

Both₂nia



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Both₂nia goes Kokkola 16.3.2022

This is a presentation given at the event Both₂nia goes Kokkola on 16.3.2022.

Both₂nia is a network of operators interested in hydrogen. The objective of the network is to create a Nordic hydrogen cluster around the Baltic Sea, beginning with the Bothnian Bay. Both₂nia strengthens the position of the north in the European hydrogen industry!

Both₂nia invites all businesses, research institutes, investors, municipalities and cities to roll up their sleeves for a greener future.

Please notice that the presentation has been modified to comply with the Accessibility Directive. In case for need the original material, please contact Minna Näsman (minna.nasman@both2nia.com).

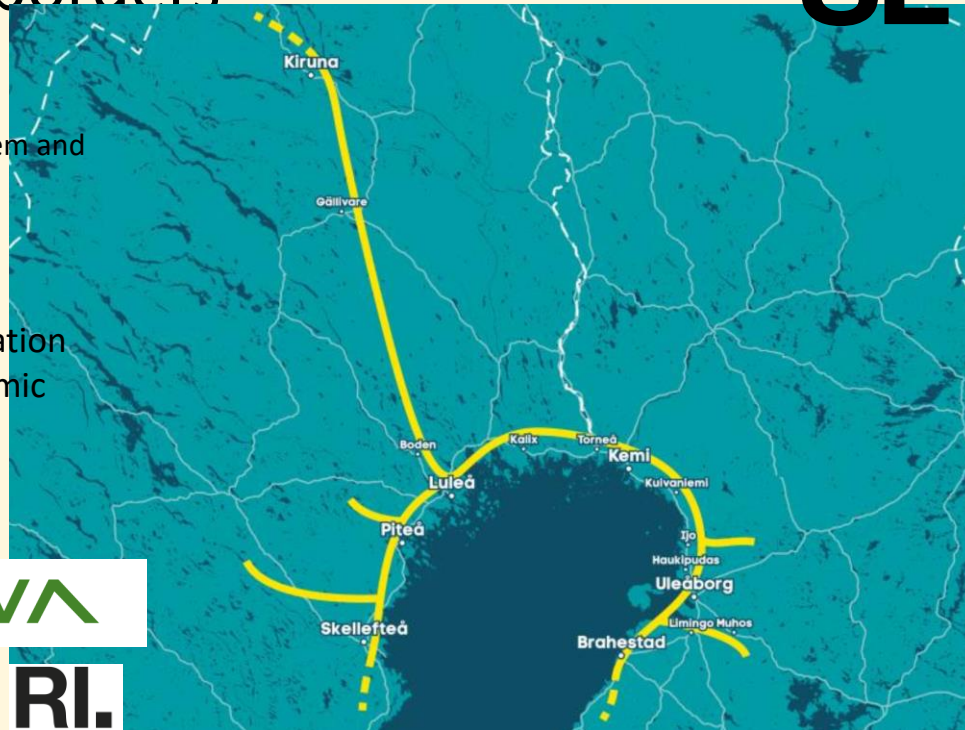
Hydrogen, energy system and infrastructure in Northern Scandinavia and Finland - prestudy



Hydrogen, energy system and infrastructure crossing borders

RI.
SE

- East West analysis area – crossing borders
- Large scale system optimization: electricity system and hydrogen
- Holistic perspective
- Will a hydrogen infrastructure in combination with the electricity grid give socio-economic benefits?
- Parallel study by VTT, contacts with Norway



VINNOVA

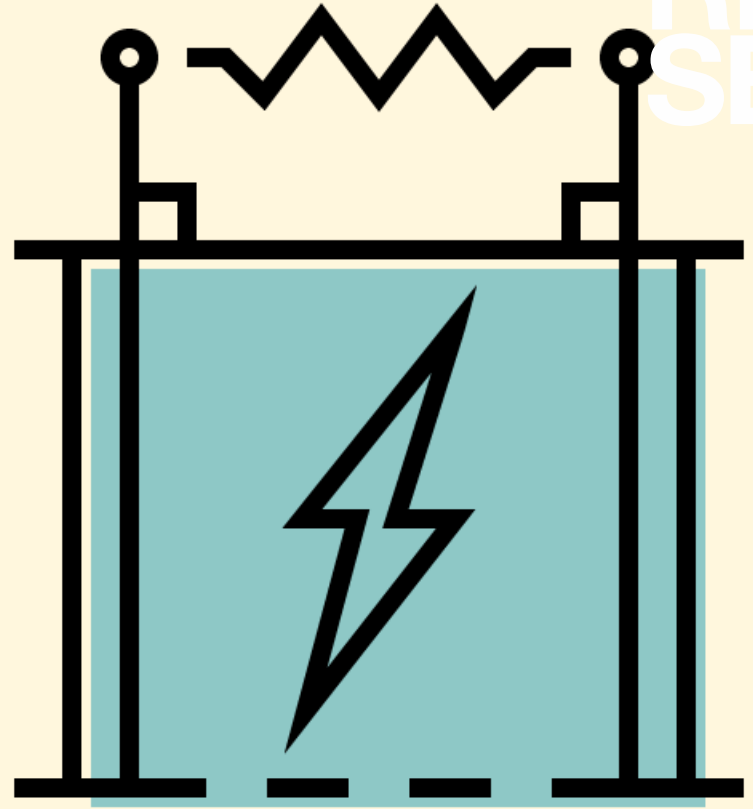


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Distributed hydrogen production?

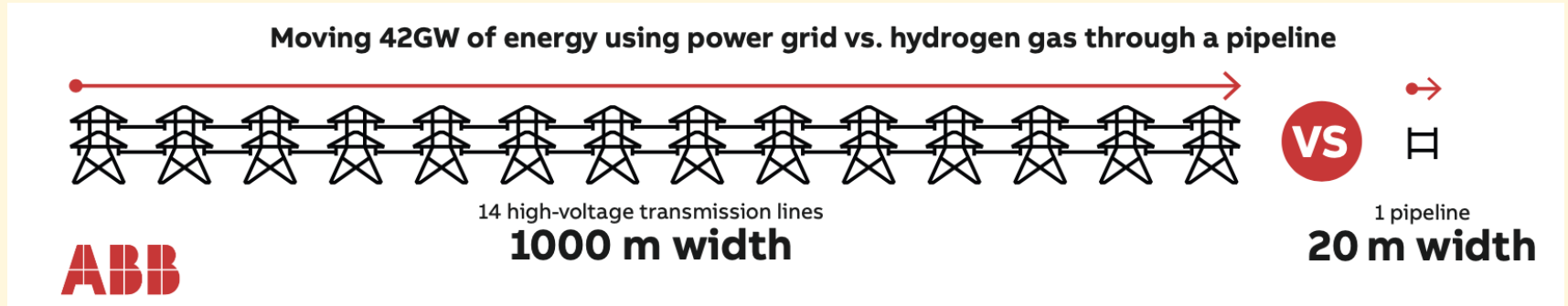
Hydrogen infrastructure may support an increasing number of stakeholder, off-takers and producers.

- Possibilities for more producers
- Opens up for sector coupling
-oxygen & waste heat
- Utilize local possibilities



Optimized land use?

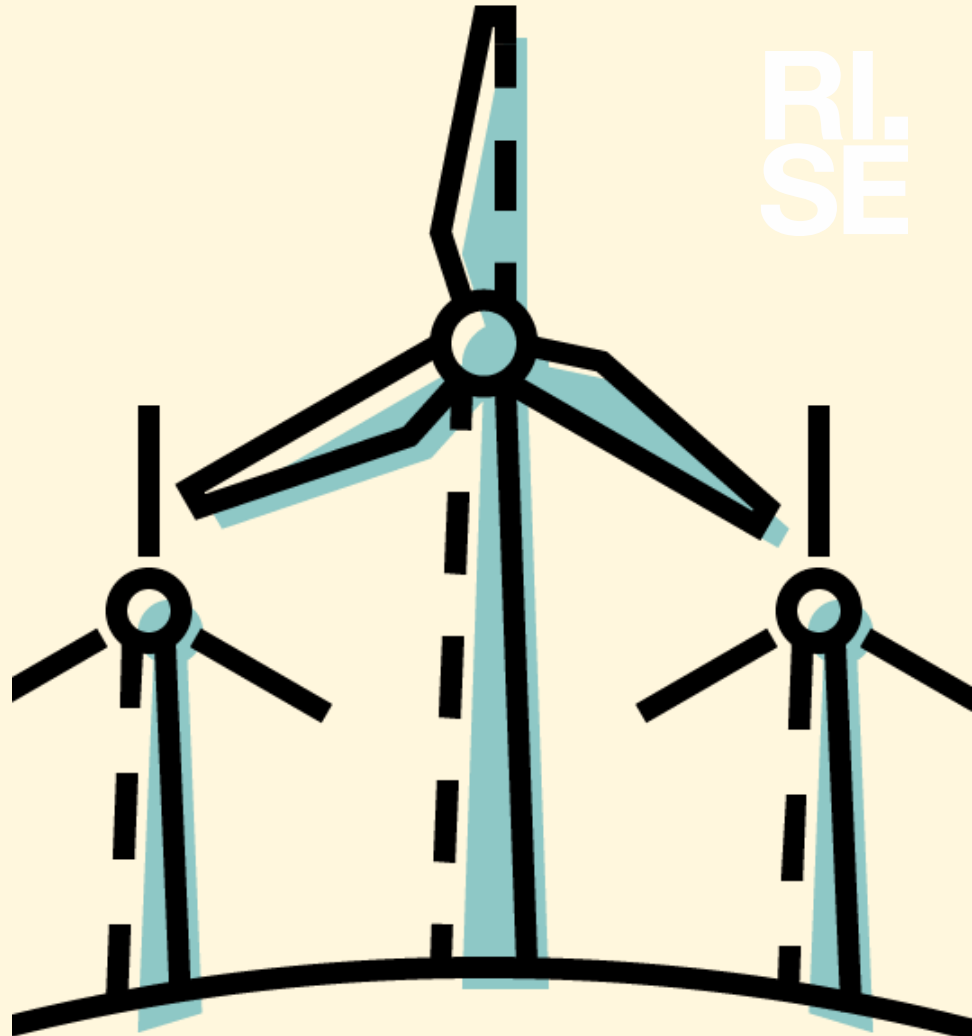
- P2G2P (power to gas to power) gives a poor system efficiency.
- Pipelines is efficient for transmission of energy. More cost effective and use less land.
- If the electricity is going to be used for hydrogen production will hydrogen pipelines be a cost efficient alternative.



System stability

Larger geographical area for increased stability.

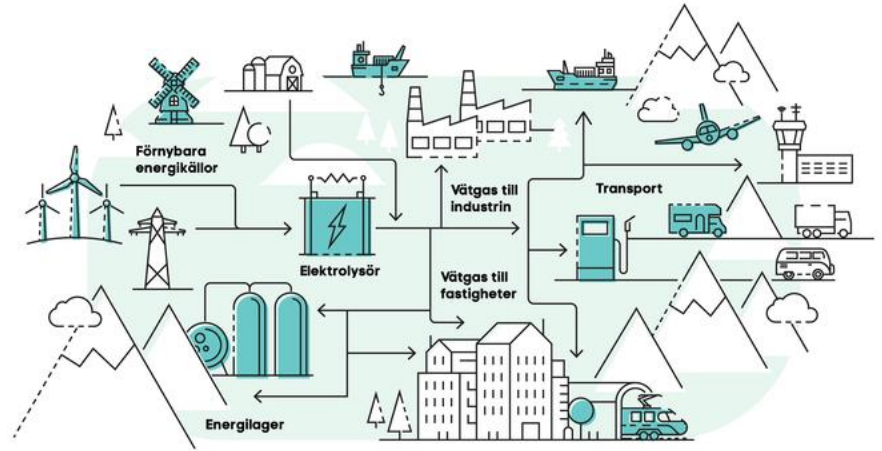
- Larger geographical area
- More producers & storage
- Hydrogen storage
- Volatile electricity production
Hydrogen may support a higher stability in the energy system



Hydrogen economy

Business & economy

- Possibilities for hydrogen entrepreneurship
- New applications
- Transport sector, maritime, biorefinery....
- The region takes a position in Europe



There is a potential worth looking into.

And many questions

- Mapping:
 - actors
 - projects
 - drivers
 - prerequisites and expectations
- Tecno-economical analysis
- Regulatory questions
- Tons of questions...
 - How to optimize the energy and hydrogen system?
 - The open questions must be identified and defined.

