Herøya Industry Park

Hydrogen as an important energy carrier
The biggest industrial cluster in Norway

Representing 23% of Norwegian industrial production

A wide variety of industries many of them using Hydrogen for many years already

Based on renewable energy

Some of them are:
Yara
Ineos
Inovyn
Heidelberg
Elkem
REC
Isola
ReeTech
Addcon
Our Hydrogen-«history»

• H2 industrial usage since 1930
  • Huge hydrogen production and usage in the ammonia and petrochemical industries

• Competence areas:
  • H2 production
  • H2 usage
  • H2 safety
  • H2 R&D
Hydrogen “related” companies in the region

- Yara, Fertilizer production
- INOVYN, Petrochemical production
- INEOS, Petrochemical production
- Norsk E-Fuel, Jet fuel production
- NEL, Technology provider
- HydrogenPro, Technology provider
- Universetiy USN, H2 risk and safety
- Sintef R&D
- Nordic Electrofuel, Jet Fuel production
Hydrogen ecosystem in Grenland
Target to be national Hub for H2 based economy

Hydrogen production
Inovyn

Ammoniakk produksjon
Yara

Hydrogen production
Statkraft / Skagerak Energi?

Storage central or distribute?

Distribution by pipeline?
Large scale testfacilities

Distribution by barges?

Bunkering, where?

Distribution by containers?

Fillingstations

Hydrogen production
Inovyn

Hydrogen production
Statkraft / Skagerak Energi?

Fillingstations

Target to be national Hub for H2 based economy
Grenland – center of gravity for significant H2 implementation:

- Norway largest industrial cluster
- Long H2 experience
- University and industry in tight collaboration
- Extensive R&D environment: Sintef, USN, NEL, HydrogenPro, Yara, Equinor and more
- Well developed industrial incubation
- Herøya Industry park as a facilitator for development
- Benefit from the CO2 Longship project
- Major international companies in the cluster
- Green Industry Cluster/Industrial Green Tech collaboration with EU clusters
- Target to be 1 of 5 clusters in Norway according to governmental strategy
VISION:
We target to be the most attractive region in Norway and Europe - to develop and establish H2 based economy and industrial H2 technology
7 – objectives for our Hydrogen Ambitions:

• Production of hydrogen – for the consumer market
• Be an internasjonal fronrunner in the use of H2 for Industrial purposes
• Internasjonal leader rgds Hydrogen tecnology
• Develop a complete Hydrogen ecosystem in the region
• Build a national leading center for Hydrogen training and education, security and emergency
• Create 500 direct new industrial jobs within 5 years
• Become the Goverment H2 Hub in Norway
Projects

• Få inn fyllestasjonen og prosjektet der
NEL

- New large electrolyzer factory for production of H2
- Decreases production cost by 50-60 %
- 200 new jobs
Yara Ammonia production

✓ Replaces LNG with pure Hydropower via Electolyzers

✓ 600Mw power need

✓ Cuts 800kt CO2 emissions

✓ Will deliver Ammonia to maritime transportation

✓ Investment 5-6MEUR
Inovyn

- New H2 factory
- Green H2
- Deliver xx t/y
- 20Mw
- Investment 2BEUR
Seidr – New Innovation and Technology Centre

- 60k m2 with Innovation and Technology activity
- Complete industrial eco – system
- Directly connected to the Industrial Park
- A place where “academia meets the industry”
- A place for technology development companies
We enable the green shift by innovation and implementation
Thank you
Contact me

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