



Knowledge grows

IEA *Renewable Energy for Industry – Ammonia*

COP23 – Bonn – 15 November 2017

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Outline

1. Yara at a glance
2. Sustainability ambition
3. Ammonia production of today generates CO₂ emissions
4. A future of emission free production
5. Ammonia as energy carrier

Yara is a global crop nutrition and industry solutions company

Close to

15,000

employees

Sales to about

160

countries

Revenue

NOK 95.2

Billion

(USD 11.4 Billion)

In 2016

Crop nutrition products

- Complex fertilizers (NPK)
- Urea
- Specialty fertilizer

Industrial products

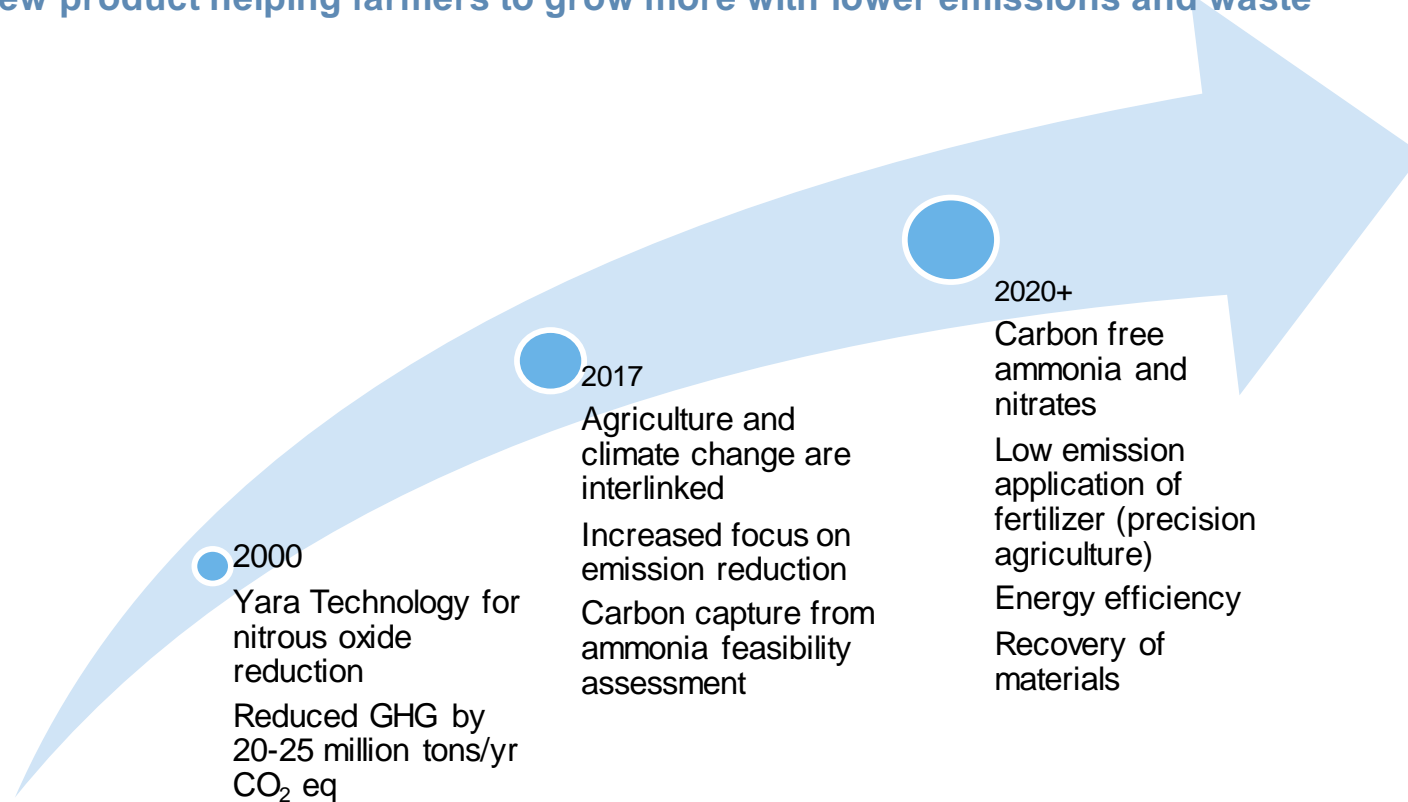
- Emission control solutions
- Nitrogen chemicals (ammonia, nitric acid)
- Nitrate industry applications

Integrated world scale production, effective supply chain, distribution and local blending

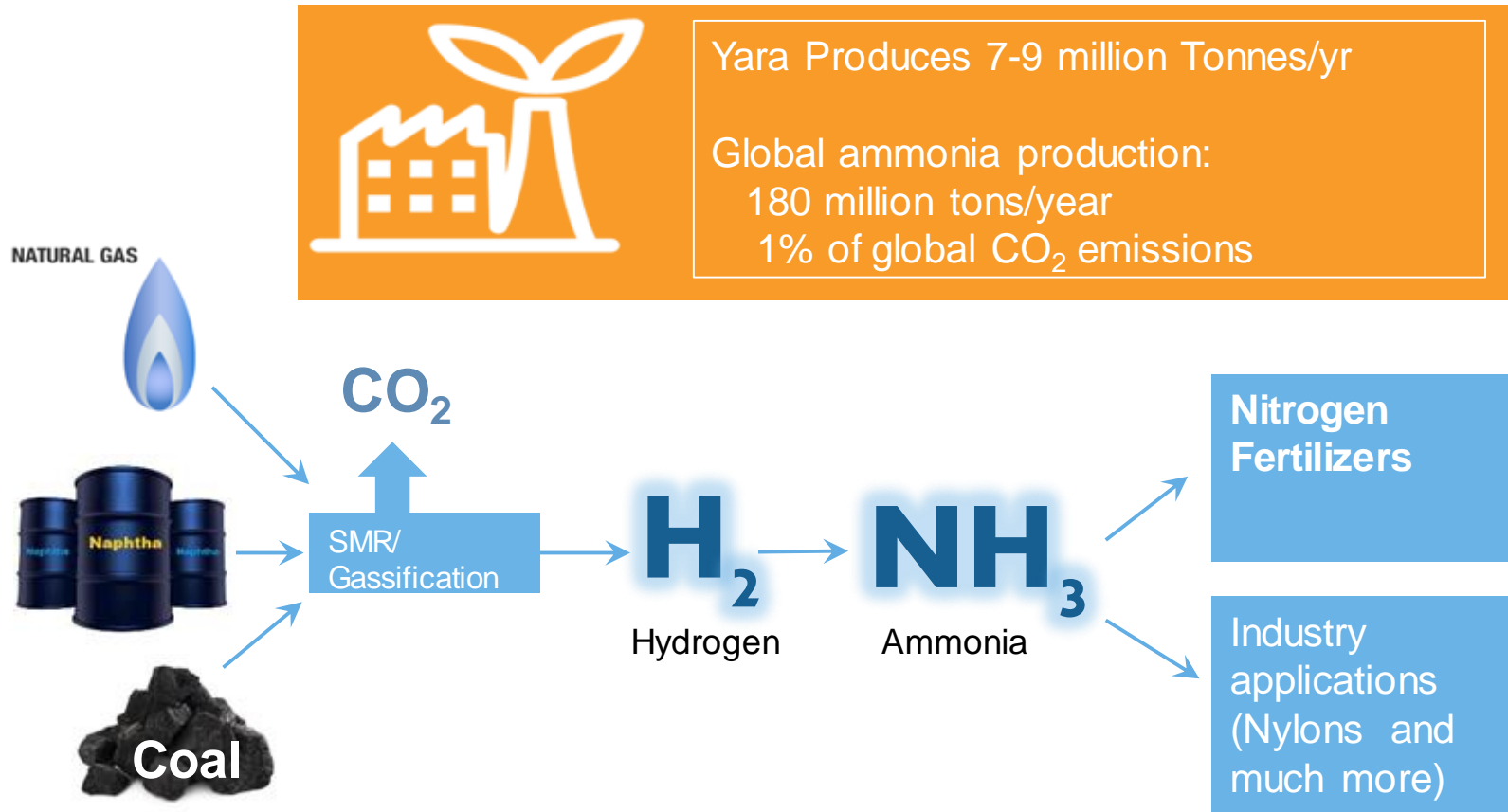
Yara's mission is to responsibly feed the world and protect the planet

GHG emission reduction, and improved resource utilization is driving our transition in energy, raw materials, and precision agriculture

- Renewable energy / electrification
- Circular economy / lower material intensity
- New product helping farmers to grow more with lower emissions and waste

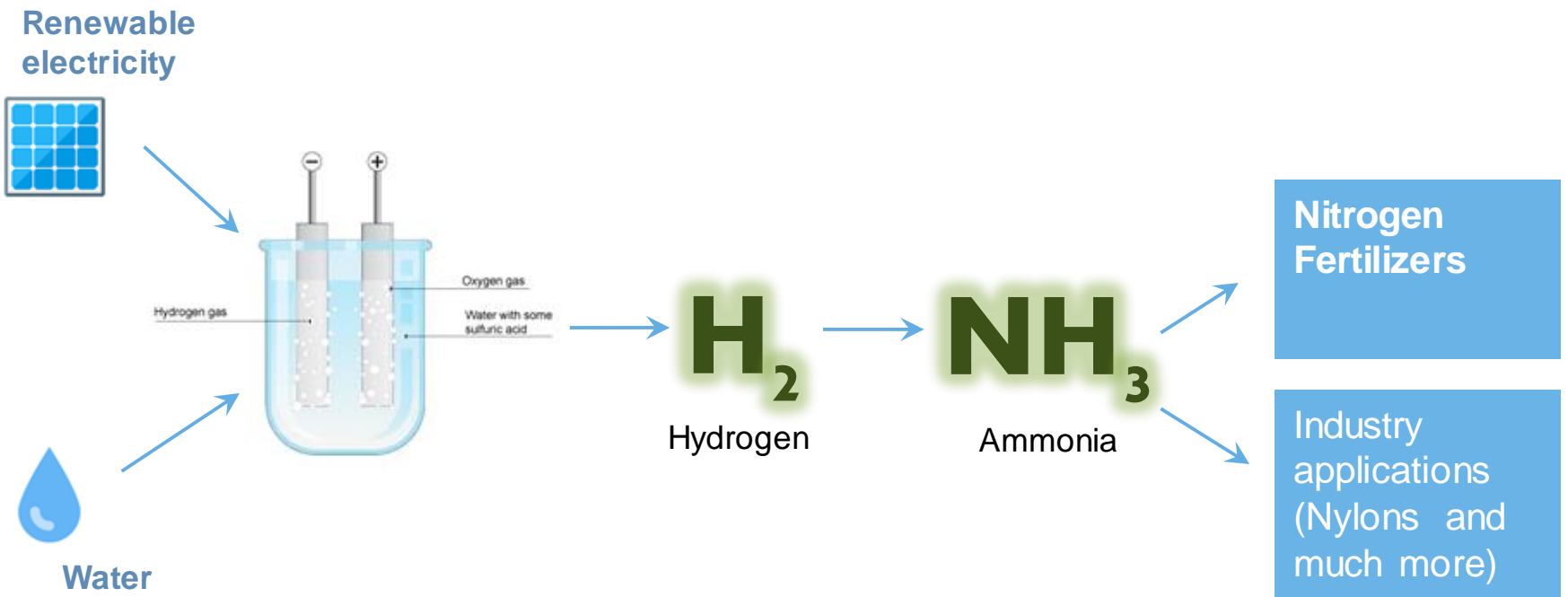


Ammonia is a key precursor in nitrogen fertilizer and a number of industry and consumer products

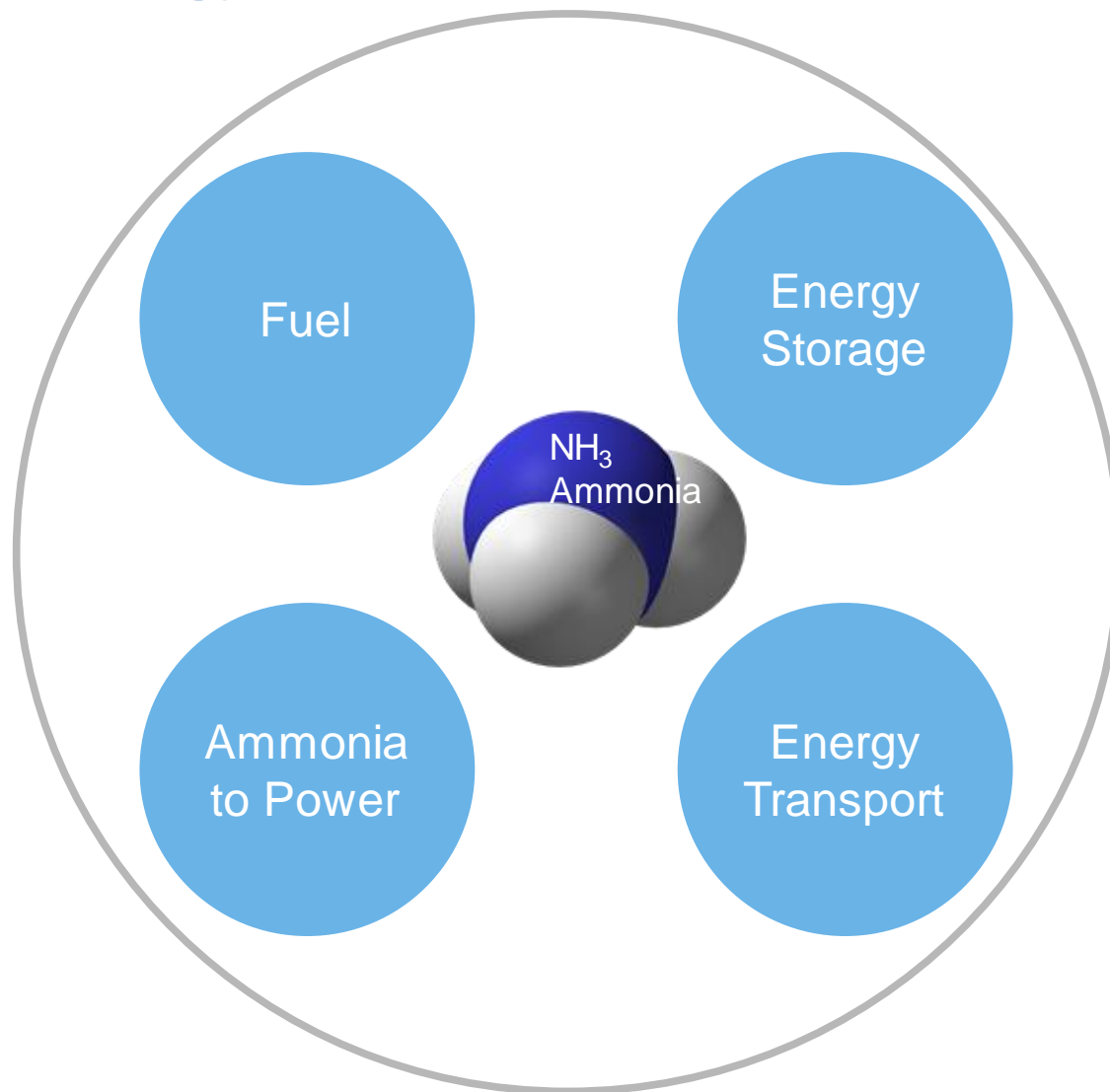


Green Ammonia is the way forward for fertiliser and agricultural CO₂ reduction

- Ammonia can be produced entirely without CO₂ emissions from water electrolysis and renewable electricity
- Key enablers are lower cost renewable power, and efficient intermittency measures



Green ammonia creates a world of new possibilities in renewable energy





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Thank you for your attention