Key aim

Creating a cross-border market for renewable hydrogen.

The goal is to establish a green hydrogen market on both demand and supply sides, making it a competitive energy source. Industry leaders from all three countries will develop pilot projects to produce up to **5,000 tonnes of renewable hydrogen annually** for storage, distribution, and use.

Around 20% of the hydrogen produced is expected to be traded between participating countries, fostering a regional hydrogen market.

Consortium prtners

Over 120 participants from 37 project partners are directly involved in the tasks and activities of the NAHV: companies, universities, institutes and other public entities

Lead partner: HSE, Slovenia's largest electricity producer and trader, largest producer of electricity from renewable sources

Contact us

communication@nahv.eu

www.nahv.eu

@nahv

@nahv_eu

About the NAHV

The NAHV is the first transnational initiative of this kind under the Horizon Europe programme, supported by the Clean Hydrogen Partnership.

Target territories: **Croatia, Friuli-Venezia Giulia (Italy) and Slovenia**

A grant of **€25 million** awarded by Clean Hydrogen Partnership

37 partners in a consortium lead by HSE

Launched in Portorož-Portorose, Slovenia, in September 2023

Duration: 72 months

Distinctive ambition

The NAHV's ambition is the creation of a hydrogen-based economic, social and industrial ecosystem based on the capacity of the quadruple helix actors.

North Adriatic Hydrogen Valley

Evolving a transnational ecosystem with renewable hydrogen

Co-funded by the European Union

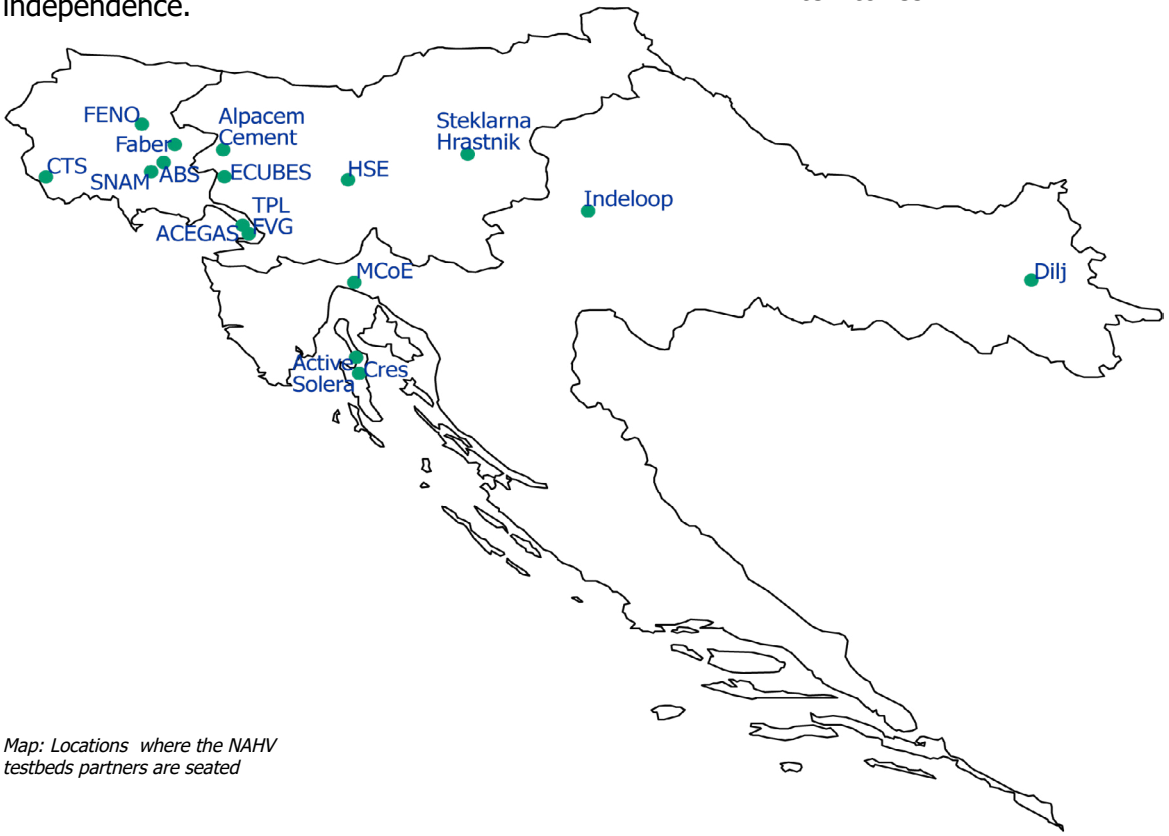
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Testbed projects

The project has activated **17 testbed applications** in their related ecosystems, clustered in three main pillars – the hard-to-abate industries, energy and transport sectors.

These act as **real-life cases for piloting global hydrogen markets**, moving from TRL 6 at the beginning to TRL 8 by the end of the project.

Four fuel cell applications in the energy and transport sectors will be demonstrated. Testbeds will then be scaled up to the industrial level as a replicable model, contributing to the decarbonisation of the three territories by harnessing renewables to improve system resilience, security of supply, and energy independence.



Map: Locations where the NAHV testbeds partners are seated

Renewable Hydrogen Testbed Applications

For industry & hard-to-abate sectors

Objectives

- implement and validate new solutions and testbed applications for renewable hydrogen valorisation in the industry sector;
- cover the complete value chain of renewable hydrogen from production to distribution, storage and end-use;
- support the decarbonisation of the industry sector, with particular focus on steel, glass industry and many other hard-to-abate companies, by replicable testbed plants distributed across all the three target involved territories.

For the energy sector

Objectives

- implement and validate new technologies and testbed applications for the energy sector's renewable hydrogen valorisation;
- support the decarbonisation of the energy sector applications, with particular focus on hydrogen generation sets, backup-power systems, electric supply of infrastructures and gas grid injection in blending mixtures;
- cover the complete value chain of renewable hydrogen from production to distribution, storage and end-use by replicable testbeds distributed across all the three target involved territories;
- develop a FCH application

For the transport sector

Objectives

- support the decarbonisation of the transport sector applications, with particular focus on waterborne applications, public transport fleets, and private vehicles;
- implement and validate testbed applications for the transport sector's renewable hydrogen valorisation, also enabling synergies with other sector of application and production;
- cover the complete value chain of renewable hydrogen from production to distribution, storage and end-use by replicable testbeds;
- develop three FCH applications.