# The Yara value proposition

### Climate-friendly fertilizer



Switching to fertilizers made from renewable electricity instead of natural gas can significantly reduce the carbon footprint of the agricultural sector.

#### Clean air and industry



Beyond the food chain, ammonia is key to multiple sectors and industries. Every year Yara's DeNOx solutions clean more than 1,600,000 tons of dangerous NOx emissions globally – about 1/3 of EU's total. Over 31 million vehicles in Europe require AdBlue® to function.

### **Emission-free shipping fuel**



Clean Ammonia is a promising emission-free fuel for deep sea shipping. For more than a century we have safely shipped and transported ammonia across the world. Through our global distribution system, clean ammonia can easily be made available in ports for ships to refuel.

### Easy hydrogen transport



With its high energy density, ammonia is an ideal hydrogen carrier. The world's largest supplier of ammonia, Yara has the expertise and infrastructure to kickstart the hydrogen economy. In Germany alone, our ammonia ports can handle 3 million tons of clean ammonia annually.





**Knowledge grows** 

## Clean Ammonia

From Norway & Germany to the World



# Harvesting new energies



Norwegian painter Edvard Munch (1863-1944) depicts the sun as what it is for all life on earth: the strongest and most vital force we know. A natural, renewable energy that is always being replenished.



#### Low-carbon ammonia

In the transition to a renewable energy market, Yara is developing new world-scale ammonia plants where up to 95% of the carbon emissions are captured and permanently stored.

With Northern Lights, we have signed the world's first commercial agreement for cross-border transportation and storage of CO2.



### Renewable ammonia

Using renewable energy sources such as solar, wind, or hydropower lowers the carbon footprint of ammonia by up to 99 percent. We are currently commissioning a 24 MW green hydrogen pilot plant in Porsgrunn, Norway. Another pilot project for renewable hydrogen production to feed our ammonia is being built in Australia.



### Pioneering Norwegian-German Partnerships

Yara projects breathe new life into the long-standing partnership between Germany and Norway, as we share both countries' goal of protecting the planet and creating green industries.



### First emission-free sea route

Yara Clean Ammonia, North Sea Container Line, and Yara International join forces to realize the world's first container ship that will use clean ammonia as fuel. Named Yara Eyde, the vessel will be the first to sail an emission-free sea route between Norway and Germany.



### First green fertilizer for climate-friendly food

Bindewald-Gutting Mühlengruppe will be using green fertilizer from Yara on an area of around 1,600 ha. The fertilizer is produced from green ammonia at the Yara plant in Rostock. Harry Brot will process the grain into bread with a 15% reduced carbon footprint. Further projects are underway.