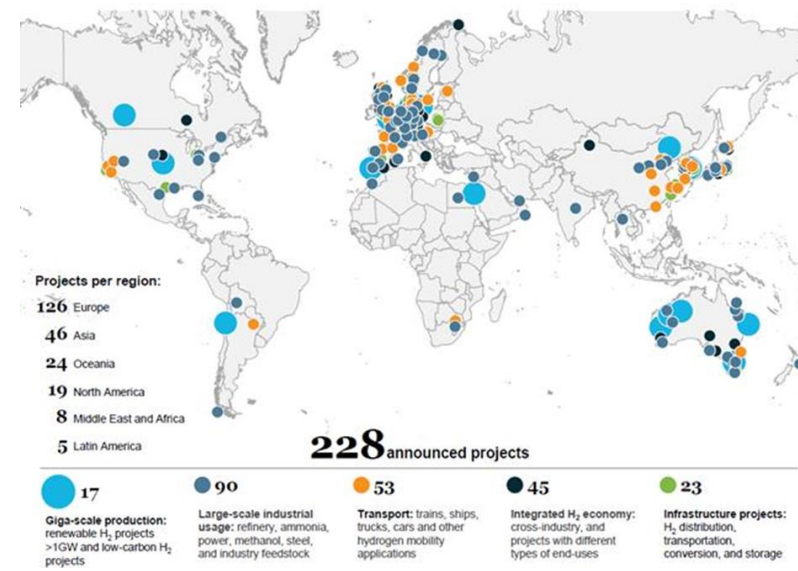
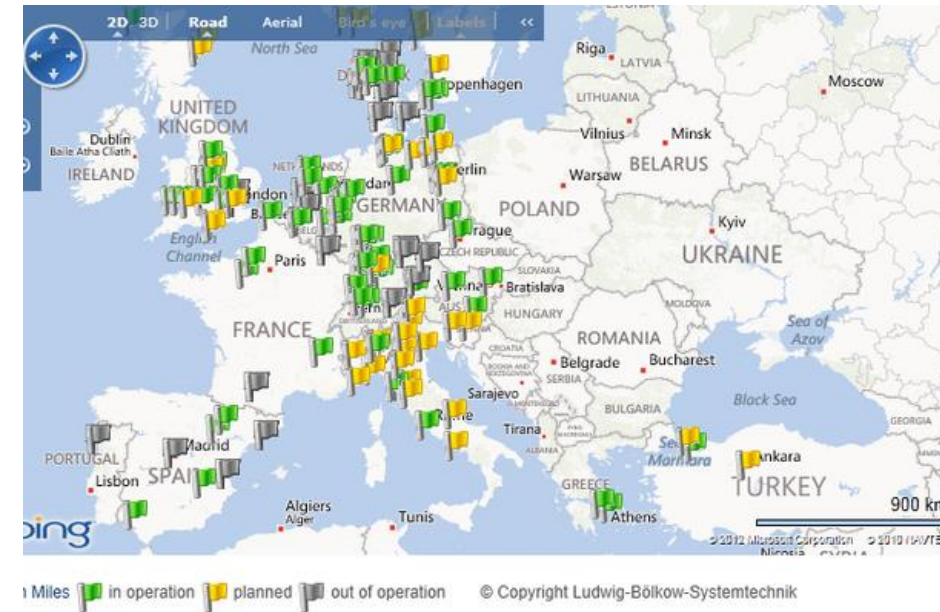
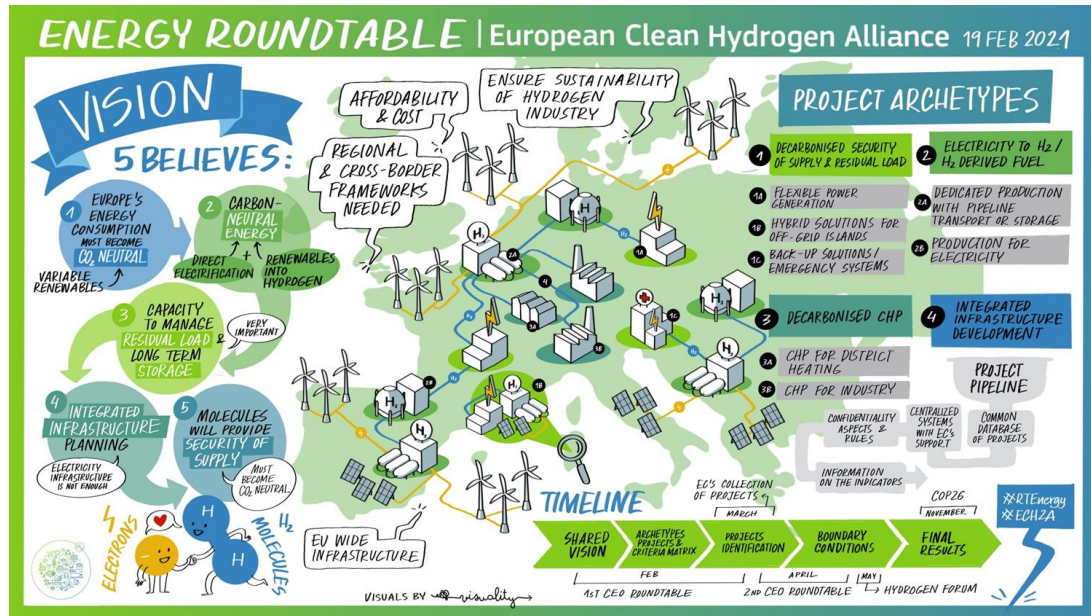


# BothH<sub>2</sub>nia

Hydrogen bay of the North

# Some European H<sub>2</sub> maps



## **Targets of the initiative**

- 1. To create a brand everyone in the area can refer to**
- 2. To market this brand to European counterparties,  
and raise awareness of the area as hydrogen bay**
- 3. To provide a platform for collaboration**
- 4. To facilitate communication between projects in the area**

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**Both<sub>2</sub>nia**

# Crossing boundaries to increase energy efficiency

Planned **wind power capacity** on the Finnish side of the Gulf of Bothnia is 300-350 TWh

- More untapped potential exists in the east

On shore wind **costs half as much** as off shore wind that is common in Europe (20 € resp. 40 € / MWh)

- Enables the production of green hydrogen

There are big industrial **hydrogen consumers** in the area

- SSAB, Kemira, Kokkola Industrial Park...

**Bio-based CO<sub>2</sub>** is being generated in multiple bio product plants

The Finnish **power grid** is stable in north-south -direction

There are examples of successful **cross border projects** and public-private cooperation

<= Map of Finnish wind power projects through the courtesy of Ethawind



# BothH<sub>2</sub>nia highlights Scandinavia in H<sub>2</sub>-Europe

Countries forming the nordic electricity market are **stronger together** in the emerging European H<sub>2</sub>-market

- Sweden and Finland aim at fossil free steel production
  - Countries around the Baltic Sea will also be connected through the planned hydrogen pipeline
  - There are >15 industrial harbours in the area
  - Great opportunity to enlarge to neighboring countries

**BothH<sub>2</sub>nia is an open network for cooperation of industrial investment and research projects around the Gulf of Bothnia and later even the whole Baltic Sea**

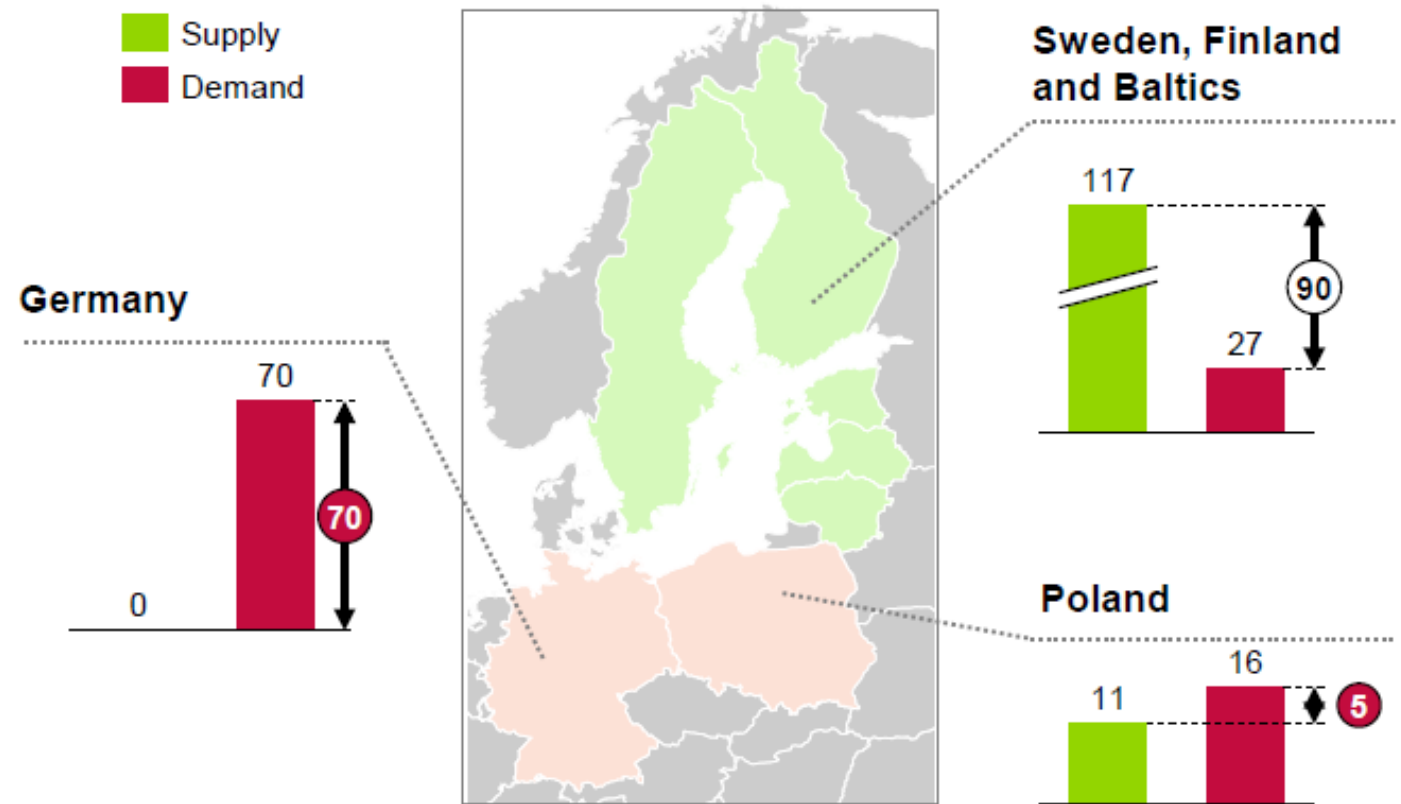
- **Helps cooperation** e.g. within ECH2A and Hydrogen Europe
- Supports applying for **European financing** from EIC / EASME, IPCEI, EIB / EIF / RRF..



Germany is expected to be in a substantial hydrogen deficit by 2030 – creating a €4 billion<sup>1</sup> opportunity for export countries.

Green hydrogen supply and demand in neighbouring regions in 2030, TWh/year

Why  
Estonia /  
Baltic  
countries?



# Both<sub>2</sub>nia – status quo and what's next?

## Status quo

- Finland and Sweden run this jointly
  - Steering group / organisation in development
    - Minna Näsmän, Matti Malkamäki
    - Johan Sandstedt
    - Berndt Schalin, Herkko Plit
    - New participants from Sweden, public partners, universities, etc.
- Initial coordination funding from TEM / city of Raahel
  - This for public participation
  - Private participation, Swedish part WIP
- Website launched
  - [www.both2nia.com](http://www.both2nia.com)
  - Now under Clic Innovation, own are WIP
- Media coverage building up little by little
  - Twitter: @both2nia

## What's next?

- Create platform for the collaboration
  - Today: place the projects on a map / Finland
  - ...same in Sweden coming
- Introduction of the Both<sub>2</sub>nia to
  - European counterparties
    - Commission, ECH2A, Hydrogen Europe, ...
    - Raise interest to finance project
- Estonia & other countries
- National governments to be made aware
  - Finland & Sweden
- Glasgow COP26
  - Can we present something together?

# Contact us



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