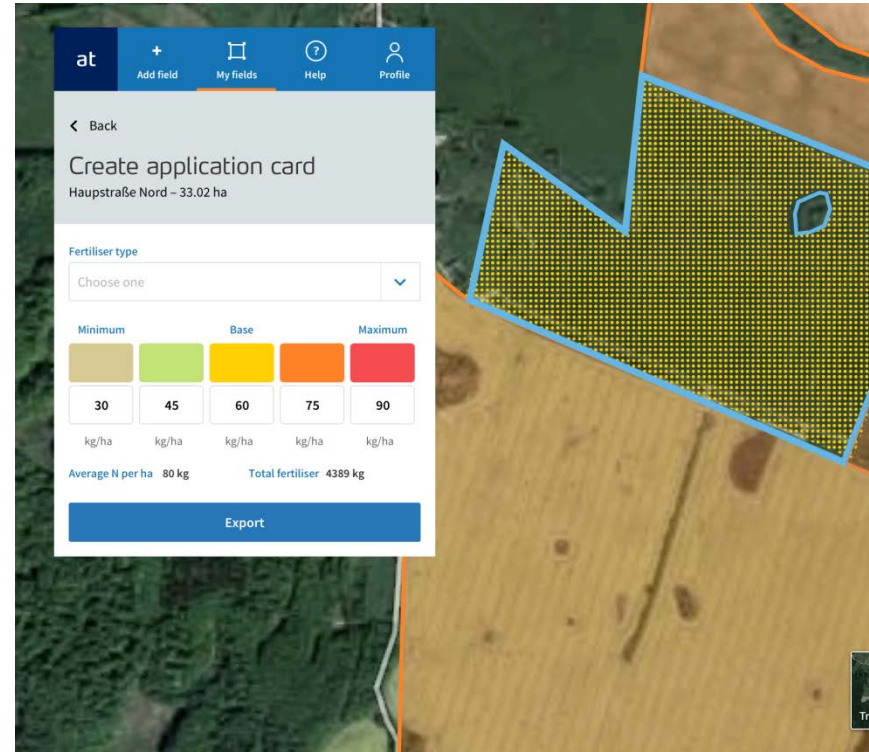
Create Scalable Solutions; Closer collaboration with the Food Industry



Precision fertilization made simple - atfarm

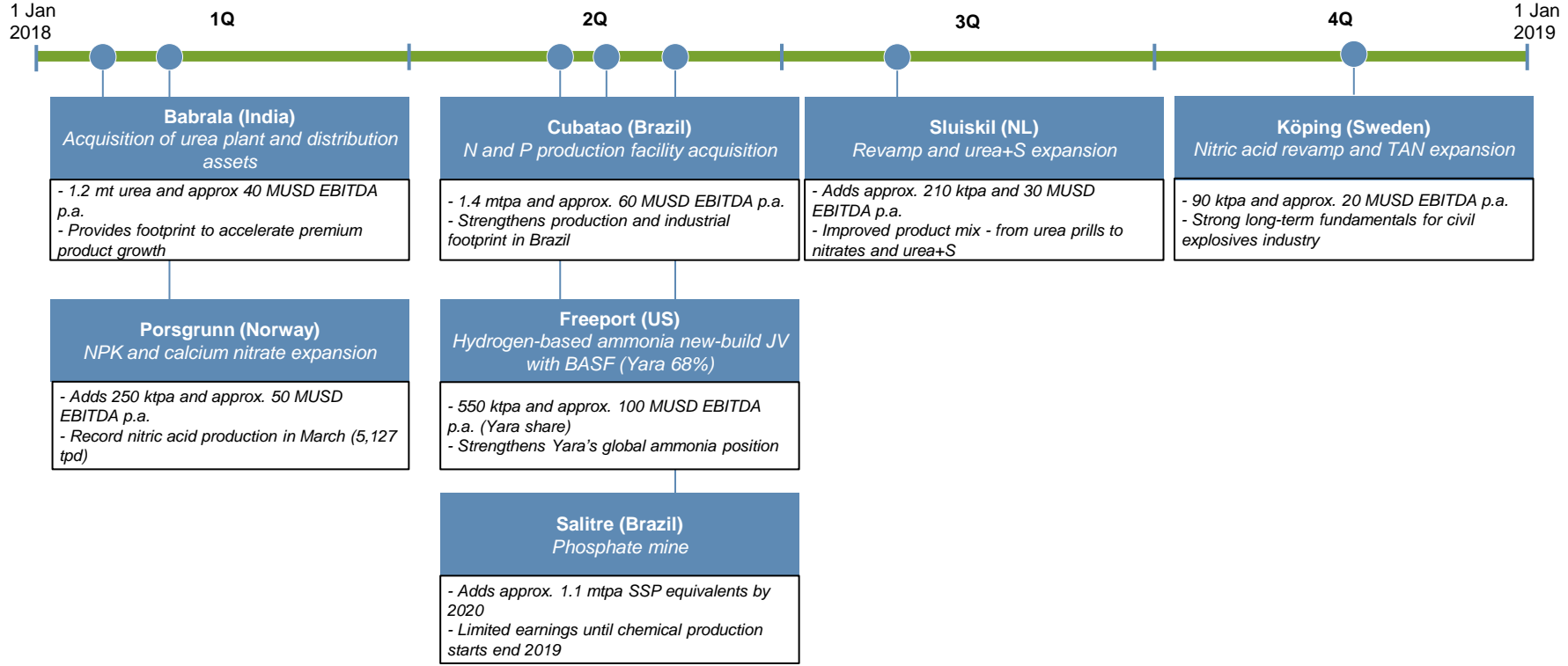


- 10x10m precision application of fertilizer
- Quantitative recommendation “in only 5 clicks”
- Empowered by 20 years of Yara precision fertilization R&D
- Benefits for farmers
 - Higher yield
 - Reduced waste
 - Higher protein content





Drive Innovative Growth; Yara is delivering on its growth pipeline

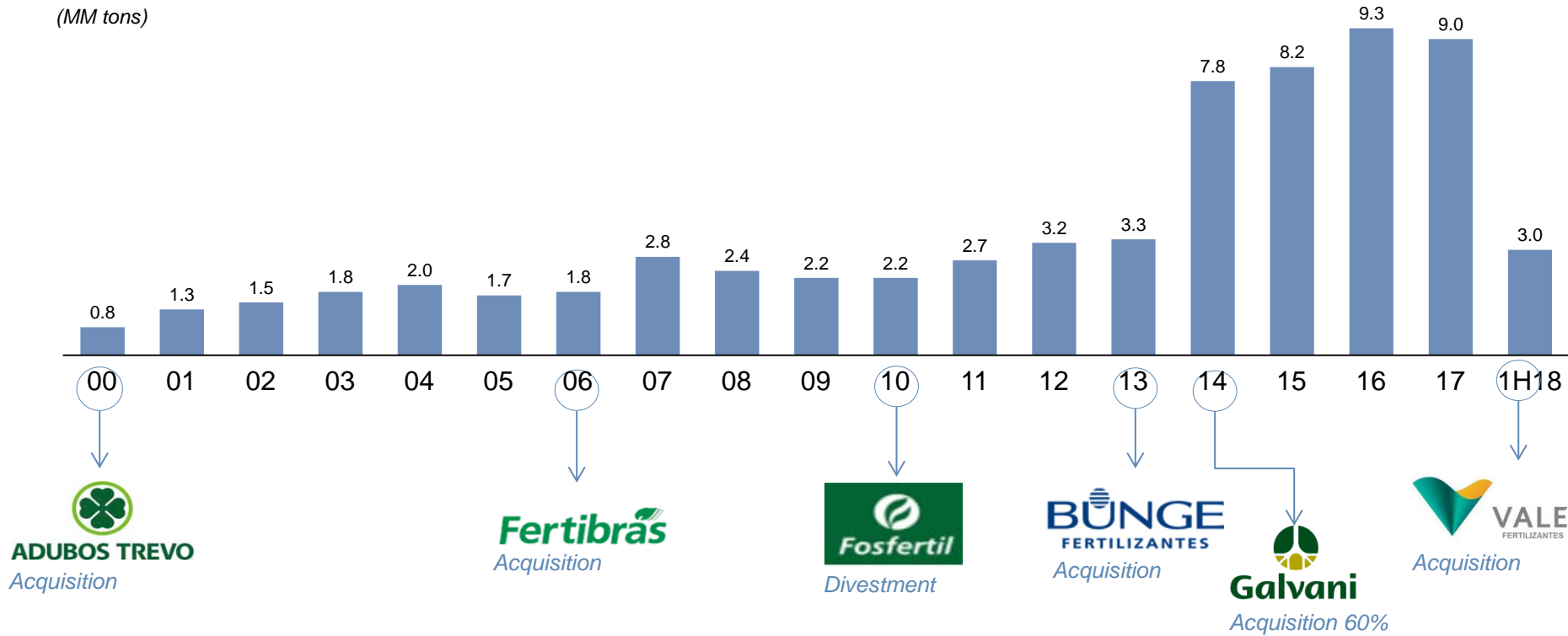


EBITDA figures at 2015 prices except Cubatão which reflects business case prices

Yara has invested for the long term in Brazil; Bunge acquisition brought critical mass in distribution



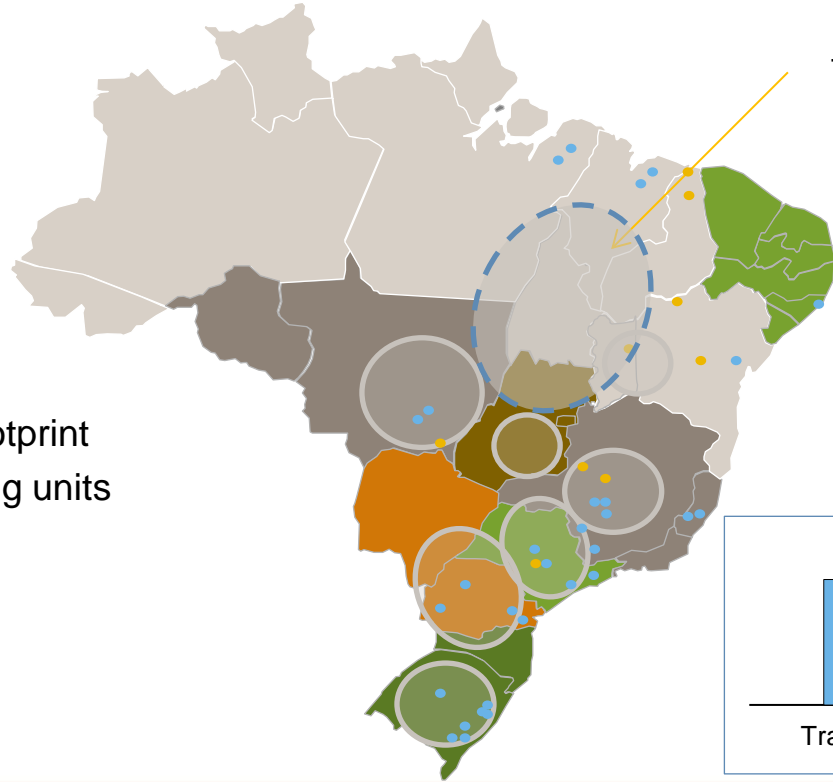
Volume
(MM tons)



Yara combines large-scale local market presence with leading global product portfolio and crop nutrition expertise

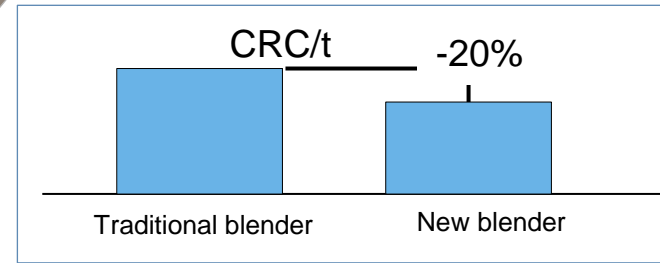


Main growing area in Cerrado, target area for Galvani expansion



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

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



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

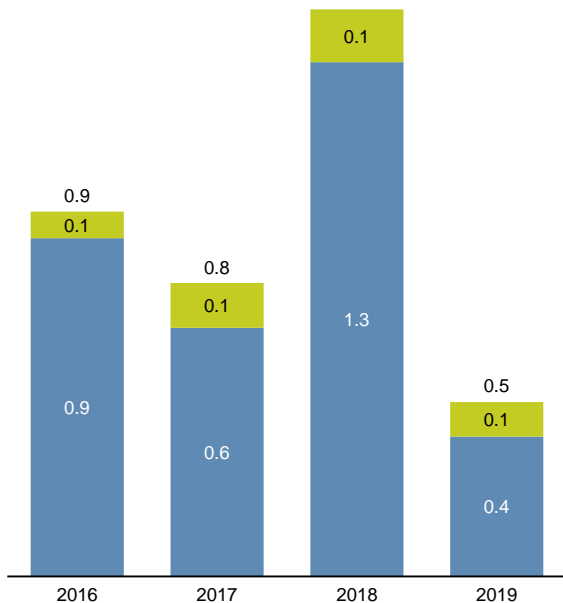
- Yara introduction
- Market fundamentals
- Yara strategy
- **Targets and prospects**

Major improvement and growth investments in 2018; main earnings improvement from 2019 onwards¹

■ Improvement program
■ Committed expansions + M&A

Improvement and growth capex² (BUSD)

USD Billions



Improvement program:

+ 350 MUSD cost improvement

+ 150 MUSD volume improvement:

-> 0.4 mill. tonnes ammonia

-> 0.7 mill. tonnes fertilizer

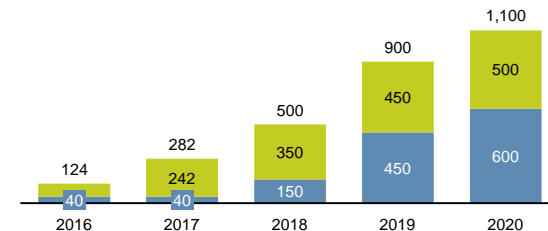
Committed expansions + M&A:

+ 1.4 mill. tonnes ammonia

+ 4.7 mill. tonnes fertilizer

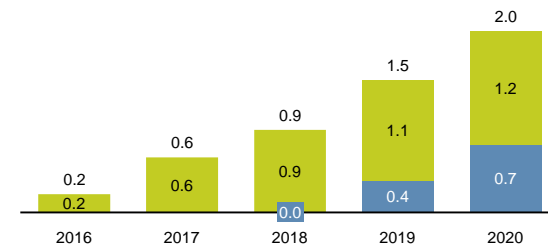
EBITDA improvement³

USD Millions



Earnings improvement³

USD/share



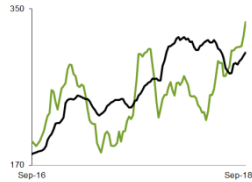
¹ Currency assumptions for 2018 onwards: USD/NOK 8,23, EUR/USD: 1.16, USD/BRL: 3.95

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

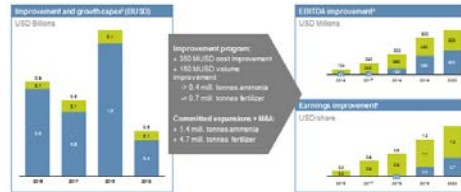
Attractive Yara prospects

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



Knowledge grows

- Crop nutrition focus
- Further advance operational excellence & innovative growth
- Create scalable solutions through food chain partnerships and digital farming
- Active portfolio management



Knowledge grows

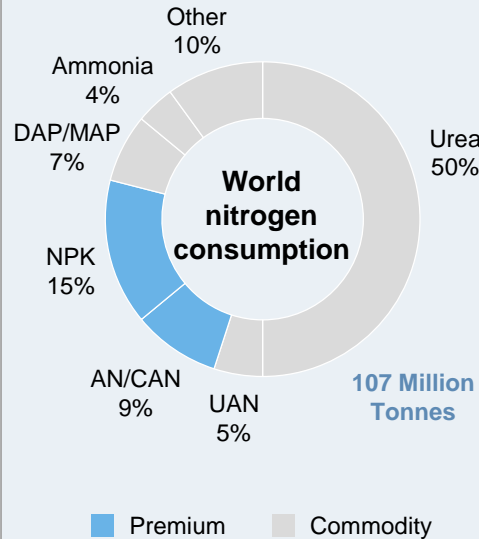
Additional information



Market

Yara's margins contain both commodity and premium elements

Urea is the key commodity Nitrogen product¹



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 $\frac{3}{4}$ 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

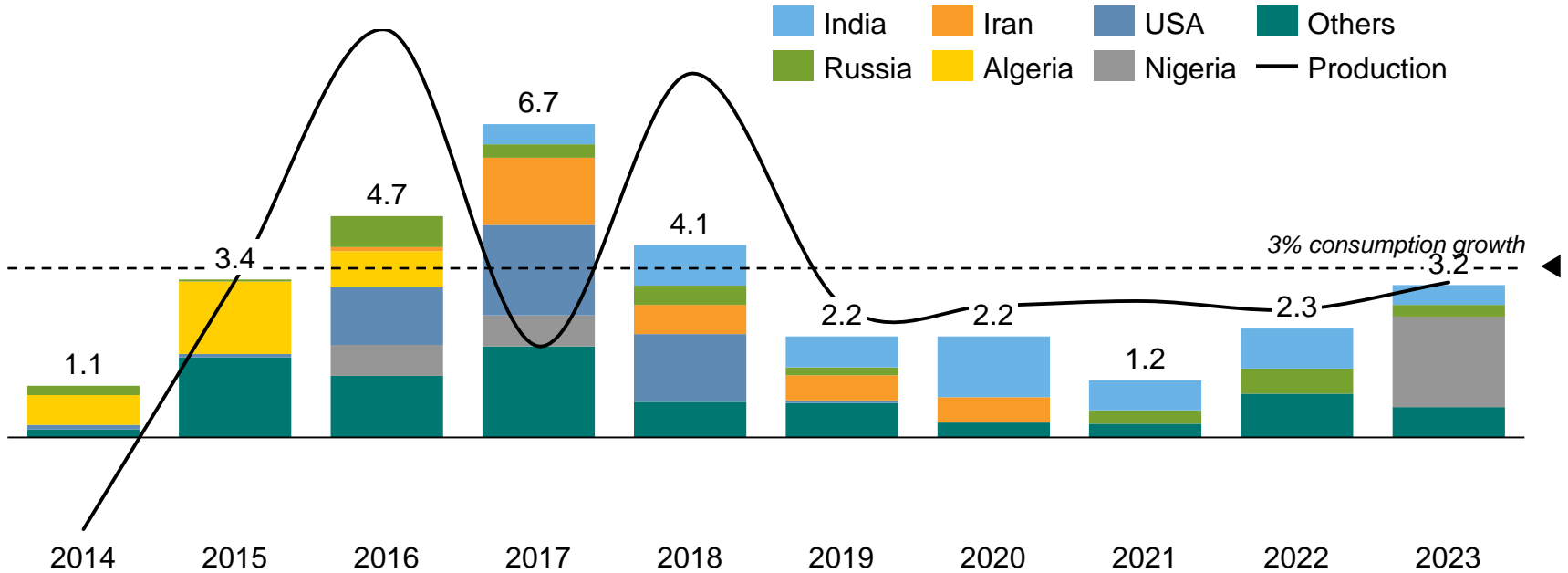
... however Yara margins also contain premium elements

- 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

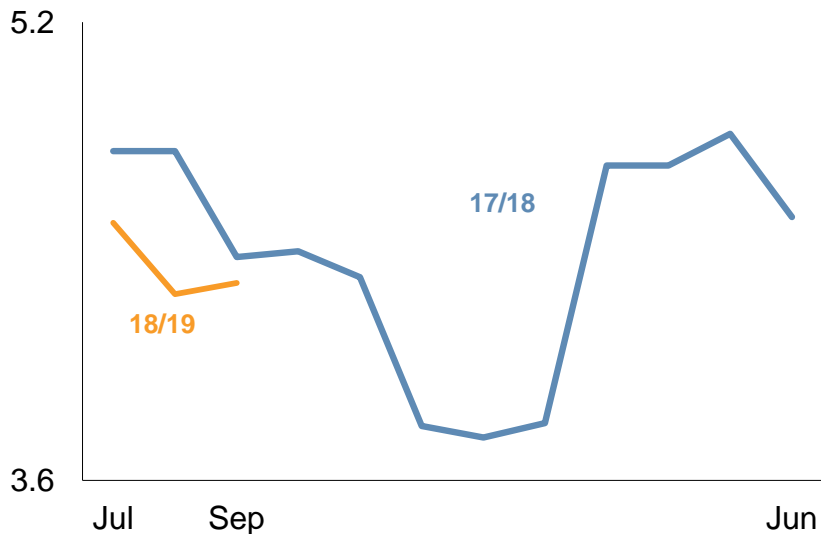
Global urea capacity additions excl. China (mill. tonnes)



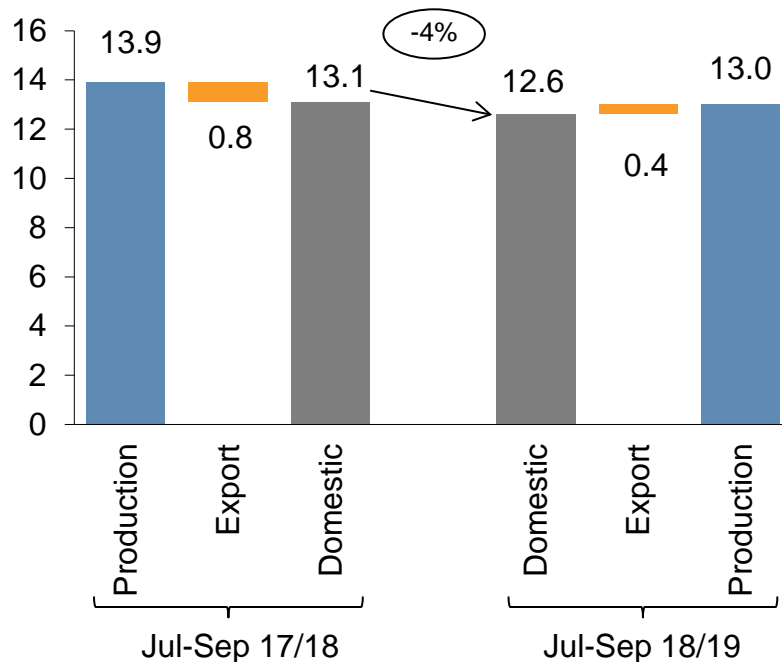
Source: CRU September 2018

Chinese domestic supply starting the new season slightly down on last year

Chinese urea production down vs last year (million tons)

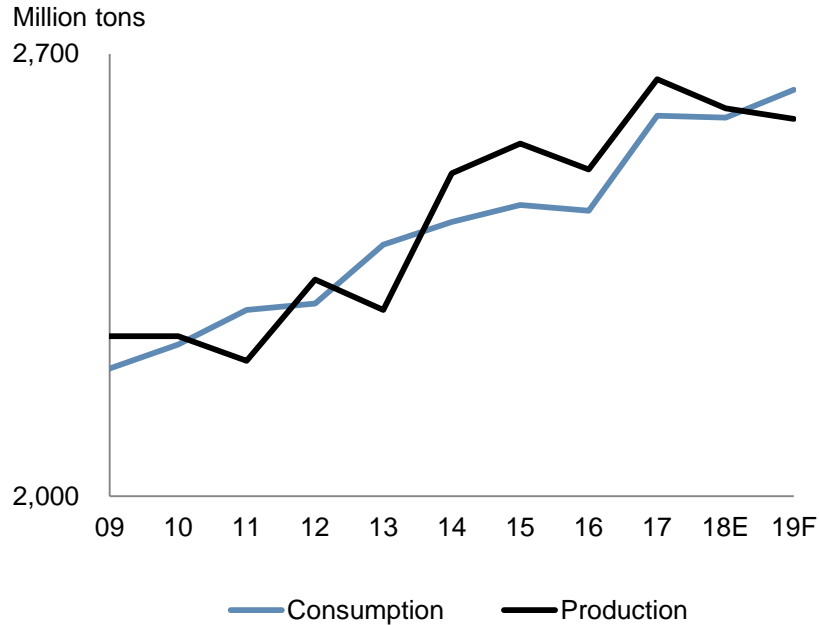


Production decline exceed export decline (million tons)

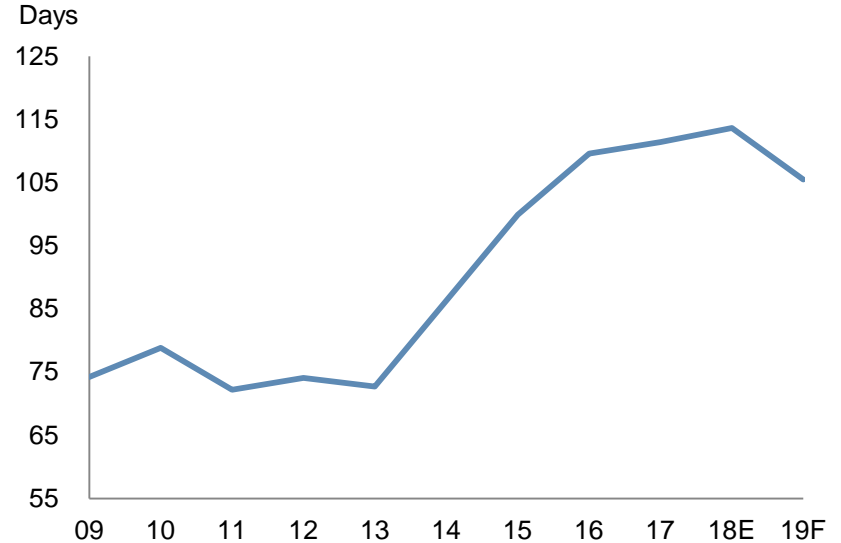


Global grain stocks are now in decline

Grain consumption and production



Days of consumption in stocks



Source: USDA November 2018

Grain prices up from last year

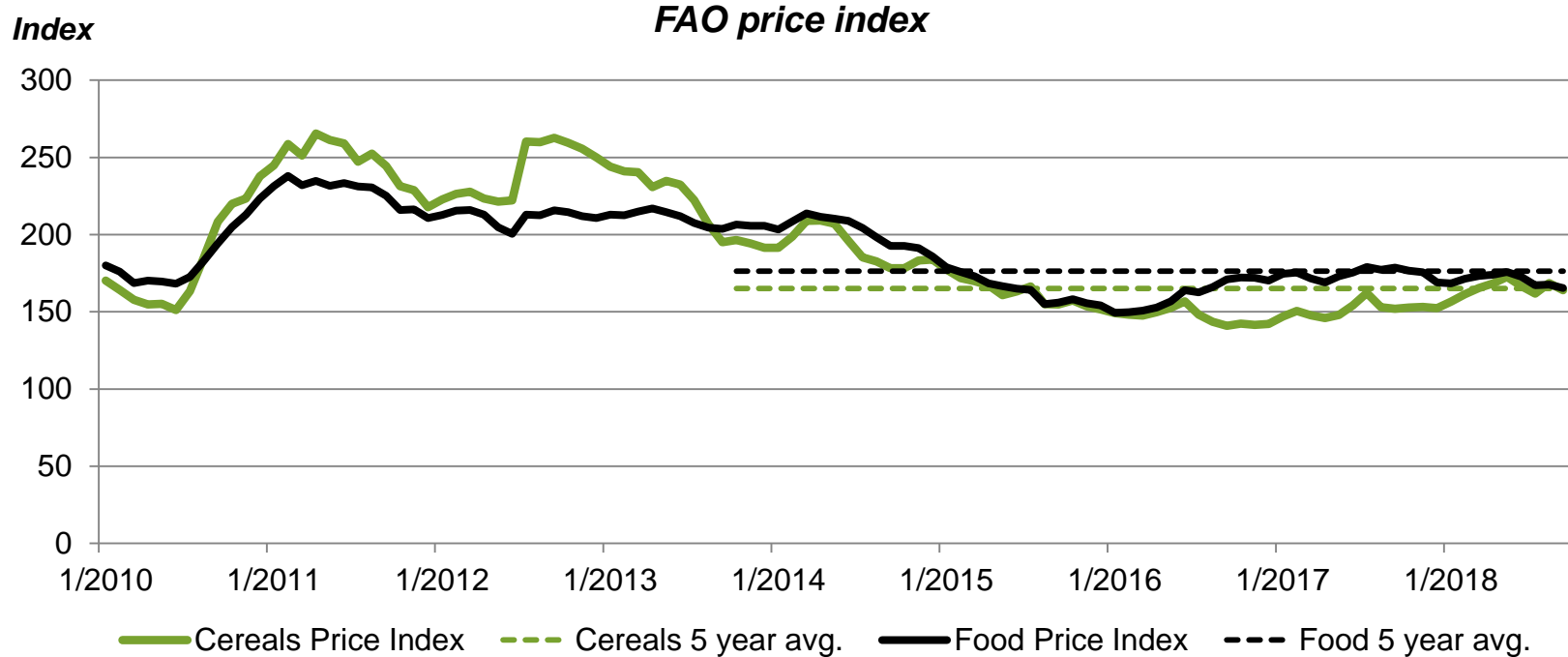
Corn Mar 2019 contract France (EUR/tonnes)



Wheat (milling) Mar 2019 contract France (EUR/tonnes)

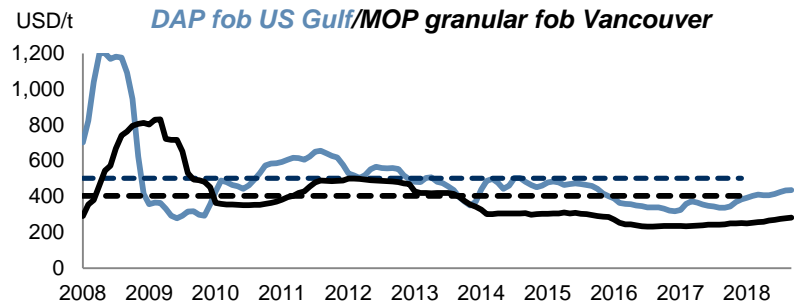
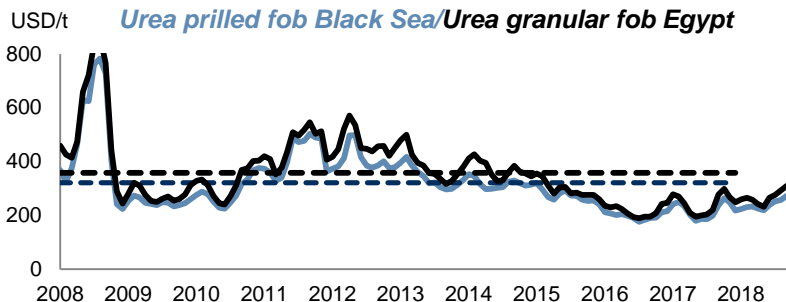
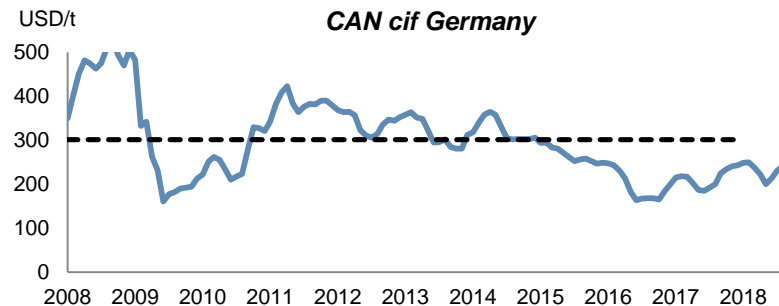
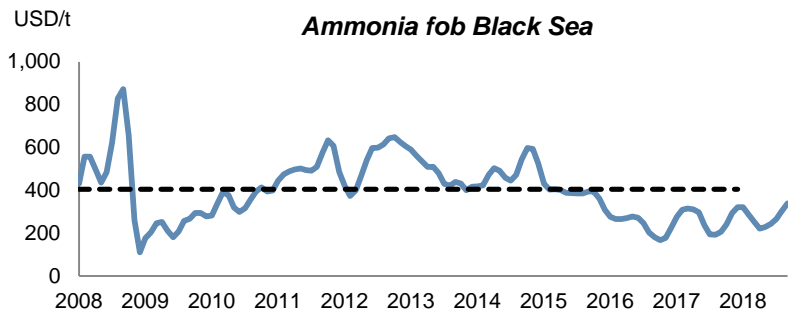


Improving grain economics – the cereal index at 5-year average, the food index 5% below



Source: FAO

10-year fertilizer prices – monthly averages

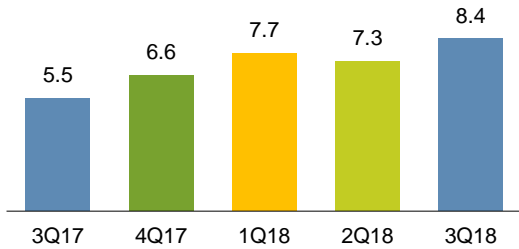


--- Average prices 2008 - 2017

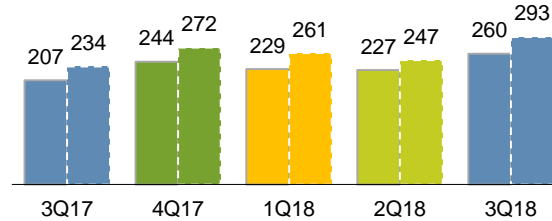
Source: Fertilizer Market Publications

Key value drivers – quarterly averages

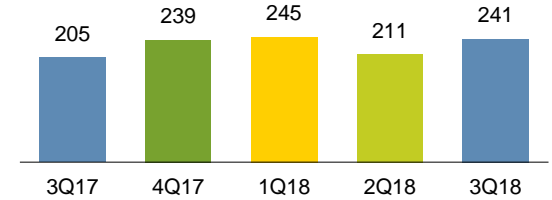
TTF day ahead (USD/MMBtu)



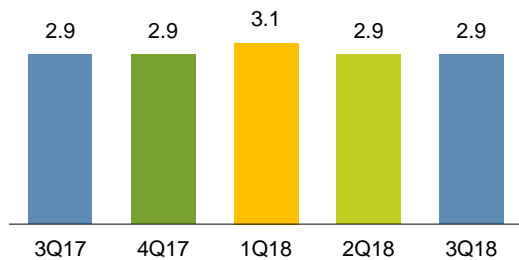
Urea prilled fob Black Sea (USD/t)/Urea granular fob Egypt (dotted line, USD/t)



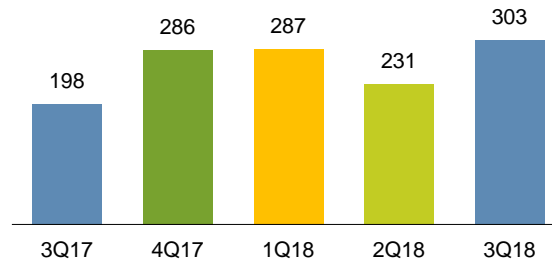
CAN cif Germany (USD/t)



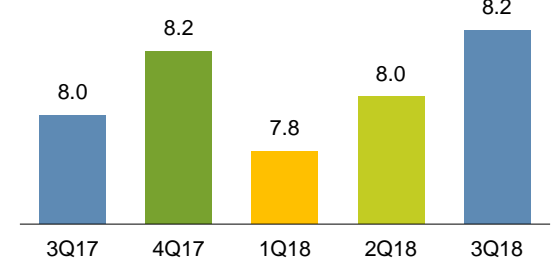
US gas price Henry Hub (USD/MMBtu)



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
			
Description	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
Credit highlight	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
2017 Revenues¹	0.9 BUSD 8%	8.7 BUSD 76%	1.8 BUSD 16%
2017 EBITDA²	0.7 BUSD 54%	0.5 BUSD 36%	0.2 BUSD 12%
Supply Chain	 <ul style="list-style-type: none"> • 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

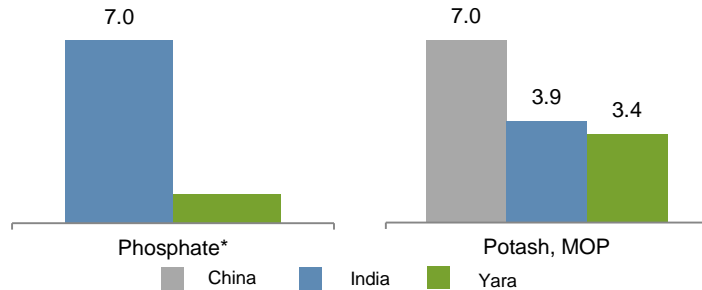
USD translations use USD/NOK exchange rate of 8.12

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**

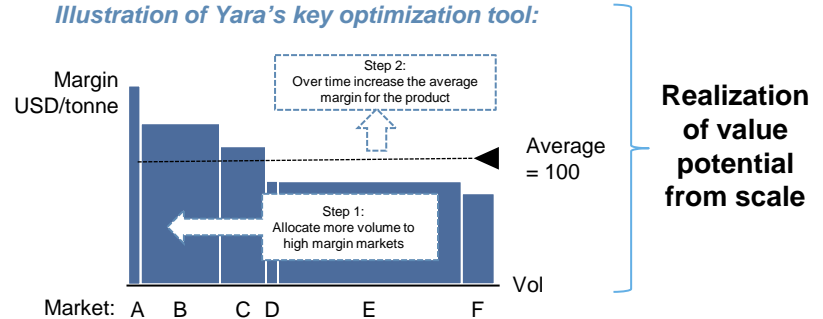
2016 P&K purchases (mt)



Global optimization of value potential

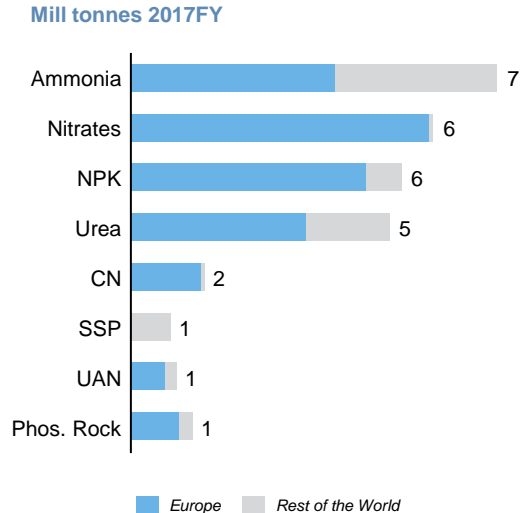
- Large number of plant, product and market combinations
- Flexibility in the allocation of production amount various plants, markets and products to optimize overall value potential
- Long-term view combined with short-term arbitrage opportunities

Illustration of Yara's key optimization tool:

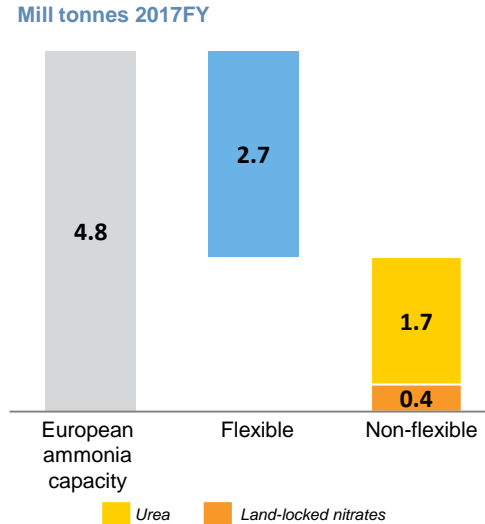


Production scale advantage and variable cost flexibility due to asset set-up and product mix

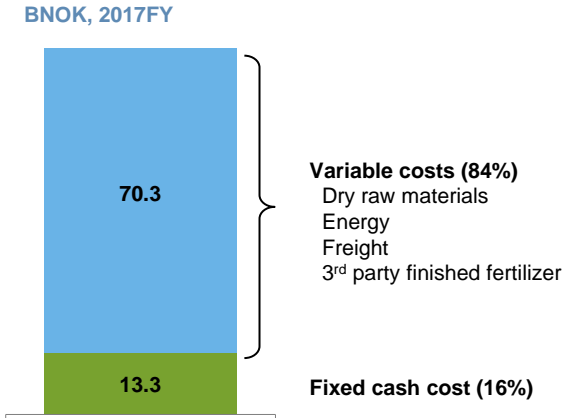
Diversified product portfolio¹



High ammonia flexibility

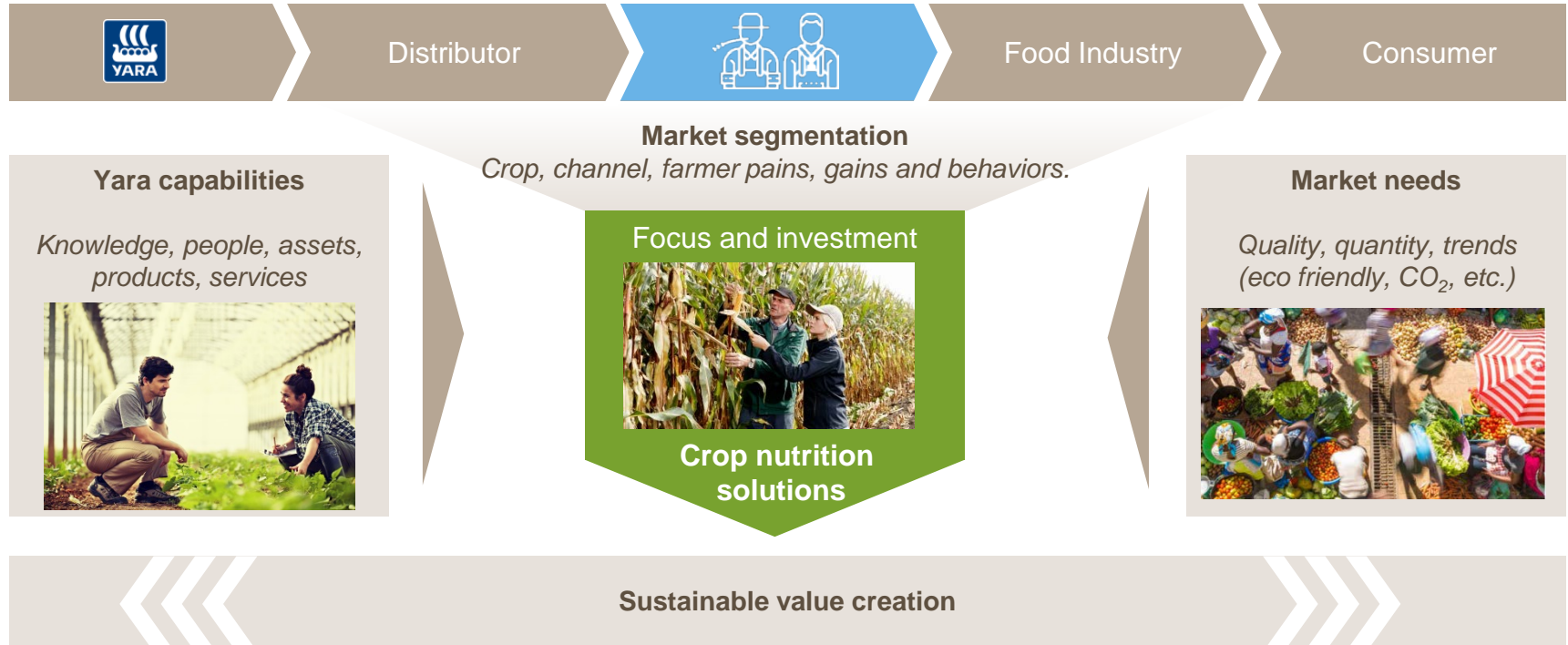


Yara's operating cash costs are mostly variable



~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



Distributor



Food Industry

Consumer

Yara capabilities

Knowledge, people, assets, products, services



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

Focus and investment



Crop nutrition solutions









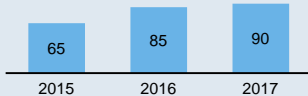
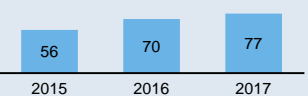
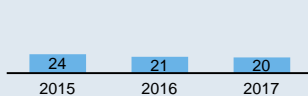
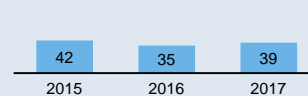
Market needs

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



Sustainable value creation

Industrial segment delivers opportunities for growth and offsets fertilizer cyclicality and seasonality

	Base Chemicals	Environmental Solutions	Mining Applications	Industrial Applications ¹
Key product and service offering	 Chemical applications used in paints and packaging, glues, foam, medical products and feed additives	 NO _x and SO _x 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
Strategic fit	Optimization of Upstream assets	Utilize logistics advantage and infrastructure footprint	Utilize technology, logistics and infrastructure advantage	Monetize products into higher value markets
Geographical market	 Europe	 Global	 Global	 Global
Market drivers	GDP growth	Legislation, GDP growth	GDP growth, mining industry	GDP growth, standard of living
EBITDA 2015-2017 (MUSD)				

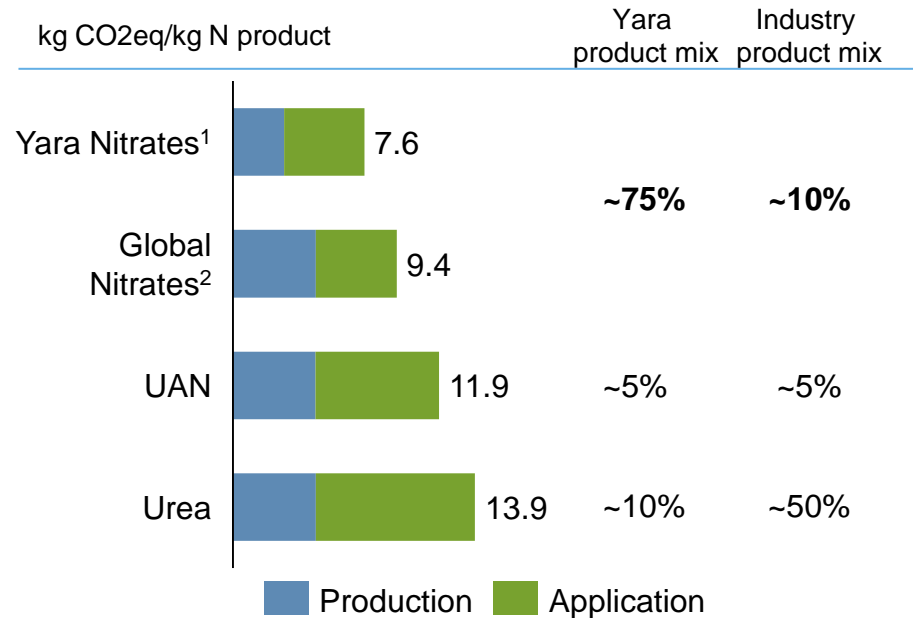
Yara's solutions improves food production per hectare, delivered through products with lower emissions per ton

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'



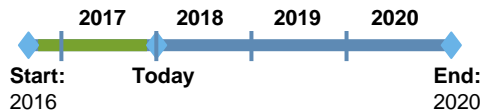
¹ Assumed 15% lower application rates for nitrates, due to lower volatilization

² Average emissions from production higher, partly driven by plants running without N2O catalysts

Growth & Improvement

Yara Improvement Program – 2017 status

Program progress

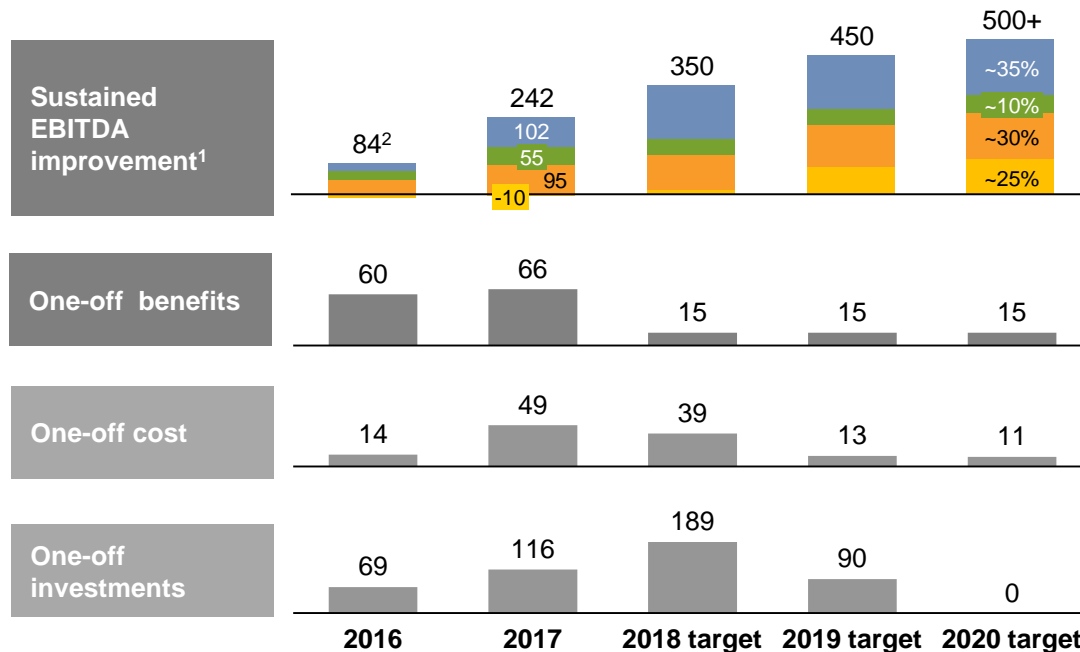


- 2017 EBITDA benefits ahead of target (in 2015 terms):
 - Production volume improvement according to plan
 - Energy consumption improvement ahead of plan
 - Variable cost improvement ahead of plan
 - Fixed cost improvement behind plan
 - One-off program costs higher than original estimate

Financial benefits

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

■ Production volume ■ Variable unit cost²
■ Consumption factor ■ Fixed cost



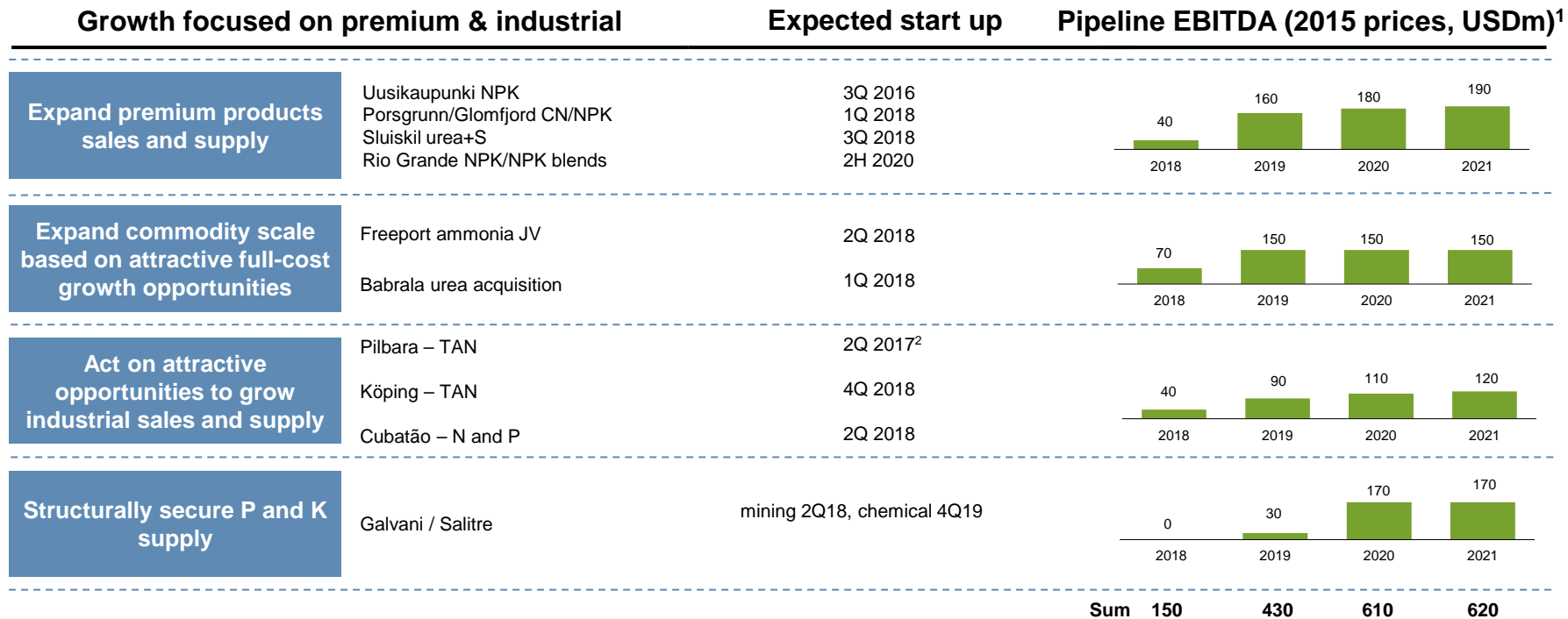
¹ Additional details in the backup section;

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

	Value driver	How we improve	How we know	
More for less	Volume ¹	Increase production in our existing plants by improving reliability	~400 kt additional ammonia and ~700 kt additional finished fertilizer production by 2020 ⁶	\$500MM sustained EBITDA improvement by 2020 ⁷
	Consumption factor ²	Reduce spend on consumption factors, primarily energy, through better reliability and new technology	~3 % improved energy efficiency by 2020 ⁶	
	Variable unit cost ³	Leverage global scale, apply advanced category management and collaborative procurement approaches	Reduced spend in direct and indirect categories	
	Fixed cost ⁴	Increase focus on standardization and realizing scale benefits	Reduced spend on fixed costs in production and support functions	
	Cash effects ⁵	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 has expected commodity nitrogen oversupply, and has focused its growth pipeline on premium & industrial products

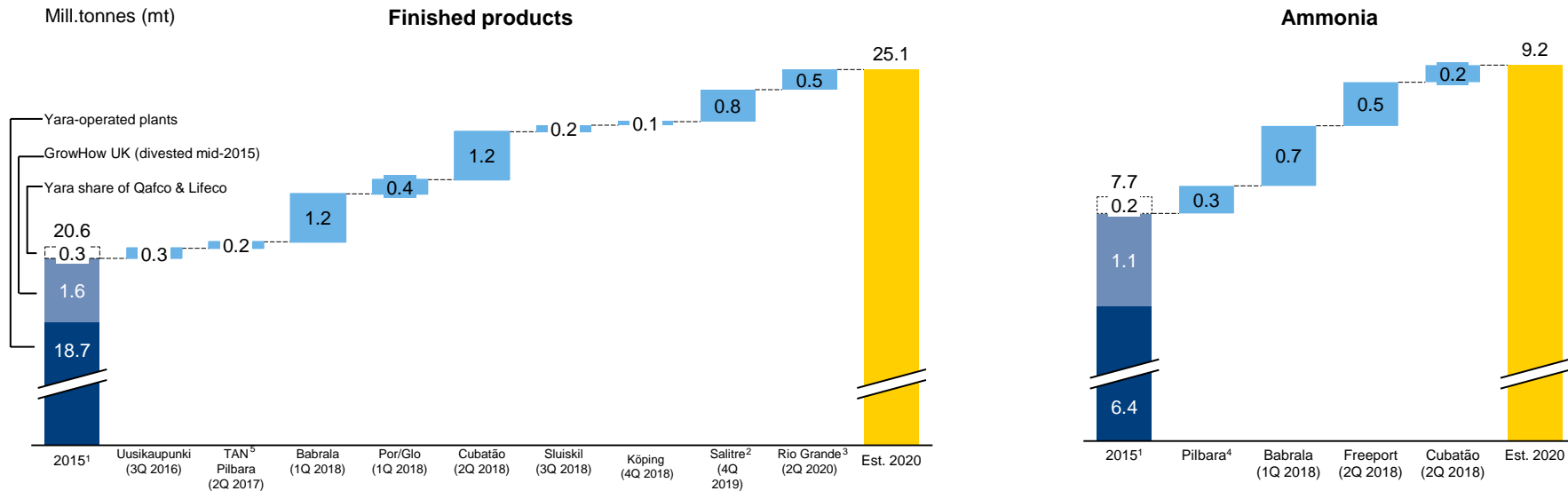


¹ Including Yara's share of volume in equity accounted investees. Fully consolidated entities presented at 100% basis

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

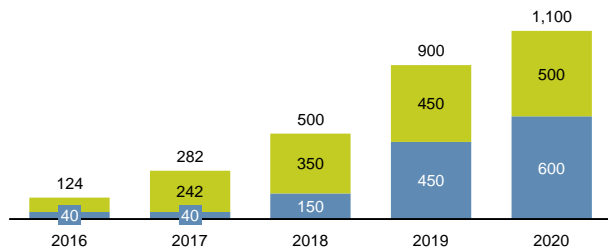
Production growth 2015 - 2020



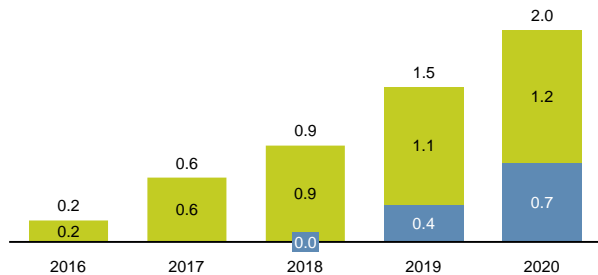
- Adjusted to normalized / 2016 turnaround level (0.7mt finished fertilizer and 0.2mt NH₃) and regularity level (0.7mt finished fertilizer and 0.4mt NH₃)
- Salitre will reach 1.1 mill.tonnes in 2022
- Rio Grande expansion also adds 1 million tonnes NPK blends by 2020
- Including 100% ownership in Pilbara NH₃ plant (not included in committed growth pipeline)
- 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 improvement¹ (MUSD)

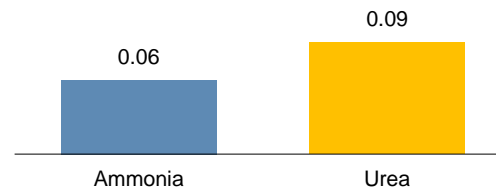


Earnings improvement¹ (USD per share)

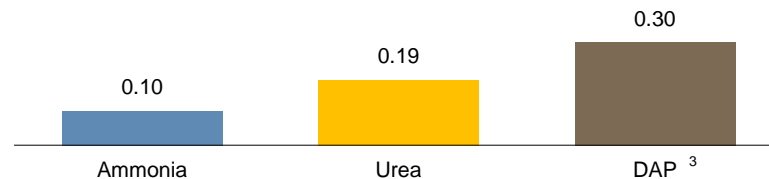


Improvement program
Growth

Improvement program: Impact² of +100 USD/t price change (USD/share)



Growth: Impact² of +100 USD/t price change (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.

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

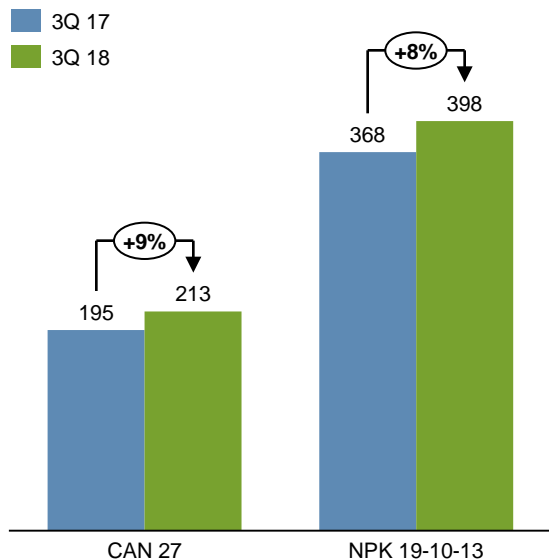
³ Phosphate-driven price change, equivalent to 138 USD/t phosphate rock (72 bpl)

Financial

Yara's 3Q results: increased prices partly offset by higher gas costs

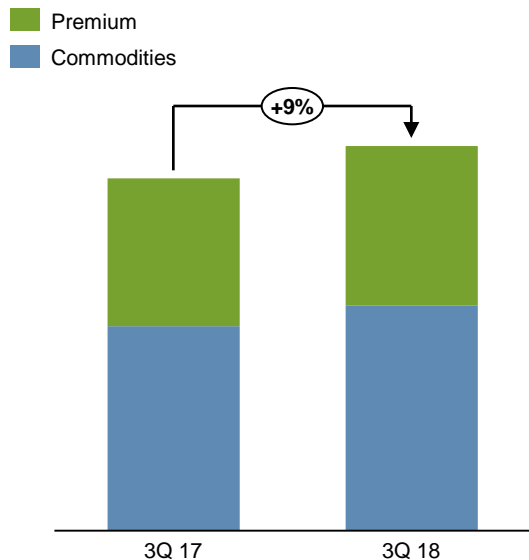
Increased realized nitrate and NPK prices

Realized NPK and CAN price¹ (USD/t)



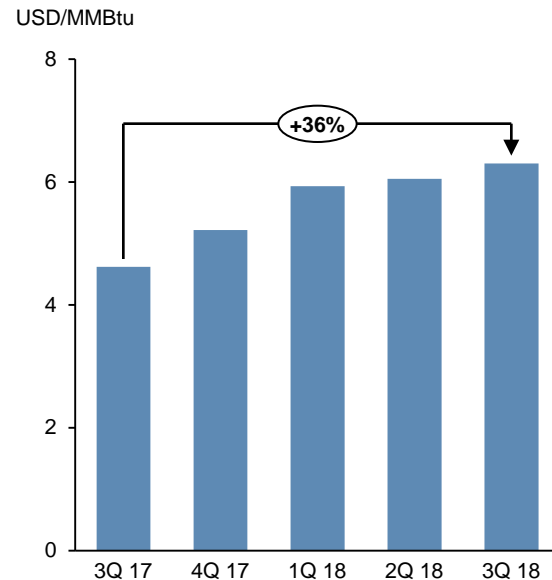
Higher premium product deliveries

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

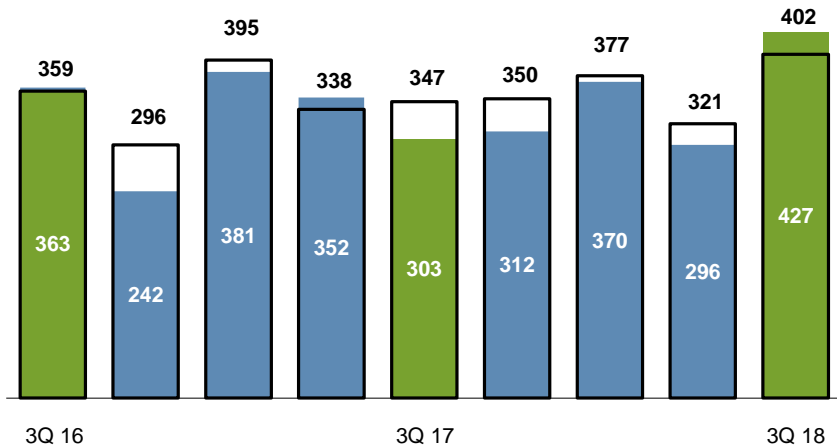
Improving EBITDA and Earnings per share

EBITDA

USD millions

xxx Excluding special items

xxx Reported

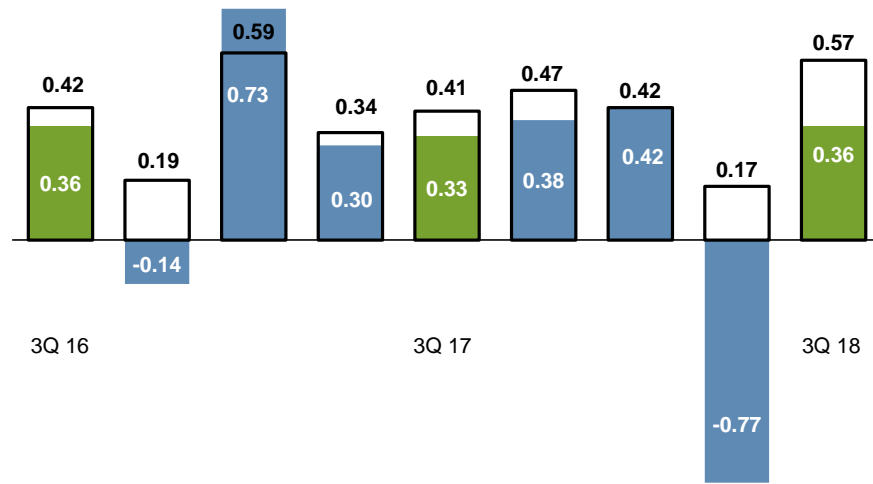


Earnings per share

USD/share

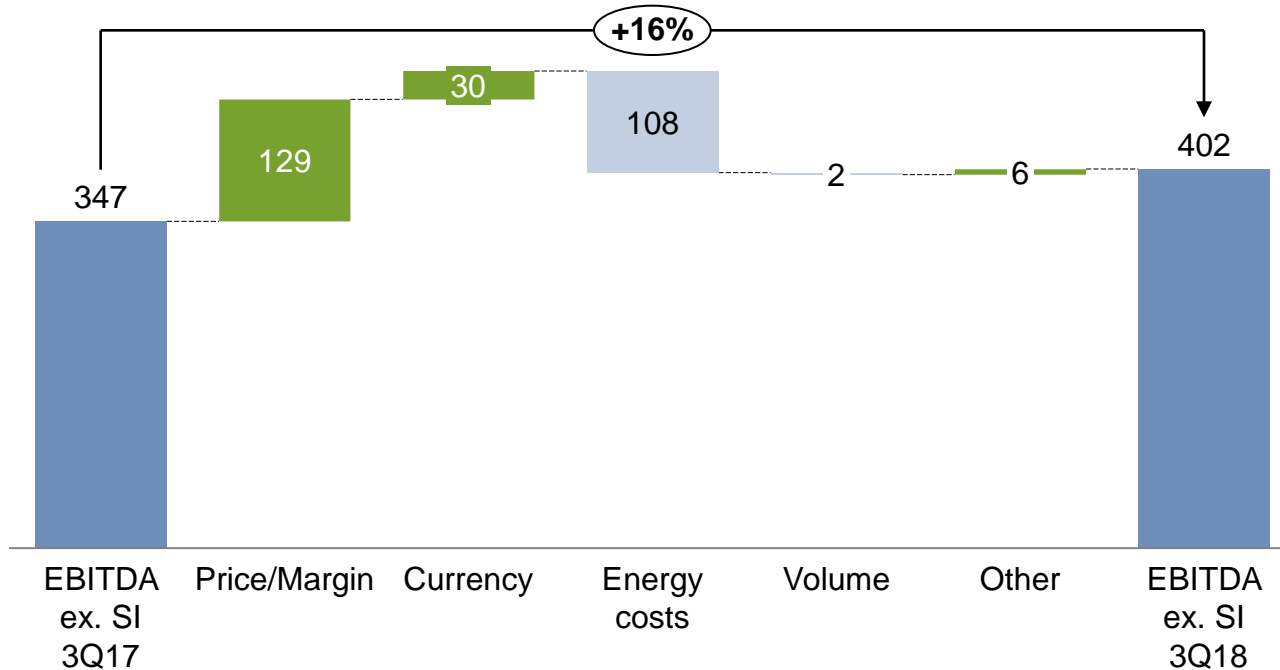
x.xx Excluding currency and special items

x.xx Reported



EBITDA 16% higher YoY as higher sales prices and a stronger USD more than offset higher energy cost

EBITDA, USD millions



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

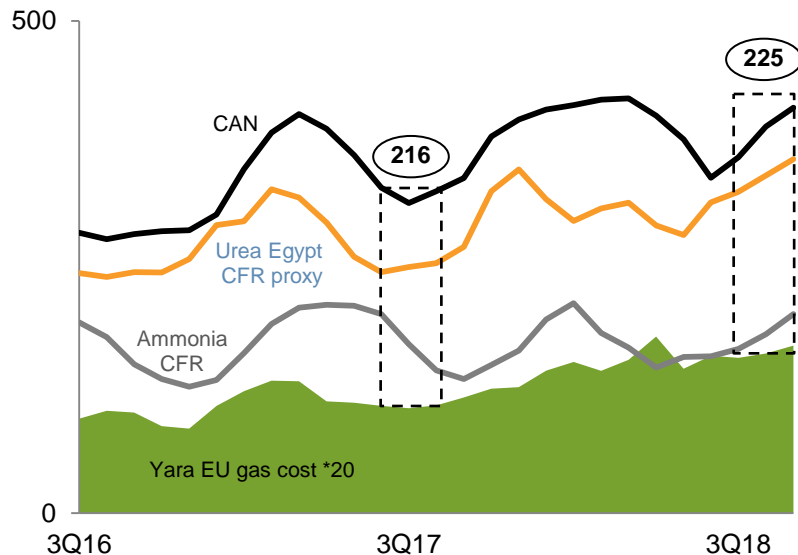
Urea -20 MUSD
Mainly Industrial contracts

Nitrate/NPK -40 MUSD
Mainly longer nitrate time lag in Europe

Increased nitrogen upgrading margins, but premiums compressed short term

Nitrogen upgrading margins¹

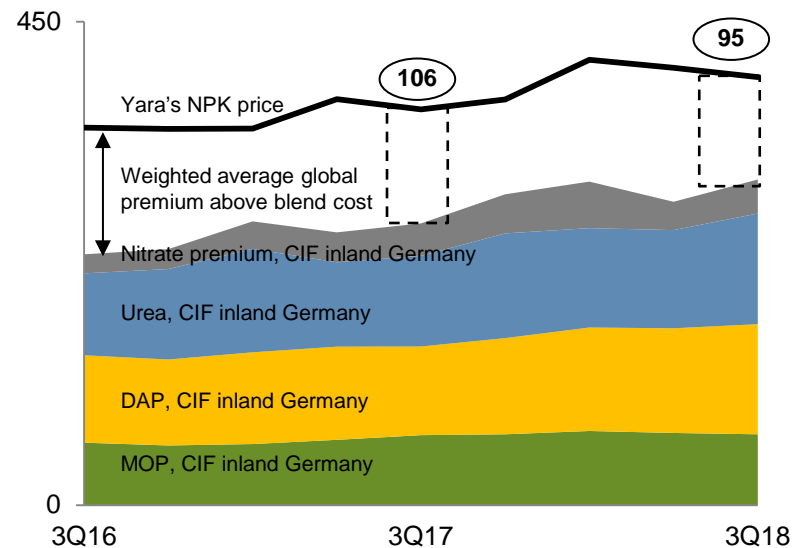
USD/t (monthly publication prices)



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

NPK premium over blend²

USD/t

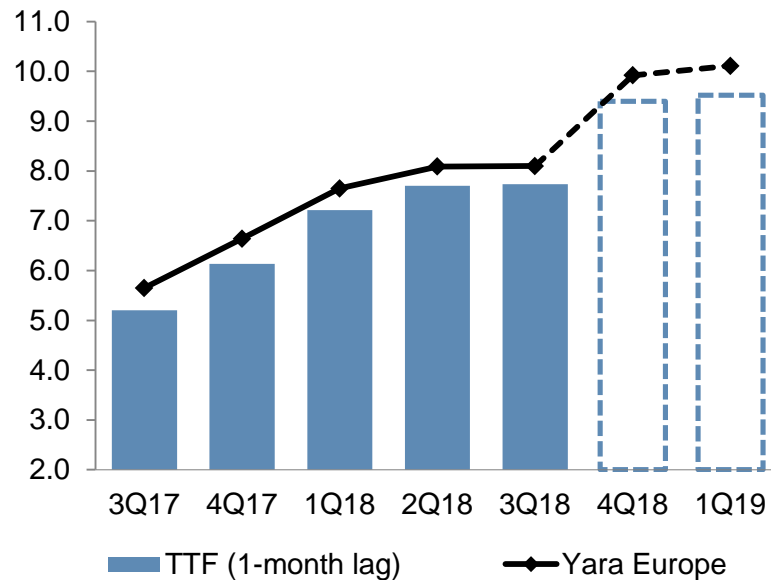


² Export NPK plants, average grade 19-10-13, net of transport and handling cost.

Higher natural gas cost expected through this winter

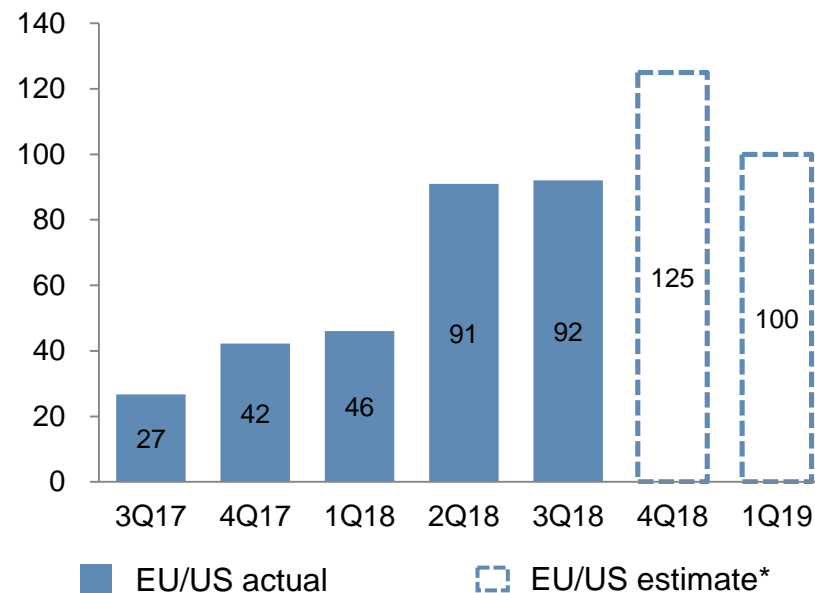
Yara European natural gas cost

USD/MMBtu



Y-o-Y change in Yara gas cost

USD Millions

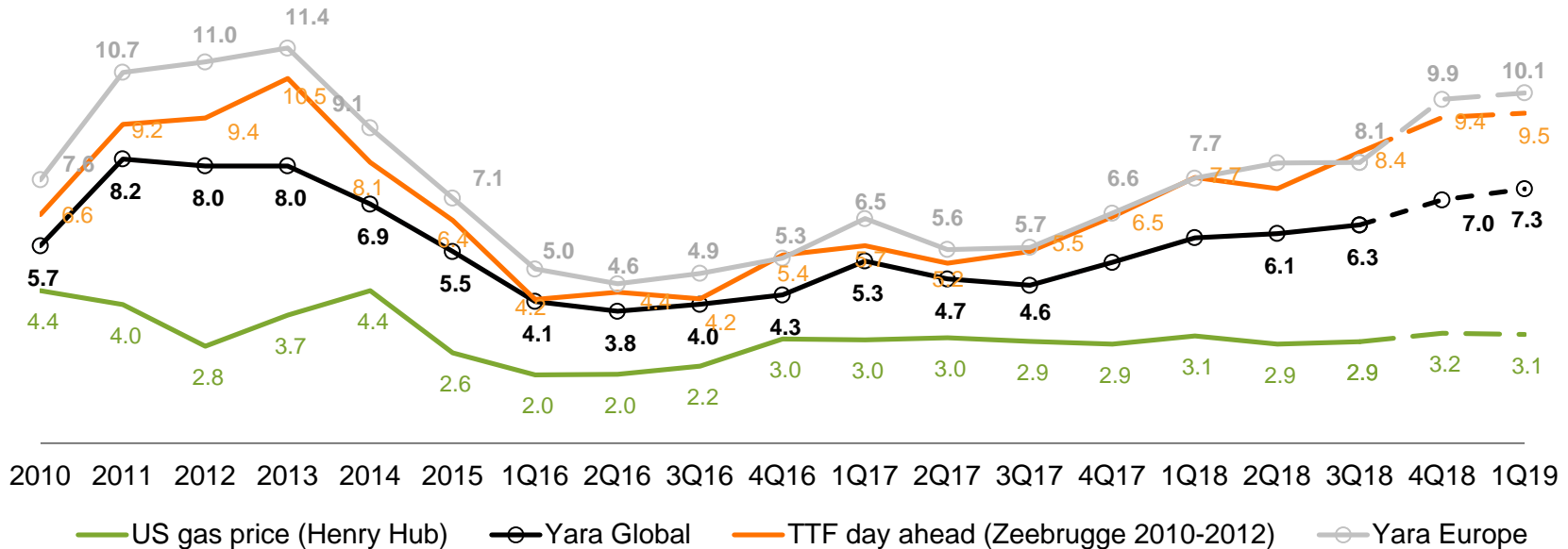


Dotted lines denote forward prices as of 5 October 2018

Source: Yara, World Bank, Argus/ICIS Heren

Energy cost

Yearly averages 2010 – 2015, quarterly averages for 2016-18 with forward prices¹ for 4Q18 and 1Q19.

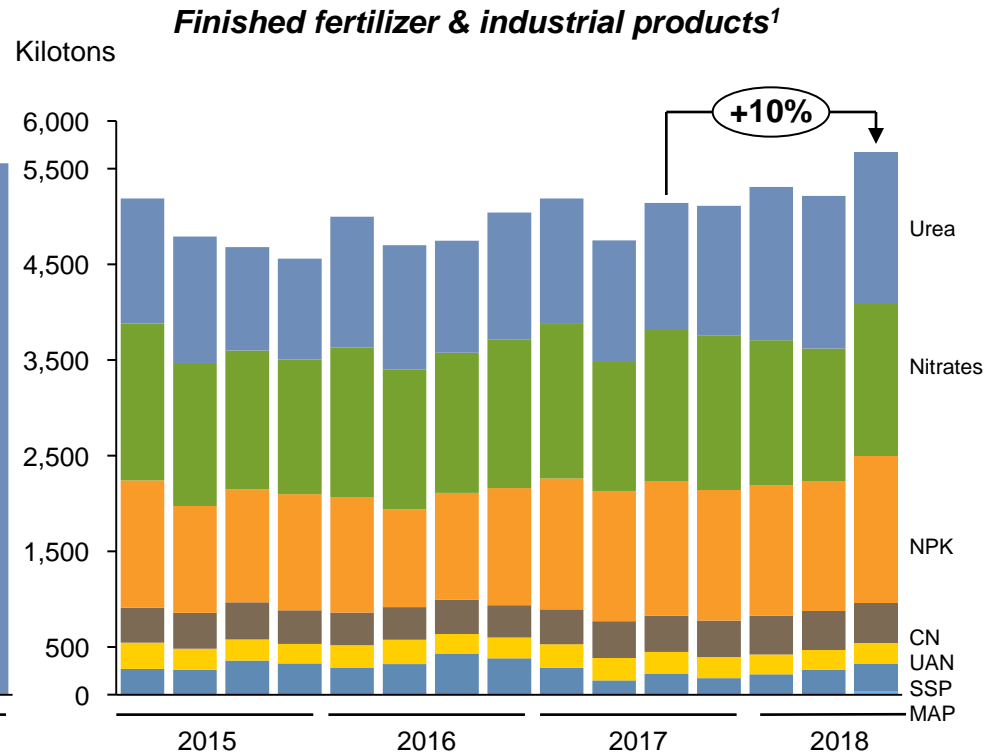
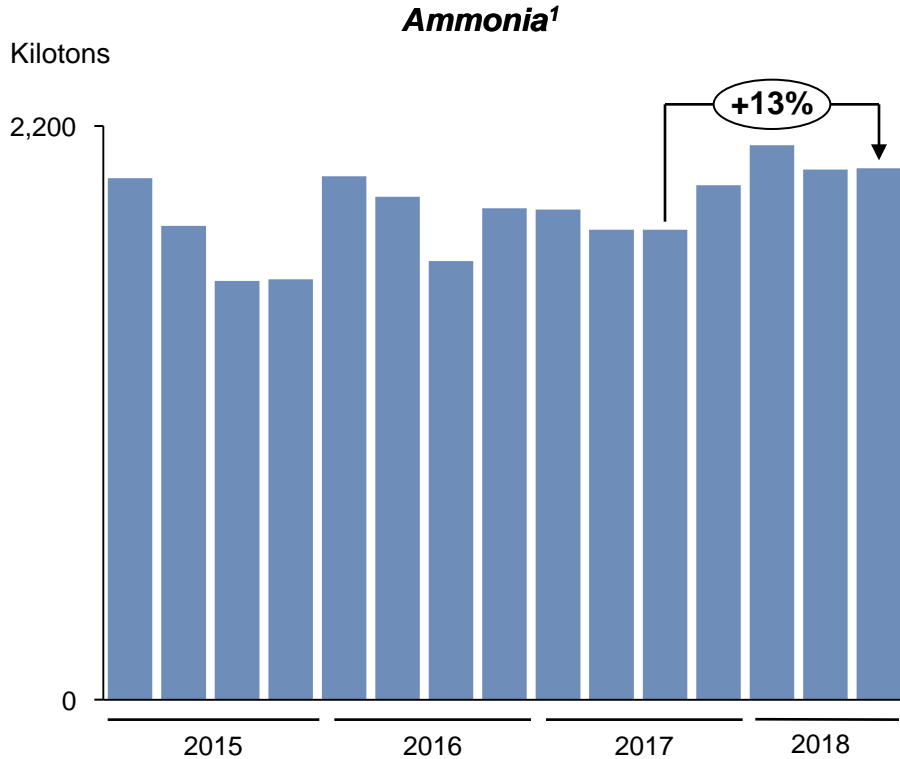


Source: Yara, World Bank, Argus/ICIS Heren

¹ Dotted lines denote forward prices as of 5 October 2018

Production and Deliveries

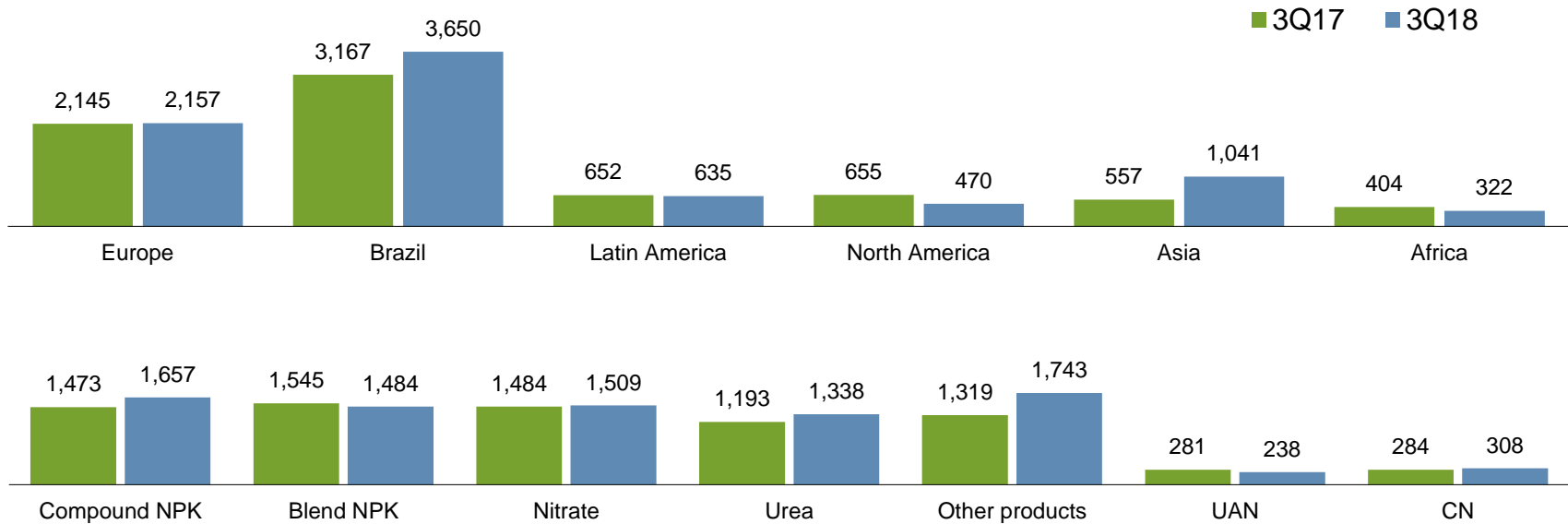
Increased ammonia and finished products production



¹ Including share of equity-accounted investees

Yara 3Q fertilizer deliveries by market and product

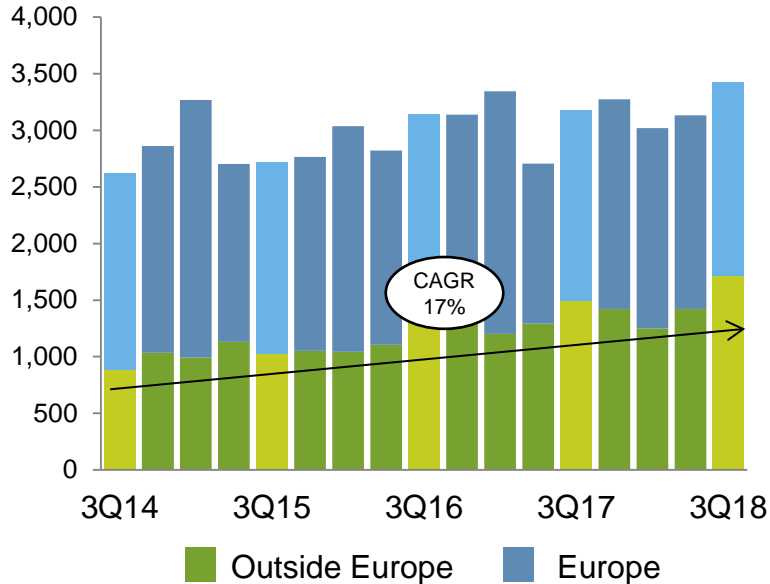
Kilotons



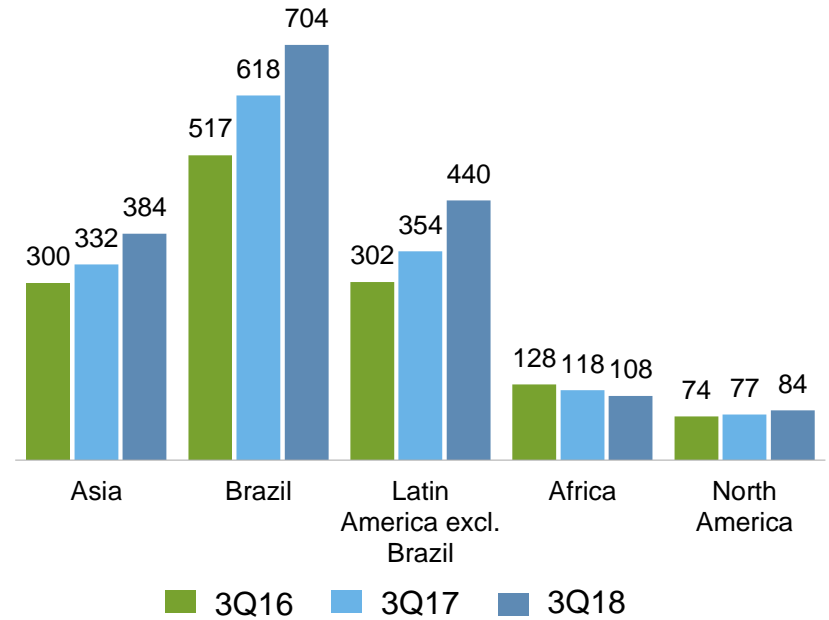
¹ Yara-produced compound NPK and third party sourced (Total NPK excluding blend NPK)

Strong premium product deliveries

Value-added fertilizer deliveries¹



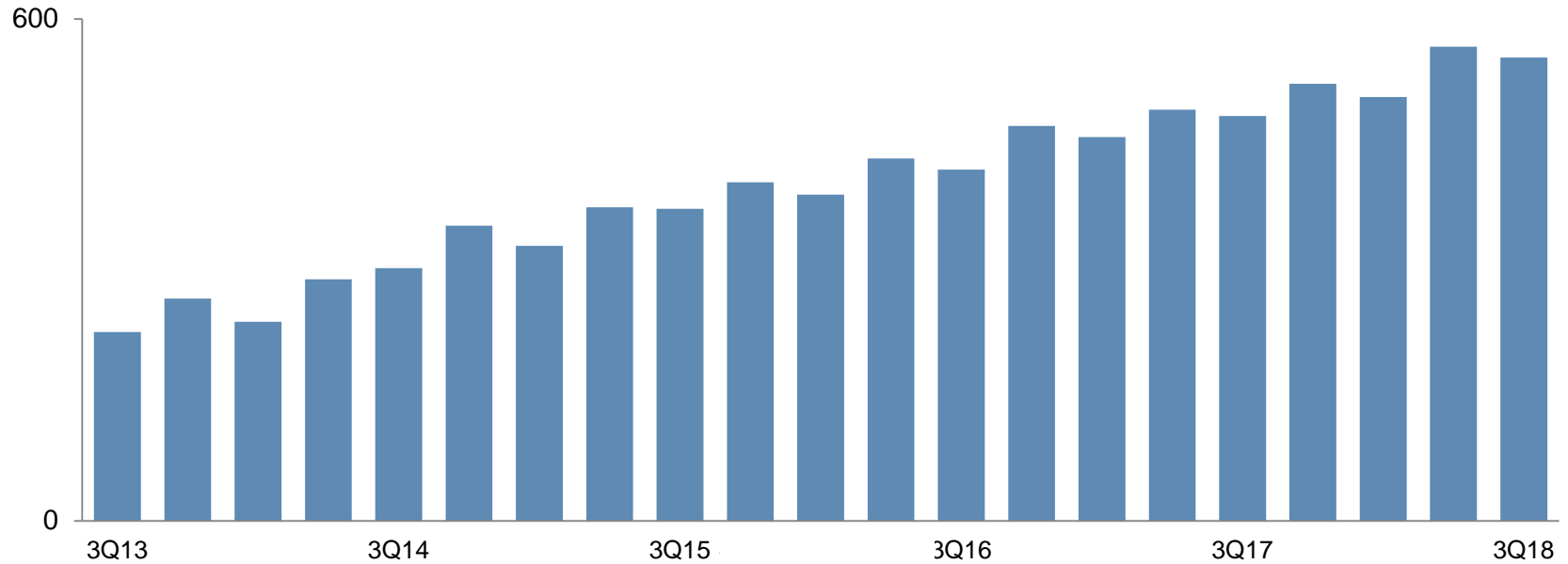
Value-added fertilizer deliveries¹



¹ YaraBela, YaraMila and YaraLiva deliveries

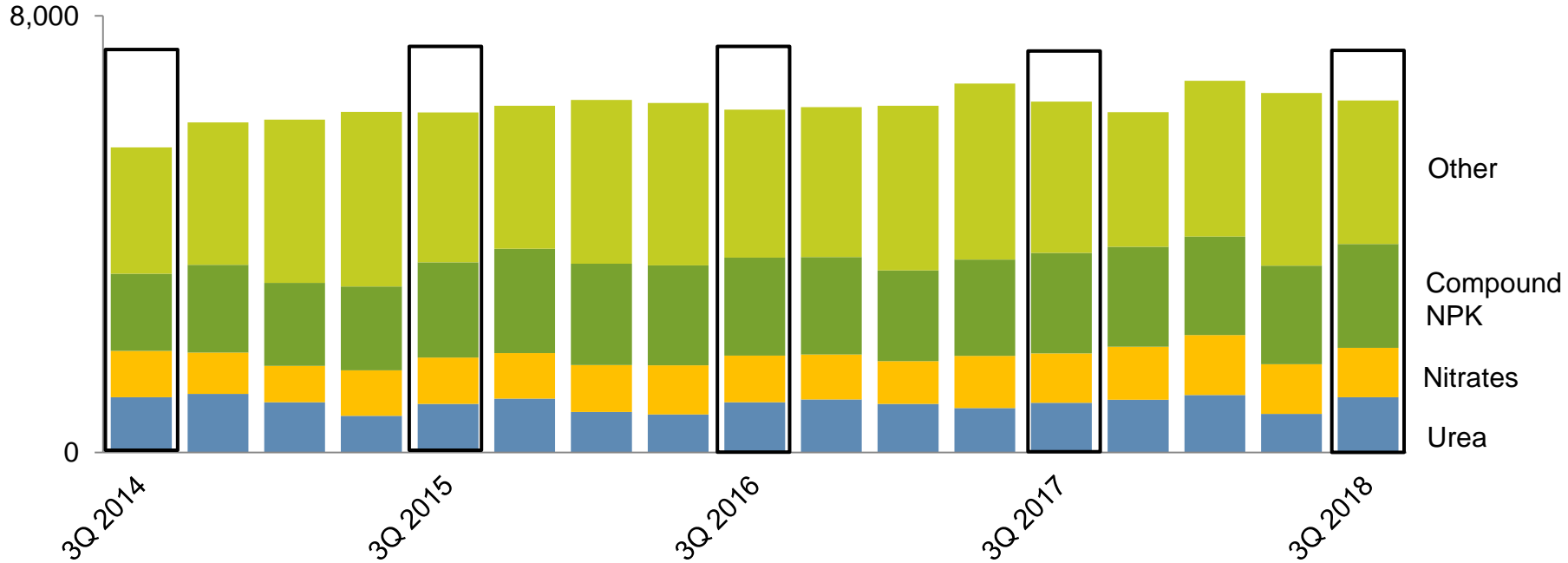
AdBlue deliveries

Kilotons



Yara stocks

Kilotons
Finished fertilizer





Knowledge grows

