

# BalticSeaH2

## A large-scale hydrogen valley project around the Baltic sea

40 partners in 9 countries

5-year project started in June 2023

Main valley between Finland and Estonia

Total project budget 33 M€, European public financing 25 M€

Coordinated by CLIC Innovation and Gasgrid

### BalticSeaH2 builds the first significant, cross-border hydrogen valley in Europe

The goal is to create an integrated hydrogen economy around the Baltic Sea to enable self-sufficiency of energy and minimise carbon emissions from different industries. Combining local areas into a broader valley supports creating a genuinely integrated, interregional hydrogen economy.

The area between Finland and Estonia is an optimal location for a cross-border hydrogen market. The necessary infrastructure – natural gas pipelines, electricity grids, and active marine traffic – already exist in the Gulf of Finland. Hydrogen infrastructure is already in planning: Nordic-Baltic Hydrogen Corridor, Baltic Sea Hydrogen Collector and Nordic Hydrogen Route enable strong growth for hydrogen economy and hydrogen markets in the Baltic Sea region.

### Hydrogen use cases

Over 20 demonstration cases and over 10 investment cases will showcase the diverse applications of hydrogen across multiple sectors. The production potential for hydrogen will reach 100 000 tonnes of hydrogen annually by the end of the project. The hydrogen and its derivatives can be utilised or sold by different industries brought together by the project.

These use cases aim to pilot the joint operation and seamless integration of different parts of hydrogen value chain in transnational operating environment. The value chain of hydrogen is well presented – there are use cases which will produce large quantities of hydrogen, others that store and distribute the gas, cases which use the hydrogen in production of derivatives, and ones that will be the end-user for hydrogen or derivatives.

### Impact of the use cases

In numbers, BalticSeaH2 use cases have a potential to produce more than 130 000 tons of hydrogen annually. The consumption will be even more, over 200 000 tons per year, which encourages to increase the production and attracts other producers to join the valley. The annual production of derivatives will exceed 600 000 tons, which concretises the significant impact achieved by only the use cases.

The use cases will pilot new technologies and study the integration of interfaces in the environment of an already functional economy. With the experiences gained during the piloting phases, the ramp-up of larger scale projects and solutions will be easier and more efficient. This enables quick transition to fully functional cross-border hydrogen economy and brings Europe closer to its sustainability and carbon neutrality goals.

## WORK PACKAGES

<p><b>WP1</b> Project coordination and management</p> <p>Led by CLIC Innovation</p>	<p><b>WP2</b> Vision, social transformation and engagement</p> <p>Led by VTT</p>	<p><b>WP3</b> Green hydrogen production, storage, transmission and distribution</p> <p>Led by Helen</p>	<p><b>WP4</b> Hydrogen consumption use cases</p> <p>Led by ABB</p>
<p><b>WP5</b> Maximising the value of sector integration</p> <p>Led by ABB</p>	<p><b>WP6</b> Hydrogen marketplace</p> <p>Led by Gasgrid</p>	<p><b>WP7</b> Impact creation and replication</p> <p>Led by EHC</p>	<p><b>WP8</b> Communication, dissemination and exploitation</p> <p>Led by CLIC Innovation</p>

