

Knowledge grows

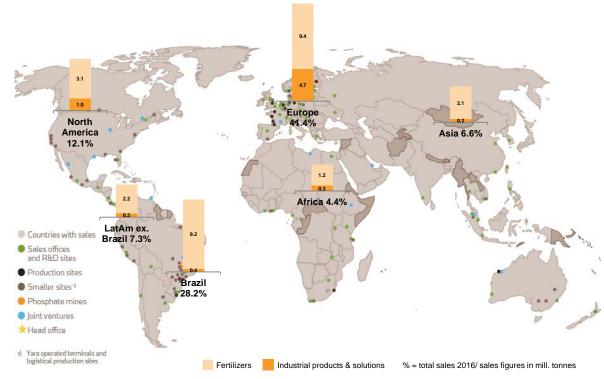
## Yara International ASA Frankfurt roadshow 20 March 2018

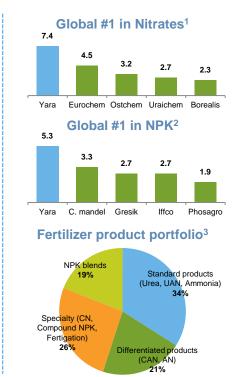
Torgeir Kvidal, CFO Nina Kleiv, Investor Relations





## Our leading global footprint and differentiated product portfolio set us apart

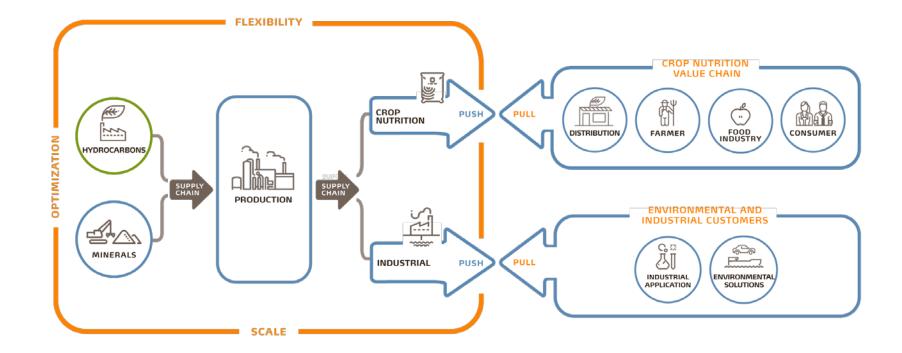






Including TAN and CN – Including companies' share of JVs 2016YE
Compound NPK, excluding blends
2016/2017 season volume
\*Ammonia trade not included in chart above

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





## 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 cyclicality and seasonality	
2017 Revenues <sup>1</sup>	7.3 BNOK (0.9 BUSD) 8%	71.3 BNOK (8.7 BUSD) 76%	15.2 BNOK (1.8 BUSD) 16%	
2017 EBITDA <sup>2</sup>	6.0 BNOK (0.7 BUSD) 54%	4.0 BNOK (0.5 BUSD) 36%	1.3 BNOK (0.2 BUSD) 12%	
Supply Chain	· Sour	al function responsible for optimization of energy, raw cing and trade of 3,864 kilotons of ammonia and purc nns of potassium and 969 kilotons of phosphate rock		



1)

2)

## **Our planet faces massive challenges – Yara is part of the solution**

## 9.7 billion

people



## + 50 %

### **Increased food production**



## -40 to -70%

Reduced greenhouse gas emissions\*



## **Our Mission**

Responsibly feed the world and protect the planet.

## **Our Values**

Ambition, Curiosity, Collaboration and Accountability

Source: OECD and FAO \*To stay within the 2°C goal by 2050



# Improving agricultural productivity is fundamental to achieve the SDGs: Yara is uniquely positioned to contribute



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



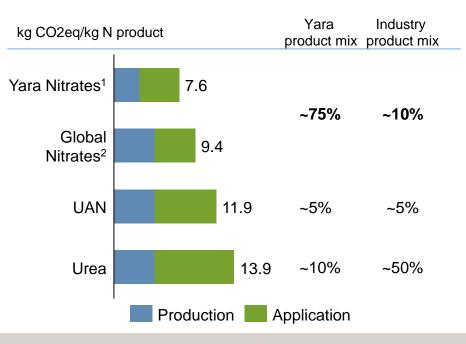
# Yara's solutions improves food production per hectare, delivered through products with lower emissions per ton

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'

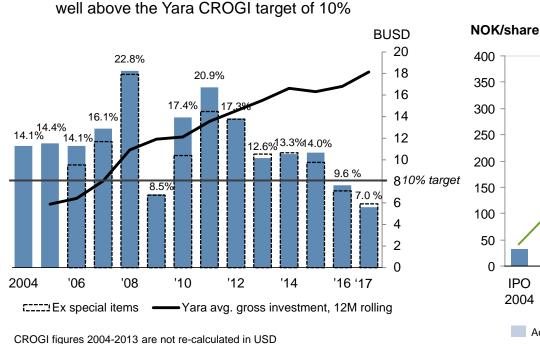




Assumed 15% lower application rates for nitrates, due to lower volatilization

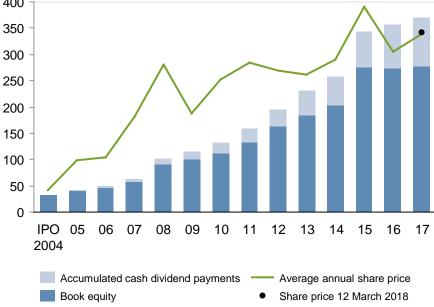
Average emissions from production higher, partly driven by plants running without N2O catalysts

## Strong growth and profitability through the cycle



Average cash return on gross investment (CROGI)

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



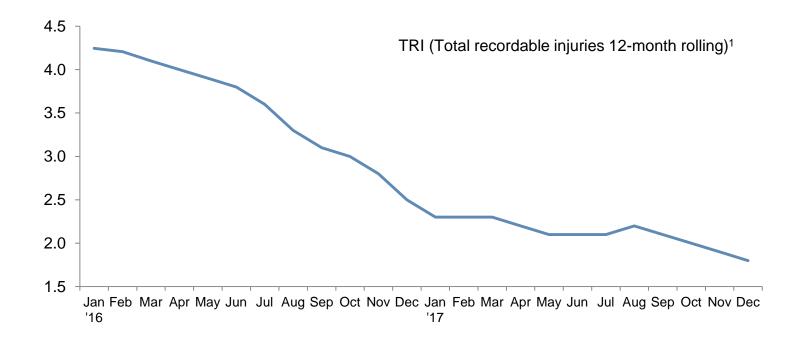
1) Share price appreciation (end 2017) plus dividend payments



# Yara International ASA Fourth-quarter 2017 results



# Safety 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.

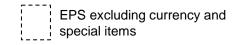


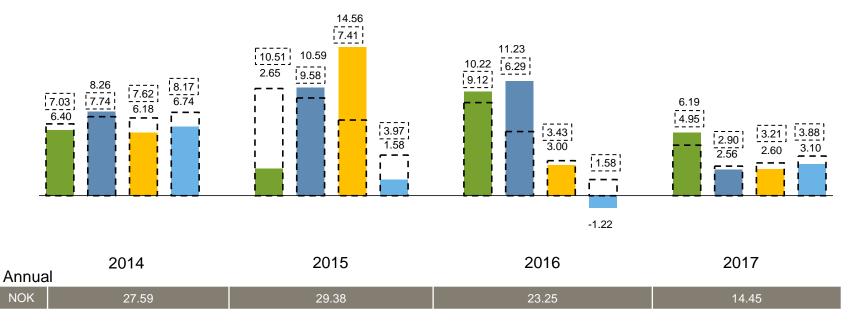
## **Summary fourth quarter**

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



# **Earnings per share\***



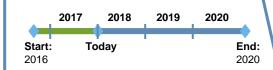


\*Average number of shares for 4Q 2017: 273.2 million (4Q 2016: 273.2 million).



# Yara Improvement Program – 2017 status

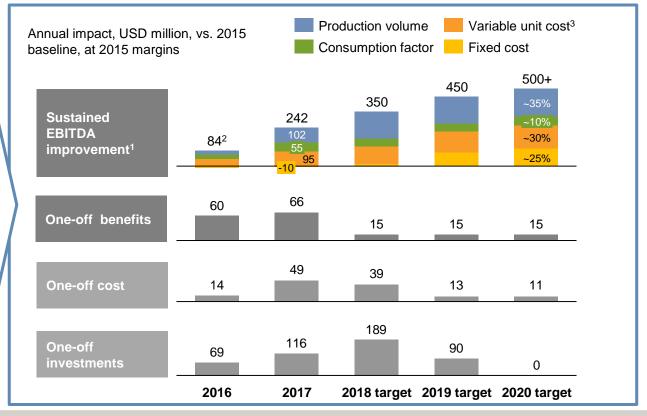
## **Program progress**



- 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

IR – March 2018

**Financial benefits** 

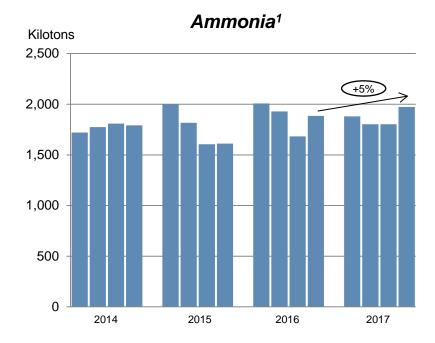


Additional details in the backup section;

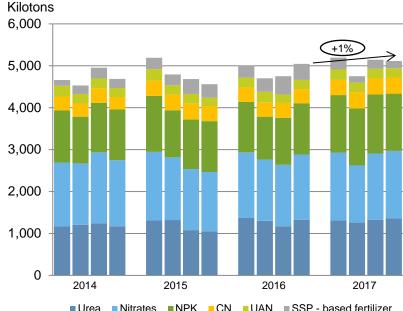
2. Adjusted for corrected full-year procurement savings (e.g., full-year bonuses)

3. Includes improvements to direct and indirect categories, as well as value of additional steam and reduced cost of emissions

# Higher finished fertilizer and ammonia production



## Finished fertilizer & industrial products<sup>1</sup>

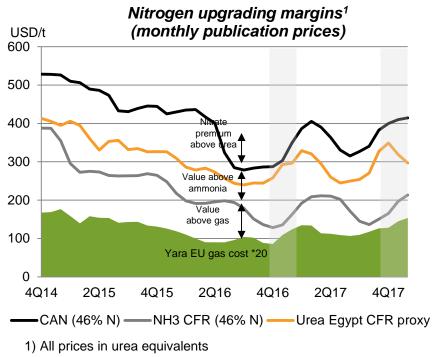


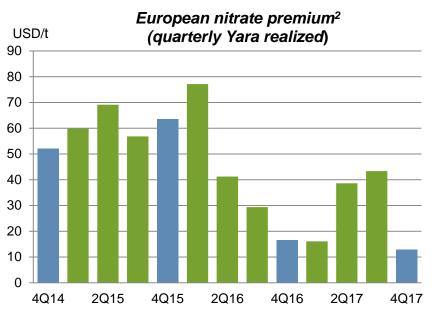
■ Nitrates ■ NPK ■ CN ■ UAN ■ SSP - based fertilizer

### 1) Including share of equity-accounted investees



## Lower realized European nitrate premiums



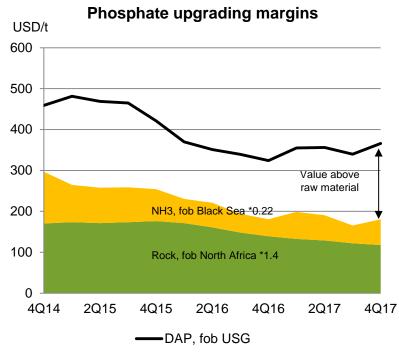


2) Yara European realized nitrate prices (excl. sulphur grades) compared with urea publication prices (Egypt CFR proxy) with1 month time lag. All numbers in USD per tonne of CAN equivalents.

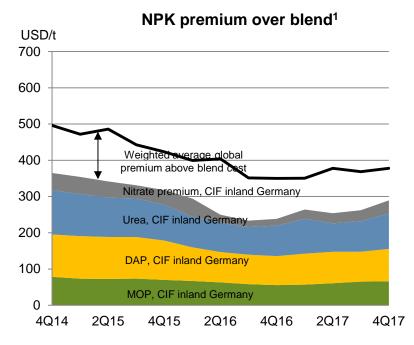
Source: Fertilizer Market Publications



# Solid commodity phosphate margins and compound NPK premiums



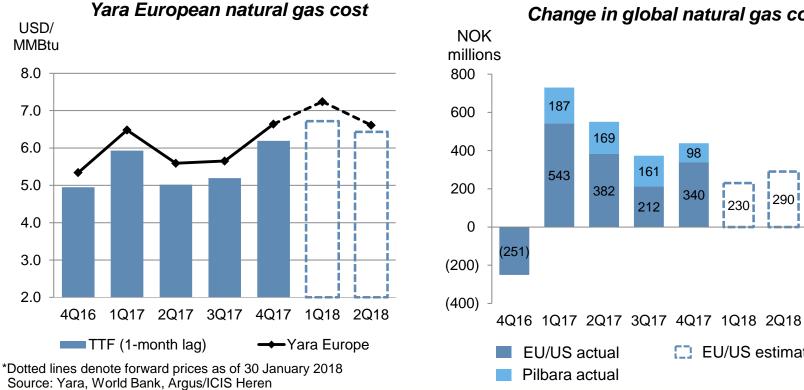




1) Export NPK plants, average grade 19-10-13, net of transport and handling cost.



## Higher natural gas cost expected for the next two quarters





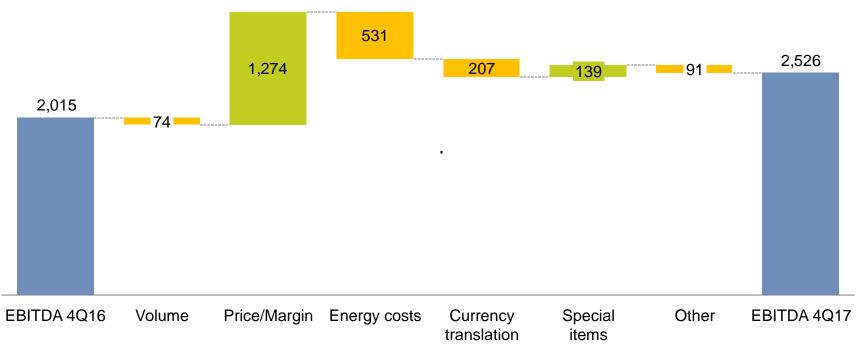
EU/US estimate\*

## Change in global natural gas cost



## **EBITDA: Stronger margins offsets higher energy cost** and weaker US dollar

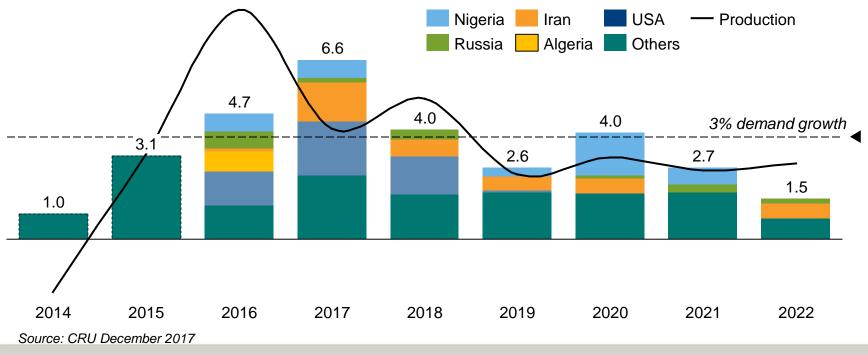
NOK millions





# The surge of new capacity is past its peak

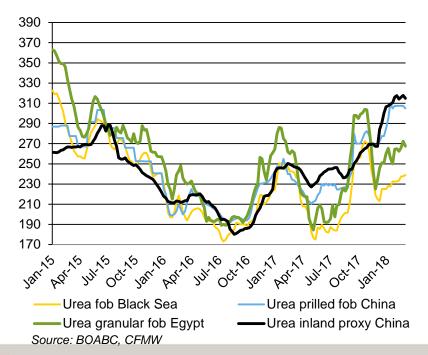
### Global capacity additions ex China (Urea, Million tons)



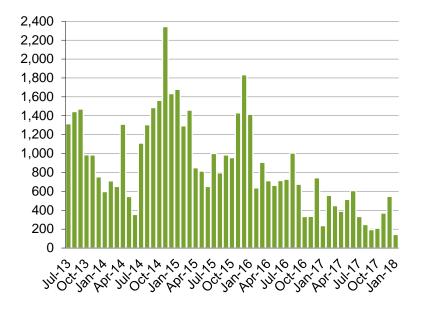


# ....but higher domestic price and lower exports from China are offsetting oversupply elsewhere

Increasing urea pricing (USD/ton)

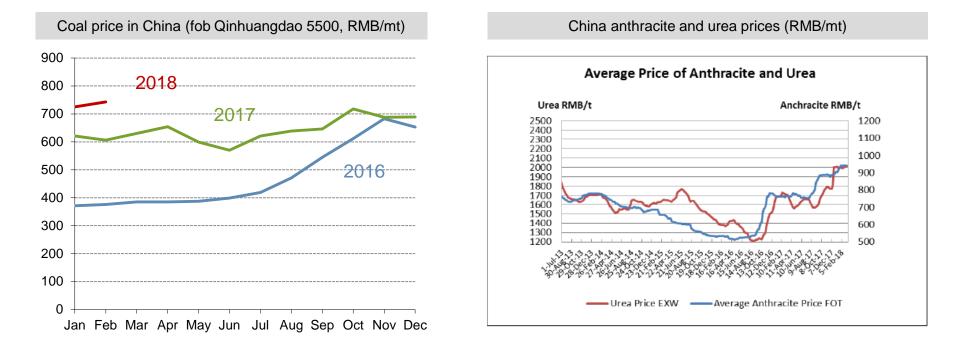


### Chinese export is falling (1000 tons)





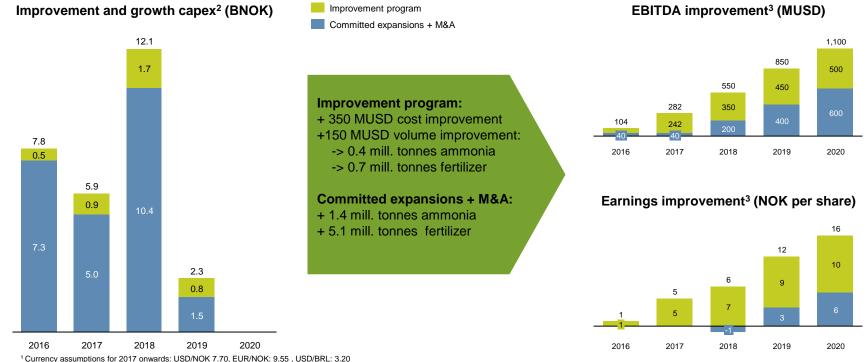
## Increased coal prices drove nitrogen prices higher



#### Source: IHS, CFMW



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



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

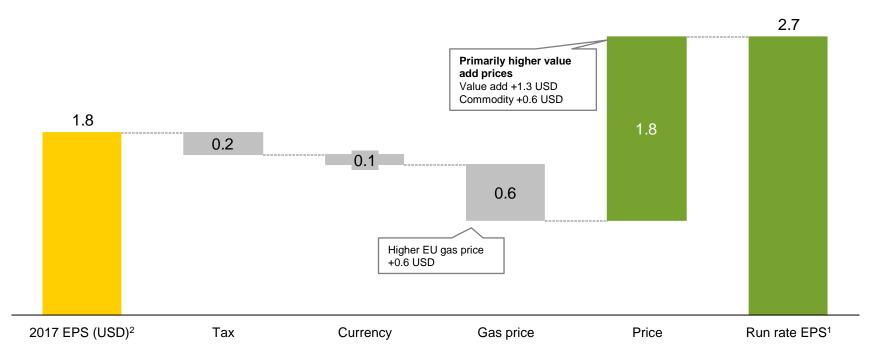
<sup>3</sup> Measured at 2015 conditions. Main average market prices: Ammonia fob Yuzhny 390 USD/t, Urea fob Yuzhny 275 USD/t, DAP fob Morocco 495 USD/t



# **Additional information**



## Scenario based on current market prices: Higher prices offset higher energy cost

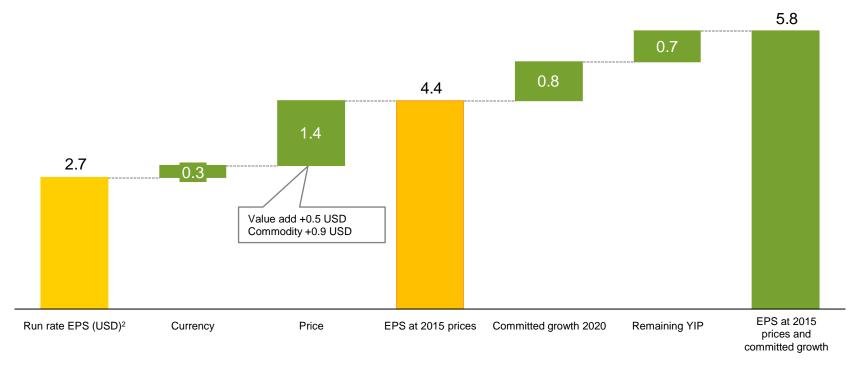


1) Based on market prices as of 1 Feb 2018, 273.2 million shares outstanding, and 25% tax on underlying business.

2) Excl. special items and currency



# 2015 prices, committed growth and Yara Improvement Program add 3.2 USD to run rate EPS

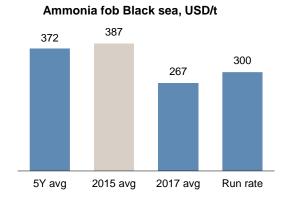


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## **Price and currency scenario assumptions**

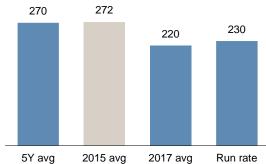


Urea fob Black sea, USD/t

DAP fob US Gulf, USD/t

2015 avg

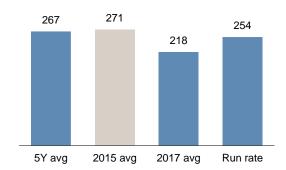
2017 avg



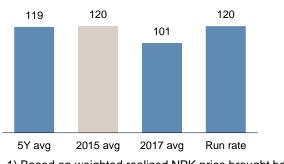
400

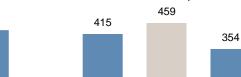
Run rate

CAN cif Germany, USD/t



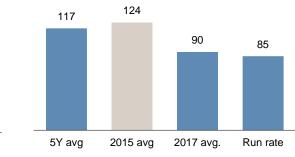
NPK compound premium, USD/t<sup>1</sup>





5Y avg

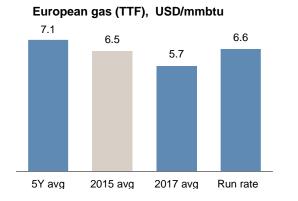
Phosphate rock fob North Africa, USD/t

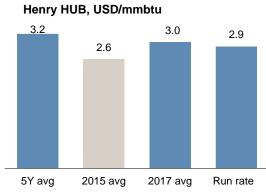


1) Based on weighted realized NPK price brought back to CIF Germany and compared with a nitrate based blend

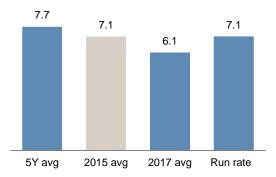


# **Price and currency scenario assumptions**

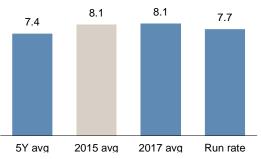




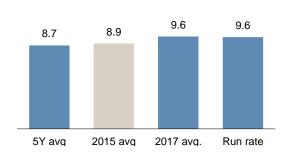
Yara's European gas price, USD/mmbtu



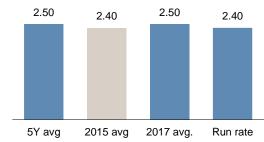
NOK per USD



NOK per EUR



NOK per BRL





# Global leadership by growing knowledge for 112 years

### About the company:

- Headquarters in Norway
- President and CEO: Svein Tore Holsether
- Present in more than 60 countries, sales to ~160 countries
- Close to 15,000 employees
- Established as Norsk Hydro in 1905, demerged and listed on Oslo Børs as Yara International ASA in 2004

### Stable ownership structure:

- Norwegian State 36.2%
- Norwegian National Insurance Scheme Fund 5.2%
- Other Norway 15%
- Outside Norway 44%

### Key metrics 2016 / 2017:

- Operating revenues: 11.6 BUSD / 11.4 BUSD
- EBITDA: 1.9 BUSD / 1.3 BUSD
- CROGI: 9.5% / 7.0%
- Total deliveries (in million tonnes):
  - Fertilizers: 27.3 / 27.2
  - Industrial products: 6.9 / 7.1
  - Ammonia trade: 2.0 / 2.0

## Strong and stable credit position:

- S&P: BBB (stable), BBB+ between 2005 and 2007
- Moody's: Baa2 (stable), unchanged since 2004
- Clear commitment to BBB/Baa2 rating
- Financial ratios as of end 2017:
  - Debt/equity: 0.25
  - Net debt/L12M EBITDA: 1.76x



## Yara has four different priority areas for growth

## Expand premium fertilizer sales and supply

- Demand can be created at healthy premiums
- Premiums above commodities and competitors enable profitable investments in new production capacity
- Expand commodity scale based on attractive full-cost growth opportunities
  - Resilience in attractive cost curve position and diversified gas footprint
  - Operational excellence
  - Key enabler for all segments

Act on attractive opportunities to grow Industrial sales and supply

- Strong fundamental growth drivers
- Attractive opportunities within four business lines
- Structurally secure P and K exposure
  - Sourcing security (premium rock, SOP)
  - High value creation in early stage development, upstream value and market integration



# Yara is deliberately building premium positions in the world's most important agriculture markets

## **Brazil and Latin America**

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

## India

- One of the world's largest fertilizer consumers, and the world's largest importer of nitrogen fertilizer
- Yara is very well positioned to develop our premium business, and create value both for Yara and the Indian farmer
  - Large and growing middle class creates strong demand growth for more
  - Inefficient agriculture sector with huge improvement potential from right crop nutrition practices



Yara has four different priority areas for growth

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## High on-going Yara growth investment activity

#### Finished products<sup>4</sup> Ammonia Mill.tons NOK bn 17.9 25.5 9.2 Cost&capacity improvements 2) 1.2 M&A 2.3 Committed growth 1.4 5.2 Maintenance 0.3 2.8 11.1 7.0 0.9 0.2 0.7 0.2 19.2 5.2 8.2 0.3 4.8 1.2 6.8 1.6 1.2 0.0 5.8 6.4 5.2 2017 2018 2019 2020 20155 T/R<sup>6</sup> Regularity Babrala & Other Est. 2020 20155 T/R<sup>6</sup> Regularity Pilbara8 Freeport, Est. 2020 Cubatão growth7 Babrala & Cubatão GrowHow UK (divested mid-2015)

Yara's share of capex. Fully consolidated entities presented at 100% basis. 1) Includes Yara Improvement program Capex and other improvements 2)

Capex plan<sup>1</sup>

- Rio Grande expansion also adds 1 million tonnes NPK blends by 2020 3)
- Finished fertilizer and industrial products, excl. bulk blends 4)
- Including Yara share of production in non-consolidated investees 5)

- Adjustment to normalized / 2016 turnaround level 6)
  - 7) Committed projects only. TAN Pilbara: 160 kt, Porsgrunn: 250kt, Glomfjord: 105kt, Uusikapunki: 250kt, Köping: 90kt, Sluiskil: net 160kt, Galvani (Salitre ~ 0.8 mill.tonnes, reaching 1.1 mill.tonnes in 2022), Rio Grande: 500kt

Yara share of Qafco & Lifeco

Including 100% ownership in Pilbara NH<sub>2</sub> plant 8)



Yara-operated

### Production growth 2015 - 2020<sup>3</sup>

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

Growth focused on	premium & industrial	Expected start up	Pipeline EBITDA (2015 prices, USDr			
Expand premium products sales and supply	Uusikaupunki NPK Porsgrunn/Glomfjord CN/NPK Sluiskil urea+S Rio Grande NPK/NPK blends	3Q 2016 1Q 2018 2Q 2018 2H 2020	70	170	180	190
Expand commodity scale	Freeport ammonia JV		2018	2019	2020	2021
based on attractive full-cost growth opportunities	Babrala urea acquisition	1Q 2018 1Q 2018	2018	2019	2020	150 2021
Act on attractive opportunities to grow industrial sales and supply	Pilbara – TAN	2Q 2017 <sup>2</sup>			80	80
	Köping – TAN	3Q 2018	10 2018	60 2019	2020	2021
Structurally secure P and K supply		mining 2Q18, chemical 1H19			170	170
	Galvani / Salitre		0 2018	30 2019	2020	2021
		solidated entities presented at 100% basis	Sum 190	400	570	590

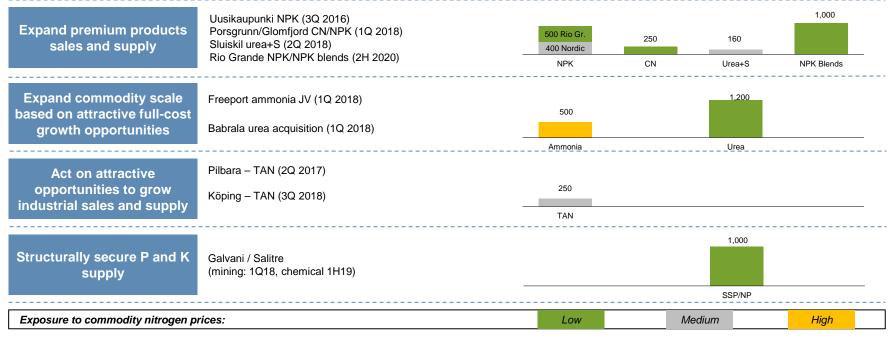
<sup>1)</sup> Including Yara's share of volume in non-consolidated investees. Fully consolidated entities presented at 100% basis <sup>2)</sup> Plant started up in 2Q 2017, but has been down for technical reasons since 3Q 2017. Expected re-start 2Q 2018.



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

## Growth focused on premium & industrial

Pipeline tonnes by product (kt)<sup>1</sup>



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



# Yara Improvement Program - Delivering value across the company

### Program status 4Q 2017

More or less	Yara Productivity System Procurement Excellence		Site diagnostics concluded, with increase in base potential vs original; Rollout completed at eight sites, seven sites currently ongoing Wave 1 and 2 savings delivery under implementation; New indirect operating model being rolled out	IT optimization, and support function efficiency and quality	Ongoing implementation of new IT services contracts; New IT operating model decided, for implementation during 2018; Support function efficiency and quality projects according to plan	EBITDA target <sup>1</sup>	
	Working Capital Ongoing work to improve inventory and credit position in Latin America and Africa						One-off
Added value	Sales & Marketing professionalization	2	Detailed and ambitious Crop Road Sales Excellence initiatives being		•		



# The Yara Productivity System (YPS) is a structured way of working applied across operations and knowledge work

The Productivity System covers all of Production

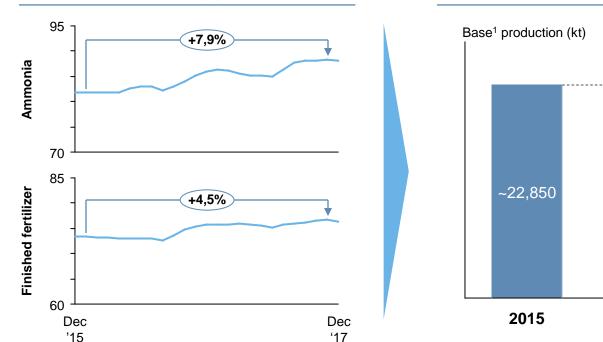


Note: Improvement potential identified at the 27 sites covered by deep-dive diagnostic. Does not include potentials identified by YPS for capital projects and YPS for R&D



Identified potential higher than expected

# A major effect of YPS is sustainable long term improvements to reliability



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

~23,590

2017

Comparable to a plant of capacity between

Le Havre (~700kT) and Montoir (~900 kT)

102

2015 margins

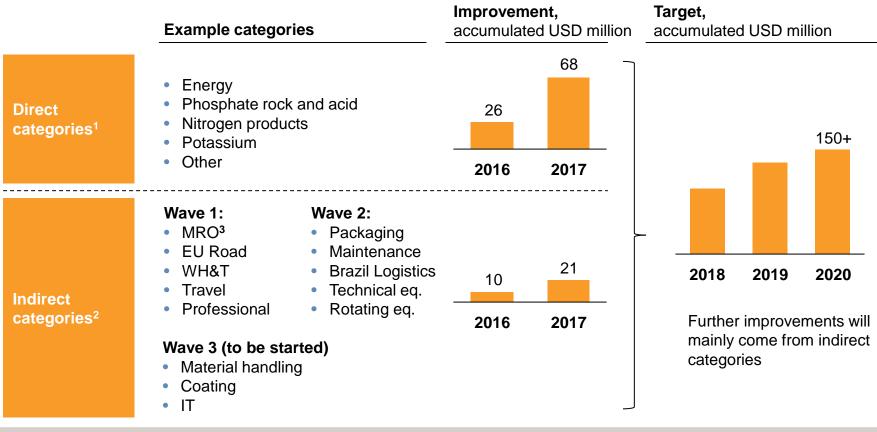
66

2017 margins



Uptime has increased for (%)

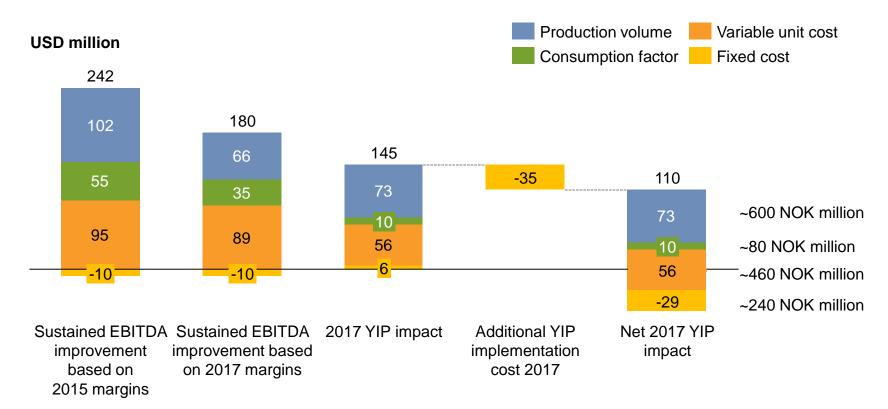
1. Ammonia and finished fertilizer (including intermediary ammonia). Adjusted for turnarounds, expansions, and selected plants not part of scope (e.g., Qafco). Total production of ~26,250 kT in 2015 and ~27,650 kT in 2017 Note: Uptime = Production / (Max production – [no demand + lack of external raw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



#### Variable cost improvements have contributed ~90 USD million

VARA

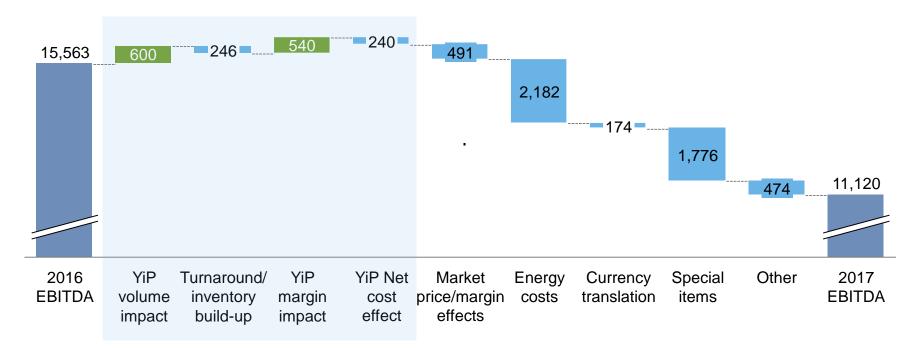
### **Yara Improvement Program effects**





## Significant positive impact of the Improvement Program in 2017

NOK millions





### Improvement and growth investments; earnings and sensitivities<sup>1</sup>

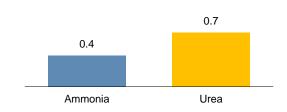


EBITDA improvement<sup>2</sup> (MUSD)

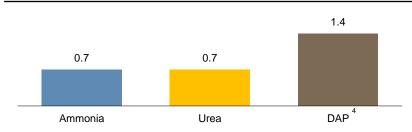
Earnings improvement<sup>2</sup> (NOK per share)



Improvement program: Impact<sup>3</sup> of +100 USD/t price change (NOK/share)



Growth: Impact<sup>3</sup> of +100 USD/t price change (NOK/share)



<sup>1</sup> Currencies for all amounts from 2017: USD/NOK 7.70, EUR/NOK: 9.55, USD/BRL: 3.2 <sup>2</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.

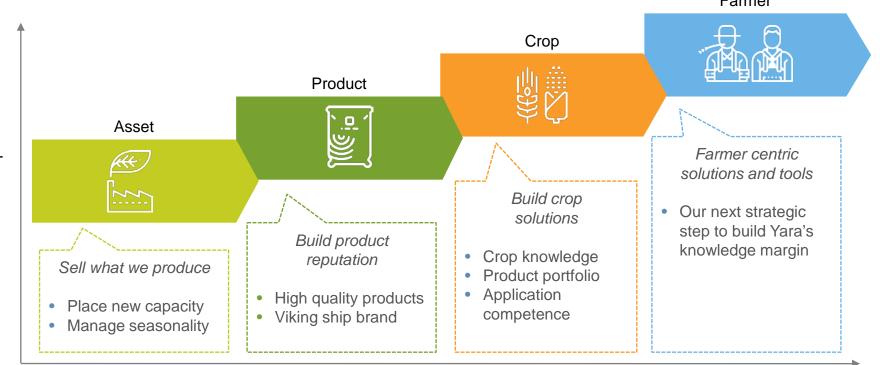
<sup>3</sup> Improvement: 2020 numbers. Growth: At full capacity (2019 for urea and ammonia, 2020 for DAP).

<sup>4</sup> Phosphate-driven price change, equivalent to 138 USD/t phosphate rock (72 bpl)



### Strategy recap - continuing the journey closer to the farmer



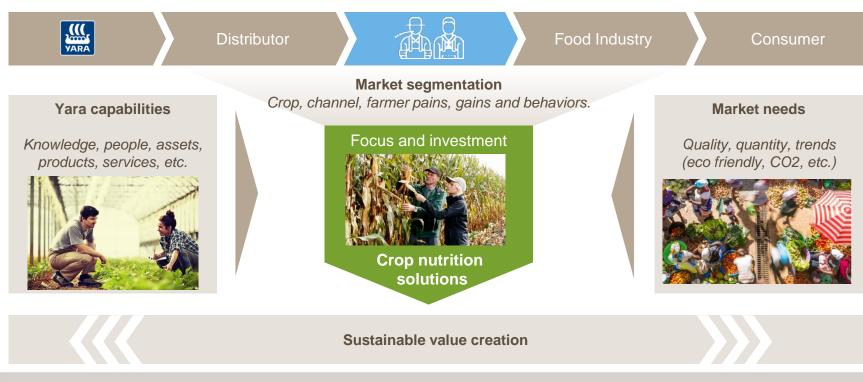


Farmer



IR – March 2018

## Deciding where to focus and how to win is key to profitable growth

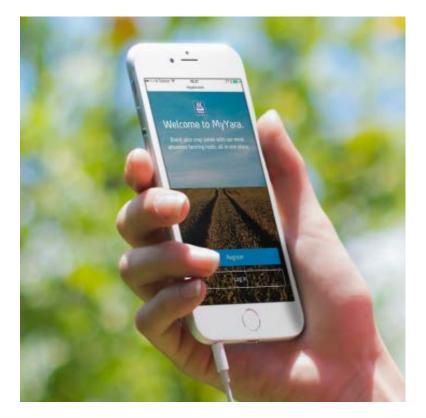




#### **Ramp-up of digital solutions**

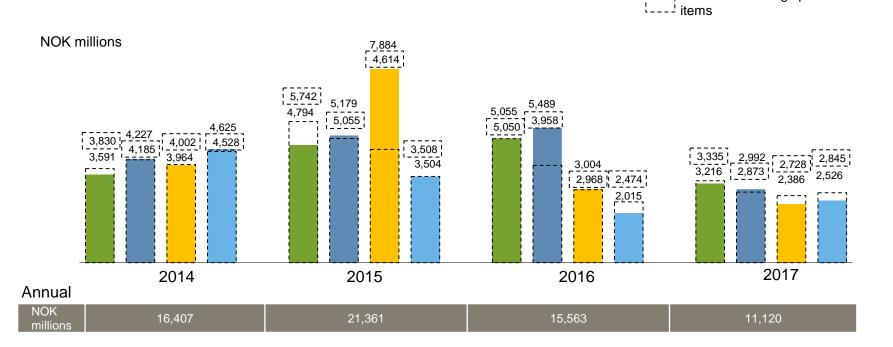
- We are quickly building a strong pipeline of digital solutions
- Every 3 months launch of 1-2 digital solution teams
- Commercial pilots in coming season
- Examples
  - Sensor-aided N-application
  - Nutrient optimization tailored to specific fields

Crop advisory platforms





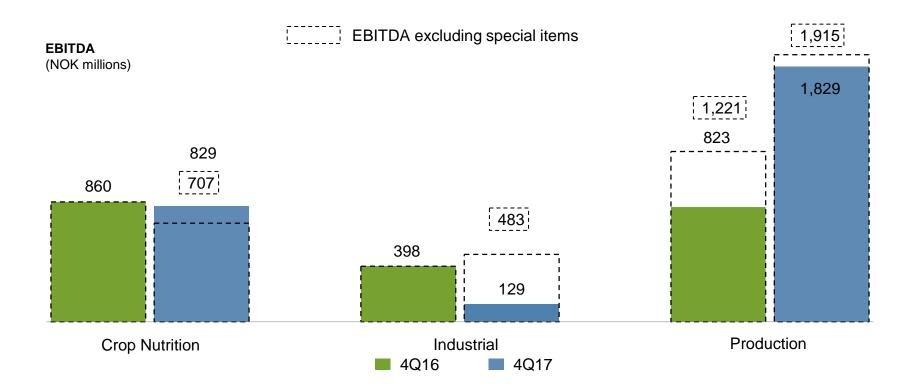
# Earnings before interest, tax, depreciation and amortization (EBITDA)





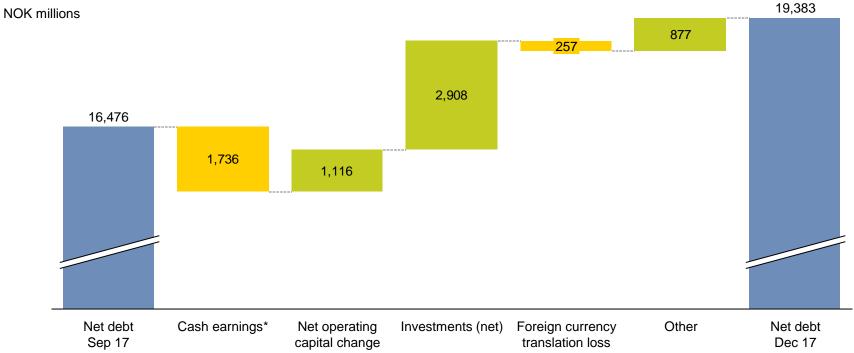
EBITDA excluding special

### **Higher margins in Production segment**





# Higher net interest-bearing debt as investments and net operating capital change more than offset cash earnings

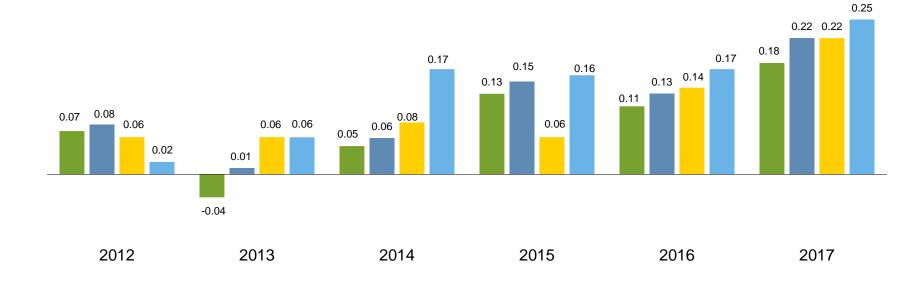


\* Operating income plus depreciation and amortization, minus tax paid, net gain/(loss) on disposals, net interest expense and bank charges



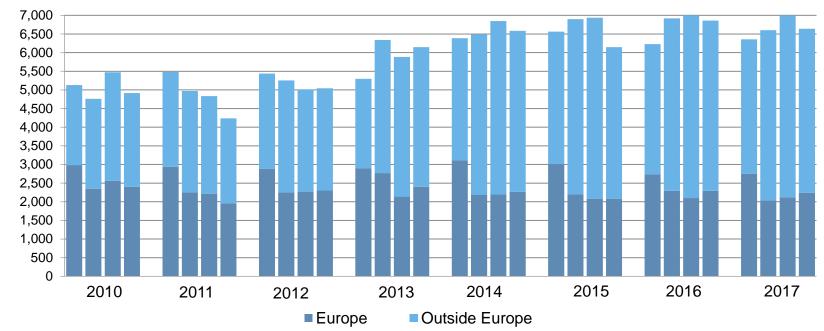
#### **Debt/equity ratio**

#### Net interest-bearing debt / equity ratio (end of period)



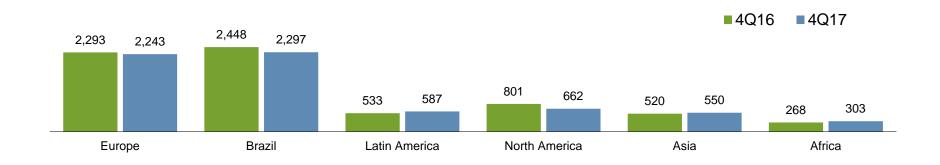


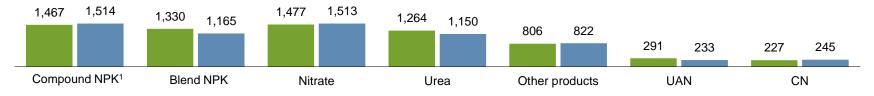
#### **Fertilizer deliveries**





### Yara 4Q fertilizer deliveries by market and product

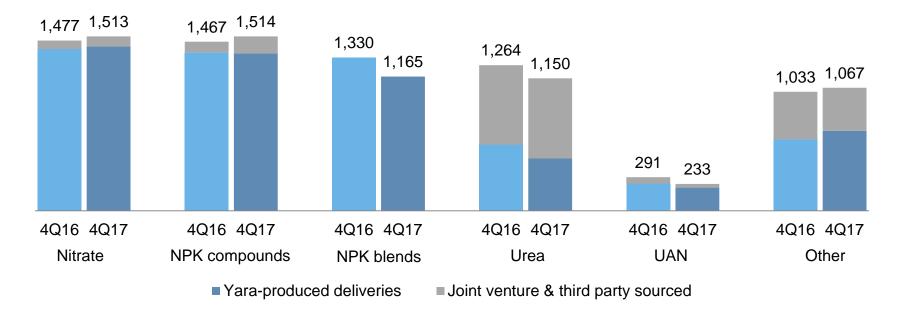




1) Yara-produced compound NPK and third party sourced (Total NPK minus blend NPK)

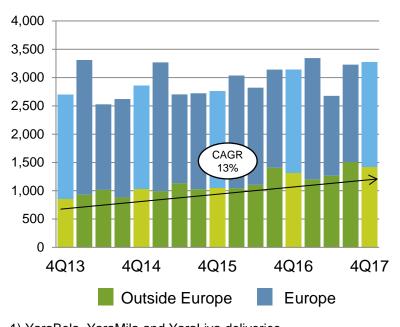


### Fertilizer deliveries by product and source



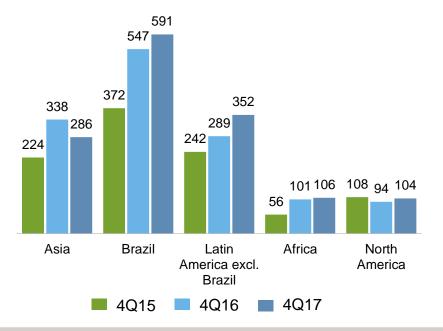


### **Strong premium product deliveries**



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

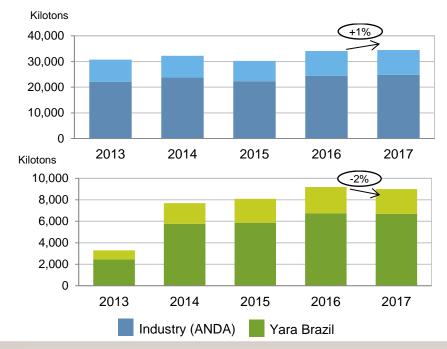
Value-added fertilizer deliveries<sup>1</sup>



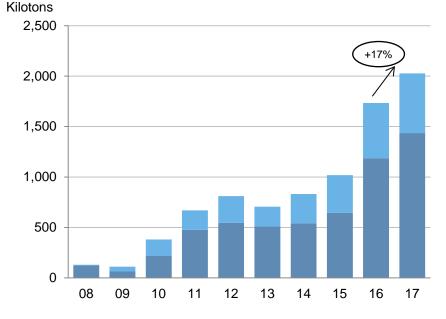
1) YaraBela, YaraMila and YaraLiva deliveries



### Brazil: focus on premium products and solutions drives growth



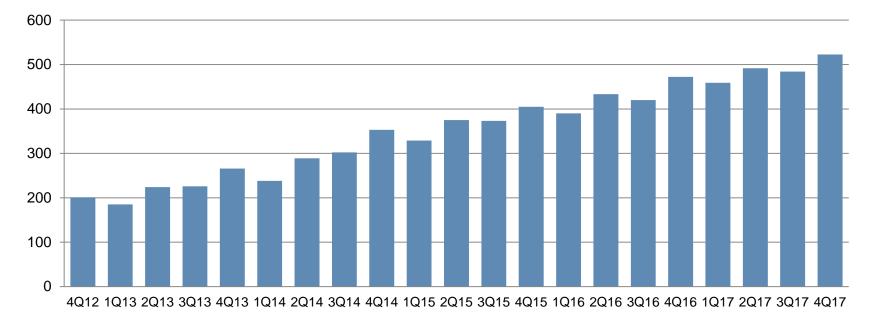
#### Brazil 2017 fertilizer deliveries



#### Brazil 2017 premium product deliveries

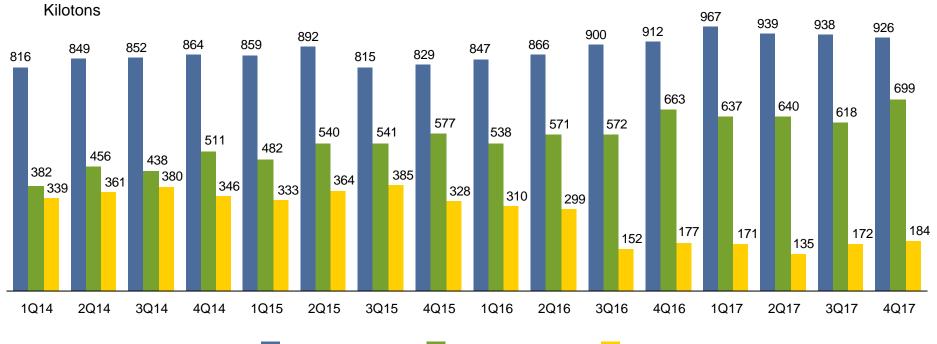


#### **AdBlue deliveries**





#### Industrial volume development

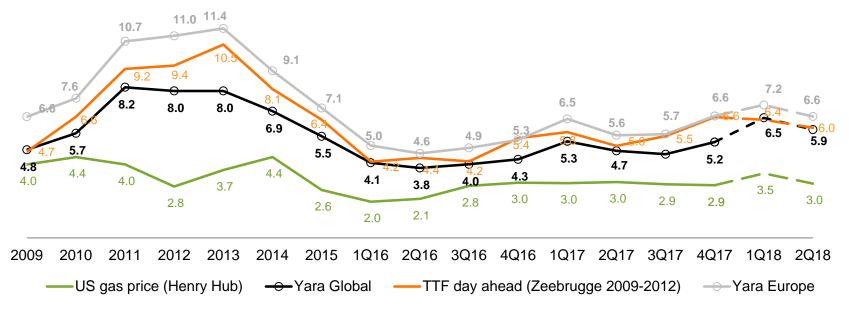


Industrial N-chemicals Environmental products Other



#### **Energy cost**

Yearly averages 2009 – 2015, quarterly averages for 2016-18 with forward prices\* for 1Q18 and 2Q18.

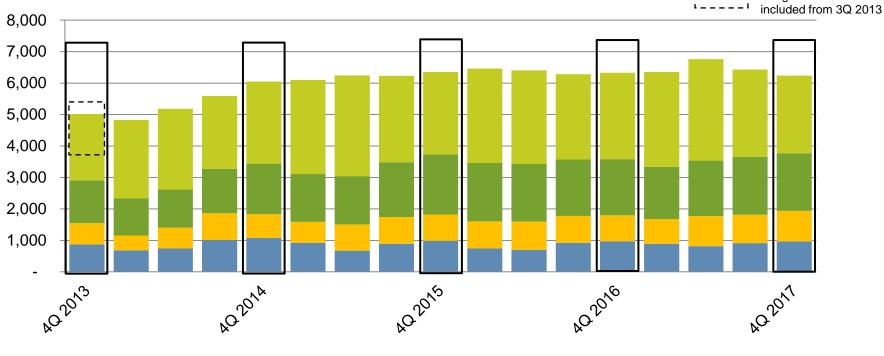


\*Dotted lines denote forward prices as of 30 January 2018 Source: Yara, World Bank, Argus/ICIS Heren



#### Yara stocks

#### Kilotons Finished fertilizer

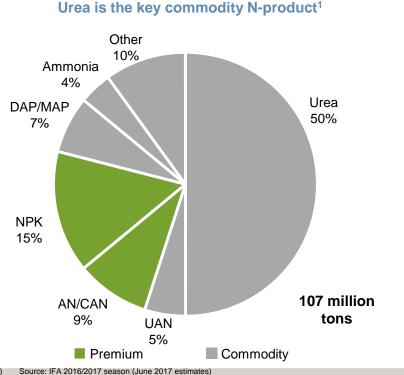


Urea Nitrates Compound NPK Other



Bunge Fertilizer

## Yara's margins are influenced by the supply / demand situations for crops, commodity fertilizer and premium fertilizer



#### Both crop and fertilizer markets are key for Yara

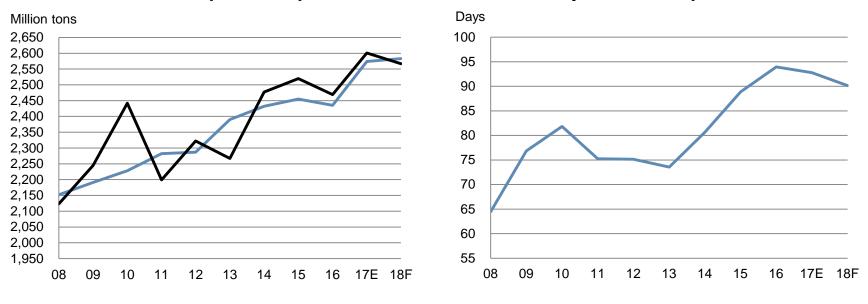
- The majority of Yara's business is related to nitrogen
- Standardized commodity products like urea make up almost ¾ of the global nitrogen industry
- The supply / demand situation for both commodity and premium fertilizer is important for pricing
- In addition, the supply / demand situation for crops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

1) Source: IFA 2016/2017 seas



## Steady growth in grain consumption, while production growth is more volatile due to weather variations

Days of consumption in stocks



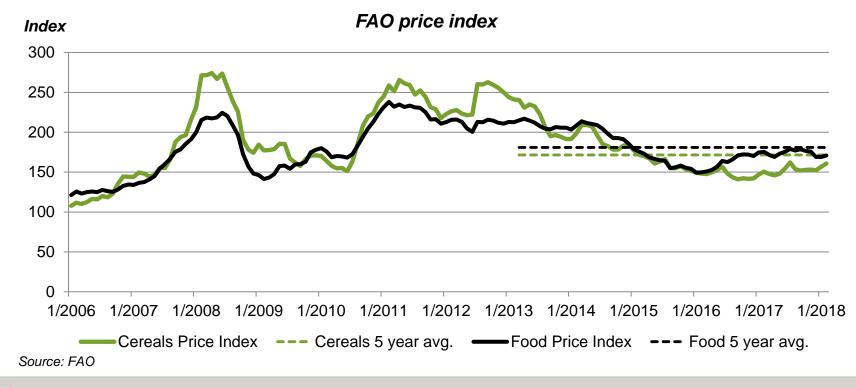
#### Grain consumption and production

----Consumption -----Production

#### Source: USDA March 2018

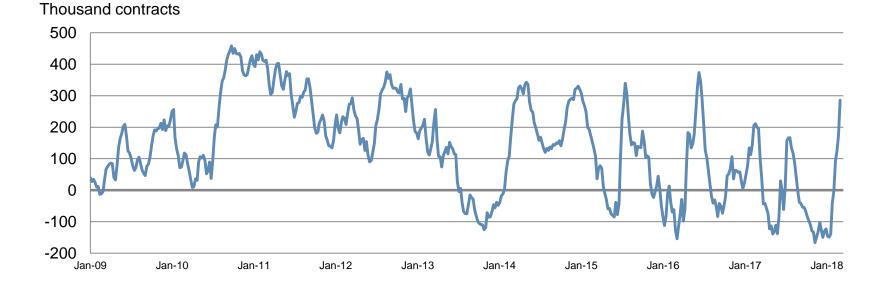


#### **Relatively weak grain economics**



VARA

### Non-commercials' net long position in corn

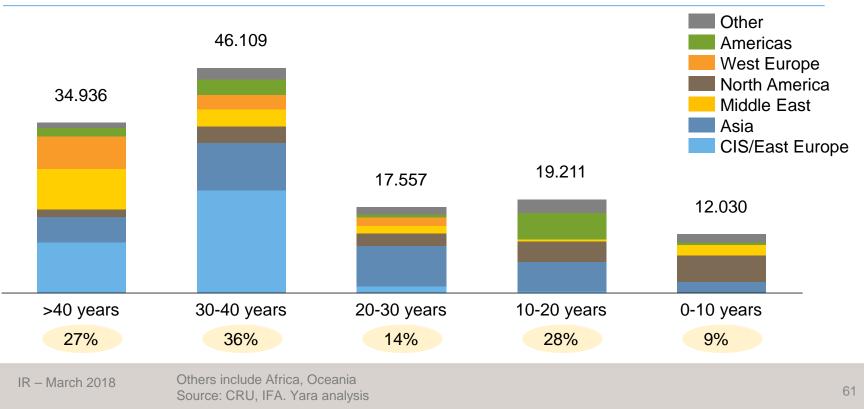


Source: US Commodity Futures Trading Commission

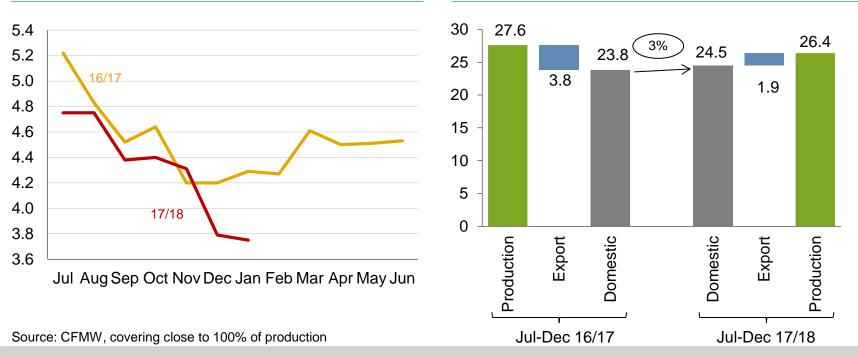


# ~2/3 of the world's ammonia capacity is more than 30 years old; older capacity may struggle to maintain utilization rates

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



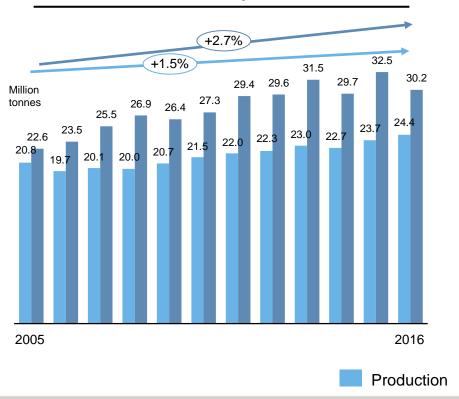
## Unclear if supply is sufficient to cover Chinese urea demand this season



Chinese urea production down vs last year (million tons) Export reduction so far kept supply stable (million tons)

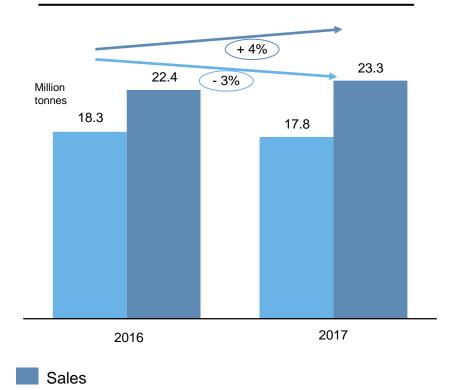


#### Import catch-up need in India



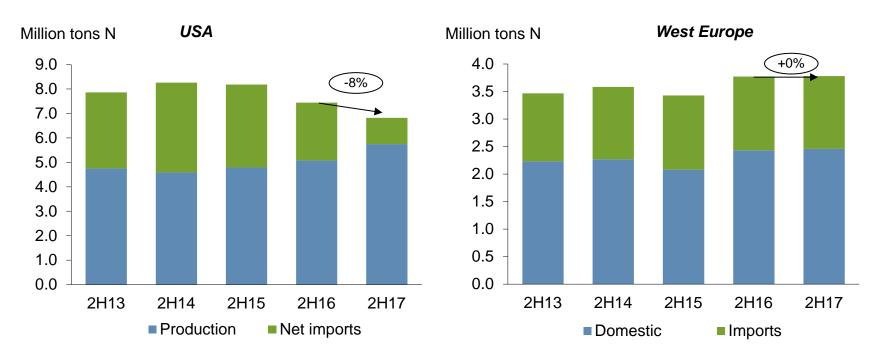
#### Calendar year

Season-to-date (Apr – Dec)





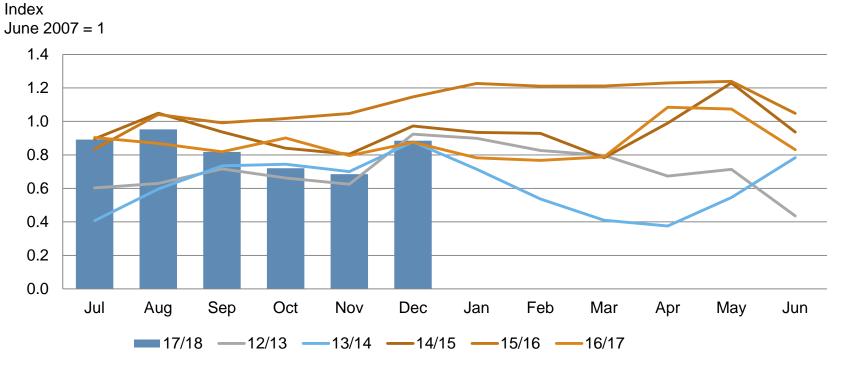
## Strong deliveries in Europe, slow in USA



Source: Yara estimate for fertilizer deliveries to selected West European countries. Total nitrogen deliveries based on TFI, US Trade Commission, Blue-Johnson and Yara estimates



#### **European producers' nitrate stocks**



Source: Fertilizers Europe



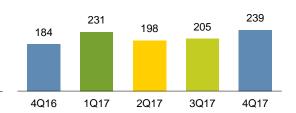
## Key value drivers – quarterly averages



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



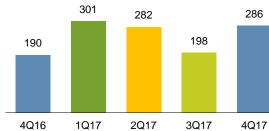
CAN cif Germany (USD/t)



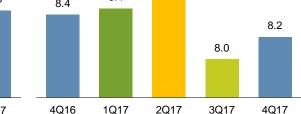
US gas price Henry Hub (USD/MMBtu)



Ammonia fob Black Sea (USD/t)

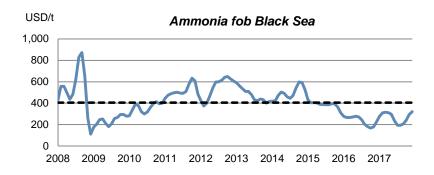


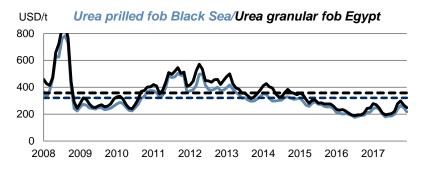
NOK/USD exchange rate 8.5 8.4 8.4

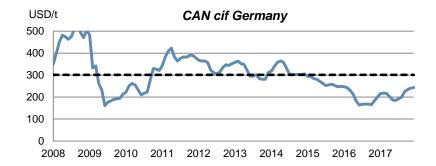


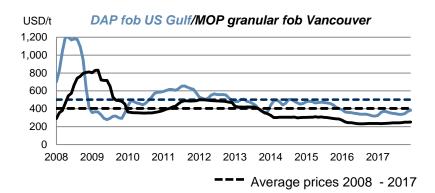
Source: Fertilizer Market Publications, CERA, World Bank, Norges Bank

#### **10-year fertilizer prices – monthly averages**









Source: Fertilizer Market Publications





Knowledge grows