



Knowledge grows

# Yara Sluiskil

General presentation



# Content presentation

Safety

History

Key indicators

Feedstock & Energy

Products & Processes

Innovation en Sustainability





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# Safe by Choice

Safety introduction for visitors

[name]

[date]



# Safety policy: Safe by Choice!



# Safety principles



All injuries are preventable and safety is the common basis for our 'license to operate'

- ✓ **Managers (included supervisors) are responsible for:**
  - Reducing risk to as low as reasonably practical
  - Setting safety standards and goals, monitoring, auditing and completing agreed actions on time as well as reviewing performance to achieve operational discipline and continuous improvement in safety.
  - Developing employees to work safely.
- ✓ **All employees and contractors are responsible for:**
  - Having the appropriate competence for safe working
  - adhering to safety technical standards and rules at all times.
  - Addressing own and others at risk behaviors' and to reinforce 'safe' behaviors.
  - Taking immediate action to correct, report and follow up near misses and hazardous conditions.
- ✓ **Working safely is everyone's responsibility and is a condition of employment.**

# Do's and don'ts



(only allowed in specific smoking room/area)



(where indicated)



Obligated on whole plant area (wear also **long sleeves**)



Extra during works



Extra PPE needed when pass by production zones indicated by '**blue lines**'

# Alarm



## EMERGENCY NUMBER:

+31 (0)115 474 100  
INTERNAL: 100

## ALARM SIGNAL AND ANNOUNCEMENT:

Loud note during 3 seconds, silent during 1 second etc.  
[ ... 3 ... ] 1 [ ... 3 ... ] 1 [ ... 3 ... ] 1 [ ... 3 ... ]  
Information in Dutch language

End alarm: 20 seconds horn tone.  
[.....20.....]

## IN CASE OF EVACUATION :

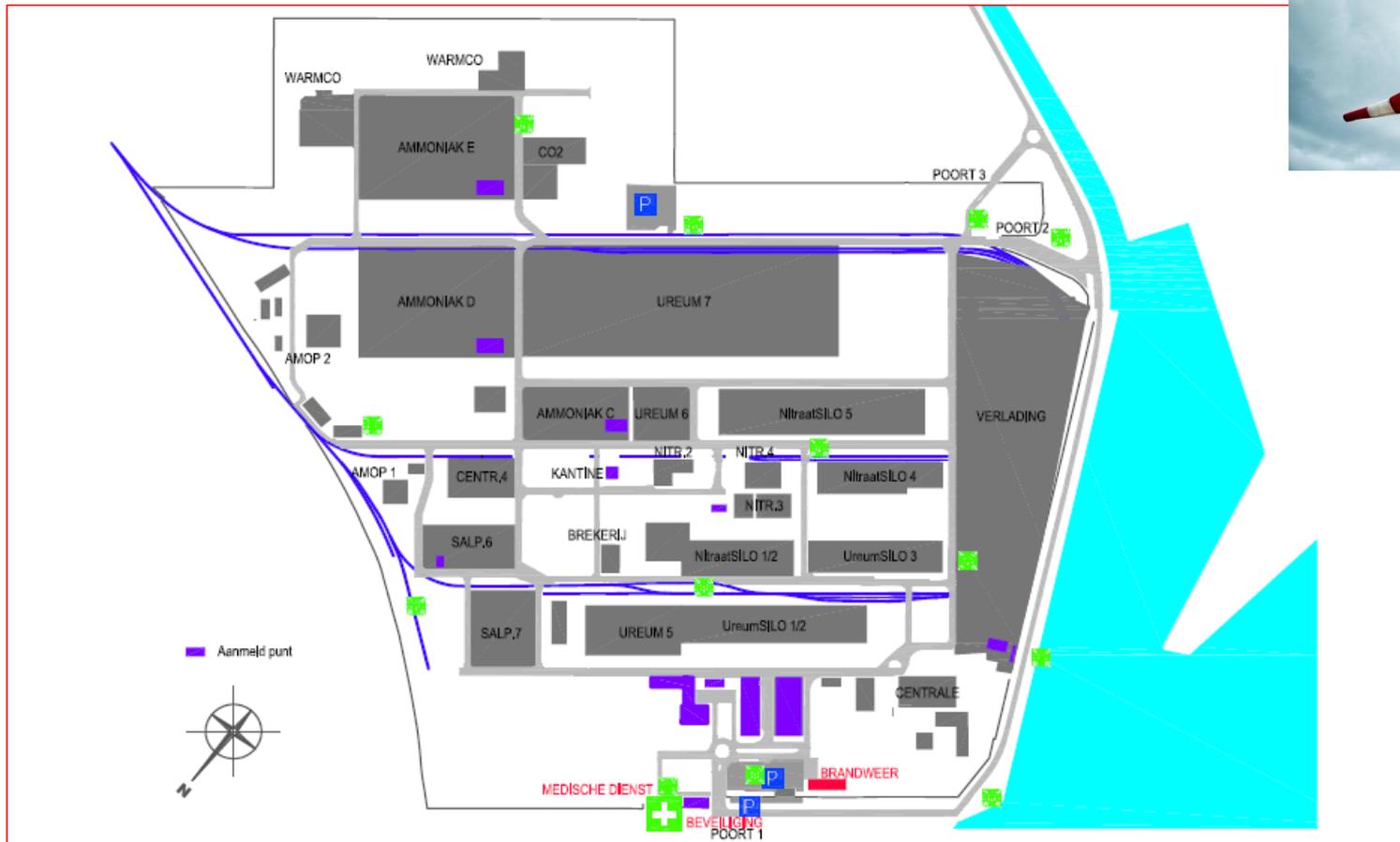
- In case of toxic cloud use escape hood.
- Go to a safe assembly point (see map).
- Walk in transverse direction to the wind.
- Check at the assembly point if all your colleagues are present.
- Report yourself with emergency phone.
- Follow the instructions on the emergency broadcasting carefully.

- Be calm and stay with your yara guide
- **Thursday 10:00 o'clock weekly test**

# In case of evacuation



- Stay always as a group and listen to the evacuation leader of the building were your are.
- Pay attention on windvanes or plumes of the plants for indication of the wind direction.





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**safe**  
**BY CHOICE**

# History

*A company with a rich history,  
rooted in the region*

# Yara Sluiskil 1929 - 2016

- 1929** Start production Ammoniumsulphate
- 1938** Nitric Acid and Calcium Ammoniumnitrate production
- 1940** During World War II huge destructions by bombings
- 1950** Restart plants after period of rebuilding
- 1958** Urea production (46%N)
- 1966** Switch from cokes gas to natural gas



# Yara Sluiskil 1929 - 2016

- 1968** UAN production
- 1977** Ammoniumnitrate (33,5%N) production
- 1979** Development and practice of fluidized bed granulator technology
- 1979** Aquisition by Norsk Hydro
- '80 –'90** Big investments in ammonia production
- 2004** Demerger of fertilizer activities under trademark 'Yara'
- 2011** Start of Urea 7 plant
- 2016** Start construction Urea 8 granulation plant



# Key-indicators



*Knowledge grows...*

## Key-indicators 2015

942

million euro  
turnover

604

employees,  
Incl. 31 OSS en R&D

4.991

kiloton product  
loaded

#1

in Yara

Ammonia  
Nitrates  
Industrial products

15% TOTAL PRODUCTION VOLUME OF YARA COMPANY



# Overview of production location



## Key indicators 2015

135

hectare

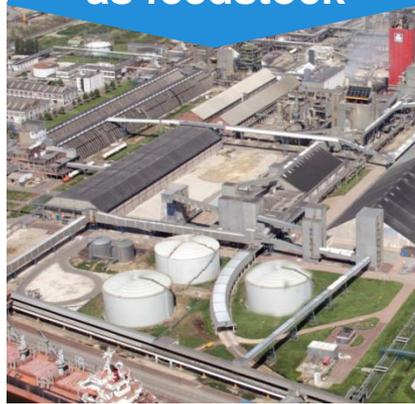
100 ha  
built



2,0

billion Nm<sup>3</sup>  
natural gas/yr

80%  
as feedstock



158

kilogram  
product loaded  
per second

24/7



-60%

CO<sub>2</sub> reduction  
(since 2005)

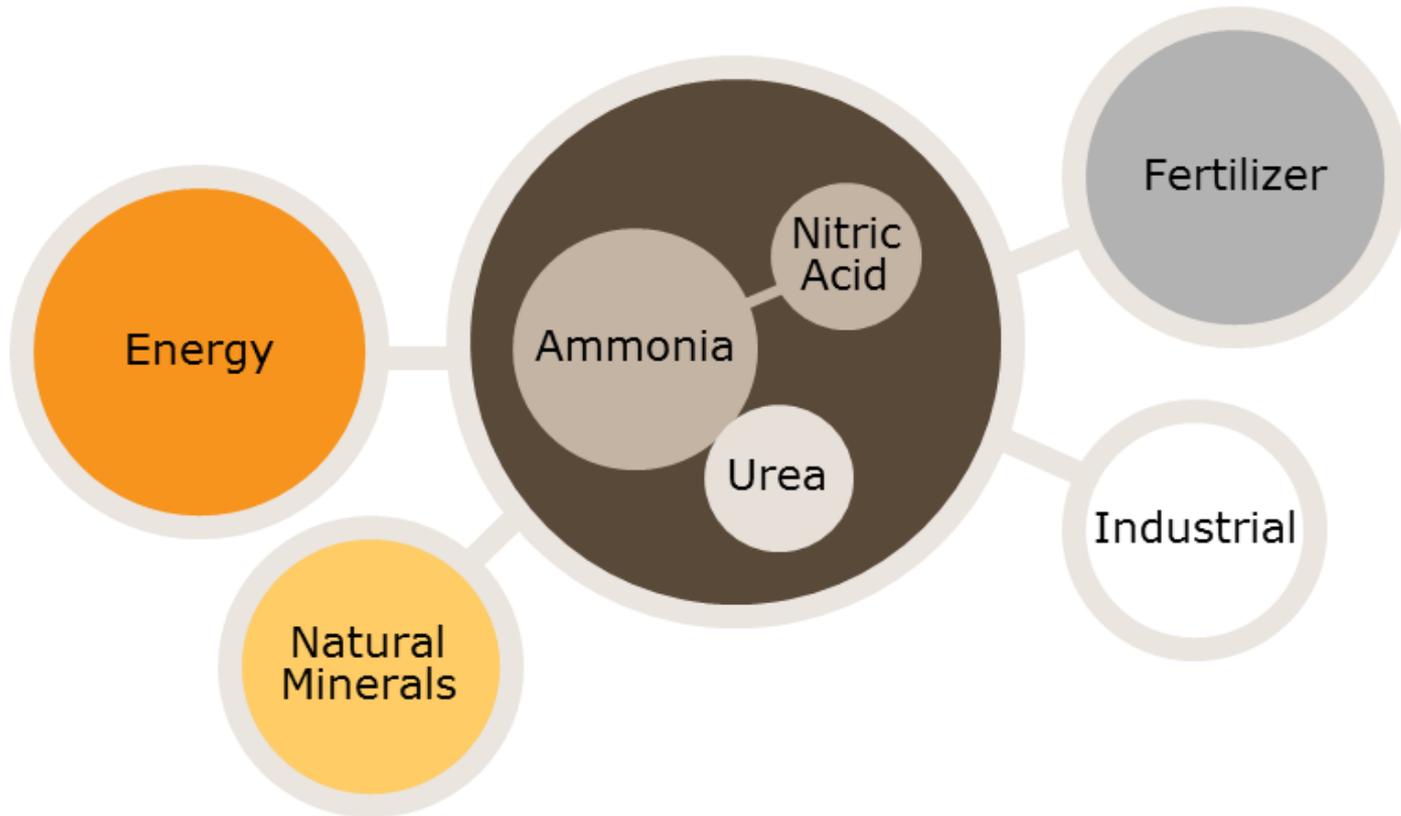


# Feedstock and Energy

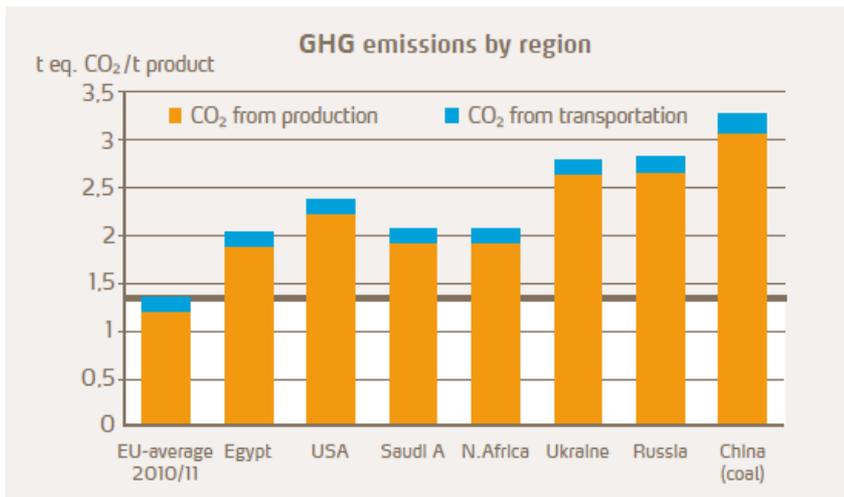
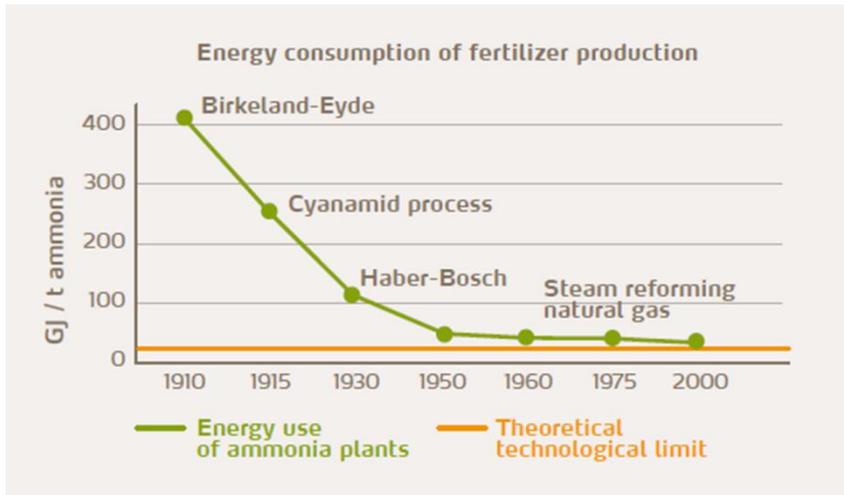


*High valorisation  
of energy and natural minerals*

# Ammonia, the backbone for fertilizers and nitrogen based chemicals



# Energy-efficiency and environmental footprint



**80%**  
**Feedstock**

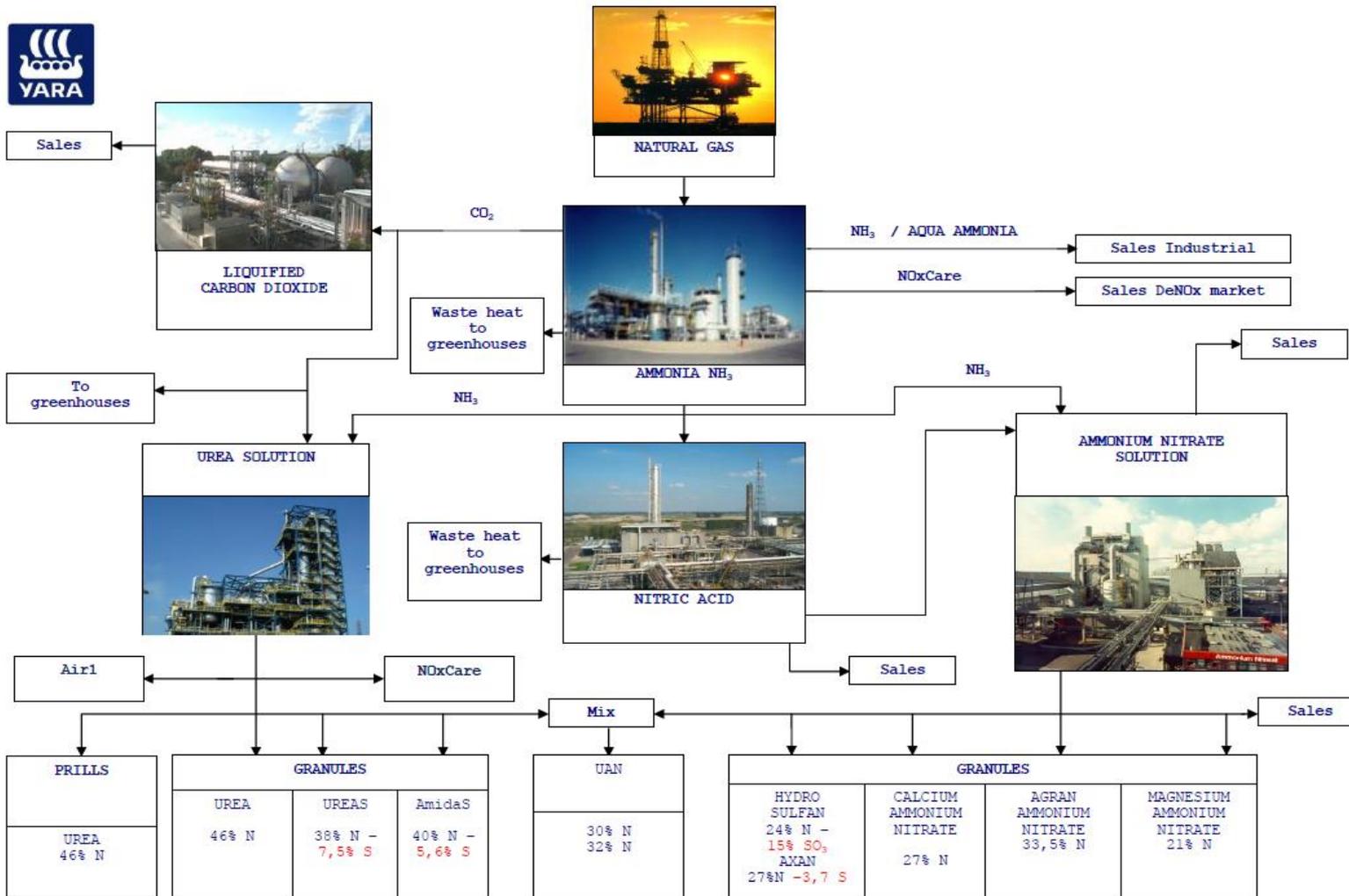
**20%**  
**Fuel gas**  
**Generation of heat and electricity by CHP units**

**0,6 ton**  
**eq. CO<sub>2</sub>/ton product**

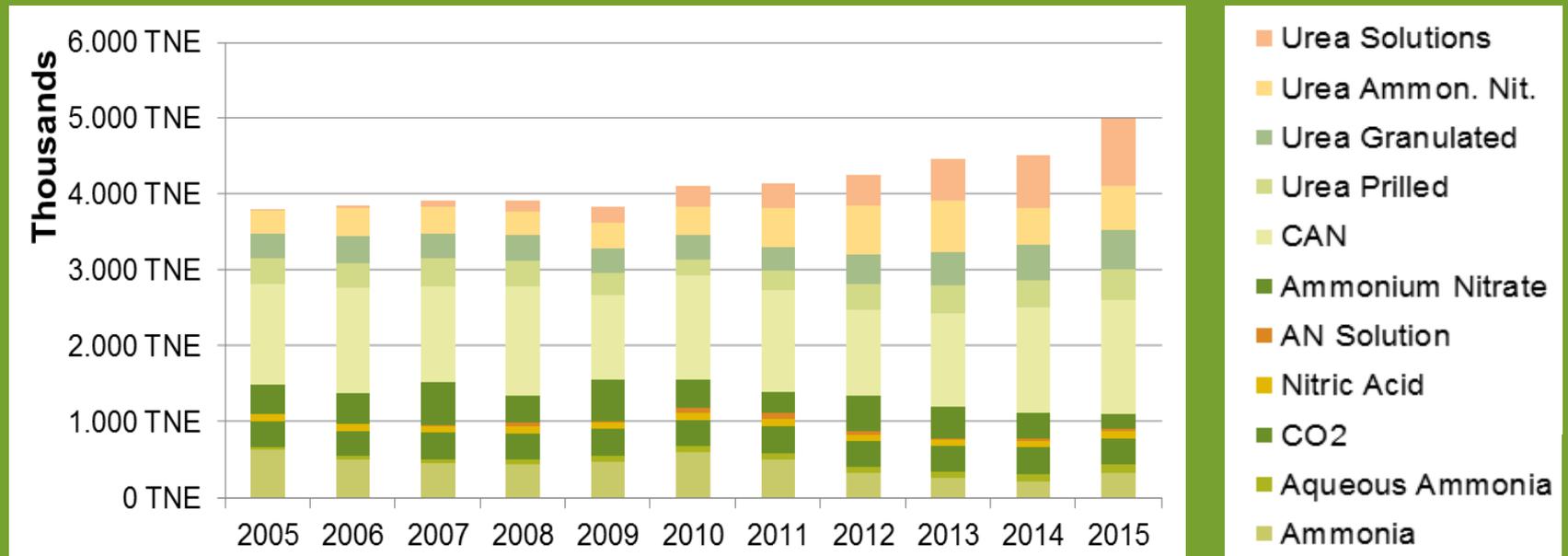
# Products and processes



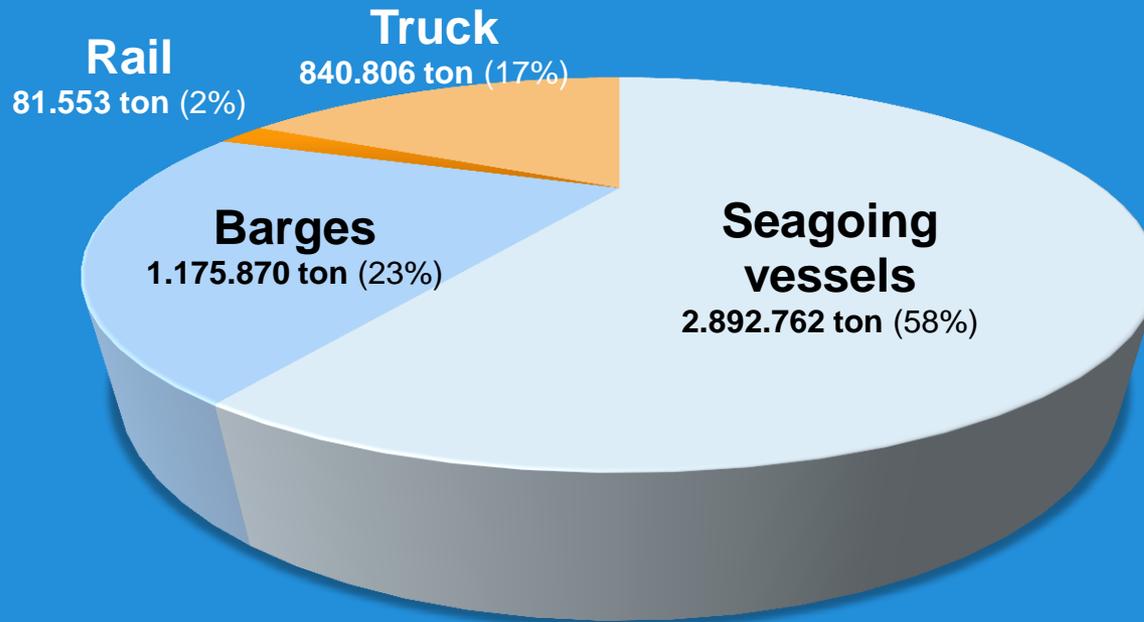
# Ammonia, de backbone for fertilizers and nitrogen based chemicals



# Product portfolio and volumes



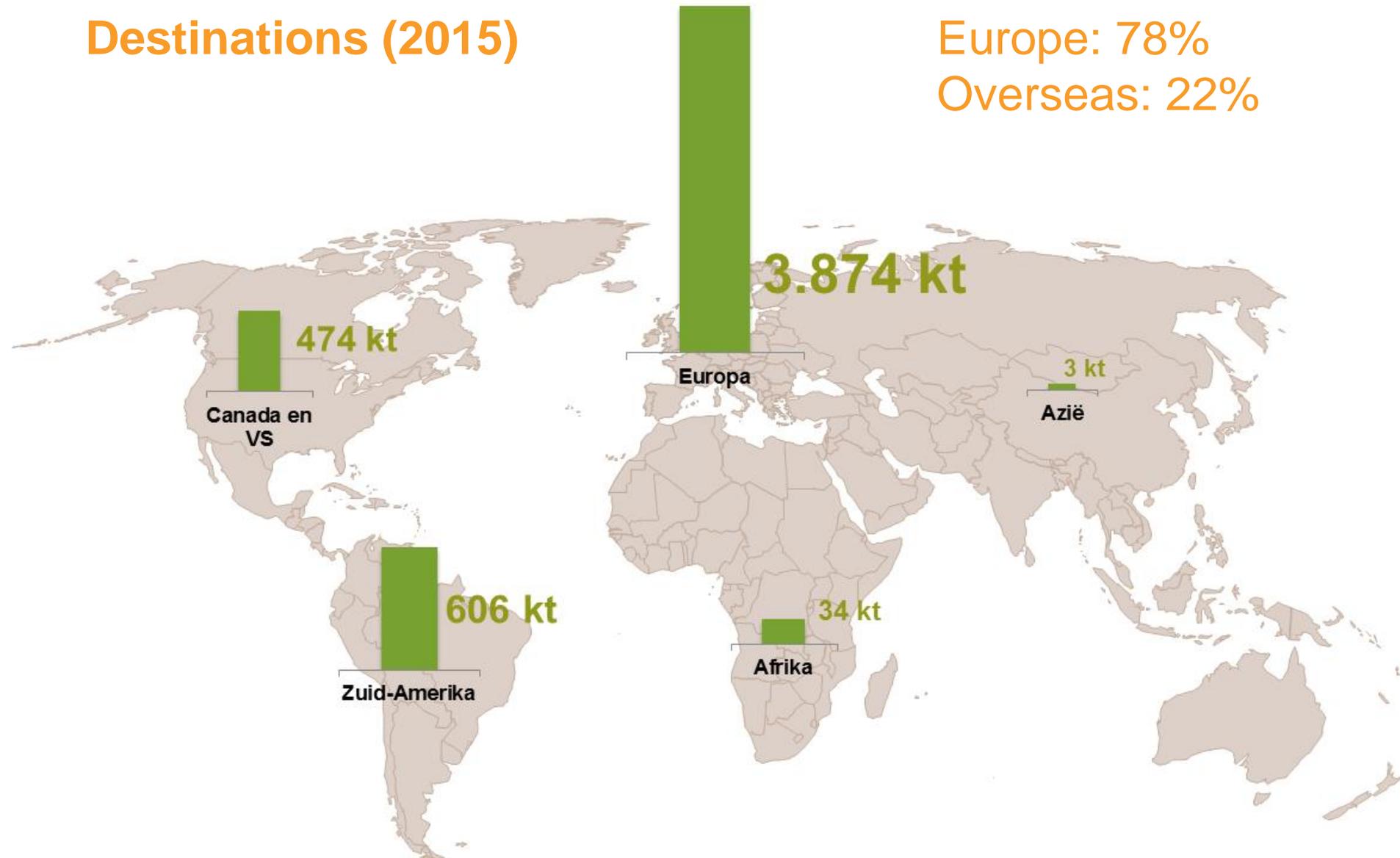
# Modal split (2015)



1.012  
barges  
642  
seagoing vessels  
1.514  
rail wagons  
32.625  
trucks

# Destinations (2015)

Europe: 78%  
Overseas: 22%



# Innovation and sustainability



# WarmCO2



**-55.000.000**

**Nm<sup>3</sup> natural gas/yr**

**-135.000**

**ton CO<sub>2</sub>/yr**

**1.000**

**New jobs created**

## Urea 7



**420.000.000**

**Euro**

**4.200**

**ton/day**

**-35%**

**energy consumption**

**Air-1®**



**823.000**  
ton

**-85%**  
NOx emissie

**-3%**  
Fuel saving

## Ureum 8



240.000.000

Euro

S-urea  
specialities

-50%  
dust emission

## N-sensor



**-14%**

**Nitrogen saving**

**6%**

**Additional yield**

**Homogeneous, stress  
resistant crops**



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# Many thanks for your attention

**More information: [www.yara.com](http://www.yara.com) or [www.yara.nl](http://www.yara.nl)**