



Knowledge grows

Capital Markets Day 2019

London 26 June 2019



Agenda

Section	Time	Presenters
1. Strategy update	Start 08:30	Holsether
2. Driving value growth		Knutsen/Hanzen
3. Improving operations		Andersen/Røsæg
Coffee break	10:20-10:50	
4. Portfolio review		Bonte
5. Capital allocation & returns		Røsæg
6. Wrap-up		Holsether
7. Q&A	End 12:00	All presenters





Knowledge grows

Strategy update

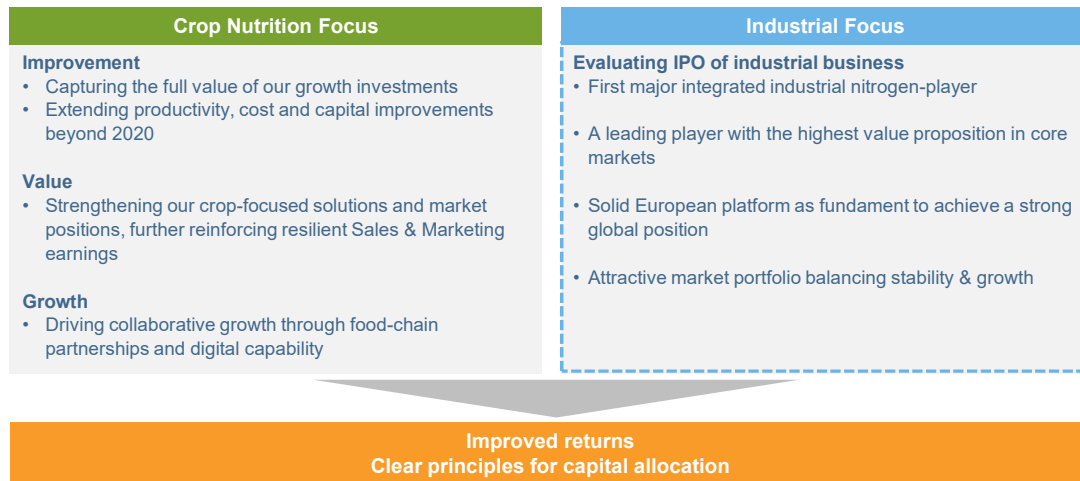
The Crop Nutrition
Company for the Future

Svein Tore Holsether



The Crop Nutrition Company for the Future

Delivering improved returns as a focused company



4

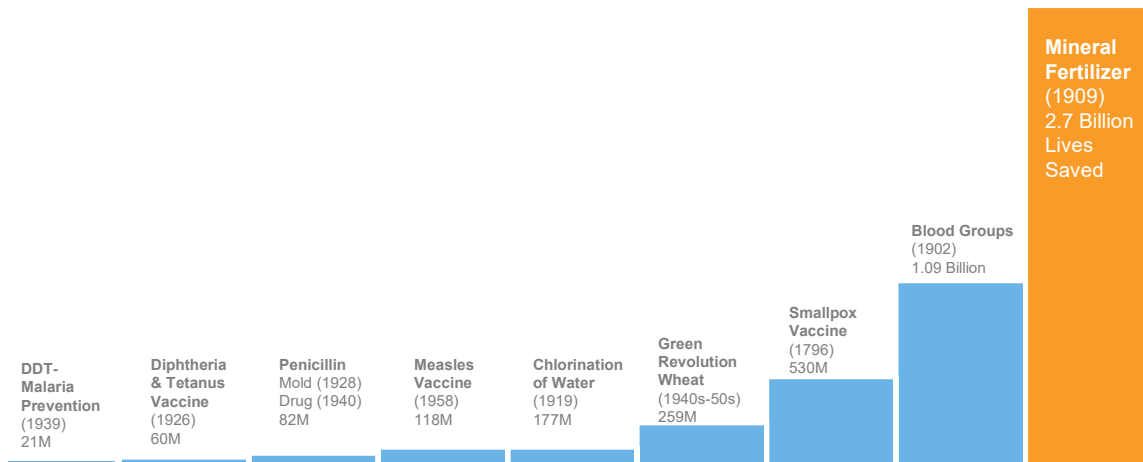
The Crop Nutrition Company for the Future

Yara's strategy is to be the Crop Nutrition Company for the future. The main focus of this presentation is on this strategy, and in particular on our strategic execution - to deliver improved returns as a focused company.

We are working along three main lines to lift returns; improvement, value and growth.

In addition, and as part of our strategic focus on crop nutrition, we have decided to evaluate an IPO of our industrial nitrogen businesses.

Agriculture has delivered huge benefits to humankind over the past 100 years



Source: Medigo GmbH

5

Agriculture has delivered huge benefits to humankind over the past 100 years

Yara and fertilizers' contribution to this world goes far beyond growing food. It has saved lives, more lives in fact than any other human innovation to date.

Fertilizer has provided us with more arable land, delivering yield in places previously not considered suitable for agriculture.

As the world's population continues to grow, fertilizer remains a critical input to feed that population.

The agricultural sector is facing several fundamental changes

Climate Change		CC impacts how and where crops can be grown, and demands agricultural efficiency improvements	<i>Yara's premium products, knowledge and solutions reduce emissions, preserve resources and address specific challenges like water stress</i>
Circular Economy		Increased awareness and need for nutrient recycling	<i>Yara is contributing its knowledge and experience in partnerships to develop new crop nutrition business models, e.g. based on urban waste streams</i>
Technology in agriculture		Digital solutions change how farmers operate	<i>Innovative digital technology and solutions combine ideally with Yara's unrivalled global on-field presence and crop nutrition knowledge</i>
Food value chain integration		Increasing consumer demands: quality, environmental impact, traceability	<i>Yara's global on-field presence and crop nutrition knowledge make it an ideal partner for food producers and retailers</i>



6

The agricultural sector is facing several fundamental changes

Going forward, we will need to produce more with less. The agricultural sector contributes to roughly one quarter of global greenhouse gas emissions, and will have to reduce its footprint significantly, both with respect to emissions and resource usage. To achieve this, we will need to develop ways to close the resource loop – by utilizing the nitrogen and phosphorus from waste as input at the fields.

Technology will likely play an important role, as precision in fertilizer application is key to increasing the yield per input unit applied. The agricultural sector has historically been less impacted by the digital revolution than other sectors, however this is now in the process of changing how farmers operate and make decisions.

Yara used to define its value chain as starting with natural gas and raw materials, and ending with the farmer, while the food industry defined their value chain as starting with the farmer and ending with the consumer. We now increasingly look at this as one value chain, where the farmer inputs impact the food quality.

Due to the sustainability of Yara's products and our knowledge, we are in a unique position to respond to these changes.

Our Corporate Strategy is evolving to meet these challenges



Our Corporate Strategy is evolving to meet these challenges

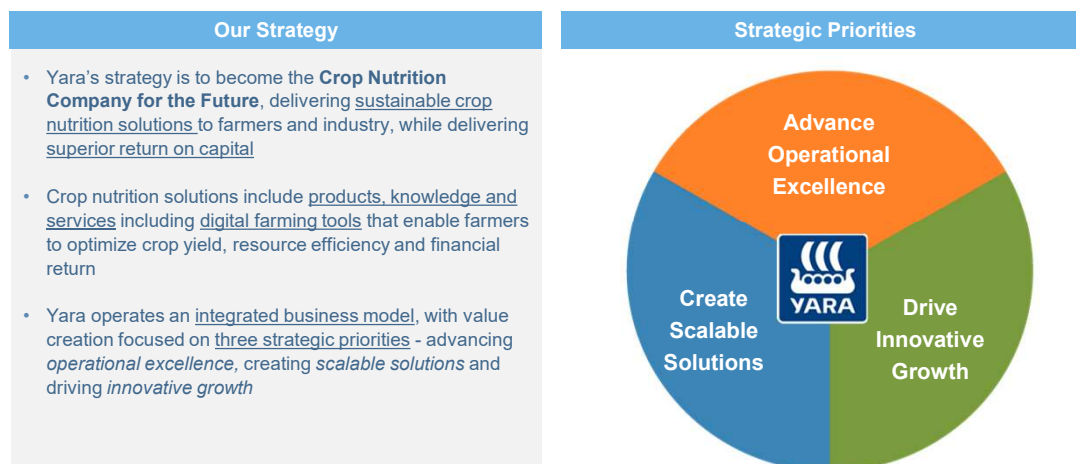
Our strategy is evolving to meet and create value from the fundamental changes taking place in the agricultural sector.

After a number of years focusing on growth through M&A and production expansions, we have now shifted our focus.

This shift started in 2016 with a stronger focus on operational improvement program, and was consolidated in 2018 with the launch of our updated strategy and strategic priorities.

Our updated strategy is about providing and developing the best future crop nutrition solutions for the future.

The Crop Nutrition Company for the Future



8

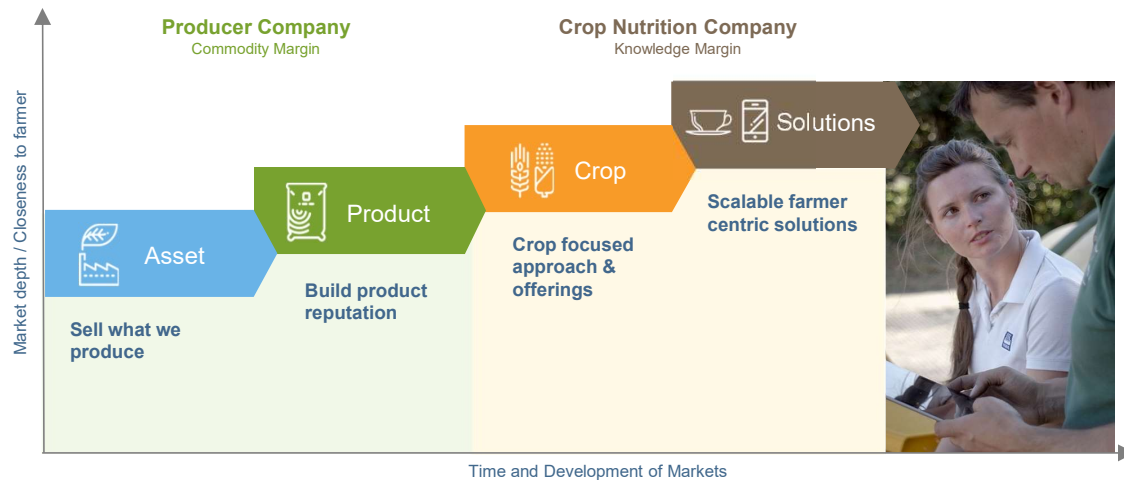
The Crop Nutrition Company for the Future

Fundamentally our strategy is about delivering sustainable crop nutrition solutions to farmers, while delivering a superior return on capital.

Our strategy is built around three strategic priorities:

- *Advance Operational Excellence* where the Yara Improvement program is a key element
- *Create Scalable Solutions* which is based around driving premium product growth and building profitable global food chain partnerships
- *Drive Innovative Growth* which is focused on scaling up digital farming services and growing profitable business linked to de-carbonization and circular economy

Our journey from pure producer to the Crop Nutrition Company for the Future



Our journey from pure producer to the Crop Nutrition Company for the Future

Yara has over time evolved and actively invested not only in assets and products, but increasingly in distribution activity and fertilizer application knowledge.

This evolution allows us to offer farmer-centric solutions - a complete package of crop nutrition products, knowledge and services - which is unique within our industry.

Our integrated business model combines production of premium products with a farmer centric approach



10

Our integrated business model combines production of premium products with a farmer centric approach

We operate an integrated business model, with our production and sales and marketing organizations working together in a global system.

Our industry-leading knowledge and premium products portfolio allows us to tailor our offering to farmer needs, while our unrivalled market presence makes us relevant for the farmers, distributors and the food value chain in more countries than any other fertilizer player.

Our business model creates value from factory to field

Value drivers:		EBITDA (MUSD)	Examples:
Sales & Marketing	Knowledge margin Capture knowledge margin by providing crop nutrition solutions covering both product, knowledge and services based on deep insight of farmer and customer needs	613	<ul style="list-style-type: none"> Consistent NPK premiums and high margin knowledge intensive micro nutrients Holistic solutions enabled by digital tools
	Shortening the distribution chain Avoid unnecessary layers between Yara and the farmer and design go to market channels that add value and scale up Yara's farmer reach		<ul style="list-style-type: none"> Doubling EBITDA in Thailand by selling to 150 retailers rather than one importer
	Infrastructure and logistical margin Scale, optimization and consistent presence through infrastructure around the globe		<ul style="list-style-type: none"> Close to 200 infrastructure points ensure logistical scale and lower freight costs
Production	Production and sourcing Safety, productivity, high quality product portfolio, and sourcing strength	856	<ul style="list-style-type: none"> Systematic productivity improvements across 28 sites Global sourcing strength provides attractive raw material prices

2018



11

Our business model creates value from factory to field

Our business model sets us apart in our industry, and allows us to consistently deliver high-quality products, knowledge and tools and services that optimize farmers' yield and profitability.

Production: Yara has around 30 sites that produce high-quality products, from urea to micro nutrients. This is complemented by sourcing from producers who value Yara's competence in marketing products to the right segments and generating strong premiums.

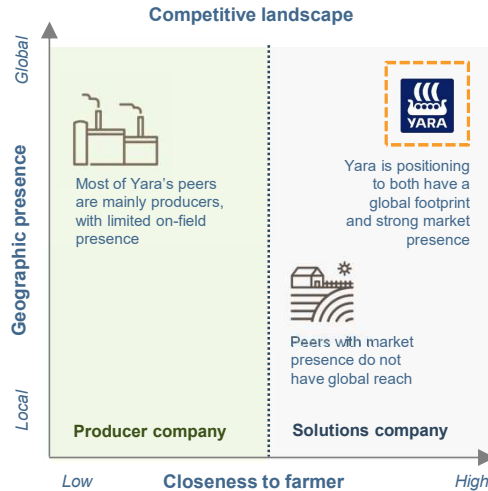
Infrastructure and logistical margin: Yara has a wide network of terminals which enables us to optimize product flows, leverage scale, decrease complexity and increase productivity at our production facilities, and provide a logistical cost advantage. Our infrastructure also provides supply security, consistency and flexibility to our customers.

Shortening the distribution chain: Our most common market model is to have only one level between Yara and the farmer for physical distribution, while we increasingly deliver our crop nutrition knowledge and tools directly to farmers. Yara has around 9,000 retail outlet customers that are fully Yara branded and promote our crop nutrition solutions.

Knowledge margin: Our extensive work directly with farmers to create crop-specific solutions provides important insights and knowledge transfer back to us, which we convert into solutions that achieve both premium pricing and increased value for farmers. Our commitment and connection with farmers globally sets us apart from our competitors.

Our integrated model enables consistent value creation and premiums over time, and also represents a strong basis to create scalable solutions going forward.

We are uniquely positioned to create value



Yara's competitive edge

Unique global presence and farmer interaction

Unrivalled global agronomic crop knowledge

Crop-specific nutrition solutions based on a differentiated and sustainable product portfolio

Integrated business model

New innovative business models

Proof points

- ✓ Sales to **+160 countries**
- ✓ **+60 countries** with operations
- ✓ **9,000** fully branded retail outlets¹
- ✓ Sales to **20 million** farmers
- ✓ 870 sales agronomists on the ground
- ✓ Pioneered agricultural growth and production for 114 years
- ✓ Global #1 in nitrates and NPK
- ✓ Global optimization of production and market margins; reduces volatility
- ✓ Digital farming and value chain collaboration initiatives with leading global partners



¹ Owned and operated by external parties

12

We are uniquely positioned to create value

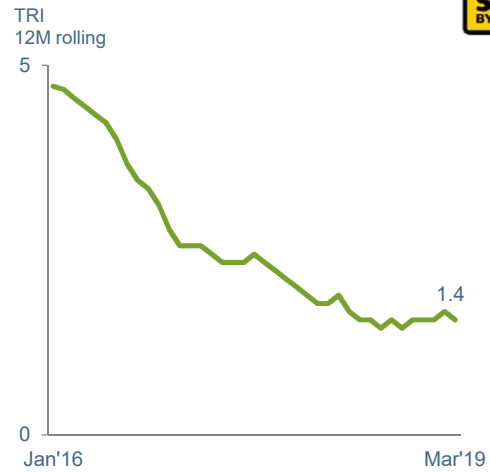
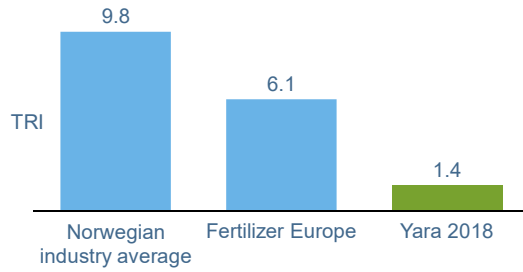
Our business model and position is unique within the fertilizer sector, especially in terms of geographic presence and total solution focus.

Most other major fertilizer players are production-focused, with limited in-market presence and farmer interaction, and the players with market presence do not have global reach.

Our Commitments: Safety

Ensuring a safe workplace environment for employees and partners

Striving toward zero accidents with no fatalities and Total Reported Incidents ("TRI") <1.2 by 2025



13

Our Commitments: Safety

We are committed to ensuring a safe workplace environment for employees and partners.

We strive to achieve zero accidents.

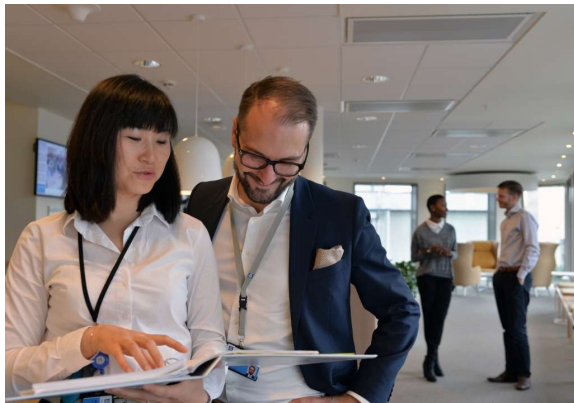
Our Commitments: Diversity, Engagement and Compliance

Empowering an engaged, respected and diverse workforce

- Engagement index¹ >80% by 2025
- Minimum 20% of female top managers by 2020 and 25% by 2025

Ethics and compliance is our license to operate

- Zero tolerance for corruption
- Commitment to respect human rights in our own operations and our supply chain



¹Korn Ferry Engagement Index

14

Our Commitments: Diversity, Engagement and Compliance

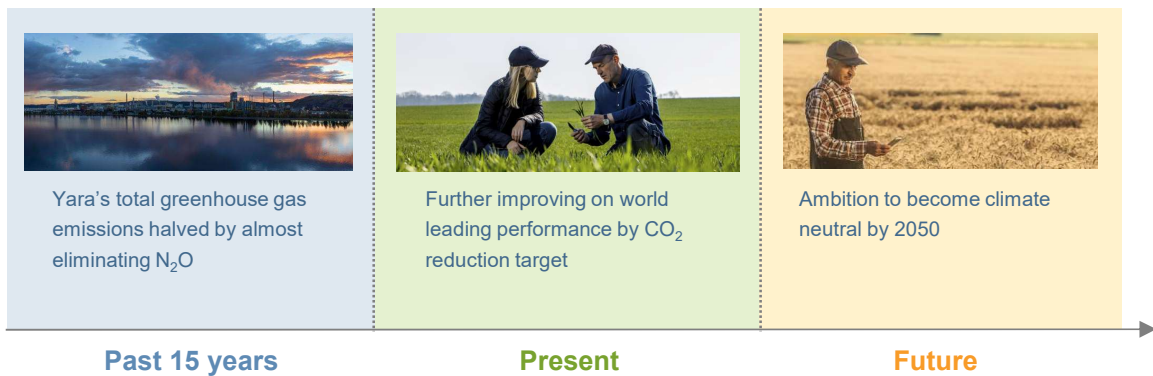
Our people processes are closely linked to Yara's overall strategy. The redefinition of Yara's people strategy followed the revision of the company's business strategy, vision, mission and values. The new people framework connects our people and organizational priorities together. The goal is to attract, develop and retain people in accordance with Yara's needs.

We are committed to using feedback from employee surveys to implement improvements and keep making Yara a better and safer place to work. Through global regular employee surveys we measure our employee engagement level, to continuously know that we are moving in the right direction. We are currently at 77% compared with a global norm of 67%, while the High performing norm is 74%. Our target is to reach and maintain an Engagement index above 80% by 2025 - well above the high performing norm.

It is our strong belief that diversity is a key enabler to solving the difficult challenges the world is facing. At the end of 2018, females represented 21% of Yara's workforce and held 16.4% of its 175 critical positions. We have initiated activities at all levels and in all regions to increase diversity and ensure inclusion.

Yara's Ethics & Compliance work focuses on reducing the risk of business and reputational losses in relation to any non-compliance with Yara's Code of Conduct and relevant legislation. Particular emphasis is held on risks related to corruption, fraud, business partner integrity and human rights.

Our Ambition: towards climate neutrality



15

Our Ambition: towards climate neutrality

Yara is working towards climate neutrality.

For the past 15 years Yara has almost eliminated emissions of N₂O, a highly potent greenhouse gas, through instalment of patented catalysts developed by Yara. 90% of Yara's N₂O emissions have been cut by this technology, equal to 15 million tonnes CO₂e every year in avoided emissions.

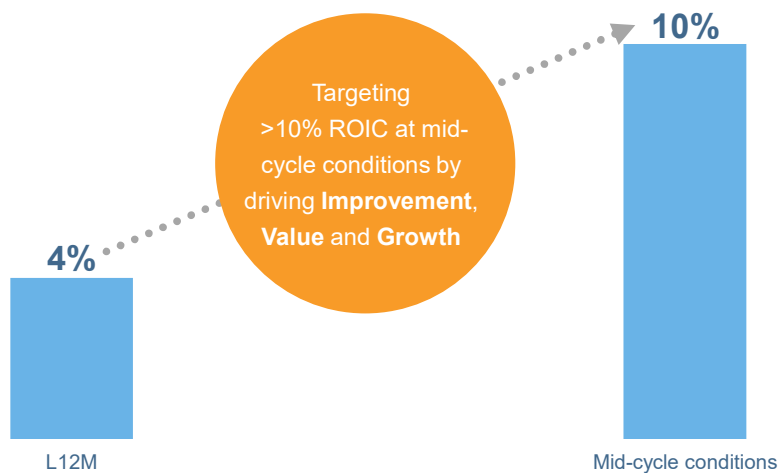
Yara produced European nitrates have a carbon footprint about 1/3 below the global average nitrogen fertilizer. With the current target for CO₂ emission reduction, Yara is building on our already industry leading performance and pushing emissions from our plants down even further.

Yara also works to increase nutrient use efficiency within agriculture. Field studies demonstrate that better yield, better profitability, and lower carbon footprint can be achieved with a balanced fertilizer program compared to traditional practices.

Finally, Yara innovates with a purpose and believes profitability goes hand in hand with sustainability across the all value chain, from raw materials to the end consumer. Circular Economy and Decarbonize Yara are part of our preparations for the future, where we expect carbon neutrality will be a «license to operate».

We will deliver improved returns

Return on Invested Capital (ROIC)



16

We will deliver improved returns

As mentioned already, this presentation is in particular about our strategic execution to deliver improved returns.

We aim to reach >10% ROIC over the cycle. The remainder of the presentation will illustrate how we aim to achieve this.



Knowledge grows

Driving value growth

Strengthening our crop-focused solutions, food-chain partnerships and digital capability

Terje Knutsen

Lair Hanzen



Our terminal footprint is the key to secure other value creation levers

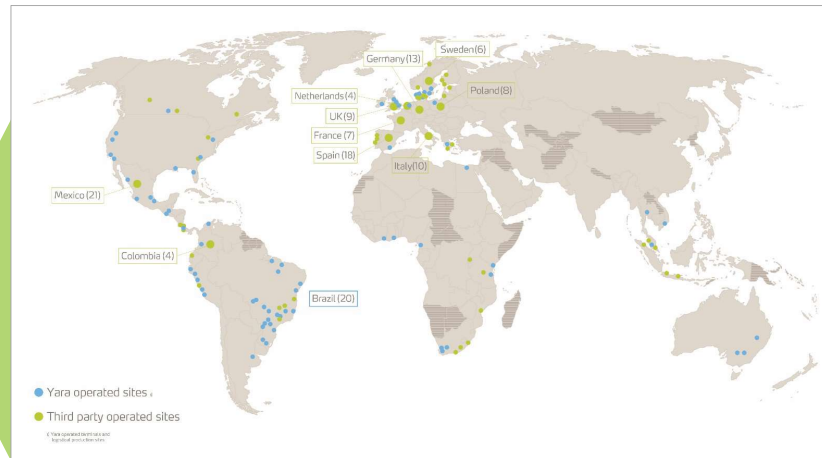
Value drivers

Knowledge margin

Shortening the distribution chain

Infrastructure and logistical margin

Production and sourcing

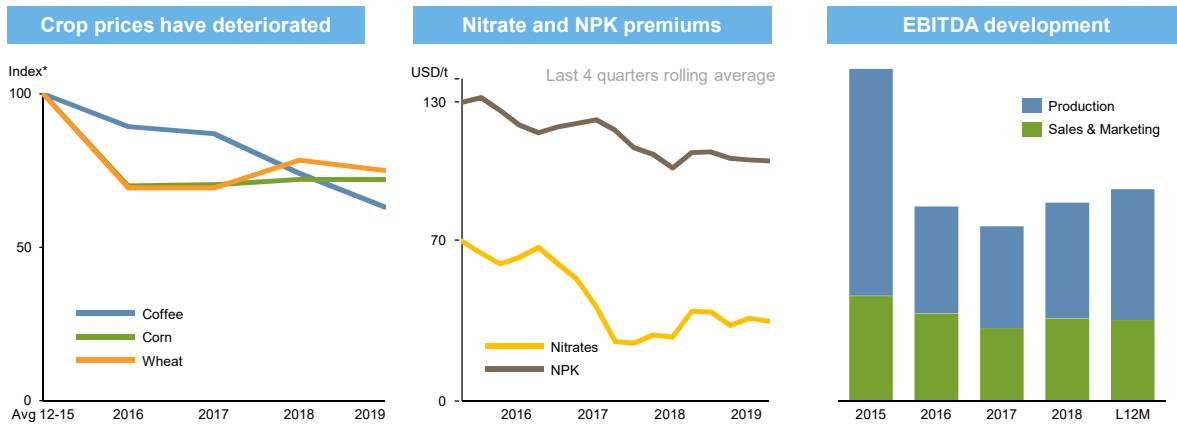


Our terminal footprint is the key to secure other value creation levers

We will in this section describe the main components of our Sales and Marketing strategy and how we work in practice to ensure we drive value in accordance with the framework described earlier in the presentation. While most of the levers we will address aim to increase our knowledge margin, it is important to bear in mind that an important building block and an enabler for taking out a knowledge margin is our wide network of owned and rented terminals.

This footprint counts approximately 200 infrastructure points around the globe, and is a crucial part in the total value chain and a part that also sets us apart from other players in the industry. It brings us closer to the end user and our customer, thereby providing supply security to our customers while allowing Yara to optimize product flows providing a logistical cost advantage at the same time. In addition, given the size and reach, this network provides flexibility and consequently higher productivity for Yara's production sites.

Sales & Marketing contributes with resilient earnings despite deteriorating farmer economics



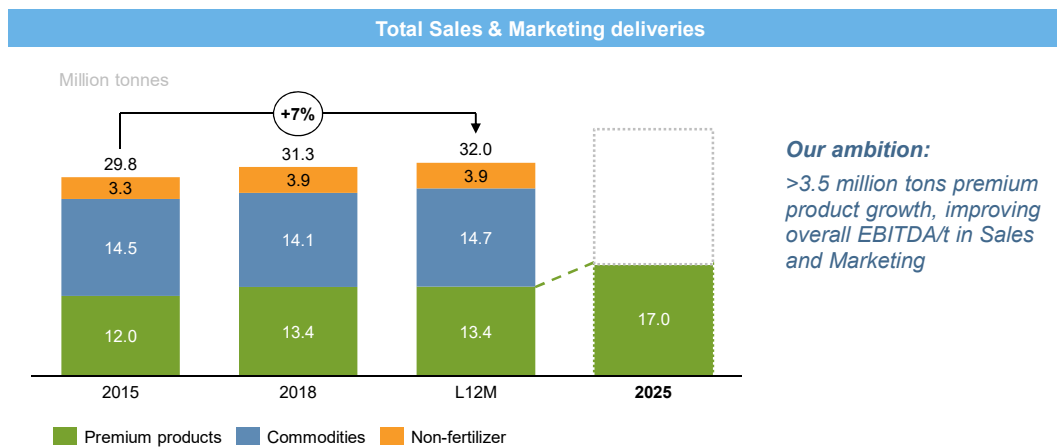
Sales & Marketing contributes with resilient earnings despite deteriorating farmer economics

During the last 5-7 years Ag fundamentals have weakened, with declining prices for key crops like corn, wheat and coffee. Although fertilizer markets also have been supply-driven during this period, fertilizer prices have dropped less than crop prices, putting extra pressure on farmer profitability.

Yara's Sales and Marketing financial performance is linked to our ability to extract premium pricing for our solutions compared with alternatives available to the farmer. Lower crop prices reduce the value of additional yield from Yara's solutions, and this again reduces the premiums that can be charged. The premiums have been reduced compared to 2015, especially for nitrates in Europe, but have been more robust in markets where we serve a wider range of high-value crops and work deeper and closer to end users.

Sales & Marketing EBITDA for the last years has therefore been at a lower level compared to 2015, but the negative crop price trend has been mitigated by our farmer-centric strategy. The 2018 EBITDA includes a USD 35 million negative result for our Digital Farming business, which is currently scaling up activities and targeting positive EBITDA by 2022.

We are growing the premium segment



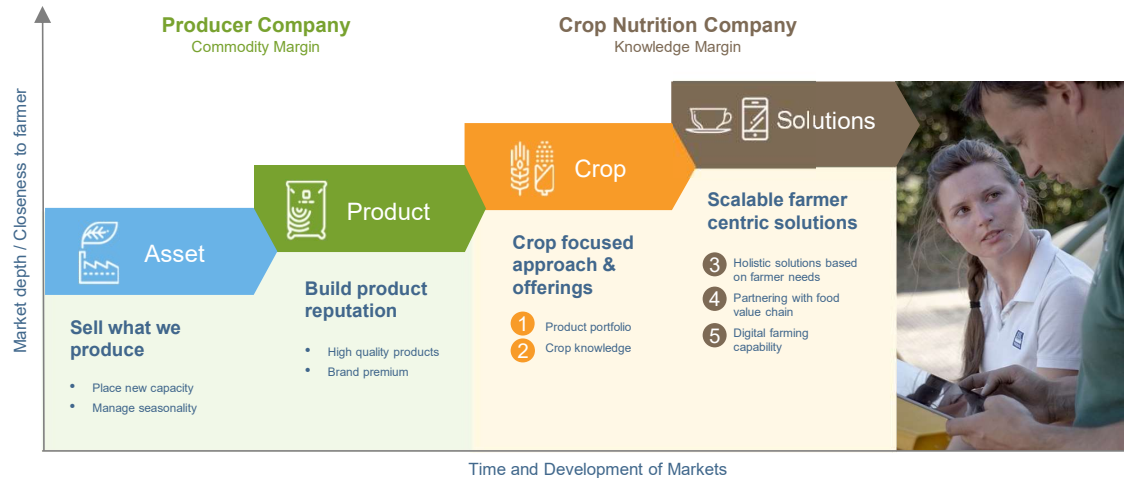
We are growing the premium segment

After launching our farmer centric strategy in 2015, we have delivered an accumulated growth of 1.4 million tonnes of premium products. As supply capacity in Yara is not flexible short to medium term, we are constantly leveraging our integrated business model to allocate volume to the highest paying markets, and volume has consciously been reallocated to high value markets outside Europe. The growth has therefore primarily been outside Europe. Balancing price and volume is a continuous process based on short term and long term supply/demand.

The growth is lower than the original ambition set out in 2015, but given the market fundamentals mentioned on the previous slide, we consider an annual growth of 3.5% of premium products (green bar) satisfactory, as it represents twice the overall market growth.

Our strategic ambition for 2025 is to grow the premium volumes to 17 million tonnes, which is a continuation of actual growth rate last 3 years. The main focus going forward is to increase the value of the growth, which will be the topic for remainder of the Sales and Marketing presentation. It is important to note that this growth will be enabled by a combination of improvements in our existing production system, optimizing inventory and sourcing products from other producers that want to use Yara as their distribution arm.

We are continuously evolving to become the Crop Nutrition Company for the Future



We are continuously evolving to become the Crop Nutrition Company for the Future

Our farmer centric strategy with crop-focused solutions remains firm, but we are sharpening it to focus more on value rather than volume.

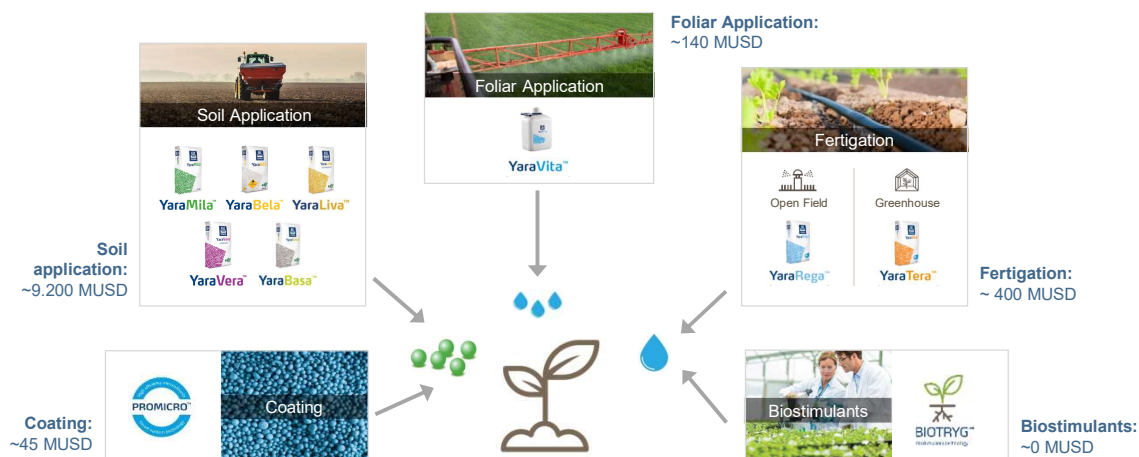
There are five key actions to enable this:

1. Accelerate growth of high value products, like micro nutrients and fertilizers for fertigation
2. Further strengthen the focus on high value crop to improve our knowledge margin
3. We will develop new holistic crop solutions (beyond the fertilizer product) based on farmer needs, which will be enabled by:
4. Partnering with the food value chain, and
5. Continue building up our digital farming capabilities

We will go through each of these steps.

Increased focus on developing high value and differentiated product portfolio

1



Numbers indicate 2018 revenues

22

Increased focus on developing high value and differentiated product portfolio

Yara is known for its dry applied product range like compound NPK and nitrates (branded YaraMila and YaraBela). However, our complete portfolio also contains other products like the fertigation range of soluble products, which we incorporate into the irrigation water (YaraTera and YaraRega), and a wide range of foliar micronutrient products to be sprayed on the leafs (YaraVita). Our PROMICRO brand is used to coat regular fertilizer with micro nutrients, giving the farmer a more balanced nutrition and Yara an added point of differentiation. In 2018 we have added biostimulants - BIOTRYG into our portfolio, which improves uptake of nutrients and tolerance of stress conditions, amongst others.

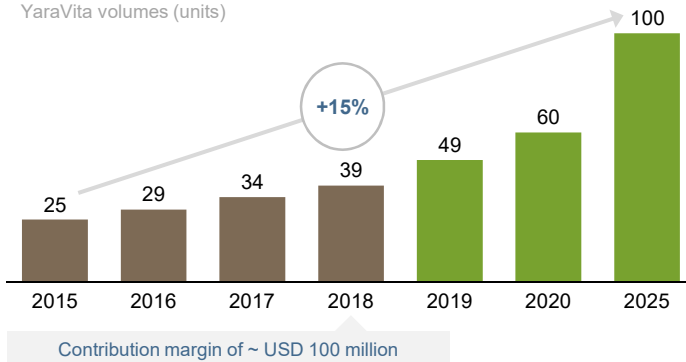
These more advanced products are key to deliver sustainable and complete crop solutions, but they also provide attractive growth and margin opportunities and will represent an increased share of our earnings in the future.

Growing our premium portfolio through innovation

1

55% growth since 2015, CAGR of 16%

YaraVita volumes (units)



Our ambition:

>100 million units of YaraVita sales by 2025



23

Growing our premium portfolio through innovation

YaraVita is an example of a product line that really adds value to growth. In 2018 it represented 6% of Sales and Marketing contribution margin with around 100 USD million (2% of Yara) and this will increase in relative importance with an expected growth rate of 15%. It is attractive because:

- It is a high-margin product with limited capital requirements
- It is a knowledge-intensive solution, which makes it harder for competition to copy and it leverages our existing agronomic knowledge and presence in the field
- The value proposition for the farmer is attractive also for commodity crops, which increases the scalability and growth opportunity
- We have a proven track record of growth with 55% growth between 2015 and 2018, a CAGR of 16%.

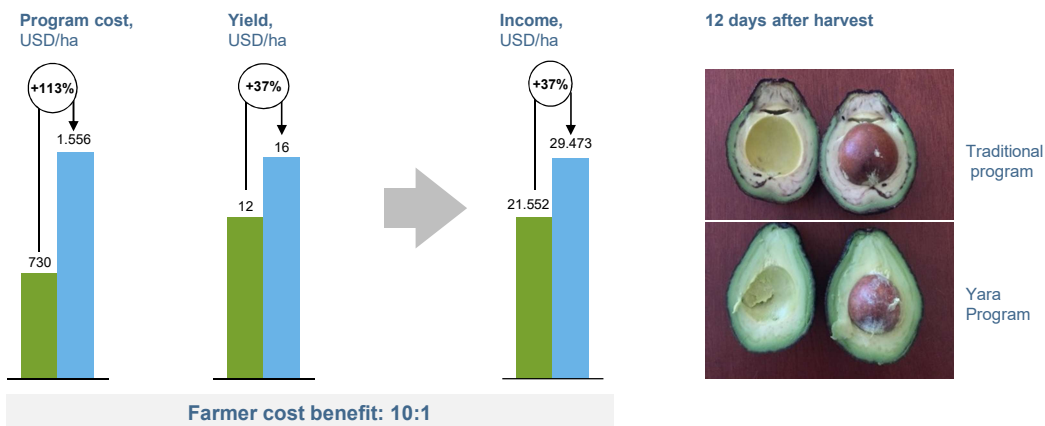
Yara has today two production plants for YaraVita, one in the UK and one in Brazil which started up in April 2018. New capacity will allow further growth, with India a key market.

The YaraVita growth is a result of a focused effort which is also built into our commercial excellence program. We are now working with our fertigation strategy to accelerate growth here as well. Our biostimulants platform (Biotryg) will enable us to enter into the fastest growing segment of the high value products.

Our strategic ambition for 2025 is to sell 100 million units of YaraVita (foliar and coating).

A focused crop approach adds value for farmer and Yara – Mexico case study

2



A focused crop approach adds value for farmer and Yara – Mexico case study

Yara cannot create value unless the farmer wins. So in addition to accelerating growth on high value products we will sharpen our focus on high-value crops, which was the starting position for our premium products positioning 20 years ago.

Avocado in Mexico is a good example: Mexico is one of our core markets in Latin America, where we have built a profitable position over time, growing market access with a high value portfolio into both extensive and high value crops. We sold 640 kt in Mexico in 2018, and the avocado segment is one of the segments we have actively pursued.

The total acreage for avocado in Mexico is around 180 thousand hectares, with a total fertilizer consumption of around 75 kt. Jorge Mier, an avocado grower from Uruapan switched to Yara's crop program, which resulted in a significantly higher yield in addition to improved quality, resulting in a return on investment of 10 to 1.

Of the 640 kt we sell in Mexico, around 30 kt goes into the avocado segment, and the aim is to double that business by 2025. High value crops means high benefits from yield increases and often high focus on crop quality, which gives the farmer a strong incentive to invest in high quality crop solutions rather than to focus on input costs only. Higher benefits for farmer means higher premiums for Yara.

In the 60 countries we operate with domestic marketing we will further increase our focus on these niche crops in addition to the larger crops that provide scale, as this will enhance the overall value of what we sell. It takes more effort to develop crop nutrition solutions for these crops, but provides more competitive edge and higher margins.



Holistic crop solutions to deliver farmer value

The next step in our farmer centric strategy is to build more holistic crop solutions, delivering a promise rather than a product.

The “Proteinpass” is one of our solution developments for farmers growing milling wheat, where both the yield and quality determines the profitability for the farmer. Producing wheat or malting barley that meets certain protein level requirements gives a premium of 5-20 EUR/t. In general, the protein level in wheat has declined across Europe and companies such as Barilla, Heineken and ABInBev struggle to source the quality they need. Yara has therefore developed a complete solution to address this.

With this solution, we combine our knowledge, digital solutions and fertilizer products at various stages of the growth cycle to help farmers get the maximum return on investment from their crop, and aim to capture a fair share of the additional value generated back to Yara. If a farmer buys the solution, we will under certain conditions provide a “protein guarantee” that allow farmers to have certainty that he will get a return on the additional investment in Yara.

Strengthen Food Chain Collaboration to grow value and reach

4

- Create business with food chain companies through solutions that deliver optimal crop quality, supply security and sustainable production
- Establish an effective channel to reach a large number of contract growers globally at scale

Our ambition:

2 million tonnes of sales generated through food companies by 2025



26

Strengthen Food Chain Collaboration to grow value and reach

Food companies are increasingly emphasizing how the raw materials they source are produced, and work to help farmers transform their practices so that they have security of agricultural raw material supplies, with the right quality they need for processing or meeting consumer demands. Yara's knowledge and crop nutrition solutions enable them to do this.

Yara is uniquely positioned to leverage this opportunity because global food companies are looking for global reach, local relevance on the ground with farmers and sustainable crop nutrition solutions that deliver a transformative impact. Yara is one of the few companies that can offer this.

For Yara this represents an interesting value creation opportunity through:

- Commercializing our knowledge by creating business with selected global and regional food companies
- Establishing an effective channel (both direct and indirect through a pull) to reach a large number of contract growers globally at scale through the food companies

Our ambition is to grow from 300,000 tonnes to 2 million tonnes of crop solution sales generated through food companies by 2025.

Circular Economy – create new business models through recycling nutrients in food and agriculture production chains

4

Circular Economy



What	Value drivers	Example
<ul style="list-style-type: none"> Solutions to use recovered materials as sources for N, P and K Shape new business and value creation models in circular agriculture Alternative sustainable raw material sourcing to production plants 	<ul style="list-style-type: none"> Strengthen competitive advantage; respond to consumer and regulatory trends Create new business models/revenue streams Increased resource use efficiency Secure alternative resource supply and lower cost 	<p>Yara-Veolia partnership</p> <p>What? Develop the circular economy in Europe's food and agriculture value chains</p> <p>How? By recycling nutrients and promote cooperation across the value chain (e.g. Nutrient Upcycle Alliance)</p> <p>Why? Secure access to nutrients, position Yara in circular value chain</p>



27

Circular Economy – create new business models through recycling nutrients in food and agriculture production chains

Yara responds to the trend of circular economy, asking for smarter use and reuse of the planet's resources, and not ignoring that the recycling of nutrients will impact the agricultural industry in the mid- to long-term.

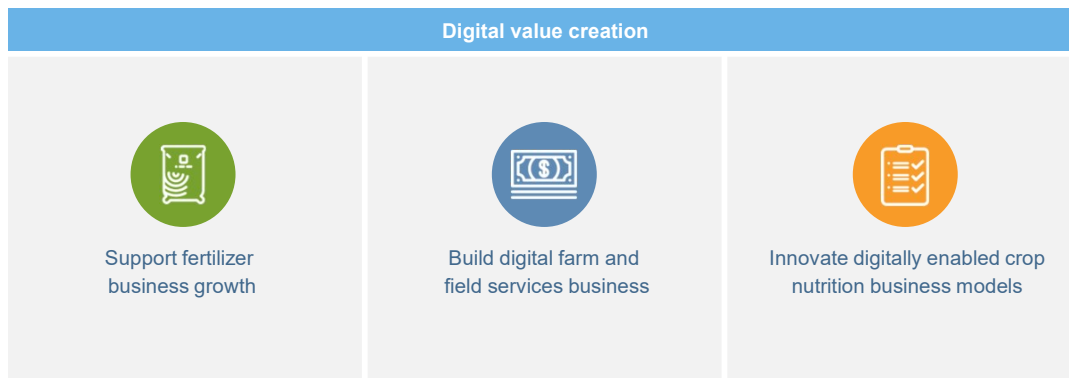
Circular economy is much more than an environmental concern; it is a new economic model driven by resource security. Yara wants to take a role in the growth model shift, from recourse use to resource efficiency, and will create value through strategic partnership with waste water treatment companies.

The Yara- Veolia partnership covers several project for N and P recycle and exploration of new solutions for recycled nutrient rich fertilizers. The Nutrient Upcycle Alliance has the target to connect the end and beginning of today's linear food value chain to effectively close the nutrient cycle. The call invites farmers' associations, food brands, retailers/supermarkets, municipalities and other players to join a new alliance in an holistic system approach.

Yara participates in several funded projects (recycled nutrients from wastewater treatment , manure processing, sludge from Norwegian fish farm) and R&D programs.

Digital farming vital both to support existing model and to create new revenue streams for Yara

5



28

Digital farming vital both to support existing model and to create new revenue streams for Yara

Developing digital services and solutions is an important element to complement our offering and help the farmer capture the value that technology can bring. For Yara, value creation will come through one of the following ways:

- Supporting the existing core of Yara by using digital tools and services to generate demand for fertilizer, for instance through precise recommendations
- Generate new product streams by developing and selling stand alone tools and services. Examples are subscription based models where farmers pay a per hectare fee for a farm management system.
- Develop completely new crop nutrition business models. This is pioneering in practice. We are for instance exploring models to monetize digital information by approaching other stakeholders than the farmer either stand alone or as a total package to the farmer.

While the third category holds the largest potential, this is clearly the category with the lowest maturity and where it will take some time. Short term, we are already able to see that digital leads to incremental increase in fertilizer demand.

With that as a backdrop, we will now provide a status on progress for our digital farming strategy.

Critical proof points of our ability to deliver our digital strategy over the past 12 months

5

We have proven that we can



..build a strong digital capability



..innovate industry-leading digital services organically out of this new capability



..quickly get user adoption so farmers actually use our innovation



..identify scalable value creation models, so we can start commercializing



..work with industry-leading partners, as the digital transformation of agriculture will take more than one company to succeed



29

Critical proof points of our ability to deliver our digital strategy over the past 12 months

Last year at capital markets day we presented our strategy and the first steps we had taken within the first months of implementation at that time. Since then, it has been key to prove fast progress on five key success factors to build a strong foundation for our digital business going forward:

1. Proving that we can build a strong digital capability: can we attract the right talent and build a global capability that will allow us to deliver against our ambition?
2. Proving that we can innovate industry-leading digital innovation organically out of this new capability
3. Proving that we can quickly get user adoption so farmers actually use our innovation
4. Proving that we can identify scalable value creation models, so we can start commercializing
5. Proving that we can work with industry-leading partners, as the digital transformation of agriculture will take more than one company to succeed

We have been able to make good progress on these critical enablers of building a new business for our company.

World-class digital capability

5

Unique global footprint

Proximity to all key ag markets

Top digital talent

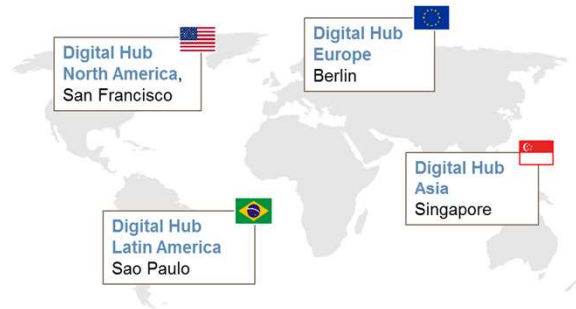
260 from 38 nationalities, 36% female talent

Dedicated Digital Growth & Commercialization organization

Focus on value and ability to quickly scale

High paced organic innovation

versus high-cost, large-scale acquisitions



"Yara has a really good digital capability"

Luq Niazi, Global Managing Director Consumer Industries, IBM



30

World-class digital capability

The foundation for every digital business lies in the talent it can attract. We have been able to attract digital talent from world-leading technology companies. As a result, our digital team consist today of a mix of employees with digital background and Yara employees experienced in industry knowledge and agronomy.

Farming is a local activity, and it is key to reflect this in our setup. With our 4 digital hubs we can address the different farmer realities and needs in different markets in the most effective way, and develop solutions that really matter.





Through our digital capability we do not rely on expensive acquisitions, which others have chosen as their path.

We have further built a dedicated global growth & commercialization organization, which is designed to the needs of building a digital business. Working together with our established local teams, we have seen significant benefits in speed and initial commercial successes.

Innovation at speed

examples of early 2019 launches

5

Yara Irix 	Turning your phone into a precision sensor	atfarm 	Precise fertilization made simple
Yara Connect 	Linking Yara with the smallest sub-dealers and advisors in smallholder markets	Yara Ayra 	Personalized Crop Nutrition



31

Innovation at speed

We have already brought to market a strong pipeline of products.

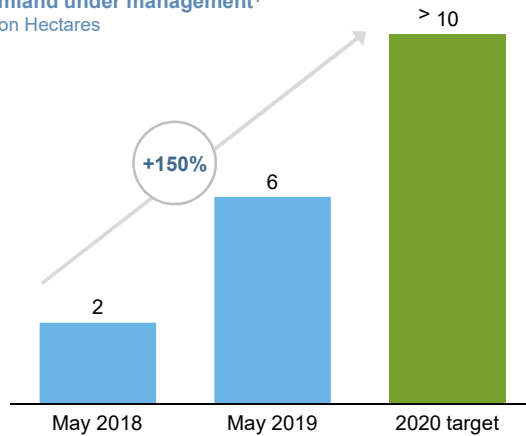
- Atfarm, a satellite-enabled precision fertilization tool
- Yara Irix, a device that turns the farmer's smartphone into a precision agriculture tool aiming to optimize N-fertilization
- Yara Connect provides a connection with our network of dealers globally
- Yara Ayra, an internal Yara solution providing field tailored crop nutritional programs based on soil sample analysis.

All of these have been developed and launched in a short period of time across several markets.

Encouraging farmer adoption

5

Farmland under management¹
Million Hectares



Our 2020 ambition:
>10 million hectares under management



¹ Defined as active users of digital solutions

32

Encouraging farmer adoption

Speed and scale are key success factors in building a digital business. And it is key that farmers actually adopt the new solutions that we are innovating. So far, we have seen an encouraging trajectory of active users on our digital solutions.





Digital Farming solutions are already launched in 15 countries, and we expect significant further growth over the coming years. This is the fundament on which to build value creation and business development.

Our strategic ambition for 2020 is to have more than 10 million hectares under management.

Proof of value creation

First scalable value creation models

5

Digital services business	Digitally-enabled business model	
<p>Yara Irix</p>  <p>Turning your phone into a precision sensor</p> <ul style="list-style-type: none"> • Subscription service model across Europe • Together with globally leading subscription platform Zuora 	<p>Yara Ayra</p>  <p>Personalized Crop Nutrition</p> <ul style="list-style-type: none"> • Apply soil / crop status and digital agronomy modelling • Offer tailored crop nutrition package holistic across all nutrients 	<p>Our ambition: Positive EBITDA from digital farming in 2022</p>



33

Proof of value creation

Only a value creating business is sustainable. Hence, in parallel to building the organization and innovating new digital services, we are working on piloting and testing digital business models and experimenting with new value creation models. These include subscription-based digital services for Yara Irix, or piloting “personalized crop nutrition” business models. While also taking important learnings, we expect to see this year the first scalable business models implemented, as a basis for future fine-tuning and growth over the coming years.

In 2019 we target more than USD 15 million in digitally-enabled incremental revenue through our Digital Farming solutions and activities.

Our strategic ambition is to have positive EBITDA from digital farming in 2022.

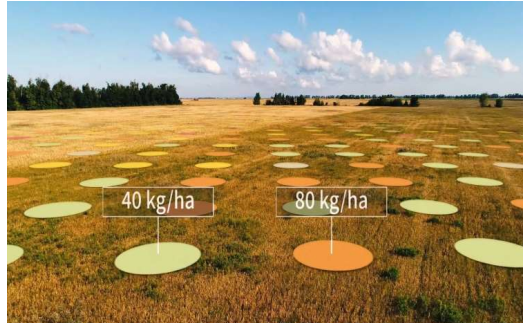
Industry-shaping partnerships

Yara and IBM partner to transform the future of farming

5



- Combining world-leading capabilities
- Building the globally leading **Digital Farming data and services platform**
- **Joint innovation teams** across Digital Hubs
- **Bold ambition:** reaching 100 million ha incl. millions of smallholder farmers



34

Industry-shaping partnerships: Yara and IBM partner to transform the future of farming

No single company can take on the task of truly transforming the future of agriculture. We are therefore proud that IBM, one of the world's leading technology companies, is joining our journey as a strategic partner, combining our complementary capabilities and jointly innovating services that will make a real difference on the farm and along the food value chain.

The first joint teams are already working together out of Europe, and we plan to quickly broaden the collaboration and pipeline of joint initiatives in the other digital hubs soon.

We are enabling Farm-to-Fork Connected Digital Ecosystem

5



35

We are enabling Farm-to-Fork Connected Digital Ecosystem

To drive real impact towards responsibly feeding the world, the work at the farms needs to be connected with the food chain, straight towards food consumers across the world. We are at the core of building such a „farm-to-fork“ connected digital ecosystem through the IBM Food Trust, where Yara will provide global coverage of the farm and field part of food production, and link up to enhance traceability and sustainability of food production – with benefits for farmers, agronomists, and food chain players.

We are poised to become the leading global digital farming crop nutrition platform

5

Why will Yara succeed?

- Farmer access and insight
- Proven agronomy competence
- Ability to develop holistic solutions
- Global reach
- Strategic partnerships to complement our capabilities



36

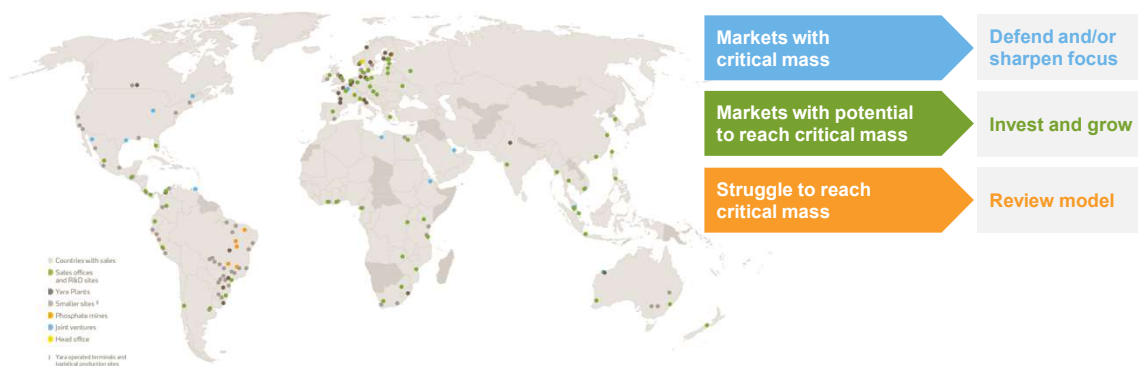
We are poised to become the leading global digital farming crop nutrition platform

In mid-2017, when Yara decided to scale-up our digital and precision agriculture activities and launch Digital Farming as a strategic growth area, it was based on the belief that technology would play an increasingly important role in shaping the food value chain and in driving agricultural productivity and that being first mover would provide a competitive edge. Good progress has been made on what we believe are the success factors and must-win battles in order to prevail.

We are not the only company putting strong efforts into this area these days but we are confident that we possess elements which are key in order to succeed longer term:

- Through our 800 agronomists in the field and our sales representatives, we have farmer access and insight beyond what other players in the industry have enabling us to prioritize resources and develop relevant tools actual addressing needs on the field
- In addition we have proven agronomic knowledge, which enables us to fill digitals and tools with content that matters to the end user.
- Compared to digital startups, Digital in Yara can design holistic solutions where we combine all the different components needed
- Our global reach supports the scale up of our digital efforts
- Because of the above, we are seen as an attractive company for potential strategic partners that can compliment our abilities

Optimize regional business models based on scale and growth opportunities



Optimize regional business models based on scale and growth opportunities

We have now been through the main elements of our strategy. Given our global presence, our portfolio of markets spans wide along several dimensions which are relevant for our ability to succeed in developing a profitable business, such as crop mix, size of market, growth potential, structure of the farming sector and other parameters.

We have positions in markets where we have reached critical mass, but where work to optimize and sharpen our position. Brazil is such a case.

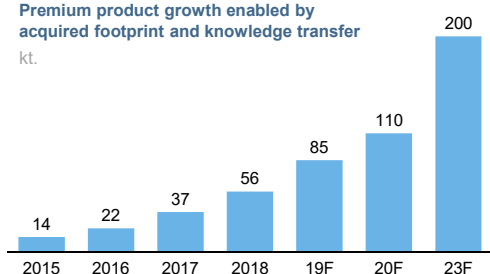
In other markets, we are small today but we believe we will be able to grow and reach critical mass. These are markets we will invest in to grow, India is an example of this.

The third category of markets are those where we struggle to get critical mass with our offerings, and in these markets we are working to find alternative “go to market” models.

India is increasingly attractive due to a combination of scale and government recognition

- Distribution muscle from acquired local footprint
- Digital opportunities growing through adoption
- Yara India scale up from niche base

Premium product growth enabled by acquired footprint and knowledge transfer kt.



38

India is increasingly attractive due to a combination of scale and government recognition

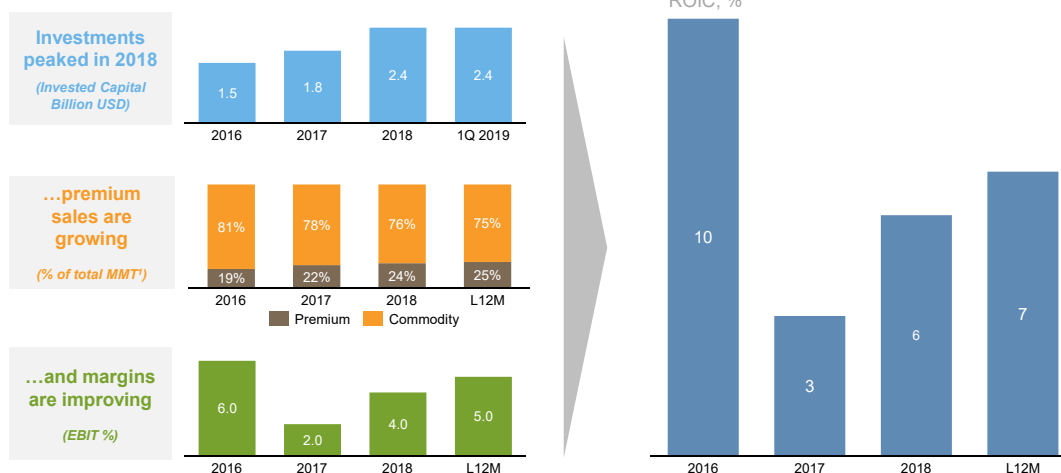
As the agricultural landscape develops in India, there are more opportunities for growth. Prime Minister Modi targets a doubling of farmer profitability by 2022, meaning regulatory developments, use of digital technologies and new product opportunities.

The Babrala acquisition gave Yara a strong foothold in northern parts of India, an area that represents a big untapped potential for our solutions, especially the YaraVita range of products.

The premium product growth in the India Strategy is significantly higher than the original business case for the acquisition – from 130kt to around 200kt in 2023 and from 2 million litres to 5.2 million litres of YaraVita.

In a scenario where the India fertilizer market is deregulated, the market growth potential for premium products would increase significantly.

Brazil case: We are transforming our business model to maximize premiums



12018 volumes: 2.0 mmt premium, 6.4 mmt commodity

39

Brazil case: We are transforming our business model to maximize premiums

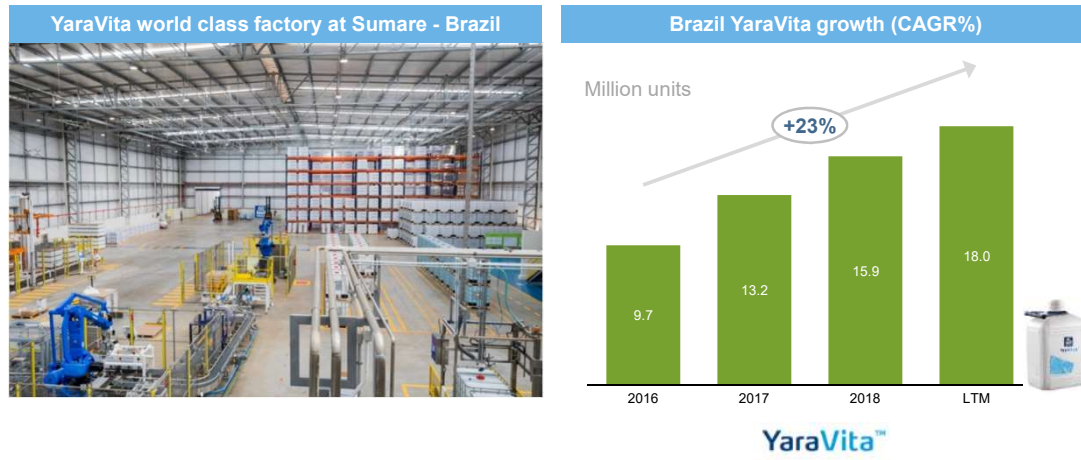
One reason that makes us confident that we will grow the premium business in India is that we have proven our ability to do so in Brazil.

In Brazil various acquisitions of commodity players followed by organic growth of premium products have contributed to a significant market share of 20-25%, local distribution assets and market access. Since the acquisition of Bunge in 2013 the growth rate has been around 6% for all products while premium products tripled, reaching more than 2 million tons in 2018, and the acquired market footprint has been fully leveraged.

However, the Brazil business is still dominated by commodity products, with relatively lower margins, which combined with a capital intensive business model has made it challenging to deliver a return on invested capital (ROIC) consistently above cost of capital.

After a period of high growth of premium products and focus on building a market position overall, the natural next step is to optimize the business model and shift focus from volume to value.

Brazil case: Our new YaraVita plant will enable us to profitably produce local premium products in Brazil



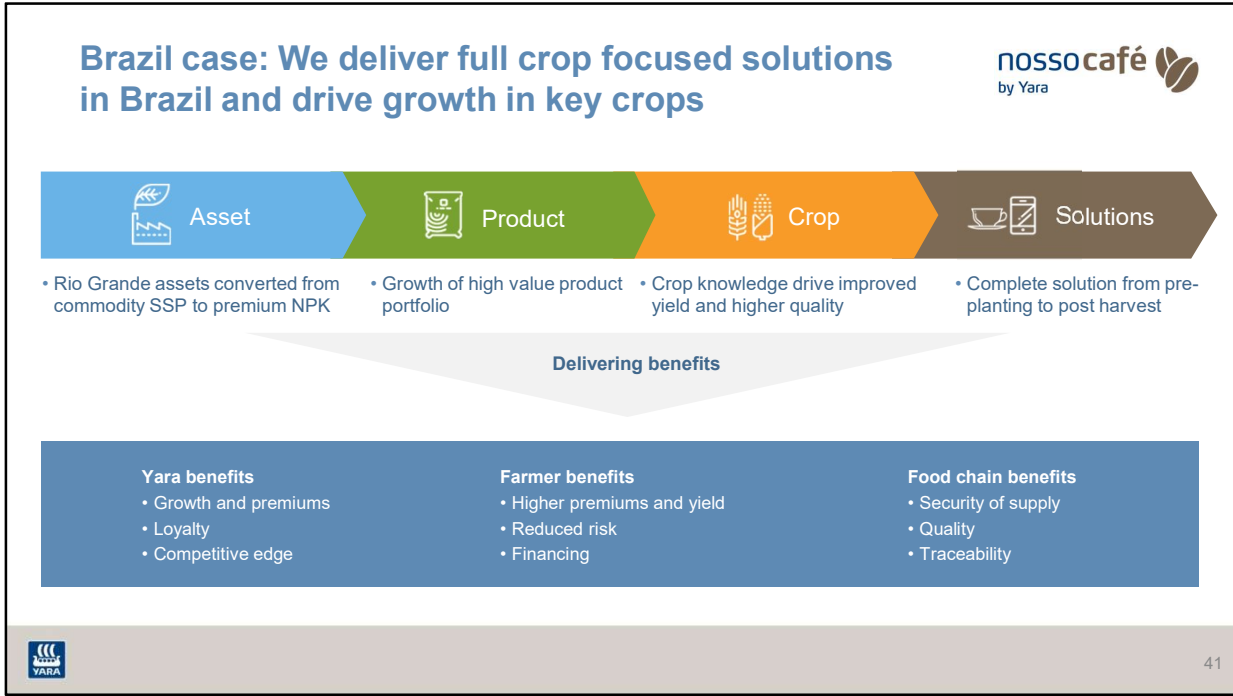
40

Brazil case: Our new YaraVita plant will enable us to profitably produce local premium products in Brazil

One example where we have started this process is on the YaraVita product line, our micro nutrient product range. As mentioned earlier this is a product that provides farmer benefits for both high value and low value crops, which has contributed to a growth rate (CAGR) of 23% since 2016.

The YaraVita business in Brazil represents 40% of the YaraVita global business, and 5% of the total contribution margin EBITDA in Yara Brazil and with the current growth Yara will be positioned to be one of the market leaders of the foliar business.

To supply future growth of this high value product the Sumare plant was finalized in 2018, which a capacity of 40 million units.



Brazil case: We deliver full crop focused solutions in Brazil and drive growth in key crops

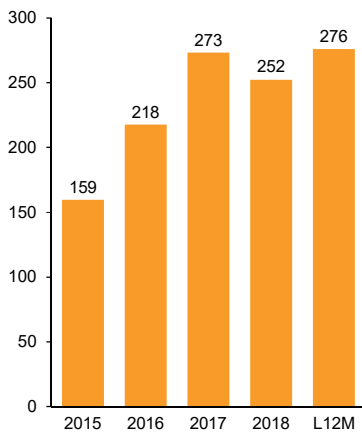
Nossocafe is an example of how Yara has moved from focusing on assets, to products, crops and solutions in order to deliver holistic crop solutions. The Nossocafe by Yara contains the following:

A complete solution from pre planting to post harvest
Digital tools like Yara Ayra, where we can generate tailored recommendation to the farmers and using data captured to better define product portfolio, CheckIT that allows farmers to get information about their crop nutrition status and TankmixIT, simplifying foliar application management .
New business tools, like barter models that not only provide better margins to Yara but allow the farmer to get better prices per coffee bag and reduce financial risk.

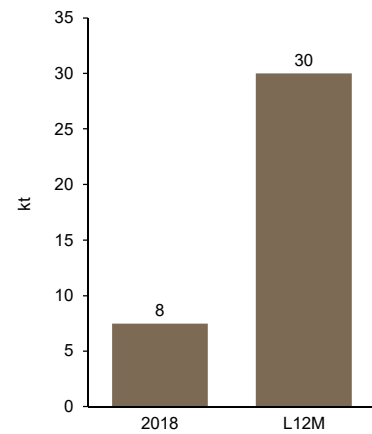
The crop program is based on a complete portfolio of premium products, replacing commodity blends with Yara premium products. The solution is communicated with active engagement through 1,200 events annually with 15,000 stakeholders, and also through strategic partnerships with the coffee players focused on specialty coffee. Supporting this is crop knowledge delivered through 62 fully dedicated professionals and joint R&D programs and trials.

Brazil case: We are demonstrating premium segment growth in coffee

Premium products sales to coffee



Coffee sales through barter model

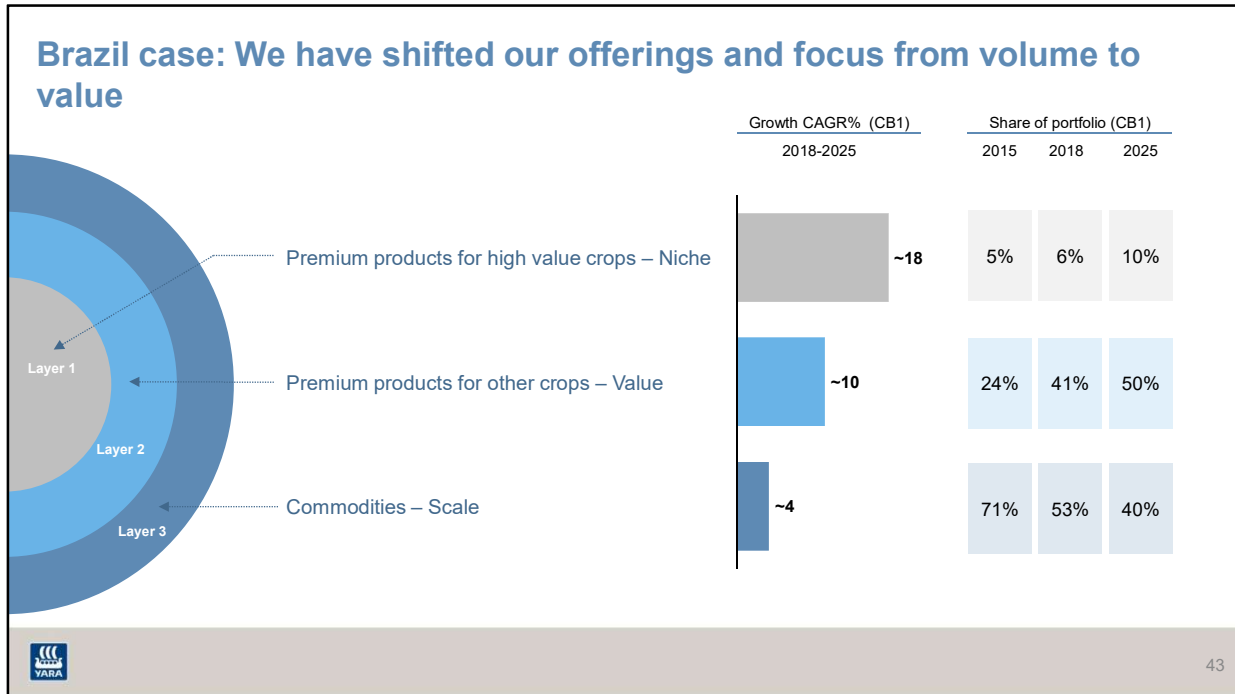


42

Brazil case: We are demonstrating premium segment growth in coffee

As a result of “Nossocafe”, premium product deliveries to coffee segment have doubled over a 3 year period. More recently we are promoting sales through barter operations, where we sell fertilizer and receive part of the grower’s production as payment.

Combining our knowledge and agronomical approach with financial solutions is a key success factor to increase adoption of our premium products and increase brand loyalty.



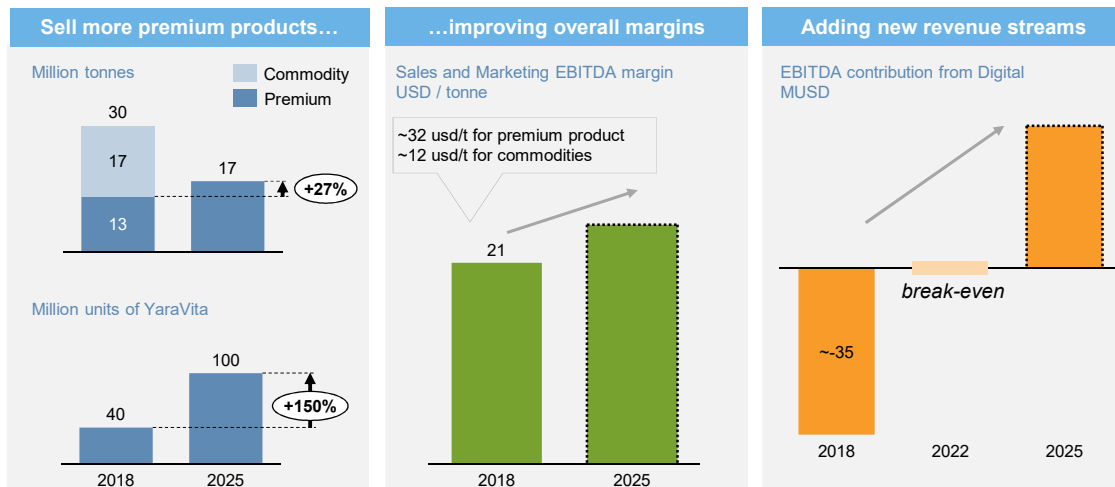
Brazil case: We have shifted our offerings and focus from volume to value

Yara will continue to sharpen the strategy in Brazil. The new strategy is called «Premium first, commodity right» reflecting that we will prioritize growing premium product based solutions while optimizing the commodity part of the business. By doing so, we aim at shifting the product portfolio going forward.

This strategy is possible in Brazil partly because of the size of the market and the crop mix. Even though the size of the high value crop niches are small relative to the Brazilian market, they represent in absolute terms a significant market potential ensuring we get scale in our operations at the same time.

As the margins are lower for commodities it will be key to simplify this part of the business and be more stringent of the profitability. This implies that we are willing to sacrifice volumes in this segment if they are not profitable and reallocate focus and resources on the segments with higher knowledge margin..

Our strategy enables increased premium product deliveries and higher margins combined with new revenue streams from Digital



Premium products defined as nitrates, compound NPK, CN, Amidas
Contribution margin equals sales price less variable costs

44

Our strategy enables increased premium product deliveries and higher margins combined with new revenue streams from Digital

To ensure we stay relevant and are able to add value to stakeholders in the food value chain as well as the investor community, we will:

- Continue to focus on developing our range of premium products and as indicated, we expect growth in premium products to outpace growth in commodity deliveries
- Focus our efforts and crop knowledge on high value crop segments where the value of our offerings is higher
- Develop new digital tools and offerings that are marketed either stand-alone or as part of a crop solution

By doing the above, we will not only contribute in fulfilling Yara's mission to feed the world and protect the planet, we will also increase the margins we realize and grow total deliveries.



Knowledge grows

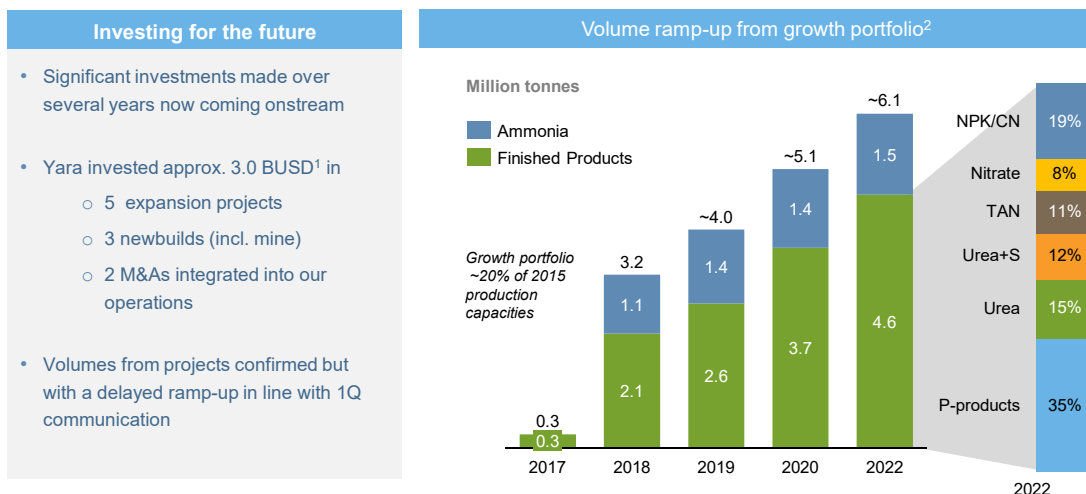
Improving operations

Capturing the full value of our growth investments

Tove Andersen



Capturing the full value potential of expanding 6 million tonnes



¹Growth portfolio = M&As (Babralla and Cubatão), expansions (Uusikaupunki, Porsgrunn/Glomfjord, Sluiskil, Rio Grande, Köping) and new builds (Freeport, Pilbara TAN, Salitre)

46

Capturing the full value potential of expanding 6 million tonnes

The recent expansion investments will add around 20 % more capacity to our production system. Execution, integration and further optimization of the added assets represents large value potentials. This will have special attention going forward.

Some of our projects have experienced technical delays or market/product optimization challenges which will impact the volume ramp-up in 2019 and 2020. These effects are temporary and our target of 6.1 million tonnes stays firm.

We have seven new projects fully integrated and operating

Expansions	Newbuilds	M&As
 <p>Uusikaupunki (FI)</p>	 <p>Pilbara TAN¹ (AU)</p>	 <p>Babrala (India)</p>
 <p>Porsgrunn (Norway)</p>	 <p>Freeport (US)</p>	 <p>Cubatao (Brazil)</p>
 <p>Köping (Sweden)</p>	<p>Our focus in 2019 will be on capturing full value potential by finalizing and achieving full operability of existing projects</p>	



¹ Further repair and replacement work will be needed on the Pilbara TAN plant, and production is expected to be intermittent / campaign mode for the remainder of 2019. The work is due to be completed by during first half 2020, after which the plant should be in full operation

47

We have seven new projects fully integrated and operating

Seven large expansion projects and acquisitions have been completed and our main focus going forward will be to capture the full value potential of these projects.

Despite operational challenges during start-up, we normally achieve design capacity or improve even further, after a period of stable operations. This is also our expectation for the new additions.

Three projects reaching completion by 2021

Sluiskil value add

- Project completion 2H 2019, full earnings from market development by 2022
- Annual additional output of 210 kt in full operation; Urea+S replacing prills



Salitre

- First full earnings effect 1Q 2021
- Annual output in full operation: 1.2 mt of P-Rock and 900 kt of granulated fertilizer



Rio Grande consolidation

- First full earnings effect granulation: 2Q 2020
- Annual throughput in full operation: 430 kt of granulated NPK fertilizer



48

Three projects reaching completion by 2021

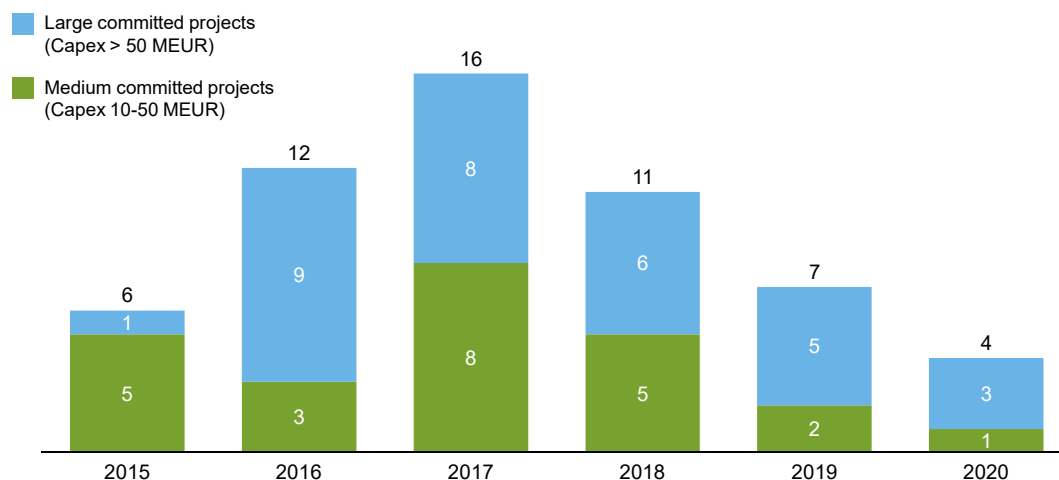
Three of our growth projects are still in the start-up or the execution phase.

The Sluiskil project is replacing 550 kt prilled urea with 100 kt granular urea and 530 kt granular urea with sulphur, a product sold with a premium to regular urea. In addition the investment will enable 130 kt of nitrates. The project is in the start-up phase.

The Salitre project has started the mining activity and will ramp up the phosphate rock production towards 2021 to meet the demands of the chemical fertilizer plant.

The Rio Grande project consolidates 3 sites and reduces fixed cost and maintenance investments, in addition to increasing the NPK production and adding blending capacity.

Significant reduction in number of projects under execution

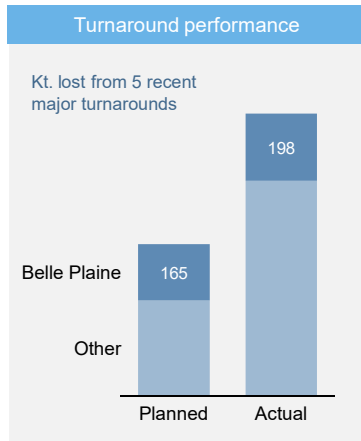


49

Significant reduction in number of projects under execution

The number of complex projects under execution will go significantly down as we enter into a phase where integration and optimization of already installed capacity will be the main focus.

Leveraging global production knowledge to optimize turnaround planning and execution represents a large upside opportunity



Belle Plaine highlights

- High complexity turnaround, maintenance and upgrade of ammonia and urea units
- Planned and executed based on our best practice combined with specialists from other Yara sites
- Within budget of 73 MUSD
- Improved plant performance
 - Additional 66 kt/year valued at around 15 MUSD/year



Significant part of the extended improvement program relates to improving our turnaround performance



50

Leveraging global production knowledge to optimize turnaround planning and execution represents a large upside opportunity

A turnaround at our ammonia and urea plants is a planned major maintenance stop, with inspections required by law. The major turnarounds at our key sites are complex, large projects carried out under high time pressure with a planned duration of 4-6 weeks. The budget for a turnaround can reach 50-100 MUSD with 1,500-2,000 workers at the site during peaks periods. Lifting of heavy equipment, working at heights and numerous external contractors are safety risk factors that needs to be carefully managed.

We set ambitious time schedules to limit production losses from the turnaround and strive to meet our stretched targets. A significant part of the targeted future operational improvements are related to improved production volumes, by capturing the potential in planning and executing turnarounds better through improved processes, increased competence and strong performance management.

The latest major turnaround at the Belle Plaine site in Canada demonstrates that we are capable of planning and executing challenging projects when we systematically build on lessons learned, perform according to our best practices and involve key experts from the rest of the Yara system.

Continued strong focus on reliability

Reliability Program

Target to significantly reduce the risk of unscheduled stops in our plants

- Identify (recurring) problem areas
- Use root cause problem solving to identify and initiate actions to eliminate problems. Monitor and measure effect of actions
- Use criticality ranking to identify potential/likely problems and execute needed actions to reduce risk
- Pilot “trouble sites” with “excellence sites” as reference
- Sites prioritized based on financial impact



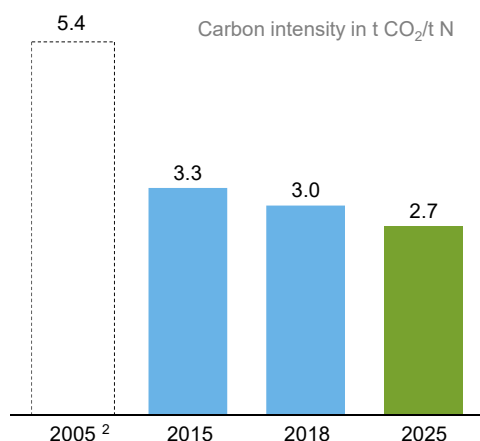
51

Continued strong focus on reliability

A systematic approach to identify and close plant reliability performance gaps is in addition to turnarounds key to increase our production volumes.

Our reliability program is designed to significantly reduce the risk of unscheduled stops in our plants. With our large production system and experienced technical expertise, we will leverage our global knowledge to improve the reliability in our plants.

Investing to reach CO₂ intensity reduction target in 2025 represent positive business cases for Yara



Our ambition:

10% reduction¹ in CO₂eq intensity by 2025

- 2025 target reflects GHG emissions already considerably reduced from 2005
- Lower emissions improve our cost position
- Positive business cases; 200-450 MUSD capex required
- Supports our ambition to become climate neutral by 2050



¹ From 2018 base ² Estimated based on historical data

52

Investing to reach CO₂ intensity reduction target in 2025 represent positive business cases for Yara

Investment projects in existing plants to support our sustainability strategy will require capacity and competence from our experienced project organization. We are in a good position to capture opportunities that are profitable and contribute to our vision to protect the planet.

The targeted 10 % reduction in carbon intensity compared to 2018 is an ambitious target in light of the already achieved step change of 90 % reduction in N₂O emissions from our nitric acid plants.

Improved CO₂ intensity will be measured across Scope 1 to 3:

- Direct emissions: Direct emissions from sources owned or controlled by Yara
- Energy consumption: Indirect emissions from the generation of purchased energy consumed by Yara
- External effects: Indirect emissions in our supply chain

The historical carbon intensity is estimated from historical data for Scope 1 emissions adding the intensity from Scope 2 and Scope 3 (imported ammonia) to make it comparable with the new carbon intensity indicator.

Decarbonize Yara – exploring climate neutral agriculture through innovative partnerships

Decarbonize Yara



What	Value drivers	Example
<ul style="list-style-type: none"> • Reduce Yara's direct GHG emissions • Produce zero-carbon nitrogen • Solutions to reduce in-field agricultural GHG emissions • Contribute to green energy carrier solutions and green food value chains 	<ul style="list-style-type: none"> • Higher revenue (consumers increasingly value products and solutions with lower environmental footprint) • Create new business and value creation models • Lower variable cost (carbon cost per tonne) 	<p>"Green ammonia" in Australia</p> <p>What? Feasibility study with ENGIE to produce zero emission ammonia</p> <p>How? Design a green hydrogen plant integrated with Yara's existing ammonia plant in Pilbara</p> <p>Why? Significant reduction in CO₂ emissions and lower future costs</p>



53

Decarbonize Yara – exploring climate neutral agriculture through innovative partnerships

In parallel with working to reduce CO₂ emission in traditional ammonia production, we participate in developing new technology in order to be prepared for a climate neutral future. This represents both a business opportunity for Yara as well as being important for the profitability of our business.

For this purpose, Yara participates in several projects, studies and partnerships:

- Feasibility study with Engie for production of zero emission ammonia in Australia
- "Pilot E" project Norway developing concepts for green nitrate production throughout the value chain
- Member of ISPT design study for hydrogen production in the Netherlands and Puro experimental CO₂ marketplace in Finland

Working through partnerships ensure world leading expertise and limited financial exposure for Yara.



Knowledge grows

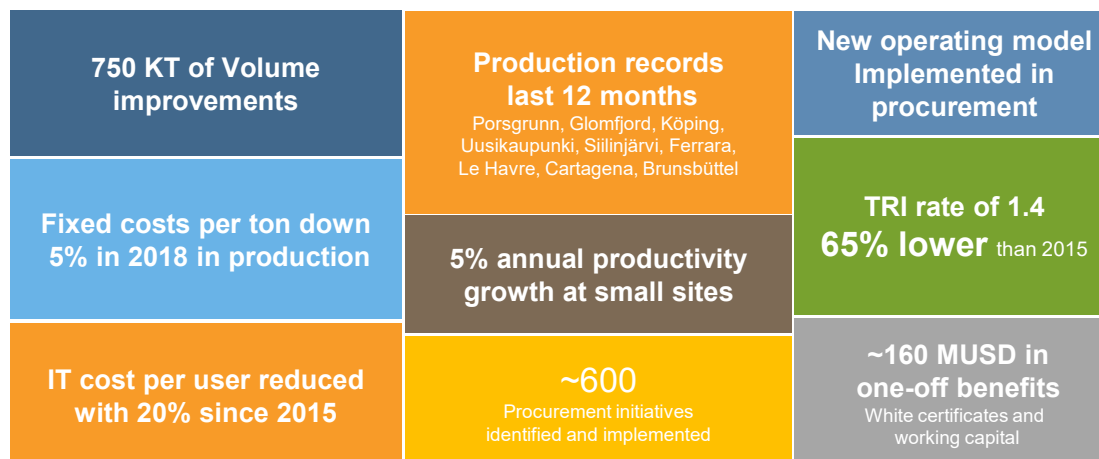
Improving operations

Extending productivity, cost and capital improvements beyond 2020

Lars Røsæg



The Yara Improvement Program (YIP) has led to significant changes in performance across our business



55

The Yara Improvement Program (YIP) has led to significant changes in performance across our business

Overall YIP has been a success since the inception delivering significant improvements across our segments, with total EBITDA improvements of 355 USD million vs 2015. In addition the program has delivered 160 USD million of one-off benefits.

This has been possible due to focusing on and improving the underlying performance with an aim to create sustainable lasting change. The Yara productivity System (YPS) has continued to deliver improvements and 10 sites has set production records in the last 12 months. This has been achieved with a limited fixed cost increase resulting in fixed cost per ton reduction of 5%. Similar productivity improvements have been consistently delivered in IT and at our terminals and blenders.

We are pleased to see that an operational excellence agenda continue to go hand in hand with safety performance. Yara has made good progress towards achieving a 100% safe working environment, with the 2018 TRI rate being 65% lower than two years ago for the plants and mines, and with several sites setting all time low TRI records. Still, serious accidents happen and we rigorously analyze them as well as near misses and hazardous conditions to avoid them in the future.

Improvement initiatives have had significant impact



Siilinjärvi reduced fixed costs by
> 6% since 2015



Tertre reduced use of
scaffolding on site by 80%



Optimized packaging in Brazil
with cost reduction of 30%

Knowledge transferred to other sites and locations, leading to bigger potential gains



56

Improvement initiatives have had significant impact

Below are some examples of improvement initiatives:

Reducing fixed costs in Siilinjärvi

Closer collaboration between the Production and Maintenance department allowed better scheduling of work and identification and elimination of inefficiencies. This has led to a cut of contractor hours by 37% by insourcing the work, representing an annual saving of 2.8 MUSD (6%) in fixed cost from 2015 baseline.

Reducing Tertre scaffolding costs by 80%

Scaffolding is expensive and poses a safety risk when assembling/disassembling. In Tertre, a local maintenance worker came up with the idea of replacing scaffolding with platform ladders for jobs at heights between 2-3m. In addition to improved safety and a financial gain of approx. \$55k/ year, the ladders enable the maintenance team to be more flexible and faster in their work.

Optimize packaging in Brazil

The local organization has reduced the thickness of the inner liner of big bags while ensuring the same product quality. In parallel the team has developed local suppliers for YaraVita packaging. In total, optimizing of packaging in Brazil has reduced annual costs with 4.5 MUSD, a reduction of 30% in packaging spend.

These principles can be used at other sites, leading to bigger potential gains.

Extended Yara Improvement Program further improves ROIC



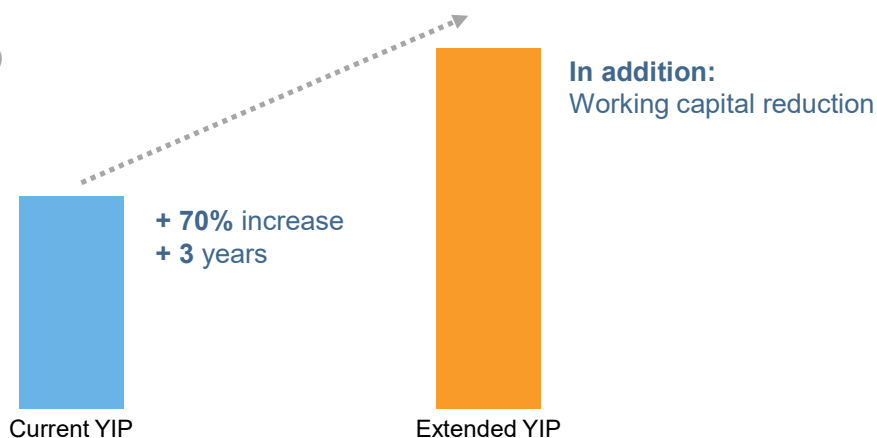
57

Extended Yara Improvement Program further improves ROIC

Based on the achievements of the improvement program so far we are confident that we can achieve more. We have identified further potential and will extend the scope and timeline for the program to further improve our profitability.

Extended YIP targets 70% increase in sustained EBITDA improvement

Sustained EBITDA improvement (MUSD)

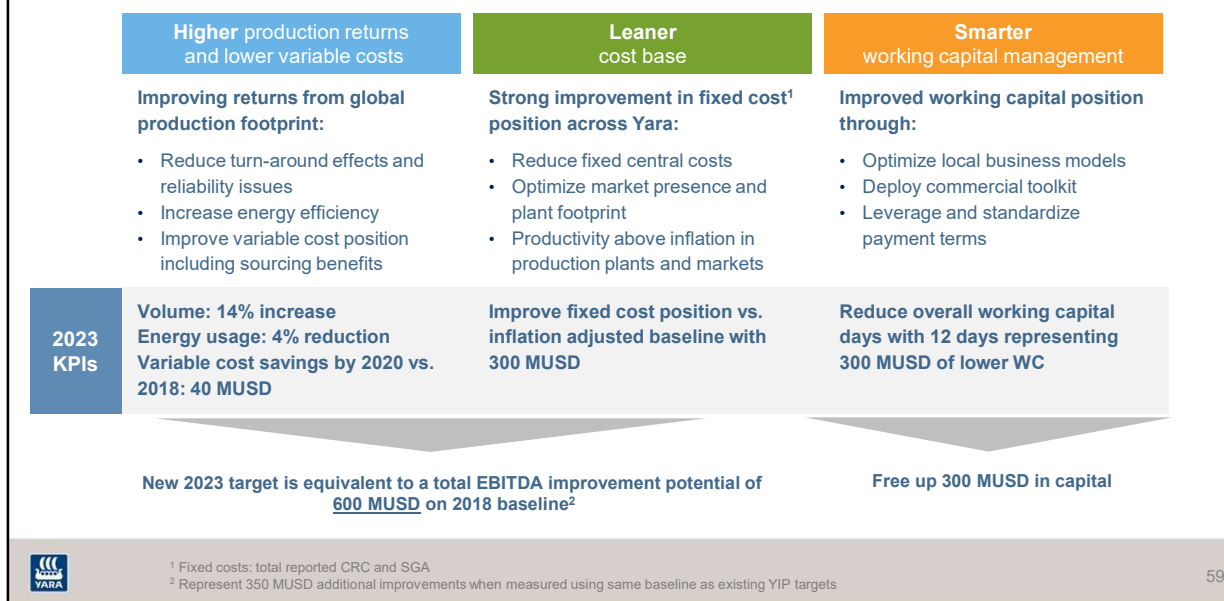


58

Extended YIP targets 70% increase in sustained EBITDA improvement

Our extended improvement program targets to deliver 350 MUSD in additional sustained EBITDA benefit by 2023 compared to our original target of 500 MUSD in 2020, using 2015 as the baseline. This represents an increase in sustained EBITDA of 70% and a three years extension of the program.

YIP towards 2023: Productivity and cost in focus



YIP towards 2023: Productivity and cost in focus

The extension of the Yara Improvement Program will build on the achievements so far, but with a changed communication form and higher fixed costs focus.

The extended program proposes a clearer distinction between the categories:

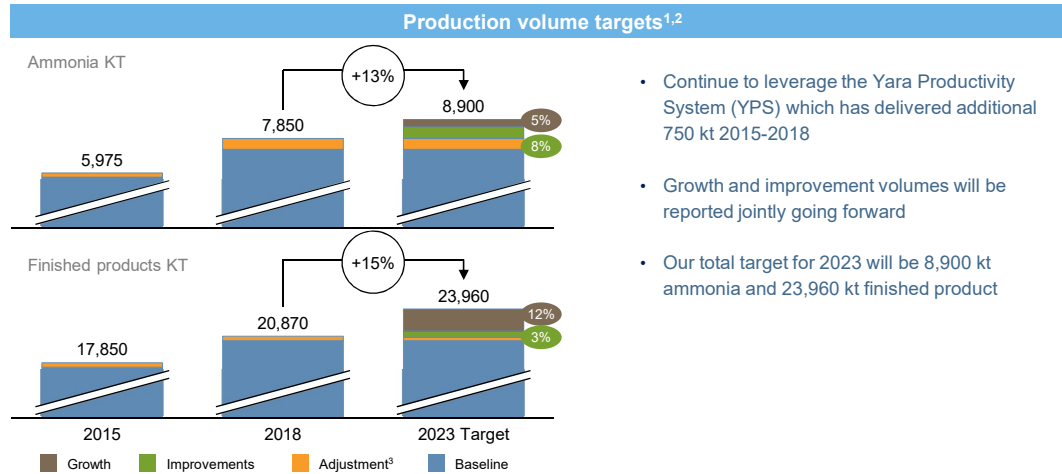
- A. Higher production returns and lower variable costs
- B. Leaner cost base
- C. Smarter working capital management

Jointly these three pillars are equivalent to an EBITDA improvement of ~600 MUSD compared to a normalized 2018 level, in addition to working capital improvements of ~300 MUSD. Going forward we will report on the underlying value drivers (e.g. volumes and energy efficiency), rather than monetary values. For production volume we will report the total improvement including both YIP and growth volumes.

To achieve these ambitious targets we have to succeed in several areas including:

1. Fully implementing the Yara Productivity System with a clear focus on improving turnarounds and tackling reliability issues
2. Reducing fixed cost through structural changes as well as ensuring productivity growth above inflation across our business
3. Continuing to strengthen working capital management and further leverage new tools and systems

Higher production returns from fully implementing the Yara Productivity System



- Continue to leverage the Yara Productivity System (YPS) which has delivered additional 750 kt 2015-2018
- Growth and improvement volumes will be reported jointly going forward
- Our total target for 2023 will be 8,900 kt ammonia and 23,960 kt finished product



¹ 2018 includes growth and debottleneck projects already communicated, and is adjusted related to Galvani and Pardies portfolio effects (total 10kt)

² Excluding Qafco and Lifeco volumes. Improvements from Qafco included in monetary value only

³ Normalizing for turnarounds and market optimization effects of 1,100 kt in 2018

60

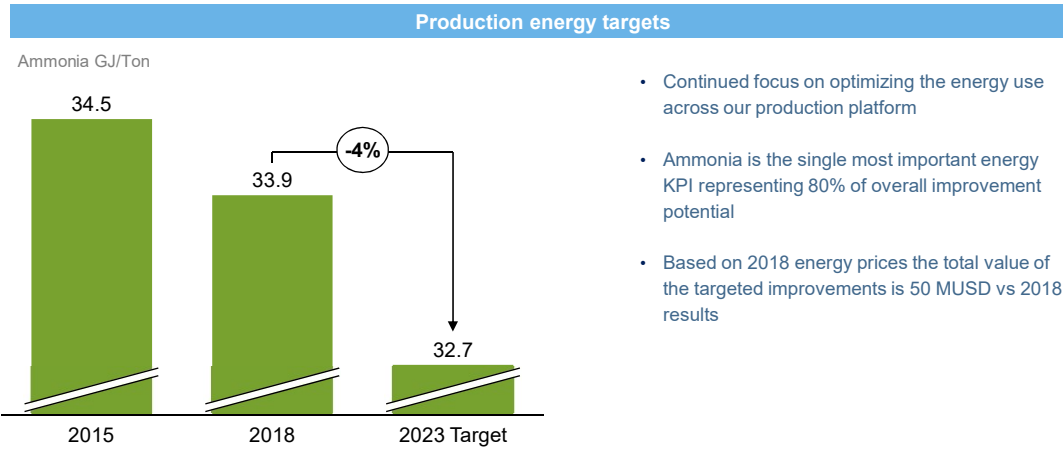
Higher production returns from fully implementing the Yara Productivity System

By further leveraging the Yara Productivity System (YPS) we expect improvement of 640 kt of ammonia and 700 kt of finished product on top of volumes from the growth projects. In order to succeed we need to strengthen our efforts in reducing the negative effects from turnarounds as well as reducing the frequency of major outages which affected us negatively in the start of 2019.

To achieve the ambitions we do not expect material capex, but a normalized maintenance and safety investments level of 800 MUSD per year.

Going forward we will track and present volume improvements in total tonnes adjusted for turnaround and market optimization effects.

Higher production returns from energy efficiency improvements



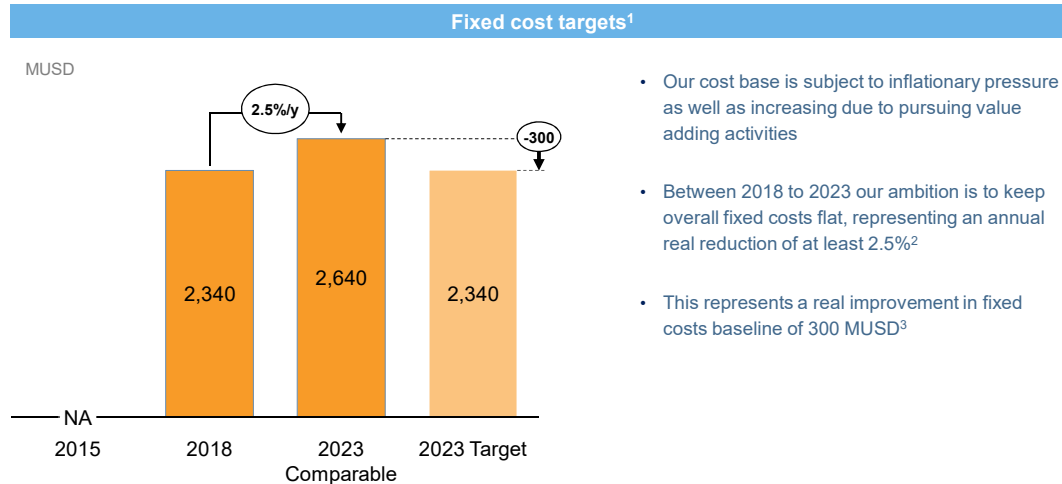
61

Higher production returns from energy efficiency improvements

The YPS rollout has increased the energy improvement ambitions across our production portfolio leading to higher targets. We have chosen to use energy for ammonia production as the KPI we will track and monitor, as ammonia represents 80% of the total improvement potential.

Energy improvements in urea production and in the rest of the plants represents an annual improvement target by 2023 of 10 MUSD compared to 2018.

Leaner cost base by keeping fixed cost nominally flat despite anticipated growth, strategic priorities and inflationary push



¹ Baseline normalized for projects coming on stream during 2018 and IFRS. Future costs related to special items, M&A and structural projects will be adjusted for

² Weighted average estimated annual inflation based on IHS forecasts

³ Measured vs a fixed cost baseline growing with 2.5% per year.

62

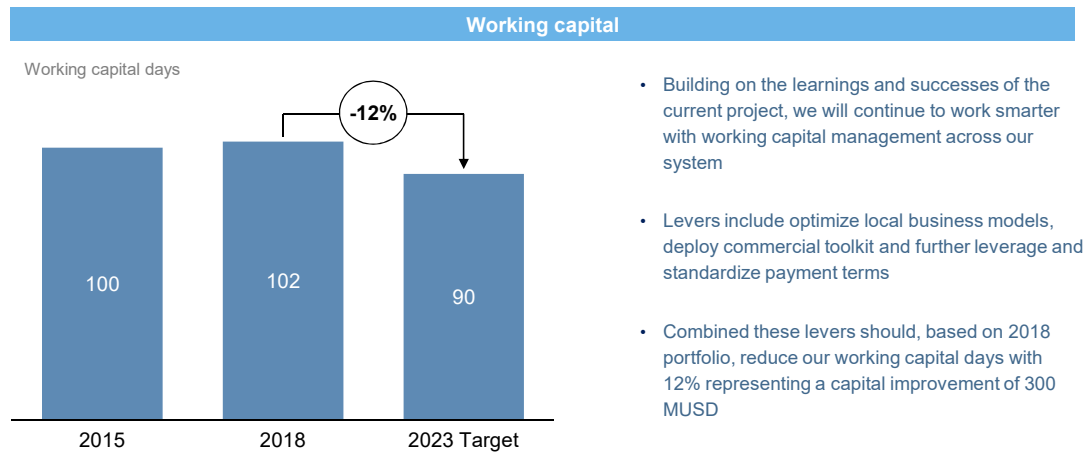
Leaner cost base by keeping fixed cost nominally flat despite anticipated growth, strategic priorities and inflationary push

Several underlying factors are pushing our fixed costs upwards. Firstly our fixed costs base is subject to inflationary pressure estimated to on average 2.5%³ annually going forward. Secondly our new strategic initiatives requires upfront investments in resources often reported as fixed costs. Thirdly we are continuously shifting our portfolio to more premium products which yields higher margins but often also requires increased sales efforts.

Going forward we will need to pursue several activities to keep fixed cost flat in nominal terms and thus mitigate these factors. The actions we are undertaking include optimizing market footprint, streamlining our central costs structure as well as continuing our journey to implement a continuous improvement culture.

In total these actions will lead to a real improvement in fixed costs of 300 MUSD², or an annual fixed costs saving on average of 2.5% per year.

Smarter working capital management to release 300 MUSD



63

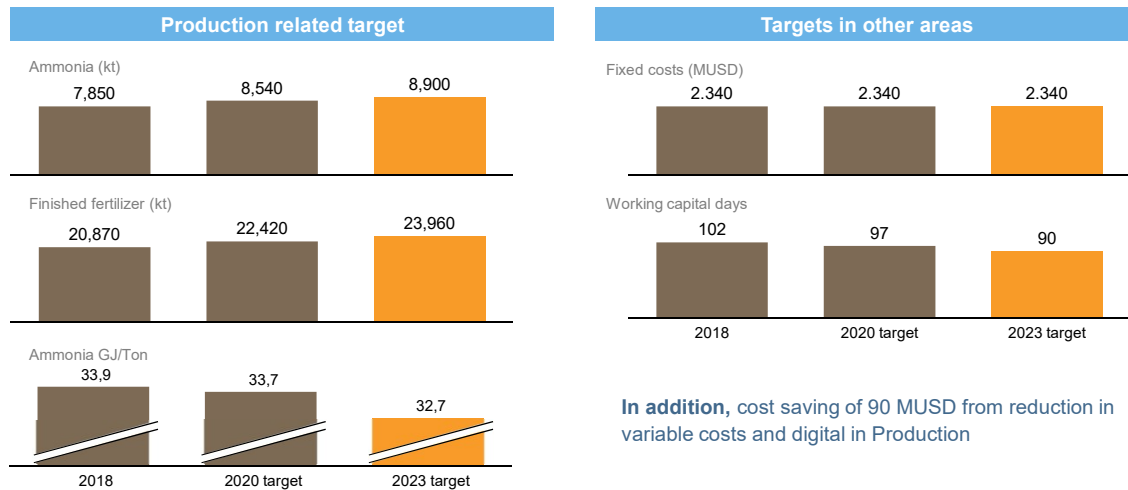
Smarter working capital management to release 300 MUSD

Going forward we will further optimize working capital management by several levers, including reducing inventory, optimize business models, deploy commercial toolkit and higher focus on payment terms.

Combined these levers should, vs 2018 baseline, lead to a reduction in working capital by 12% representing a capital improvement of 300 MUSD.

The KPI will be measured on a 12 month rolling baseline to eliminate seasonal fluctuations and is adjusted for prepayments.

Our new improvement targets build on successes from current efforts with an increased fixed cost focus



¹ Variable costs targets to be achieved by 2020

64

Our new improvement targets build on successes from current efforts with an increased fixed cost focus

The new targets for the improvement program represents a natural extension to the existing 2020 targets for the same categories as we have tracked previously.

The new fixed costs target is a company wide target where we earlier followed up specific elements of our fixed costs base. If we had continued to track only specific initiatives and projects also in the fixed costs area, the new ambition for 2023 on top of what has been delivered would have been 150 MUSD.

YIP will deliver 600 MUSD of EBITDA improvements by 2023 compared to 2018 with further upside on working capital



65

YIP will deliver equivalent to 600 MUSD of EBITDA improvements by 2023 compared to 2018 with further upside on working capital

In total the program is equivalent to an EBITDA improvement of ~600 MUSD compared to a normalized 2018 level. Going forward we will report on the underlying value drivers (e.g. volumes and energy efficiency), rather than monetary values. For production volume we will report the total improvement including both YIP and growth volumes.

In addition we expect 300 MUSD of capital improvements from smarter working capital management.

The program will continue to draw upon the existing YIP projects. One-off costs are estimated to 100 – 150 MUSD including restructuring costs.



Knowledge grows

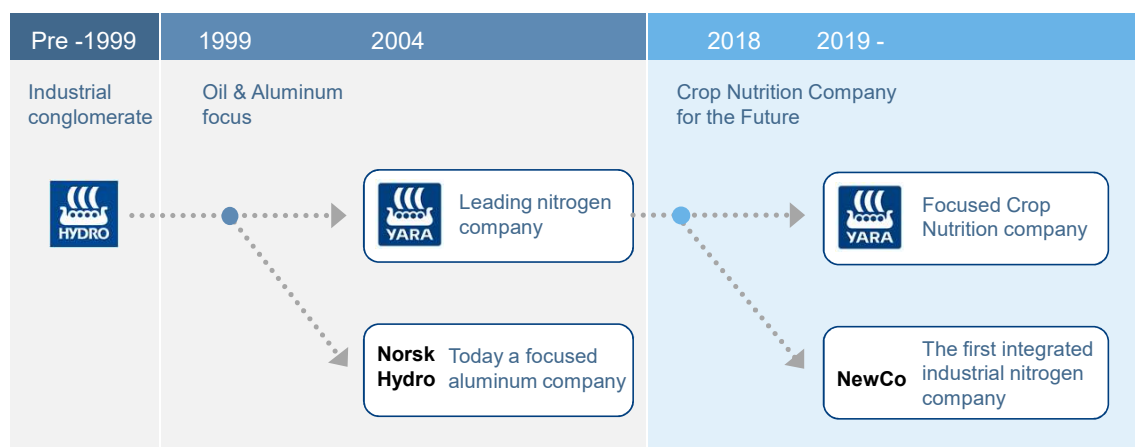
Portfolio review

Evaluating IPO of industrial assets

Yves Bonte



Evaluating an IPO opening up for a similar growth story as the demerger from Hydro in 2004



67

Evaluating an IPO opening up for a similar growth story as the demerger from Hydro in 2004

Yara was de-merged from Hydro in 2004, when Hydro Agri was carved-out from Hydro and listed as Yara. This increased focus resulted in strong growth and superior returns. As a natural evolution of the corporate strategy announced last summer, Yara is now evaluating an IPO opening for a similar growth story. The scope under assessment would create the first global integrated industrial nitrogen company.

An IPO of the first integrated industrial nitrogen company would be an important milestone for Yara's new strategy



Source: Yara 2Q'18, 3Q'18 and 4Q'18 quarterly presentations and reports, Yara press release 11th of December 2018

68

An IPO of the first integrated industrial nitrogen company would be an important milestone for Yara's new strategy

Last fall (2018), Yara announced that its strategic direction going forward is to become the "Crop Nutrition Company for the Future". One of the key actions defined to deliver on this new corporate strategy is to make a more focused company, which requires Yara to evaluate and conclude the future of its non-agriculture assets and businesses.

In conjunction with communicating the new Yara operating model late 2018, Yara announced a process to assess alternative ownership structures (divestments) for the Environmental Solutions (ES) businesses and Mining Applications (TAN).

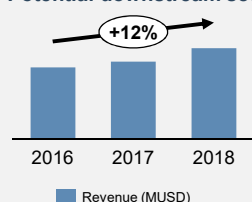
Now, Yara has decided to evaluate an IPO of a company with a larger scope than outlined in late December, as this is believed to be most value-creating for Yara's shareholders in the long-term. The increased focus enabled by this larger scope is believed to be a key enabler for Yara's ambition of becoming the "Crop Nutrition Company for the Future" and to unlock long-term shareholder value.

NewCo would be a new company consisting of a large share of the former Yara Industrial, and relevant production plants, assets and supply chain

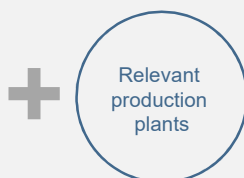
The first integrated industrial nitrogen company

Scope is still being evaluated

Potential downstream scope



Production



Other



NewCo scope



69

NewCo would be a new company consisting of a large share of the old Yara Industrial, and relevant production plants, assets, supply chain etc.

Although scope is still being evaluated, it is clear that NewCo would be the first integrated industrial nitrogen company regardless of final scope. This is enabled by combining Yara industrial downstream units with dedicated production plants & assets, as well as supply chain and other supporting functions. This allows NewCo to tailor and optimize the whole value chain to the needs of industrial customers.

The scopes being evaluated all reflect a significantly-sized NewCo with an EBITDA making up ~10%- ~15% the Yara EBITDA, which would position NewCo amongst the top 30 largest companies on Oslo Stock Exchange measured by market capitalization (dependent on capital structure and market valuations at time of listing). Remaining Yara would remain amongst top 10.

NewCo would be the first integrated industrial nitrogen company with global reach

- ☒ The first integrated industrial nitrogen company
- ☒ A leading player with the highest value proposition in core markets
- ☒ Solid European platform as fundament to achieve a strong global position
- ☒ Attractive market portfolio balancing stability & growth



70

NewCo would be the first integrated industrial nitrogen company with global reach

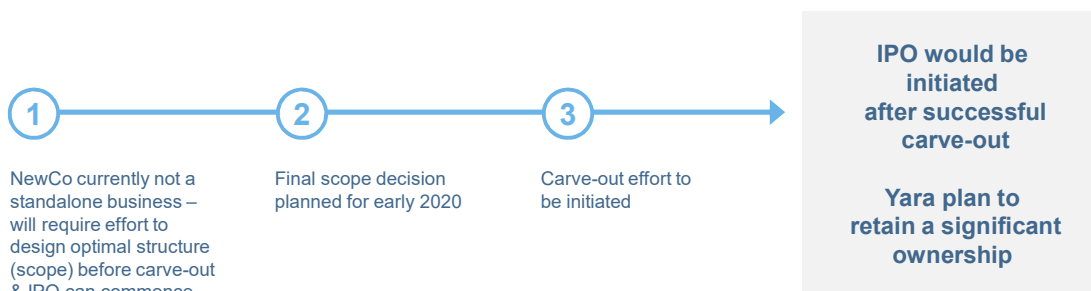
NewCo would be the first integrated industrial nitrogen-company. Most major competitors would be either Combined fertilizer & industrial chemical producers or players focusing only on Upstream or Distribution. NewCo's supply chain, which is supported by a network of dedicated infrastructure and logistics providers, moves NewCo beyond a pure producer to also a leading logistics coordinator for the delivery of nitrogen-based products.

Today, the business units evaluated for the scope have leading market positions and highest value proposition in core markets. This is enabled by the customer-centric approach and ability to reliably deliver high-quality products.

NewCo would have aspirations of a leading global position, for which initial actions have already been taken by recent activities to establish leading positions outside of Europe. The strong fundament in the European core markets would help fund the journey to realize further global growth. A focused NewCo would also be able to pursue opportunities that earlier have been down-prioritized over fertilizer opportunities.

NewCo would have a market portfolio with a solid base of GDP-driven growth products in addition to selected double-digit growth products.

Final scope decision is planned early 2020 before carve-out effort will commence



71

Final scope decision is planned early 2020 before carve-out effort will commence

NewCo does not exist as a standalone business today, but would as previously described, be structured by combining existing downstream businesses, production assets and supporting functions. The inherent complexities of carving-out the pieces and setting up such a structure make it important to run a thorough process to identify a setup that maximizes value-creation. This is why Yara will focus the time towards early 2020 on identifying and concluding on the best possible scope and supply structure for NewCo. The carve-out effort can first be initiated when the scope has been concluded due to the structural boundaries the scope defines.

To take part in the long-term value creation, Yara will retain a significant ownership after the IPO.



Knowledge grows

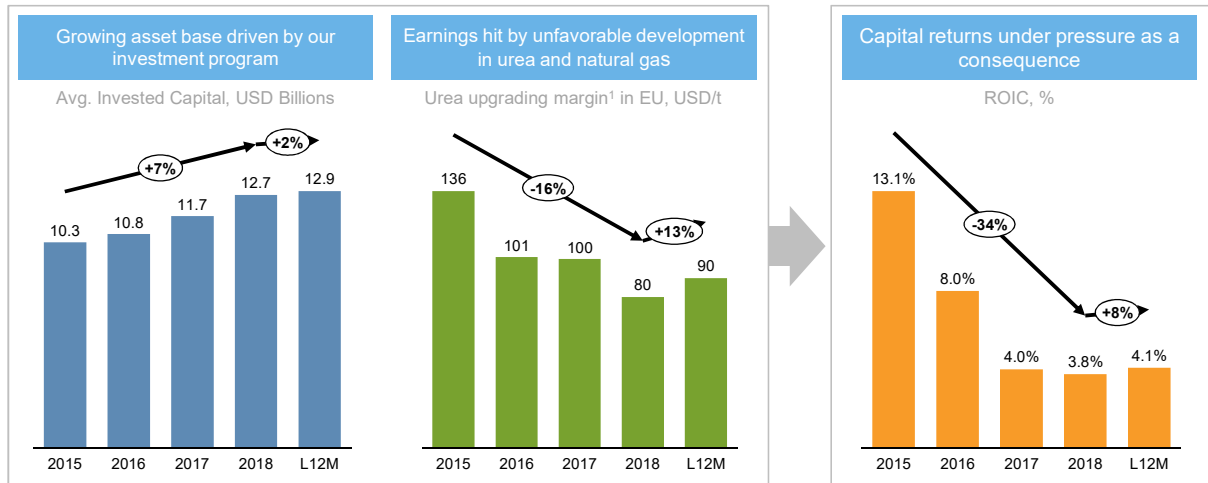
Capital allocation & returns

Driving value growth through
performance management and
strict capital allocation

Lars Røsæg



Yara is improving capital returns after a period of heavy investments and adverse market conditions

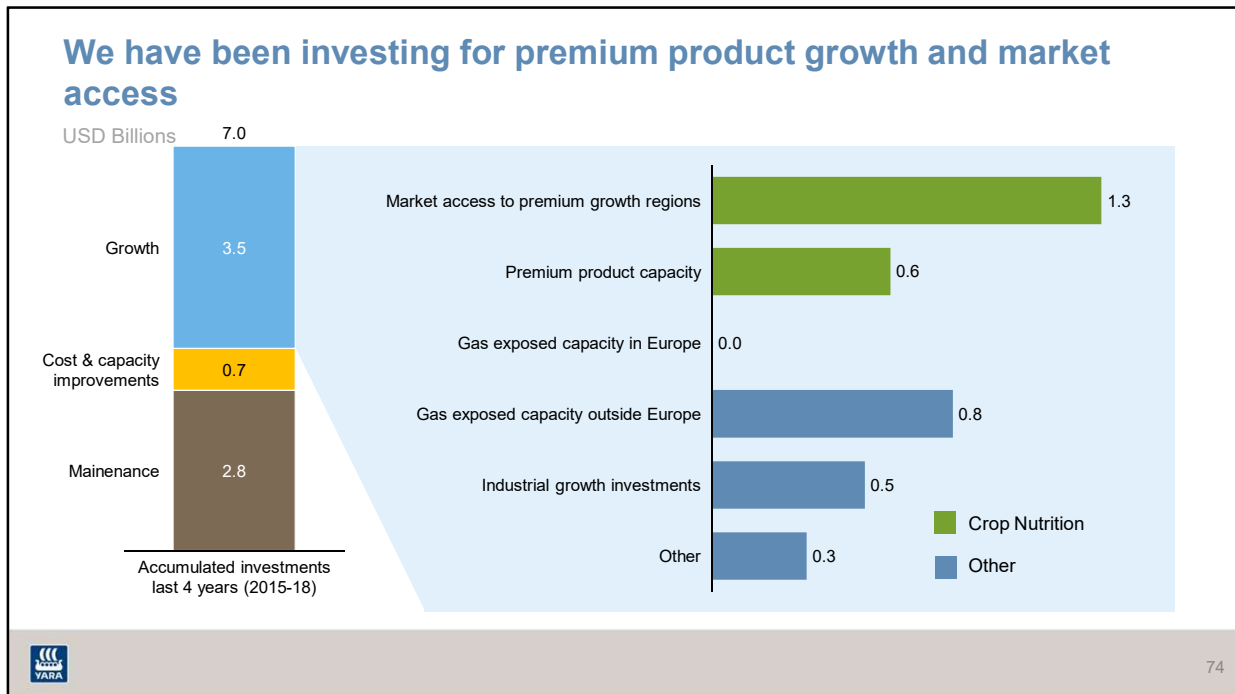


¹Upgrading margin= Urea prilled Baltic + custom (6.5%) + transport cost to NW Europe (20 USD/t) – gas cost (22 mmbtu x TTF price) – fixed cost (30 USD/t)
Urea and gas prices lagged by 1 month

73

Yara is improving capital returns after a period of heavy investments and adverse market conditions

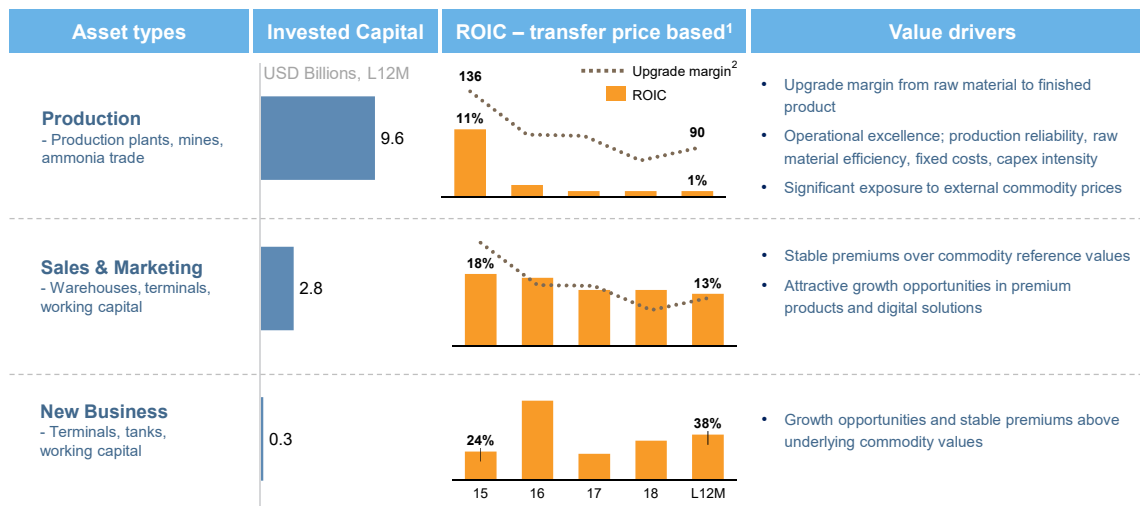
Yara has invested significantly in growth over the last years, both expansions and M&A. This has increased Yara's asset base and invested capital. In the same period, the market conditions has developed adversely with declining crop prices affecting downstream premiums, declining global nitrogen prices, and increasing natural gas costs in Europe. These factors has lead to reduced earnings, and combined with higher invested capital, capital returns has declined. Since late 2018, the market conditions has started to improve and at the same time our investment program is coming down. This has lead to recent improvements in capital returns.



We have been investing for premium product growth and market access

Over the last 4 years, Yara has invested for value growth. These growth investments have been consciously selected to improve Yara's competitive position and value creation potential. No growth capital has been allocated to increased gas exposure in Europe. The growth invested has targeted to differentiate and lower Yara's cost position through for example ammonia production in Freeport (US) and Pilbara (AU). Yara has also invested in accessing premium growth regions in Brazil (Saltire, Rio Grande expansion), India (Babralla) and smaller M&A in Africa and North America. Increased premium product capacity has been made possible through expansions in Porsgrunn, Uusikapunki and Sluiskil. Yara has also expanded the Industrial segments through the Cubatao acquisition, Pilbara Nitrates investment and Köping expansion.

Our assets have distinct value drivers



¹Based on transfer prices and hence, does not show the full see-through value creation from the products. Internal changes in transfer prices and movements between segments will affect numbers
²Upgrade margin as defined on page 75

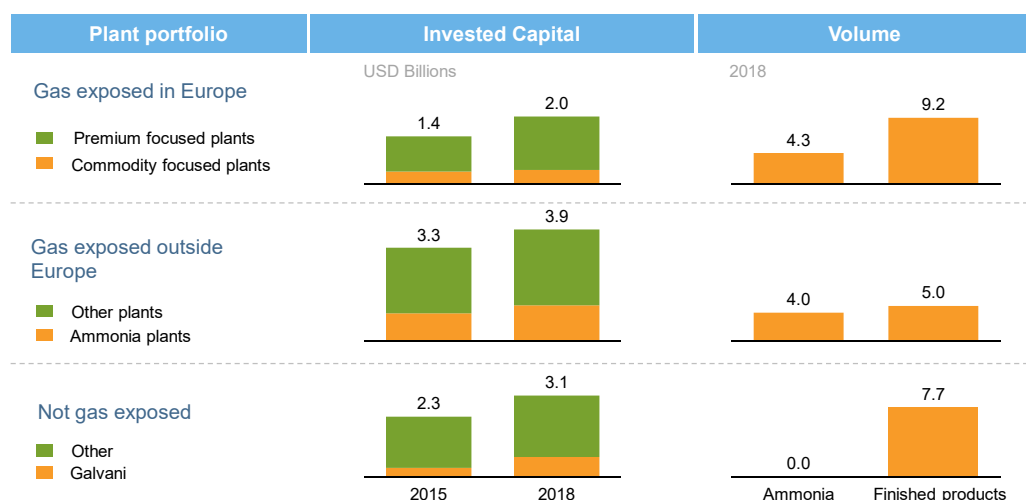
75

Our assets have distinct value drivers

There are distinctly different value drivers and capital return profiles for Yara's asset types. The majority of our invested capital lie in our production segment. These assets are highly exposed to commodity prices, both on the products they produce (typically nitrogen, phosphate and/or potash) and the raw material consumed (typically natural gas or ammonia). The capital return over the last years has therefore decreased significantly in our production plants due to the declining market conditions. These assets therefore have a strong cyclical upside exposure should the external drivers improve. In addition, operational improvements through the YIP program will drive improved value in the production system

The sales and marketing assets consist mainly of working capital, but also distribution infrastructure. The main value driver is the premium that is generated over the commodity value of our products (e.g. NPK premium, Nitrate premium). This premium is affected by farmer economics (external factors) but also Yara's ability to create demand for our premium product. Increasingly, solutions will be a driver for further differentiation and downstream value. Our industrial assets (now included in the New Business segment) also mainly constitute working capital and deliver attractive and stable capital returns. The 2016 ROIC is affected by the sale of our CO₂ business.

Our production portfolio features a diversified asset base with a strong cyclical upside



Our production portfolio features a diversified asset base with a strong cyclical upside

The fully owned production assets can be analyzed by dividing the plants based on the nature of their exposure to natural gas. Around 22% of the invested capital is tied to plants with European gas exposure, however it is a larger share our production output, which is due to many of these plants being older and therefore depreciated. Yara has increased the Invested capital in this category since 2015, however this is driven by investments in premium upgrade capacity, not further gas exposure (e.g. NPK expansion in Porsgrunn, Amidas expansion in Sluiskil). Plants included in this category are Brunsbuttel, Ferrara, Hull, Le Havre, Porsgrunn, Sluskil, and Tertre.

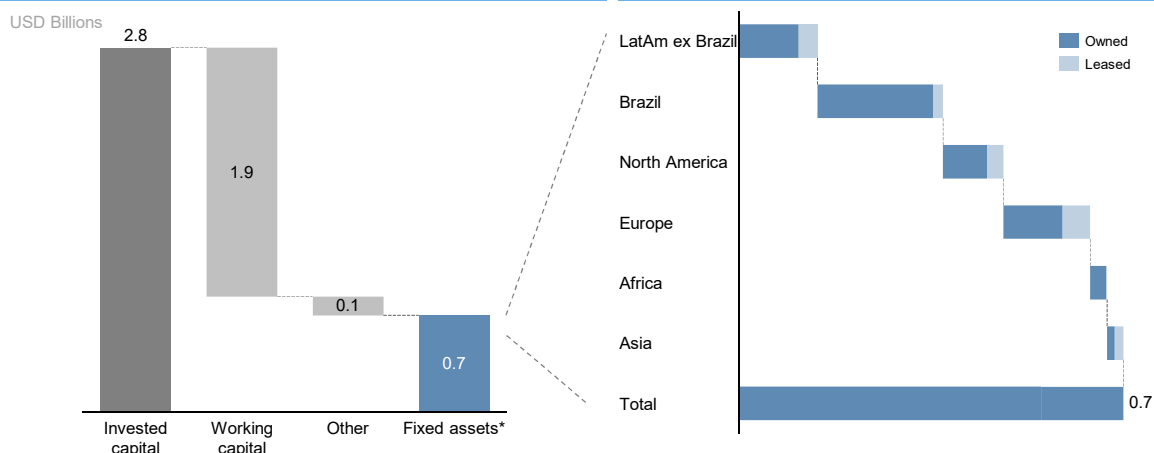
Yara has significant invested capital in plants with gas exposure outside of Europe. Plants included here are Babrala, Belle Plaine, Cartagena, Cubatao, Pilbara Ammonia, Trinidad, Freeport, Lifeco, Qafco and Tringen. Invested capital has increased with the acquisitions of Babrala and Cubatao. The capital returns in this category differ between the ammonia plants and other plants, driven by the adverse development in the ammonia prices over the last years.

The final category are plants that are not gas exposed. This is a range of different sites covering Ambes, Rio Grande, Salitre, Uusikaupunki, Siilinjärvi, Glomfjord, Koping, Montoir, Ravenna, Rostock, Pilbara Nitrates and Galvani. In this category, the overall capital return has been improving except Galvani assets where we have significant capital under construction.

Our Sales & Marketing is backed by a strong infrastructure

Invested capital in Sales and Marketing driven by working capital..

..and a strong infrastructure footprint across regions



* Includes PP&E and ROU

77

Our Sales & Marketing is backed by a strong infrastructure

The Sales and Marketing segments invested capital mainly consist of working capital, driven by the distribution value chain. This working capital fluctuates with the seasonality in the different geographies we operate. The fixed assets amount to ~750 MUSD and consist of the owned and leased infrastructure needed to operate the distribution network. This predominantly includes terminals, warehouses, blenders as well as office buildings across the countries where Yara has a domestic presence. Brazil contains the largest part of the fixed assets in Sales and Marketing where we have a significant domestic downstream operation and a network of blenders and warehouses are needed to operate.

By executing our strategy we are taking measures to unlock the value potential of our business

- ① Improving margins by driving premium growth
 - ② Deliver on our growth projects
 - ④ Improve underlying performance through extended YIP
 - ⑤ Sharpen focus on core business, evaluating IPO of industrial assets
 - ⑤ **Optimize the asset base of core business**
 - ⑥ **Exercise strong capital discipline**
- Covered earlier today
- Focus in the following



78

By executing our strategy we are taking measures to unlock the value potential of our business

We are currently optimizing the asset base of our core business

Assets and optimization

- Yara's asset base has varying as-is profitability and differing outlook and investment profile per site
- Yara is continuously reviewing its plants and markets to optimize future value creation, including synergies and flexibility between our operations
- Improvement potential in market footprint has been identified, and lower profitability plants closely followed up based on defined improvement roadmaps



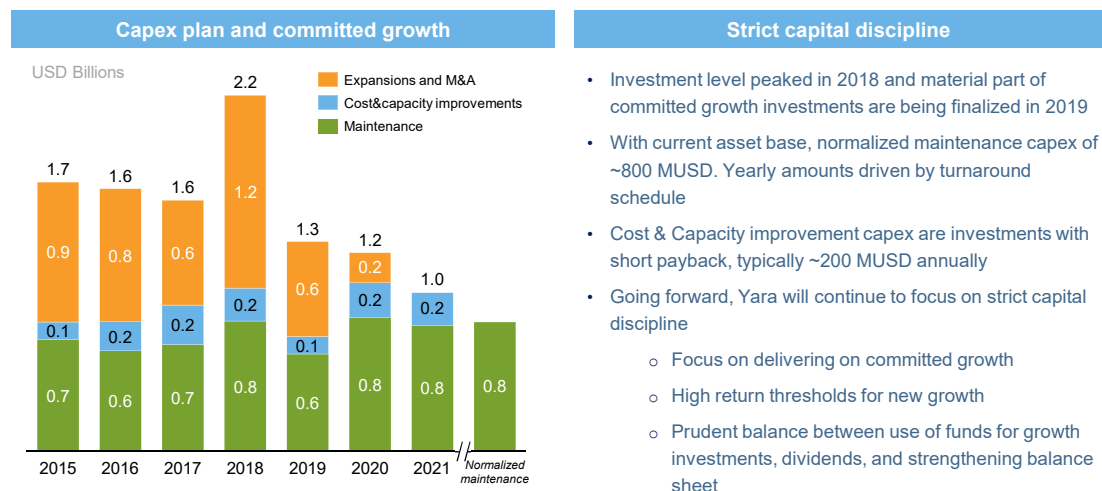
79

We are currently optimizing the asset base of our core business

Yara's asset base has varied as-is profitability and differing outlook and investment profile per site. The see-through margin between plants and markets is a strong source of value creation, but the extent of synergies and flexibility to optimize varies between our operations.

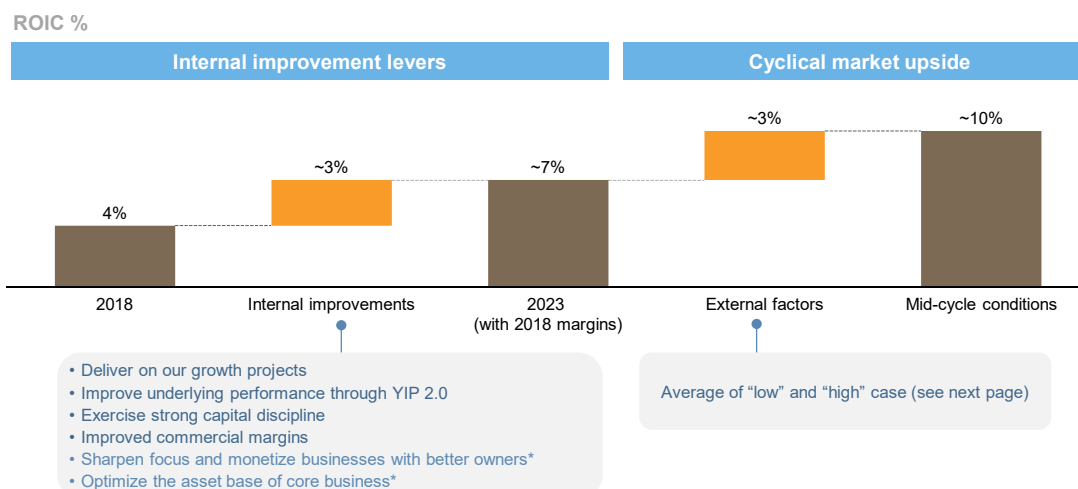
We are continuously reviewing our plants and markets seeking to optimize future value creation, and are identifying improvement potential both in the plant and market footprint. Any asset base optimization with employee implications will be conducted with union involvement.

We are exercising strict capital discipline with focus on delivering committed growth



We are exercising strict capital discipline with focus on delivering committed growth

Capital return improvements enabled through internal improvements and cyclical upside



* Impact not included in figures

81

Capital return improvements enabled through internal improvements and cyclical upside

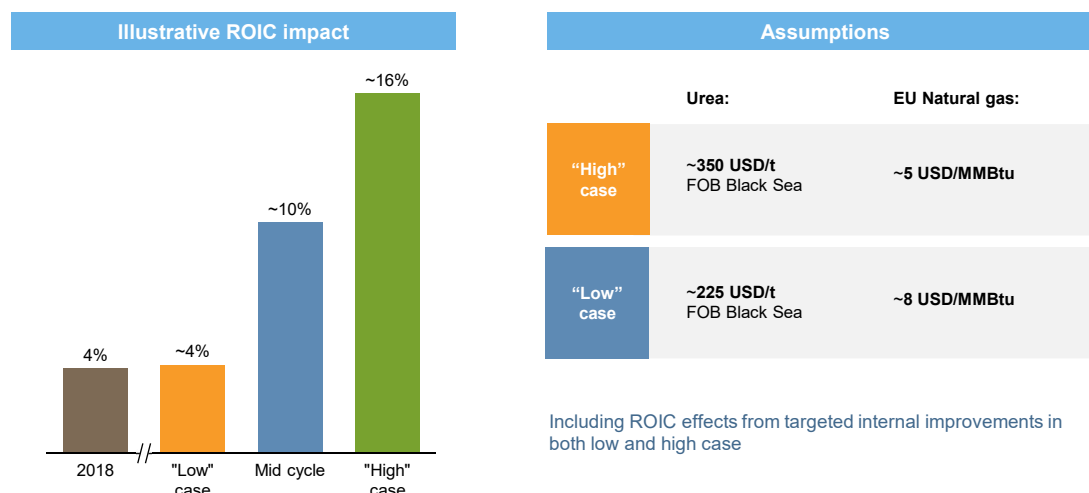
There are a set of key value drivers that will influence Yara's future value creation:

- *Return on growth investments*: both the committed growth pipeline and on new growth investments in the future
- *Operational excellence*: The sustained improvements from the improvement program
- *Commercial downstream margins*: the premium we deliver over the commodity value on especially our nitrate and NPK products
- *Structural measures*: Portfolio adjustments and asset base optimization
- *External commodity and raw material prices*, especially global nitrogen prices and natural gas feedstock cost

Yara's strategy has initiatives to address each of the internal value drivers above. Based on the initiatives that are quantified here (not structural measures due to the uncertain and event driven nature), Yara target an improvement of ~3% ROIC until 2023. This is mainly driven by the new Improvement program targets, but also foresee improvements in commercial execution and strict capital discipline.

External factors play an important role in Yara's value creation, and Yara does not guide externally on these. However, these factors have developed adversely in recent years but are now showing improvement, especially for natural gas pricing in Europe. Applying average of high and low case urea and EU natural gas prices (see next page), Yara's ROIC would improve ~4% over its 2018 level. This combined with the improving supply-demand balance for urea and global LNG, indicates a cyclical upside even if there are significant uncertainties.

Urea and EU Gas scenarios indicate a cyclical upside, while downside is to remain at current level



Urea and EU Gas scenarios indicate a cyclical upside, while downside is to remain at current level

To illustrate the sensitivity of Yara's capital returns to external value drivers, this chart shows a theoretical "high" and "low" case if we use a spread of assumptions for urea and EU natural gas prices. These effects come in addition to the improvement from internal measures by 2023. The resulting ROIC levels indicate that there is a strong cyclical upside in Yara's capital returns. It also illustrates that there is limited downside compared to the current level.

Assumptions – "High" case:

Urea: Global deficit outside China, and limited Chinese export availability, leading to demand driven pricing (Urea = ~350 USD/t FOB Black Sea in real terms)

EU Natural Gas: Supply driven LNG market (~5 USD/MMBtu TTF in real terms)

Other: assumes ROIC effects from internal improvements

Assumptions – "Low" case:

Urea: Global surplus outside China leading to supply driven market (Urea = ~225 USD/t FOB Black Sea in real terms)

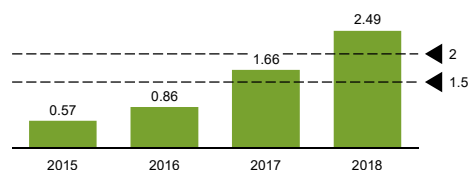
EU Natural Gas: Demand driven LNG market (~8 USD/MMBtu TTF in real terms)

Other: assumes ROIC effects from internal improvements

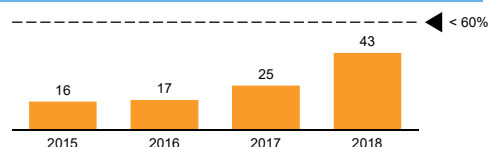
Yara is protecting its investment-grade rating while providing cyclical upside in dividends through a revised policy

- **Overall objective to maintain mid investment-grade rating**
 - BBB Standard & Poor's / Baa2 Moody's
 - Mid- to long-term target FFO¹/net debt of 0.40-0.50 and floor of 0.30
- **Conservative short-term investment approach**
 - Priority on lifting capital returns
- **Targeted capital structure**
 - Mid- to long-term Net debt/EBITDA of 1.5-2.0
 - Maintain a net debt/equity ratio below 0.60
- **Ordinary dividend; 50% of net income (previously 40-45%) subject to the above requirements**
- **Shareholder returns are distributed primarily as cash, with buybacks as a supplemental lever**

Net Debt/EBITDA ex Special Items



Net debt / Equity



¹ FFO calculated based on Standard & Poor's methodology

83

Yara is protecting its investment-grade rating while providing cyclical upside in dividends through a revised policy

Our financial priorities evolve to reflect Yara's strategic direction. Yara management remain committed to the credit rating target. By being explicit on the link between dividends and key credit metrics, Yara is protecting its investment-grade credit rating while providing investors with cyclical upside in dividends.

The range of 1.5-2.0 is a through-the-cycle metrics, which is meant to be used as forward-looking threshold for planning of capital allocation. This account for uncertainty and volatility of market price development. This also means that in certain periods actual figures may be above or below the 1.5-2.0 range, while keeping BBB requirement. In 2018 Yara's cashflow and debt metrics were impacted by low prices and peak in Capex. Development of market prices, other improvements and strict capital allocation indicate an improvement of metrics in 2019

Yara's financial priorities

Priority	Ambition
Maintain BBB rating	<ul style="list-style-type: none"> • BBB Standard & Poor's / Baa2 Moody's • Mid- to long-term target FFO/net debt of 0.40-0.50 and floor of 0.30
Prudent capital allocation	<ul style="list-style-type: none"> • Conservative short-term investment approach • Normalized maintenance capex of ~0.8 BUSD • Superior returns on new growth
Targeted capital structure	<ul style="list-style-type: none"> • Mid- to long-term Net debt/EBITDA of 1.5-2.0 • Maintain a net debt/equity ratio below 0.60
Attractive dividend profile	<ul style="list-style-type: none"> • Ordinary dividend 50% of net income • Subject to targeted capital structure requirements
Improved capital returns	<ul style="list-style-type: none"> • ROIC > 10% through cycle • YIP 2.0 deliver 600 MUSD by 2023



84

Yara's financial priorities




Knowledge grows

The way forward

Our long-term targets and prospects

Svein Tore Holsether



We are committed to fulfill our Strategy, our KPIs and our Ambition		
Advance operational excellence	Create scalable solutions	Drive innovative growth
Delivering improved operations and superior profits Yara Improvement program EBITDA improvements >600MUSD in 2023 vs 2018	Improving margins and nitrogen use efficiency through premium product growth >3.5 million tons premium product growth and >100 million units of YaraVita sales by 2025, improving overall EBITDA/t in Sales and Marketing	Building closeness to farmers through scaling up digital farming >10 million ha under management in 2020 and positive EBITDA from digital farming in 2022
Driving equality and diversity through an engaged and respected workforce Engagement index >80% by 2025, and >20% female top managers by 2020 and >25% by 2025	Building profitable global food chain partnerships >2 million tons of crop solutions sales generated through food companies by 2025	Solving global challenges and growing profitable business through innovation Shaping the industry by delivering sustainable and profitable innovations within de-carbonization and circular economy
Responsibly feed the world and protect the planet Deliver sustainable returns		
>275M people fed by Yara products by 2025	ROIC >10% through the cycle	Striving towards zero accidents with no fatalities and TRI <1.2 by 2025
 86		

We are committed to fulfill our Strategy, our KPIs and our ambition

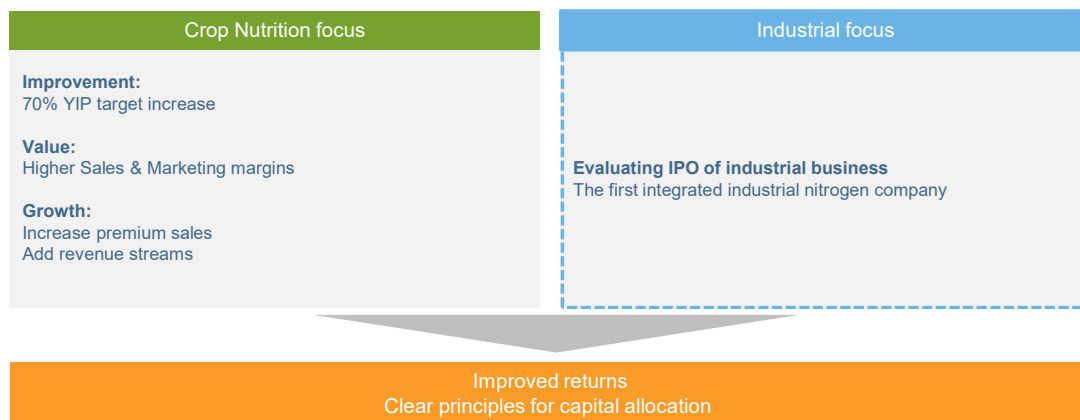
Our long-term targets to fulfill our strategy are summarized here, and are built around our three strategic priorities:

- *Advance Operational Excellence*
- *Create Scalable Solutions*
- *Drive Innovative Growth*

We are committed to achieving our strategy and targets, and are confident that these will drive us to achieve our mission of responsibly feeding the world and protecting the planet, and ensure we deliver sustainable long-term returns.

The Crop Nutrition Company for the Future

Delivering improved returns as a focused company



87

Delivering improved returns as a focused company

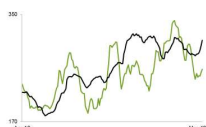
Our strategic execution is concentrated on delivering improved returns as a focused company, with delivery along three main lines:

- *Improvement* where we are expanding our improvement targets by 70%
- *Value* where we are increasing Sales & Marketing margins by strengthening our crop-focused solutions and market positions
- *Growth* where we are increasing premium sales and adding revenue streams by scaling up digital farming services and developing food-chain partnerships

In addition, to further strengthen our strategic focus on crop nutrition, we have decided to evaluate an IPO of our industrial nitrogen businesses.

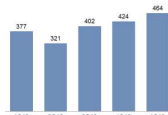
Attractive Yara prospects

Attractive industry fundamentals



- Growing population and dietary improvement drives demand
- Resource and environment challenges require strong agri productivity improvement
- Tightening global grain balance and slow-down in nitrogen supply growth

Operating cash flow improvement



- Operating cash flow improving with cycle and Yara actions
- Committed capex almost halved from 2018 to 2019
- Strict capital discipline
- Clear capital allocation policy

Focused long-term strategy



Knowledge grows

- Crop nutrition focus; #1 market presence and #1 premium fertilizer position
- Improving returns through operational improvement, margin improvement and innovative growth



88

Attractive Yara prospects

We consider Yara's prospects attractive. First of all we see attractive industry fundamentals, where a growing population as well as resource and environmental challenges create business opportunities for Yara. In addition, the market cycle is improving, with supply-side pressure easing while the demand looks positive with a tightening situation for grains.

Our cash flow is set to improve, both due to the cyclical improvement and that our capex is declining significantly while our earnings improvement actions to are delivering higher volumes and revenues.

Finally we have a strong competitive position with a focused and sustainable long-term strategy to improve returns through operational improvement, margin improvement and innovative growth.

Yara - the Crop Nutrition Company for the Future

220 million

people our products
help to feed

20 million

The number of farmers we
collaborate with

9,000

Fully branded retail outlets¹

870

Agronomists on
the ground

No. 10

Yara has been ranked no. 10
among the 50 companies on
FORTUNES' prestigious
Changing the World List²

+60

The number of countries
we operate in



¹Owned and operated by external parties

² Fortune List rating dates back to 2017

89

Yara - the Crop Nutrition Company for the Future



Knowledge grows

Appendix



Going from reporting USD values to value drivers with extended YIP

	What we have already delivered: Current YIP status (2018)		Extended YIP - higher or equal ambition levels in 2020: Current YIP vs extended YIP (2015 vs. 2020)		We will report on our new targets going forward: Extended YIP (2015 vs. 2023)	
	2018 Current YIP	2020 Current YIP	2020 Extended YIP		2023 Extended YIP	
Volumes (kt)	750	1,100	6,200	equal	8,200	higher
<i>Ammonia</i>	80	400	1,840	equal	2,200	higher
<i>Ammonia growth investments</i>	1,070	1,440				
<i>Finished products</i>	670	700	4,360	equal	6,000	higher
<i>Finished products growth investments</i>	2,140	3,660				
Ammonia energy efficiency (GJ/ton)	33.9	33.7	33.7	equal	32.7	higher
Fixed cost savings (MUSD)	23	115	120	equal¹	300	higher
Variable cost savings (MUSD)	151	149	191	higher	191	higher
Working capital days	n/a ²			new	-12	higher



¹ Fixed costs: total reported CRC and SGA

² Represent 350 MUSD additional improvements when measured using same baseline as existing YIP targets

91

Going from reporting USD values to value drivers with extended YIP

To simplify the communication around our improvement program we will track progress using value driver KPIs as the primary method and not convert into USD values using 2015 or 2018 margins as a reference point.

Volume targets will include both improvement and growth volumes combined going forward.

The extended YIP represents higher targets than the current YIP on all key items. Going forward, all improvements will be measured against a 2018 baseline.

Overview of volumes from Yara Improvement Program and growth investments

	2018	2020	2023	Change 2018	Change 2020
YIP volumes (kt)	750	1 100	2 090	1 340	990
<i>Ammonia</i>	80	400	720	640	320
<i>Finished products</i>	670	700	1 370	700	670
Growth investment volumes (kt)	3 210	5 100	6 110	2 900	
<i>Ammonia</i>	1 070	1 440	1 480	410	
<i>Finished products</i>	2 140	3 660	4 630	2 490	
Total volume increase	3 960	6 200	8 200	4 240	
<i>Ammonia</i>	1 150	1 840	2 200	1 050	
<i>Finished products</i>	2 810	4 360	6 000	3 190	
Total volumes	28 720	30 960	32 860	4 140	
<i>Ammonia</i>	7 850	8 540	8 900	1 050	
<i>Finished products</i>	20 870	22 420	23 960	3 090	

- 1) 2018 includes growth and debottleneck projects already communicated, and is adjusted related to Galvani and Pardies portfolio effects (total 10kt)
2) Excluding Qafco and Lifeco volumes
3) Normalizing for turn-arounds and market optimization effects of 1,100 kt in 2018 and 1,000 kt in 2023.



Overview of volumes from Yara Improvement Program and growth investments