Cross-Border Valley Management

North Adriatic Hydrogen Valley: Developing a Transnational Hydrogen Ecosystem

From individual demonstration projects to an integrated cross-border hydrogen ecosystem

Brussels, 26th October 2026

Co-funded by the European Union

The project is supported by the Clean Hydrogen Partnership and its members.

NAHV: One Valley, Three Territories

A shared ambition implemented across different systems



- **First transnational Hydrogen Valley** supported under Horizon Europe
- **Three territories:** Slovenia, Croatia and Friuli Venezia Giulia
- **39 partners** across the hydrogen value chain
- **€25 million** in EU grant funding
- **72-month** implementation period

One shared ambition. Three territorial contexts. One integrated hydrogen ecosystem.

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A cross-border partnership across the value chain

	SLOVENIA	CROATIA	ITALY Regione autonoma Friuli-Venezia Giulia
Territory			
Institutional Partners	Ministry of the Environment, Climate and Energy	Ministry of Economy and Sustainable Development	Regional Council of Friuli-Venezia Giulia
Research Community	University of Ljubljana	University of Rijeka	University of Trieste
Industrial Partners	Holding Slovenske elektrarne d.o.o. Termoelektrarna Šoštanj d.o.o. HSE Invest d.o.o Ecubes d.o.o. Steklarna Hrastnik d.o.o. Salonit Anhovo d.d.	Občina Cres Active Solera Dilj Indeloop MCoE Gitone Kvarner d.o.o.	AREA Science Park ABS /Danieli Centro Combustion Snam S.p.A Ferriere Nord, Pittini Group ACEGAS Faber Industrie Meta Group Fondazione Bruno Kessler CTS H2 TPL FVG
Partners Outside Territory	Fundación para el Desarrollo de las Nuevas Tecnologías del Hidrógeno en Aragón		

NAHV
connects territorial governance, value-chain actors, knowledge institutions and public authorities within a common management framework.

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Why Cross-Border Valley Management Matters

- **Hydrogen production and demand** are not always located in the same territory
- **Demonstration projects** depend on shared infrastructure, logistics and market development
- Permitting, certification and support frameworks differ across borders
- **Industrial off-takers** require reliable volumes, predictable prices and long-term supply
- **Individual projects** therefore need to be coordinated as one regional ecosystem

A Hydrogen Valley becomes transnational only when local projects are connected through common governance, market coordination and shared infrastructure planning.

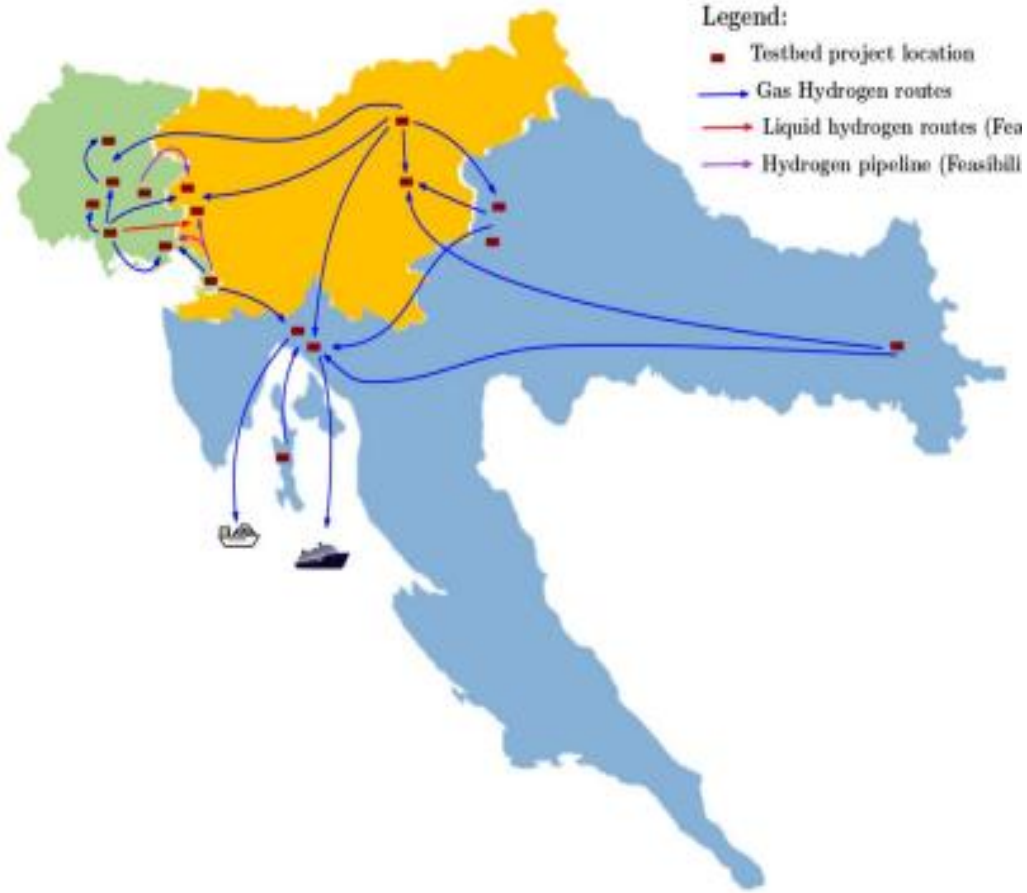
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From renewable energy to end use

Renewable electricity → Hydrogen production → Storage and distribution → End use

- Renewable hydrogen production across the three territories
- Planned capacity of around 5,000 tonnes per year
- Demonstration of the complete hydrogen value chain
- Applications in industry, energy and transport



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Creating the conditions for a hydrogen market

- Regulatory sandbox to identify and address regulatory barriers
- Harmonised approaches to permitting, safety and RFNBO certification
- Mapping and aggregation of industrial, mobility and energy demand
- Development of long-term offtake and hydrogen supply agreements
- Optimisation of local and cross-border logistics and refuelling solutions
- Transparent monitoring of hydrogen origin and greenhouse-gas savings
- Cooperation among producers, off-takers, infrastructure operators, authorities and research organisations

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From demonstration to a functioning hydrogen market

- Match hydrogen production with clearly identified industrial, mobility and energy off-takers
- Develop long-term offtake agreements and bankable commercial models
- Reduce the delivered cost of hydrogen through local and regional supply chains
- Ensure RFNBO certification, guarantees of origin and transparent carbon accounting
- Coordinate production, storage, transport and refuelling infrastructure
- Aggregate demand across Slovenia, Croatia and Friuli Venezia Giulia
- Enable cross-border hydrogen trade and prepare for connection to future hydrogen corridors

NAHV is not only demonstrating hydrogen technologies - it is creating the commercial, regulatory and infrastructure conditions for a regional renewable hydrogen market.

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Three messages to take away



1 **ONE REGION**
NAHV connects three territories through one integrated hydrogen ecosystem.

2 **REAL IMPLEMENTATION**
The project combines real-life demonstrations with research, skills and regulatory development.

3 **LONG-TERM VALUE**
Future impact depends on cooperation, market uptake and further investment.

NAHV demonstrates not only hydrogen technologies, but also how a transnational hydrogen ecosystem can be coordinated, connected and prepared for scale-up.

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Thank you

Let’s continue the conversation.

Andreja Kumer

North Adriatic Hydrogen Valley Coordinator

andreja.kumer1@hse.si

NAHV

www.nahv.eu · nahv@hse.si
communication@nahv.eu

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Thank you

Let’s build the hydrogen ecosystem together.

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