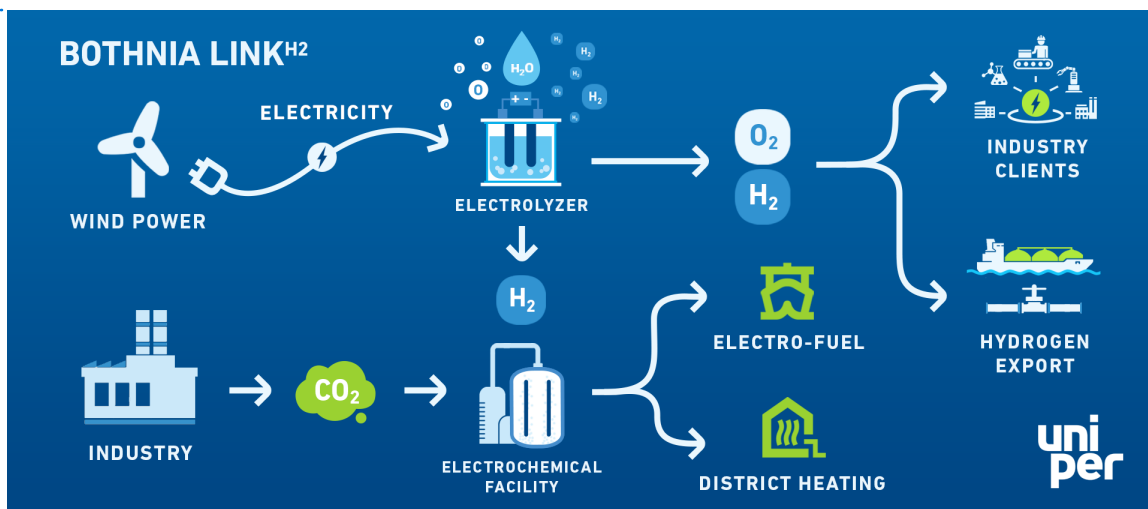


Hydrogen replaces fossil fuels in industries

In a collaborative project, the Port of Luleå, ABB and Uniper plan to develop a regional hydrogen hub in Luleå. The idea is to produce hydrogen that can contribute to fossil-free industries and supply-chains in Norrbotten. The project enables an annual production of 12,000 metric tons of fossil-free hydrogen.

HYDROGEN CONTRIBUTES greatly to the fight against climate change. It can replace fossil fuels both in industrial production and in transportation, and is an important energy carrier in, for example, the industrial processes that will give Sweden and the world fossil-free iron

and fossil-free steel. As a leading actor in the hydrogen market in Europe, Uniper is promoting innovation. For example, Uniper is developing the conversion of fossil-free electricity to hydrogen and the storage of fossil-free energy.



FOSSIL-FREE HYDROGEN PRODUCTION WITH MANY BENEFITS IN LULEÅ PORT

The collaborative project, named the Bothnia Link^{H2}, will supply the industry with hydrogen produced using an electrolyser that splits water into hydrogen and oxygen.

With storage and other necessary infrastructure available in The Port of Luleå, the hydrogen can also be used as fuel in marine transport and for fossil-free transport within the port. The investment has potential to be part of an era with hydrogen as an important Swedish export product.

Depending on how the hydrogen from the Bothnia Link^{H2} is used, carbon dioxide emissions are expected to decrease by between 80,000–150,000 metric tons per year.

By utilizing the residual heat from hydrogen production, Luleå's district heating network would be able to warm up a growing city in a sustainable way. Thanks to advanced control mechanisms, the facility can also contribute with flexibility and stability to an ever-expanding electrical system where wind power, with its varying production, is dominating new production.

COOPERATION THAT CREATES A NEW MARKET

The Bothnia Link^{H2} is a collaborative project with the energy company Uniper, ABB AB, Luleå Port, Luleå Energy and ESL Shipping. By producing fossil free hydrogen Bothnia Link^{H2} wants to offer clients in transportation, industry and the public sector a fossil free alternative to fuel, electricity and heat. If the project is granted the support applied for through the EU initiative IPCEI (Important Projects of Common European Interest) it is expected to be in operation by 2027.