10th Tartu Hydrogen Days

Hydrogen Valley Estonia

H2Value & H2Deri@BSP

Hele-Mai Metsal
Port of Tallinn

Co-funded by
the European Union

H2VALUE

2026

The H2Value project is funded by the European Union through the Interregional Innovation Investments Instrument (I3) under grant agreement No. 101083881.

EXPLORING THE H2VALUE PROJECT

Title: Supporting the Regional Development of the Green Hydrogen Fuel Value Chain for Transportation in Estonia and Latvia (H2Value)

Programme: EU Interregional Innovation Investments (I3)

Duration: November 2022 – December 2026

Lead partner: Latvian Hydrogen Association

Project countries: Estonia and Latvia, with expertise from the Netherlands

OUR VISION

Building the First Cross-Border Green Hydrogen Value Chain between stonia and Latvia.

Hydrogen Valley Estonia

The H2Value project covers all stages of the hydrogen value chain, from production to use in transport, while supporting long-term strategic development in Estonia and Latvia.

H2VALUE

Hydrogen production

Set up a small-scale green hydrogen production plant using solar energy/biomass.

Hydrogen distribution

Develop logistics for cross-border road transport of green hydrogen and establish a refueling station.

Hydrogen consumption

Use hydrogen as a zero-emissions source of fuel for transport.

Analysis & strategic development

Evaluate results, support scaling-up, and strengthen the interregional hydrogen ecosystem between Estonia and Latvia.

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CURRENT PILOTS

Hydrogen-powered bus in Jelgava, Latvia (public transport)

- Already running on daily passenger routes.
- Fuel supplied from Tallinn (Estonia) by partner Alexela.
- Next step: shift to locally produced hydrogen in Jelgava.

Hydrogen-powered trucks at Port of Tallinn, Estonia (logistics sector)

- Two hydrogen trucks planned for demonstration at the Port of Tallinn.
- One heavy-duty truck for port logistics operations.
- Second truck to demonstrate other hydrogen use cases.
- Enables reduction of CO_2 emissions in a high-consumption transport segment.

NEXT STEPS IN H2VALUE

- **Green hydrogen production in Jelgava**

Development of the first small-scale production facility, using renewable resources, as a foundation for future expansion.

- **Cross-border collaboration**

Knowledge transfer and best practices shared between Latvia, Estonia, and the Netherlands to strengthen the hydrogen value chain.

- **Pilots and testing**

Continued operation of hydrogen bus in Jelgava and demonstration of two hydrogen trucks at the Port of Tallinn, with preparations for refuelling and hydrogen supply infrastructure.

- **Strategic dialogue**

Consortium-wide roundtable discussions and workshops to align partners on exploitation strategies, innovation management, and scaling opportunities.

- **Policy input and replication**

Preparation of a policy input report and development of a replication toolkit, enabling lessons learned in H2Value to support other regions across Europe.

PROJECT PARTNERSHIP

Lead partner: Latvian Hydrogen Association

Partners:

- AI Cooperation (Latvia)
- LLC «Jelgavas autobusu parks» (Latvia)
- Vidzeme Planning Region (Latvia)
- Alexela (Estonia)
- Estonian Hydrogen Technologies Association (Estonia)
- Baltic Innovation Agency (Estonia)
- New Energy Coalition (Netherlands)
- Port of Tallinn (Estonia)
- Skycorp Technologies (Estonia)
- Hydrogen Architects (Netherlands)

Join us in shaping the future of clean energy!

We believe this is only the beginning.

- **Startups & scaleups –** share and showcase your innovative solutions.
- **Regions & communities –** collaborate with us and bring hydrogen pilots to life.

Together, we can grow a truly European clean hydrogen ecosystem.

H2VALUE

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INNOVATE
New hydrogen solutions

CONNECT
Partners across borders

SCALE
From pilots to deployment

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Interreg Baltic Sea Region

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ENERGY TRANSITION

H2Deri@BSP

H2Derivatives@BalticSeaPorts

A cooperation project to develop proof-of concepts for the uptake of H2 derivative fuels

Port of Hamburg MARKETING

H2Derivatives@BalticSeaPorts
Project in a Nutshell

Interreg Baltic Sea Region

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ENERGY TRANSITION
H2Deri@BSP

H2Deri@BSP is providing a

1. clear perspective on future energy qualities and quantities
2. solution for planning and investing in appropriate port & terminal infrastructure,
3. adapted port regulatory and safety framework, and
4. communication strategy to increase acceptance of investments.

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H2Deri@BSP seeks …

….to increase capacities of Baltic Sea Region's port authorities to be prepared for transshipment, storage, and bunkering of green H2-derivatives.

Implementation Phase: 03/2025 – 02/2028

Project ID: #076, H2Deri@BSP

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H2Derivatives@BalticSeaPorts
Project Partnership

Interreg Baltic Sea Region

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ENERGY TRANSITION
H2Deri@BSP

- Hamburg Port Authority
- Freeport of Ventspils Authority
- Klaipeda State Seaport Authority
- Port of Kiel
- Port of Esbjerg
- Port of Helsinki
- Port of Luleå
- Port of Tallinn
- Alexela
- Gasum
- Mabanaft
- IVL Swedish Environmental Research Institute
- Lindholmen Science Park
- Association of German Seaport Operators
- Port of Hamburg Marketing

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H2Derivatives@BalticSeaPorts

Associated Organizations

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ENERGY TRANSITION H2Deri@BSP

Hydrogen Valley Estonia

Energy Producer and Provider

AZANE Fuel Solutions

LIWATHON E.O.S.

Eesti Energia

Derivaat NH_3

PURPLEGREEN

MITSUI & CO. DEUTSCHLAND GmbH

Business Support Organisation

Renewable Energy Hamburg

energy CLUSTER DENMARK

METROSERT | Hydrogen Valley Estonia

BPO BALTIC PORTS ORGANIZATION

Energy Transition Norway

EBusiness

Port Authorities and Terminals

ROSTOCK PORT

MUKRAN PORT

PORT of PITEÅ

ZARZĄD PORTU MORSKIEGO KOŁOBRZEGU

HHLA HAMBURGER HAFEN UND LOGISTIK AG

MUUGA STORAGE TERMINAL OÜ

PORT of NEWCASTLE

International governmental organisation and Public Authorities

Baltic Sea States Subregional Co-operation

KURZEME PLANNING REGION

Ventspils

Shipping Lines

TUI Cruises

X-PRESS FEEDERS

DFDS

Higher Education & Research Institutes

VENTSPILS UNIVERSITY OF APPLIED SCIENCES

DLR Maritime Energy Systems

TARTU ÜLIKOOL 1632 UNIVERSITY OF TARTU

TAL TECH

METROSERT

TARTU RAKENDUSLIK KOLLEDŽ TARTU VOCATIONAL COLLEGE

H2 VALUE

H2CoVE

H2LV

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Deliverables - > Outputs

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ENERGY TRANSITION

H2Deri@BSP

- Market analysis-Baltic Sea ports as green energy hubs
- Technical and economic analysis model for investments
- Mapping tool for port bunkering (terminals, fuel and ship types)
- Specifications of a methanol bunkering vessel
- Feasibility tests for bunkering of methanol from truck to ship
- Regulatory framework for ports investing in H2-Derivatives
- Recommendations for port safety handling manuals
- Port residential communication strategy for investments

H2Derivatives@BalticSeaPorts
Outputs

https://interreg-baltic.eu/project-posts/h2deribsp/video/

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Scan for Project Outputs

Policy challenges

1. Technical requirements versus technology-neutral policy
2. Limited innovation/R&D function of state and municipal commercial enterprises
3. Limited and fragmented funding sources
4. Public procurement and demand creation
5. Permitting and institutional coordination

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Thank You!

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