



THE NORDIC H₂ VALLEY: «*TOO MUCH TALK; TOO LITTLE ACTION*»

NORDIC ENERGY RESEARCH CONFERENCE

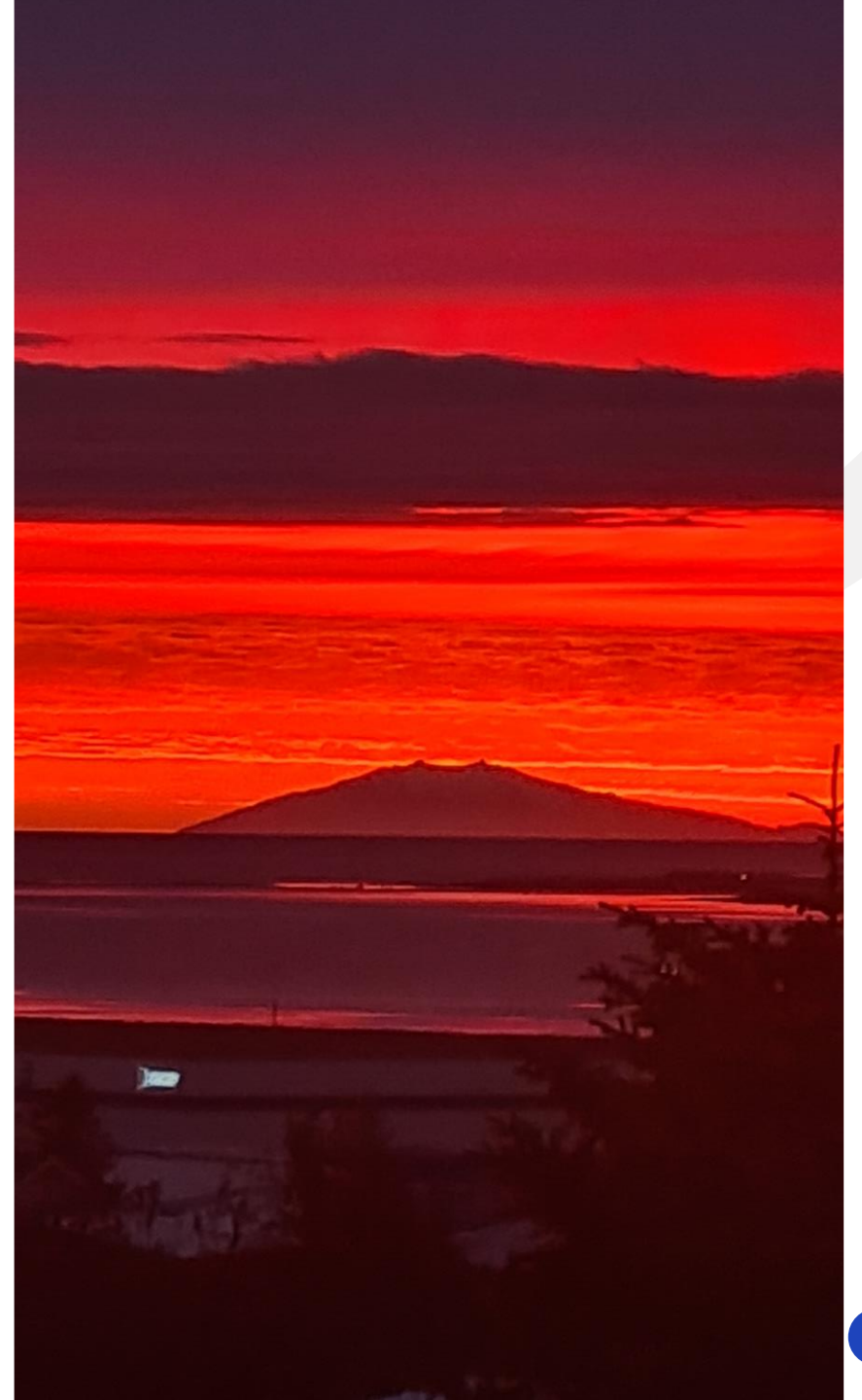
HYDROGEN VALLEY'S, LULEA, SWEDEN, JAN 2025

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ICELANDIC NEW ENERGY

R&D ACTIVITIES

- R&D activities have been ongoing for some time now within the Nordics, mainly funded through EU – now more recently also via Nordic/national funds
- Variety of project
- Strong cooperation between industry and research/academia
- “the promised H₂ valley always on the horizon”



PROMISES

Policy documents published

- Ambitious gov. goals
- H2 and e-fuel roadmaps/strategies
 - For each Nordic country
- Announcement that x tones of H₂ will be part of the solution to reduce emissions before 2030
- Pipelines, hubs, ships, trucks are all to be implemented before 2030 – or sooner



Photo by AMK

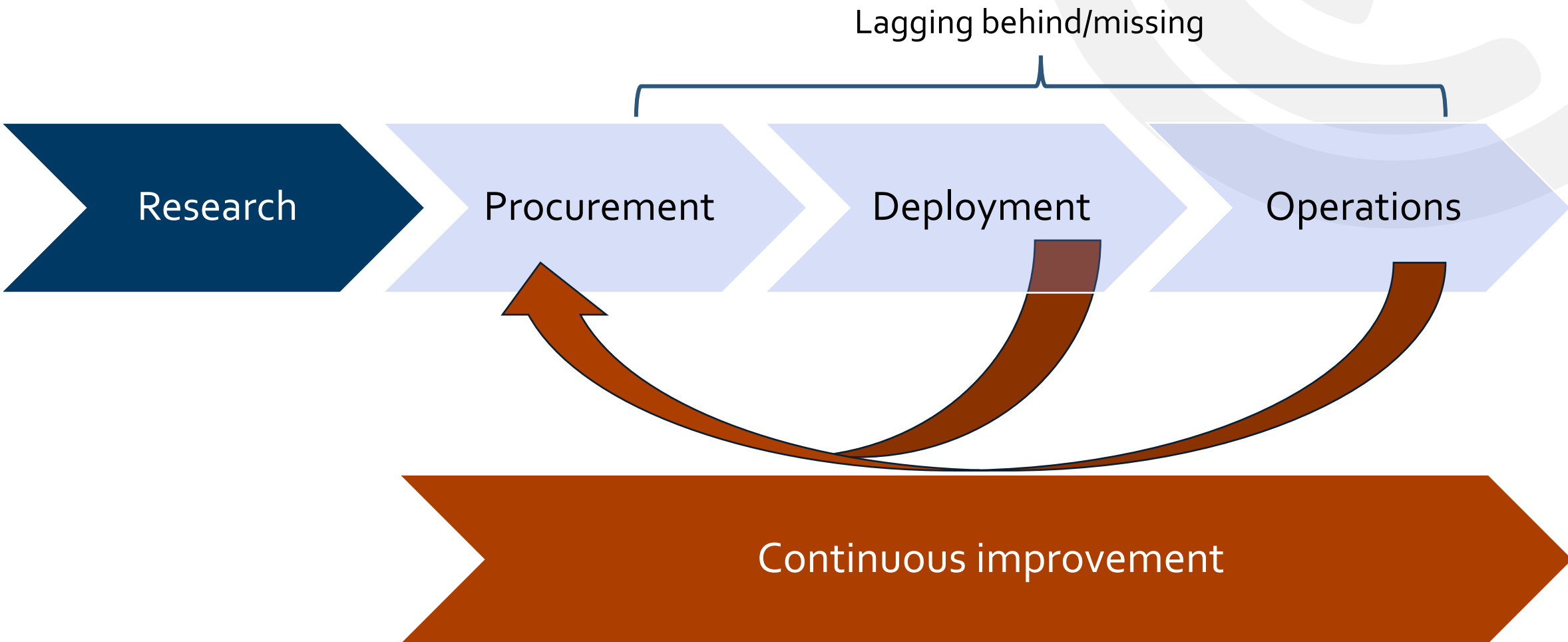
LEARNING BY DOING

R&D activities need to be supported by action

- Where are the cars?
- Where are the trucks?
- Where are the stations?
- Where are the ships?
- Where are the e-fuel factories?
- Where are the hubs?



RD&D PATHWAY



COMPLYING WITH TARGETS

- H2 will be part of the solution
- We dont have to agree in which segments nor the amount (%)
- Actual deployment takes years
- If we dont start now we will not achive anything before 2030
- We need to equip the „H2 valley“ now
 - The preparatory work is already done

Samskip Launches its Next-Generation Zero-Emission Short Sea Container Vessels

20. March 2023



SAMSKIP, global logistics solution providers with offices in 24 countries, is venturing into “zero carbon emission free shipping services” by contracting Two Hydrogen fuel powered vessels to provide service its west European routes by signing a ship building contract with the leading Indian shipyard Cochin Shipyard Ltd.

H₂ VALLEYS ARE CREATED WITH STAMINA AND PREDICTABILITY

- Operation environment must be set for years
 - Minimum 3-5 years
 - Incentives must be forseen
 - It takes 12-36 months to establish real scale projects
 - Cars - short
 - Trucks - medium
 - Marine - long
 - Air - very long
- ↓ *Increased H₂ use/dependance*
Increased €€€ support
- Stamina has to be part of the policy
 - If restrictions of fossil fuel is set – stick to it
 - If incentives are promised – stick to it
 - If a policy has goals, make them realistic and – stick to them
 - If we dont start now we will not achive anything before 2030
 - We need to equip the „H₂ valley“ now
 - The preparatory work is already done



Hopefully a common future
Recently waiting for the H₂ dispenser

NORDIC SUCCESS – FROM R&D TO DEPLOYMENT

- Nextwave
 - Nextwave I-IV
- Prep4truckH2
- NordicH2ubs



- Nordic leadership in H2 truck deployment
 - Iceland and Norway



*H2 valley application to the EU (CHP) from Iceland
Applied in 2024 – on the reserve list
Seeking € 9 Million for transport and
industrial H2 deployment in total over >40 M€ project*

LEARNING BY DOING

- The pioneering role of Iceland and Norway was instrumental in getting a truck project off the ground
 - Iceland will deploy a minimum of 20 trucks starting from Q3 2025
 - Press event and signing April 29th 2024
 - Norway aims to deploy up to 100 trucks starting from Q4 2025 / Q3 2026
- These numbers might not sound high. 20 trucks in Iceland are equivalent to 4.200 trucks in Germany or 20.000 trucks in USA, based on population



samskiP



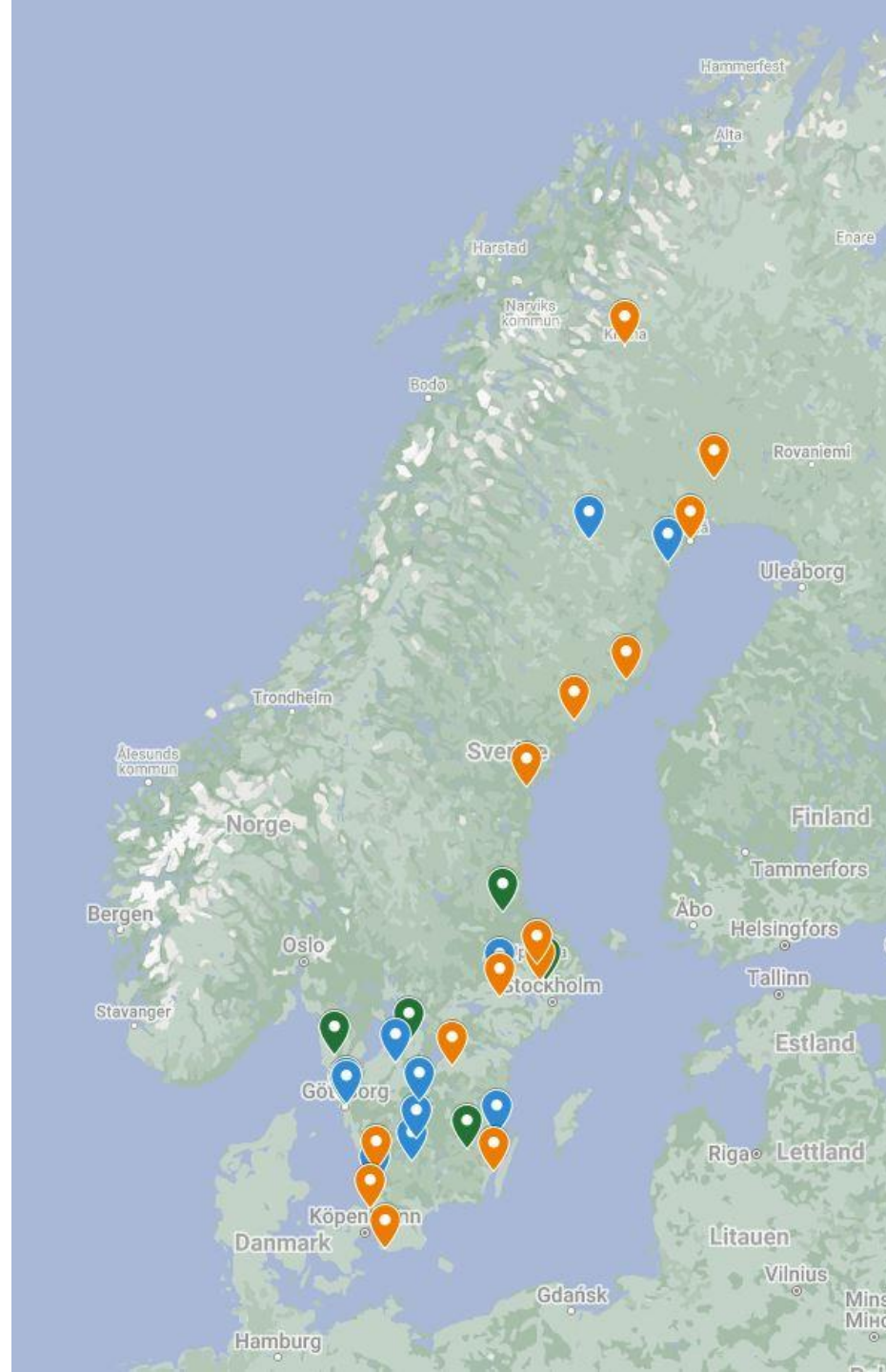
Signing event in Iceland

20 trucks use the same amount of fuel as over 1.000 passenger vehicles – saving 700.000 l. of diesel annually

LEARNING BY DOING (2)

This map pleases the eye

- At the same time demand has to be secured
- Economics have to make sense
- Customers need to be supported, either
 - Punishing polluters
 - Via driving fee
 - Price of fuel
 - Opex grants for fuels



HRS's in Sweden

In operation

Under construction

Finance secured

H₂ VALLEYS MUST BE LARGE ENOUGH TO CRACK THE EGG



Photo by [Jasmin Egger](#) on [Unsplash](#)



Photo by [Zoe Schaeffer](#) on [Unsplash](#)

- Large scale project are needed where all stakeholders are brought to the same table at the same time
 - H₂ infrastructure (HRS) have struggled economically
 - Large deployment (truck/ship etc.) creates commercial demand
- Joint international cooperation, OEM, number of off-take countries to create enough demand
- Offtake large enough to justify the investment
 - Both need funding support – also with stamina
- It took a strong viking team years to get a truck project of the ground – with valuable support from many Nordic funding bodies
 - Showing good stamina
- However, it is not real yet, not all the trucks are spoken for, not all the infrastructure is built
 - No deployment from Government!

Thank you for your attention

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