

Swedish Hydrogen Infrastructure

Winterwind 2025

Anders Järvelä 2025-02-03

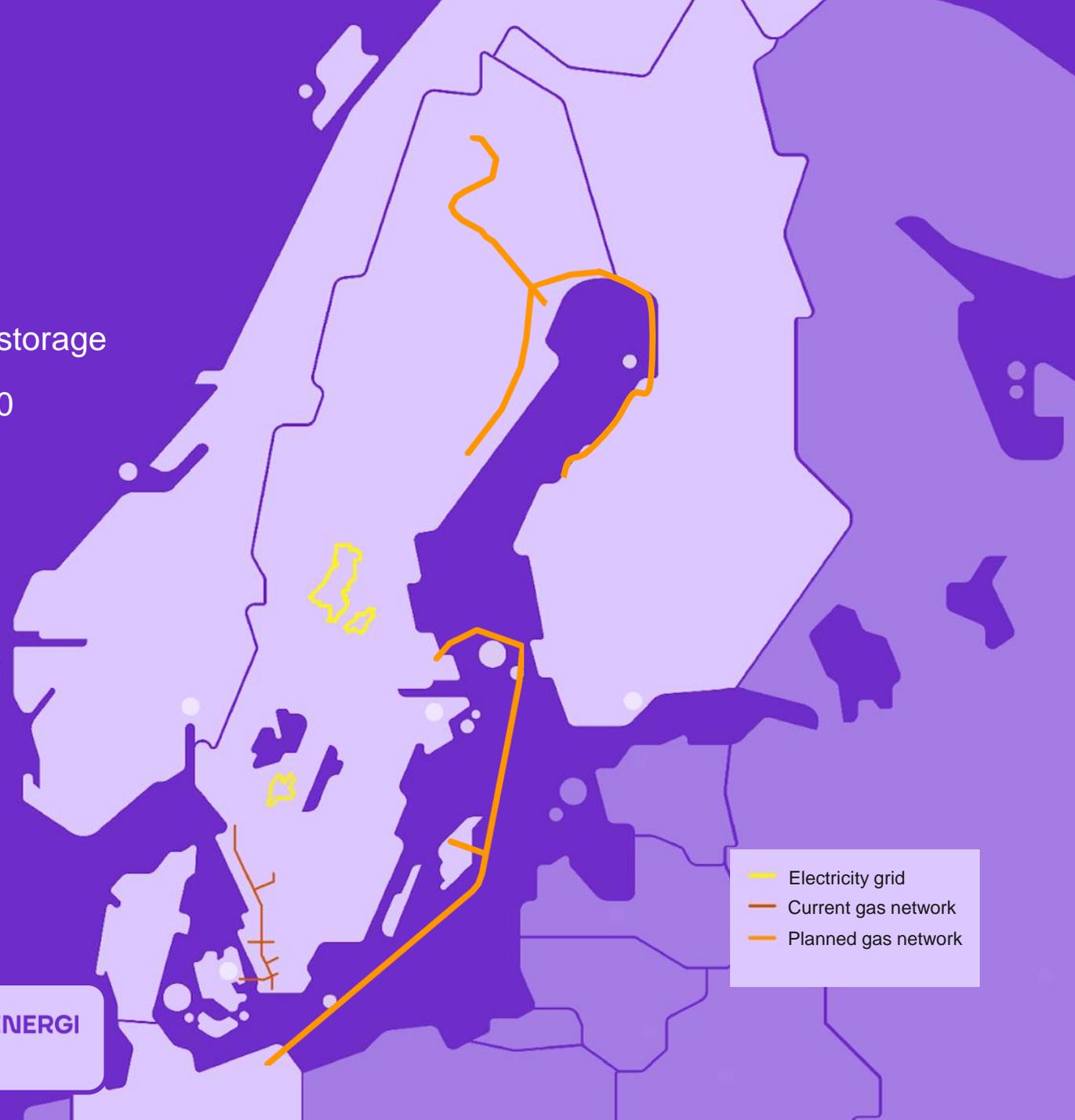


An aerial photograph of a dense forest. The trees are mostly green, but there are several dead, grey, skeletal trees scattered throughout, particularly in the upper left quadrant. The text is centered over the image.

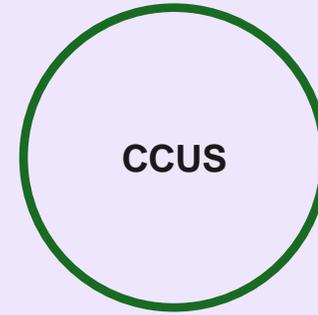
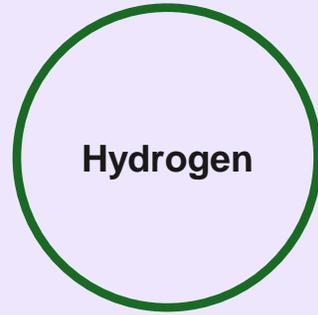
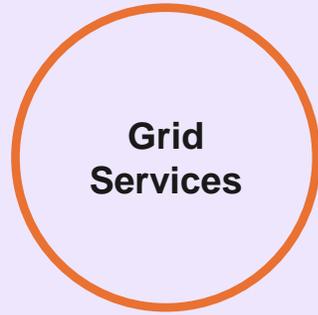
**Powering a changing
society - and making green
energy accessible to all.**

Nordion Energi

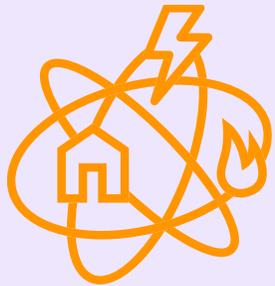
- Headquartered in **Malmö, Sweden**
- **Regulated** core business
- Operates Sweden's gas network since **1985** incl. gas storage
- **Forerunner with a 100% green gas network** by 2030
- Gas Transmission Systems Operator – **TSO**
Gas Distribution Systems Operator – **DSO**
Electricity Distribution Systems Operator – **DSO**
Developing hydrogen infrastructure
- Owned by European Diversified Infrastructure Fund II,
managed by **Igneo Infrastructure Partners**
- **Partnership** with Dala Energi
since Dec. 2024



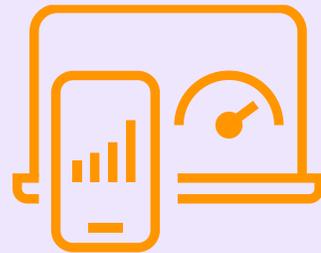
A matter of innovating...



... through collaboration



Creating a strong link between different energy systems and different sectors



Making renewable energy accessible, more attractive and competitive



Closely collaborating with customers, partners, local communities, authorities and universities



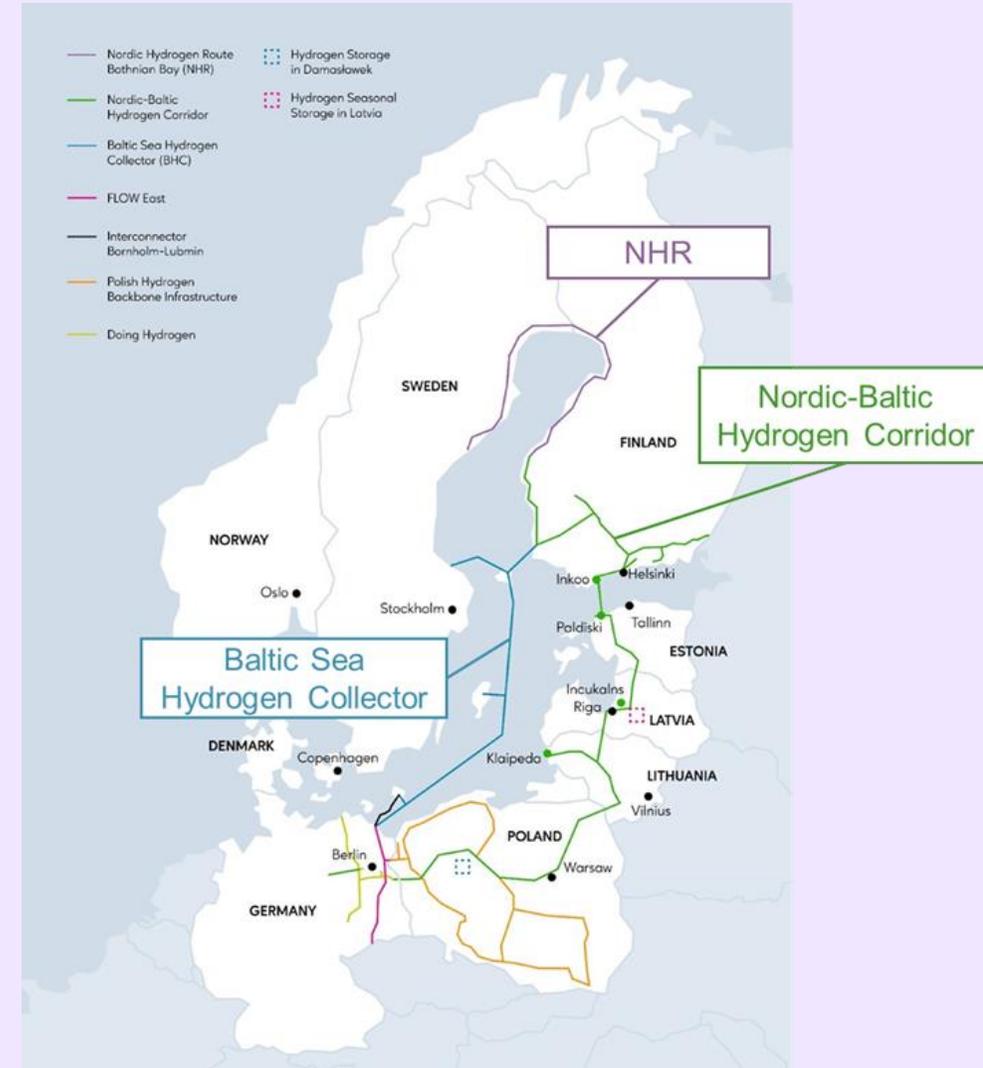
Innovative, long-term investments, providing for stability and enabling transition and new industries

Channelling our efforts into creating a sustainable, flexible energy system that is fit for the future, making best use of electricity, gas and heat

The Nordics - a priority for EU

The EU hydrogen strategy (a part of Green deal and Fit for 55):

- Green hydrogen produced by electrolysis (40GW, 2030)
- Less dependence on fossil fuels – security of supply
- Create integrated energy system
- Enabler for large-scale expansion of wind power



Nordic Hydrogen Route

An initiative between **Gasgrid** and **Nordion Energi** to drive decarbonization, support regional green industrialization, economic development, and enhance European energy independence & security.



Project of common interest



1.300 km*
**TOTAL LENGTH OF
MAIN PIPELINE**
(* incl. Kiruna branch)

2030



Nordic Hydrogen Route



Facilitates the exploitation of large-scale cost-efficient renewable energy sources from Sweden and Finland



NHR supports creation of an efficient and harmonized cross-border hydrogen market to enable price competition and security of supply



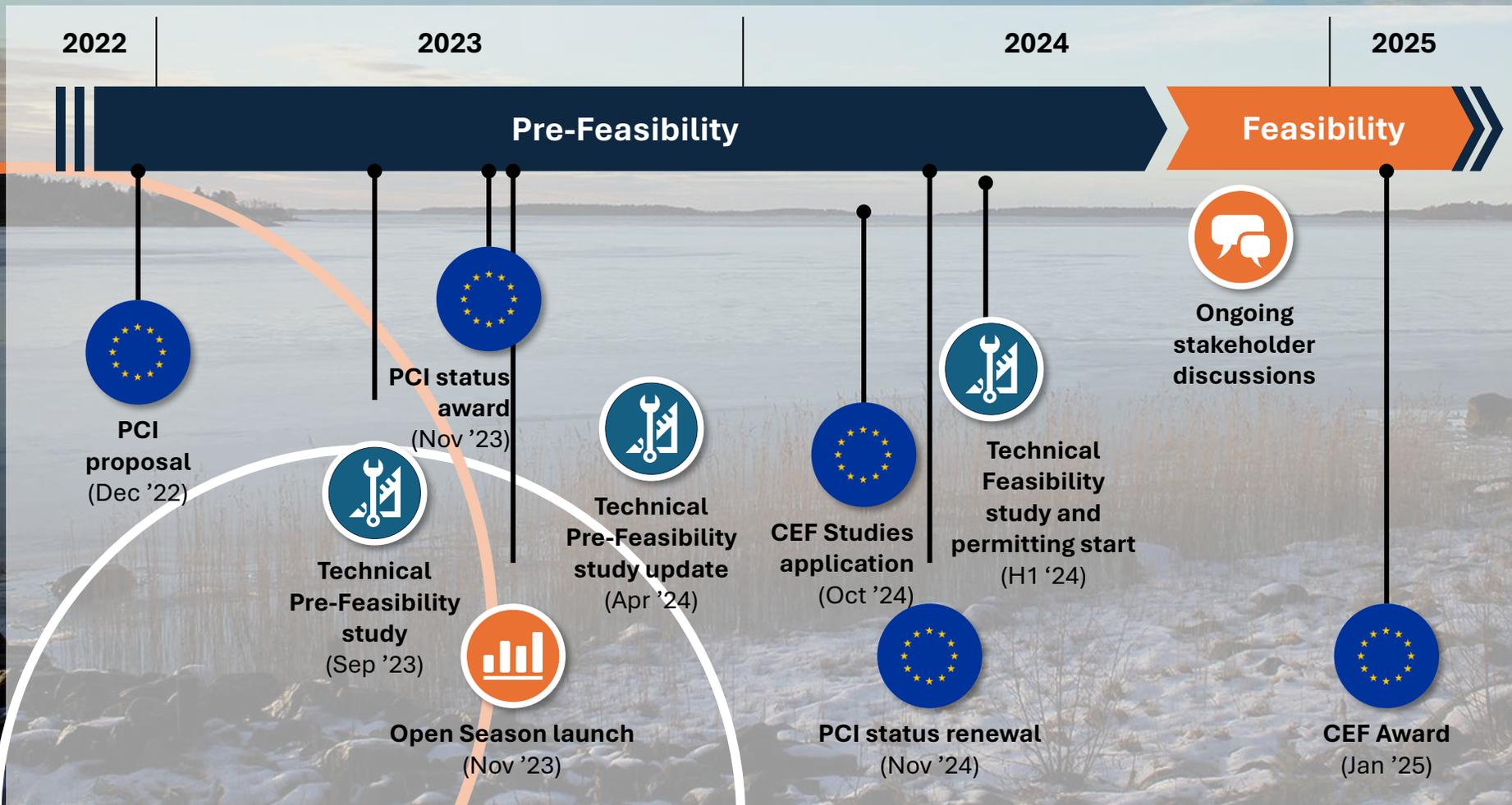
Ensures competitiveness by producing energy where production is the cheapest



NHR stimulates industrial expansion via a competitive H₂ market, safeguarding and creating jobs

PROJECT PROGRESS SINCE 2022

NORDIC
HYDROGEN
ROUTE
BOTHNIAN BAY



EU INVESTED 29,4M€ IN NHR'S FEASIBILITY AND BASIC DESIGN PHASES

NORDIC
HYDROGEN
ROUTE

BOTHNIAN BAY

“The proposal successfully addresses the priority and urgency criterion.

The studies for which CEF and the proposal explains convincingly how the project contributes to decarbonisation and meeting the EU's climate and energy targets and facilitates the creation of an integrated, competitive and transparent crossborder hydrogen market.”¹



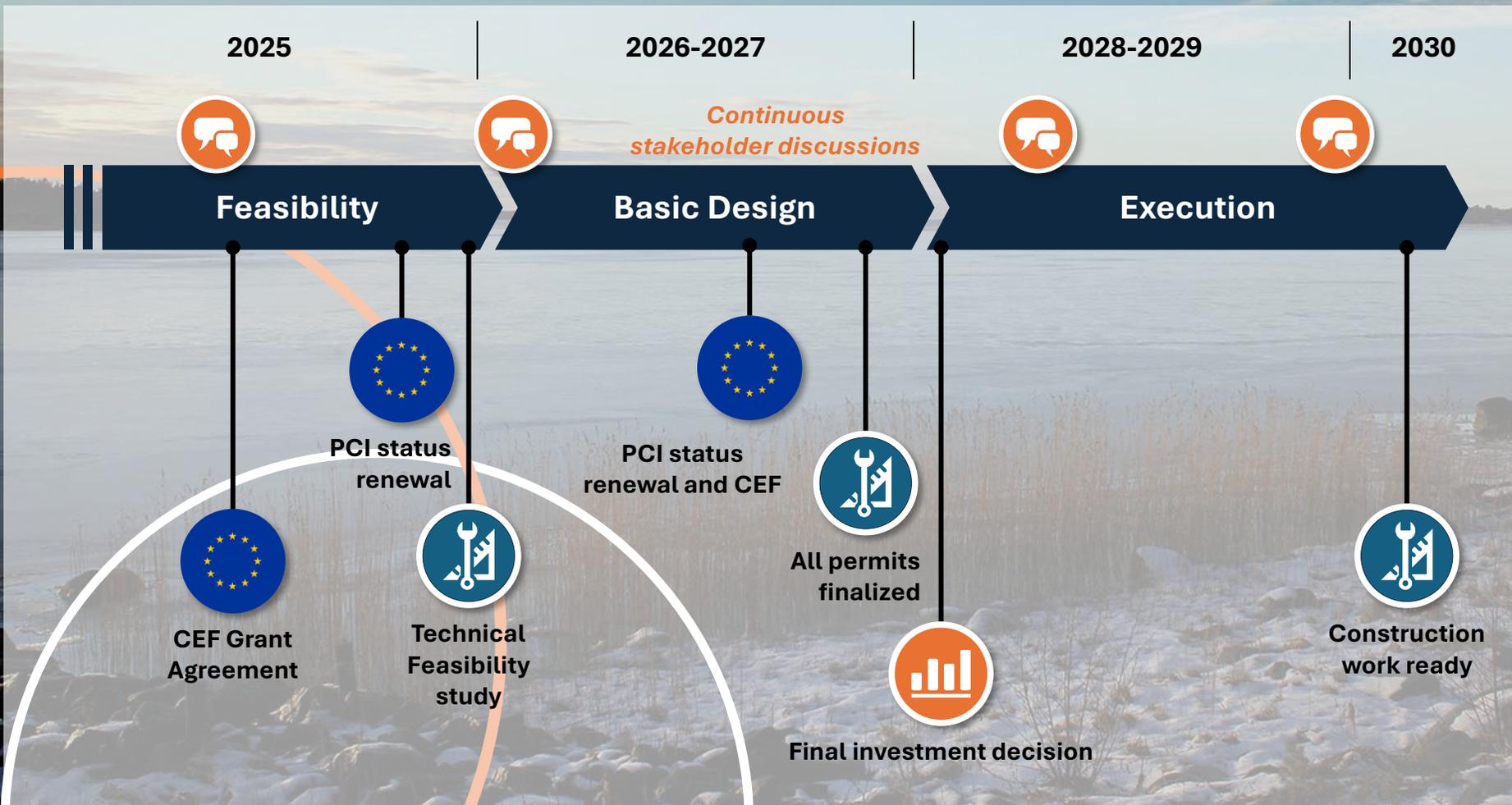
“ The Commission has proposed to allocate €1.25 billion in grants, the highest ever awarded under the Connecting Europe Facility for energy infrastructure projects making a key contribution to build our Energy Union. It is also the first time that hydrogen and offshore electricity grid projects are selected. Once completed, the successful projects will boost our efforts to decarbonise our economies and societies, integrating our energy markets and safeguarding our industry's competitiveness. ”

Dan Jørgensen, Commissioner for Energy and Housing

¹ Evaluation summary report

PROJECT PLAN GOING FORWARD

NORDIC
HYDROGEN
ROUTE
BOTHNIAN BAY



Power2Earth - first Section of NHR



Pioneering initiative

Connects hydrogen production in Letsi with production of green mineral fertilizer in Luleå. Capacity 1 million ton/y.



Transforms agriculture

Will drastically reduce the carbon footprint from fertilizer use, 25% reduction for Swedish agriculture



Creates opportunities

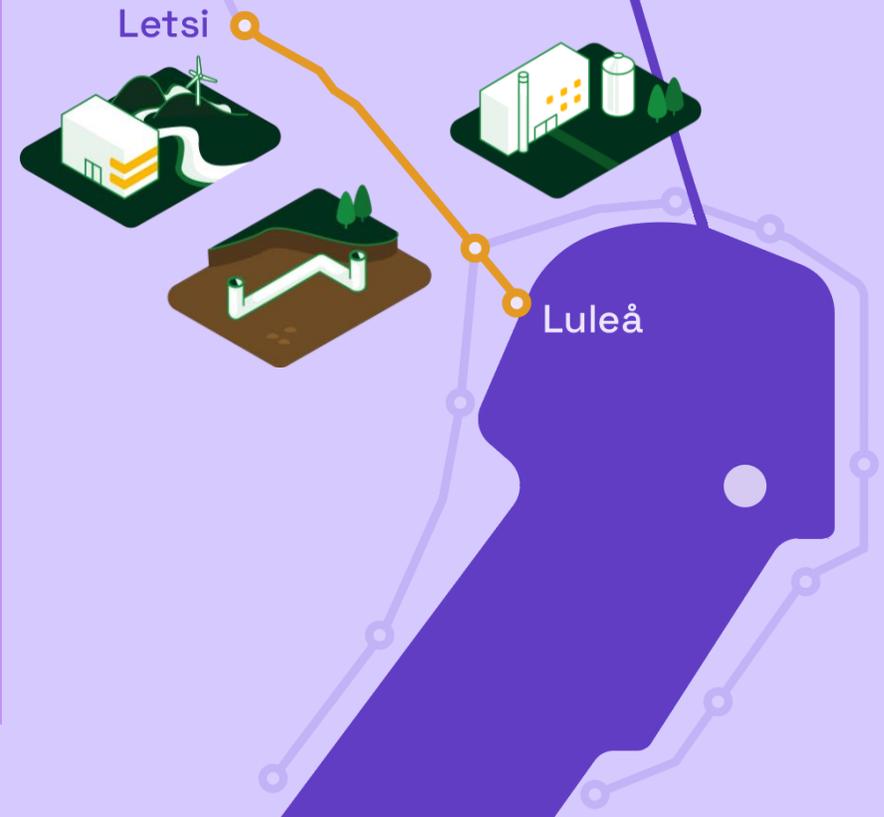
Hydrogen infrastructure will be open to other producers or consumers of hydrogen

Lantmännen

NORDION ENERGI

Fertiberia

POWER₂EARTH



Summary

- **Great support for Nordic Hydrogen Route**
- **NHR is moving towards FID**
- **Customer dialogues – high degree of cooperation is needed**
- **Unlock renewable energy sources**

Thanks!

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