# **HEAVENN**

## HYDROGEN ENERGY APPLICATIONS FOR VALLEY ENVIRONMENTS IN NORTHERN NETHERLANDS



Project ID	875090
PRR 2025	Pillar 6 – H <sub>2</sub> Valleys
Call Topic	FCH-03-1-2019
Coordinator Beneficiary	STICHTING NEW ENERGY COALITION, NL
<b>Project Period</b>	01-01-2020 - 31-12-2027

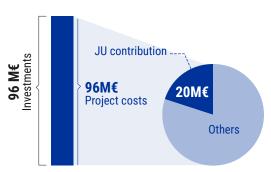
## **Location** The Netherlands



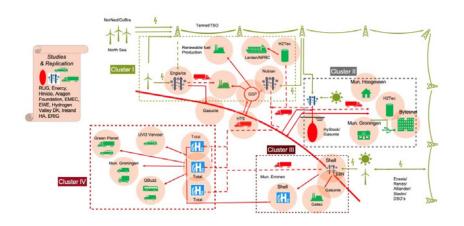
Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat Cartography: Eurostat - IMAGE, 03/2025

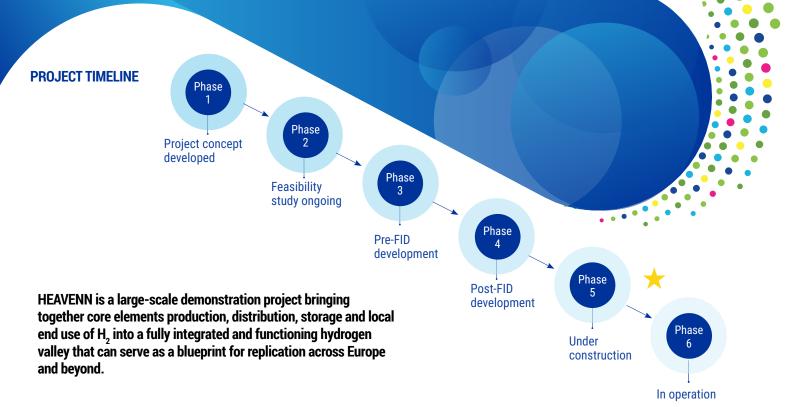
### H<sub>2</sub> VALUE CHAIN COVERAGE >1 500 H, production tonnes H<sub>2</sub> per year Electrolysis H, Storage and distribution H<sub>2</sub> pipeline HRS **Tube trailers** H, end uses Transport Energy Industry Garbage trucks, Passenger vehicles Taxis, Long-haul trucks, Bus Residential heat Gas turbine Gas turbine

#### Finances



http://www.heavenn.org





#### PROGRESS, MAIN ACHIEVEMENTS AND RESULTS

#### HYDROGEN APPLICATIONS

- Salt barge hull is currently sailing in the Netherlands using a container swap solution for hydrogen refuelling.
- Vehicles have been ordered or purchased and will be delivered this year.
- In Hoogeveen, construction has started on hydrogen-powered housing.
- The data centre hydrogen project is evaluating the best fuel cell type and size for its energy needs.

#### STORAGE AND DISTRIBUTION

- Salt cavern testing is ongoing and is being successful
- First static tests were successfully performed by Gasunie, showing that hydrogen can be safely stored in salt caverns.
- Designs and layout plans for future H<sub>2</sub> caverns are in progress.
- The Hydrogen Refueling Station (HRS) is operational and in use by partner UVO.
- The Emmen EMMHY pipeline is installed and ready to begin using hydrogen.

#### **MARKETABILITY PROGRESS**

- The connections specification study is complete, exploring market scenarios and design scalability; results include a plot plan and capacity-range definition.
- In Eemshaven, efforts are ongoing to matchmake for the pipeline, seeking customers and purchase agreements.
- The HyCC factory is progressing toward a Final Investment Decision (FID).
- The Hydrogen Hub is applying for a final co-financing subsidy and will proceed to FID after approval.

#### **FUTURE STEPS AND PLANS**

- A critical assessment of deliverables is planned.
- Tasks and deliverables will be reassessed and updated due to changes since the grant agreement.
- A few partners are awaiting cofounding; if secured, they plan to accelerate all actions.
- The consortium has been awarded a definitive extension, which aid partners in closing their business case and proceeding to FID.
- Significant effort will be made to connect hydrogen valley projects, focusing on:
  - ➤ Sharing experiences and lessons learned;
  - ➤ Creating synergies;



© European Union, 2025

Reproduction is authorised provided the source is acknowledged. For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders. The European Union does not own the copyright in relation to the following elements:

icons: @July Dii/stock.adobe.com; @marina\_ua/stock.adobe.com; @VectorMine/stock.adobe.com; @YEVHENIIA/stock.adobe.com.
PDF\_ISBN 978-92-9246-431-8\_doi:10.2843/715166\_FG-05-24-218-FN-N



