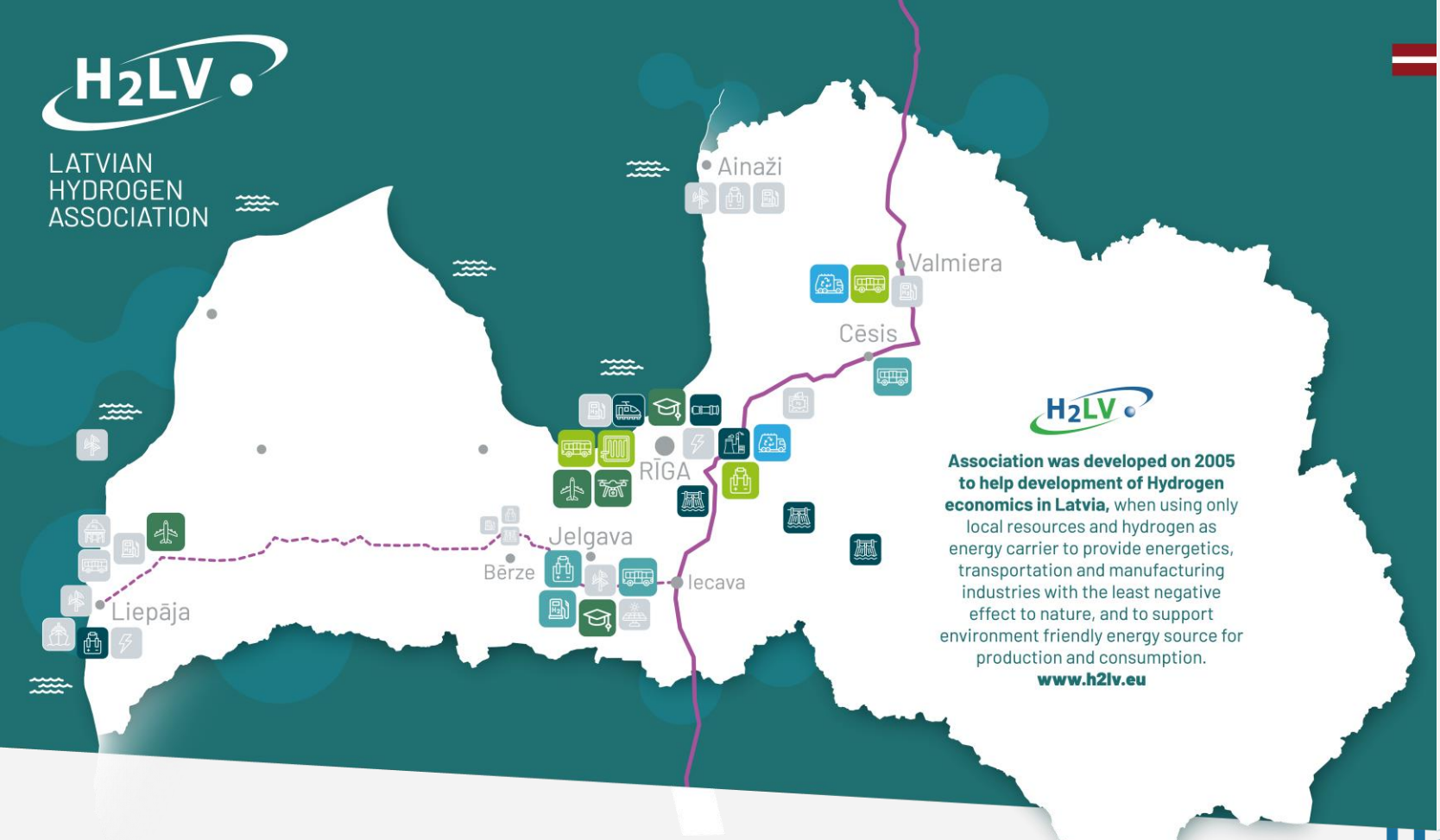
From science to market

Aivars Starikovs
Board Member of Hydrogen Europe and the Latvian Hydrogen Association.

8th October, 2026



H2VALUE

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interreg Baltic Sea Region — Co-funded by the European Union — SMART GREEN MOBILITY BSR HyAirport

H2 ZERO EMISSION

BALTIC SEA REGION HYDROGEN COUNCIL

H2LV

Three Stages of H2LV Activities

1. Technical and Economic Assessment

2. Piloting Hydrogen Technologies

3. Scaling, Market entry and Commercialisation

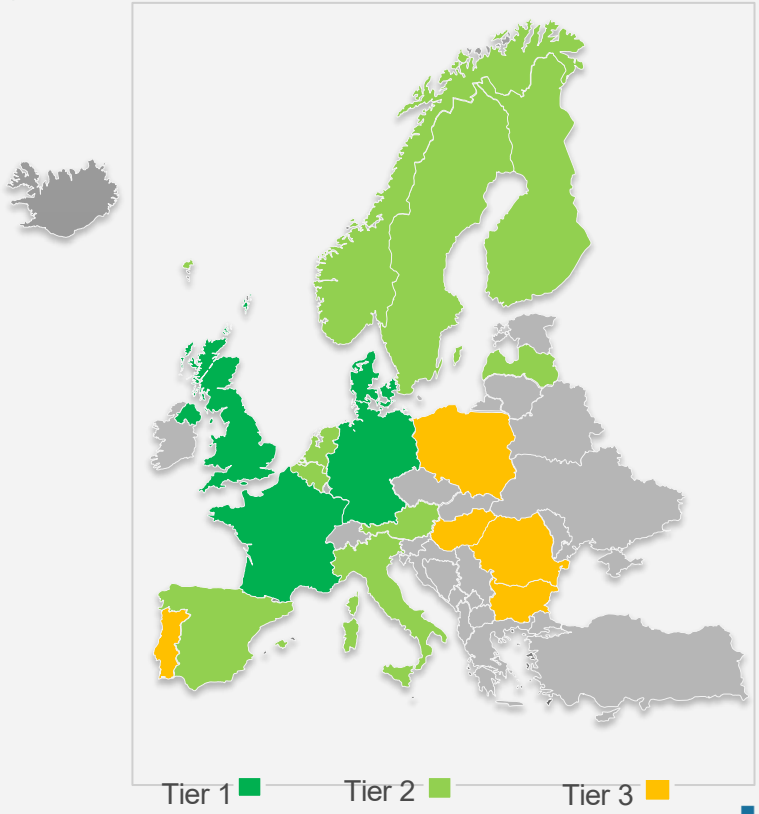
Stage 1: Technical and Economic Assessment

- HyLAW project: Identifying legal barriers for hydrogen adoption
- Joint Procurement Strategy for Fuel Cell Buses (FCH JU)
- Studies on fuel cells in railway and trucks (Shift2Rail, FCH JU)

=> Building the foundation for Technical and economic

HyLAW

- Hydrogen Law and removal of legal barriers to the deployment of fuel cells and hydrogen applications Coordinator: Hydrogen Europe
- 23 partners from 17 members states and 1 associate country
- Countries gathered by clusters:
  - Tier 1 : FCH front running countries
  - Tier 2 : FCH fast following countries
  - Tier 3 : FCH Emerging countries
- The HyLAW project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement No 737977. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme, Hydrogen Europe and N.ERGHY.

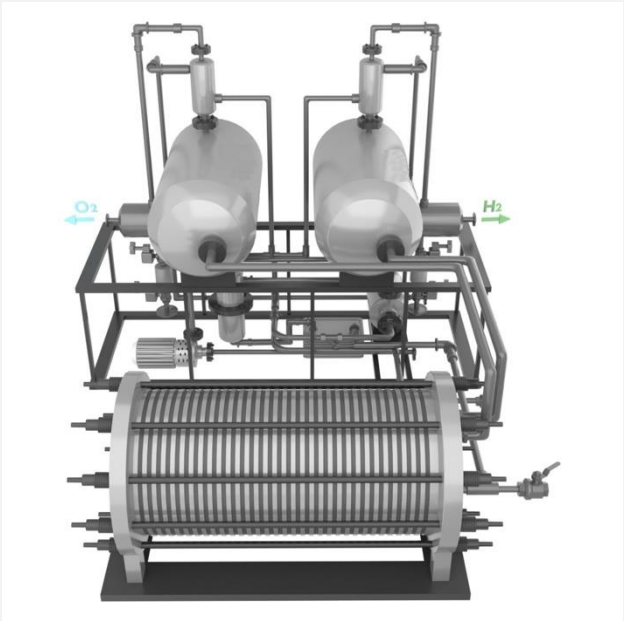


Stage 2: Piloting Hydrogen Technologies

- JIVE Project: Hydrogen buses demonstrated in Riga
- BSR HyAirport: Preparing hydrogen solutions for Baltic airports
- Experimental vehicles: Fuel cell go-cart, tricycle, and bus pilots

PEM Electrolyzer

Objective: To develop a new and innovative medium-power 50 kW PEM electrolyzer where catalysts are coated with the direct magnetron sputtering method, which replaces the traditional CCM (Catalyst Coated Membrane) technology.



Supported by The Latvian Energy and Transport Competence Centre

BSR HyAirport Transport

Overview of possible H_2 infrastructure in 2030

Add legend for airport symbols, sth. like this:

- Project partnership airports
- Project partnership operating airports

Pipelines

- new (planned)
- repurposed (planned)

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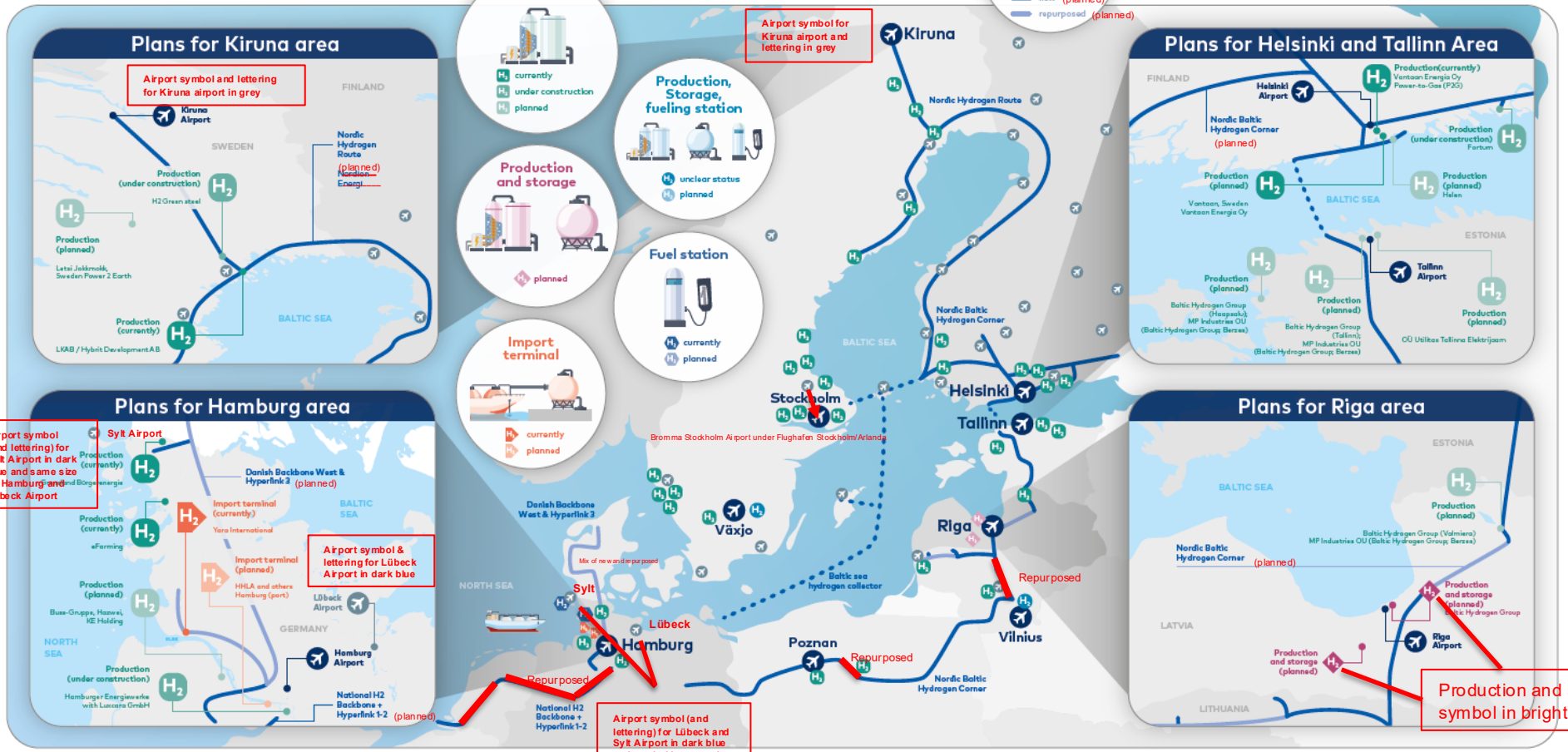
SMART GREEN MOBILITY BSR HyAirport



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Stage 3: Scaling and Market Entry

- H2Value Project: Cross-border hydrogen transport between Estonia and Latvia

- Development of electrolyzer, FCE airport towing tractor, GPU, mobile HRS etc

=> Transitioning pilots into commercial solutions and wider market adoption

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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 Estonia and Latvia.

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.

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.
- Shift to locally produced hydrogen in Jelgava.

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

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

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NEXT STEPS IN H2VALUE

- **Green hydrogen production in Jelgava**

Development of the first 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 hydrogen truck at the Port of Tallinn, with preparations for refueling 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.

H2VALUE

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)

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