

## VALUE-H2

Value-Oriented Business Models and Techno-Economic Optimisation for Industrial Renewable Hydrogen

H2NOSTRUM ASSOCIATION. Nuria Cano Corral, President.

Enterprise Association for developing Green H2 across Mediterranean See

Email: [h2nostrumas@gmail.com](mailto:h2nostrumas@gmail.com), [ncano@ecairtec.com](mailto:ncano@ecairtec.com), Phone:+36 615055135,

Please send to [cristina.garrido@cdti.es](mailto:cristina.garrido@cdti.es) before 2<sup>ND</sup> February 2026

If necessary, presentations will be selected by the maturity of the project idea and its adequacy to the proposed topic

# 1. Your organization and capacities

## **H2NOSTRUM ASSOCIATION:**

An International Association to develop a complete Ground-Maritime Solution for Hydrogen Economy for Mediterranean companies. Working together with Europe, its Neighbours and Associate Countries.

**FUNDATIONAL MEMBERS:** **APC CARTAGENA**, The port of Cartagena as Public Institution; **REGENERA LEVANTE**, for renewable energy as a large company, **EDAIR TECHNOLOGIES SL** focus in R&D for industry as a SMEs, **SUPRASYS SL** works in engineering specializing in cryogenics as a SMEs, **POLYSOL SL** engineering consulting as a microenterprise.

## **MAIN TASKS**

- **Promotion of the Consortium by acting** enhancing contact with Mediterranean ports and improving its synergy with strategic companies in the hydrogen energy sector.
- **Link the offer (producers and investors)** in technologies and infrastructure to achieve joint international hydrogen projects.
- **Activate all avenues to improve industrial, residential and mobility demand for hydrogen energy for the companies in the member countries**, as well as analyze the developments of the necessary logistics. The challenges to address are: technological demonstrations, innovation, connectivity and improving efficiency in the hydrogen resource.
- **Promote research and share knowledge of technological developments between companys.** Act as coordinator and treasurer of the group in the case of joint projects, in addition to promoting and initiating grant application processes for the association's companies.

# 2. Topics of interest in call 2026

Topic	Experience and Contribution
<p>HORIZON-JU-CLEANH2-2026-01-04: Innovative business models advancing renewable electrolysis integration in industry.</p>	<p>* Experience: * Contribution:</p>
<p><b>H2Nostrum Association</b> boasts a strong relationship among its members, demonstrating stability, trust between companies, and effective coordination. These values are intended to be shared to expand this strength to include more companies and organizations wishing to collaborate on innovation projects.</p>	<p>Experience</p>
<p>Partner Potential Contribution to this call are good for the “<b>Techno-economic optimization tools</b>” part, but the topic is dominated by bankability, contracts, politics, and community.:</p> <p><b>REGENERA LEVANTE</b> (EMS/BESS/SW): techno-economic optimization, flexibility, grid services, sizing, operational control/strategies.</p> <p><b>EDAIR TECHNOLOGIES SL</b> (BoP, water, power): BoP costs, technical permits, water, electrical connection, CAPEX/OPEX.</p> <p><b>SUPRASYS SL</b> (cryogenics / liquid NH3): the industrial case should include carriers or LH2/cryogenics.</p>	<p>Contribution</p>

# 2. Topics of interest in call 2026

Topic	Project idea and partners sought
HORIZON-JU-CLEANH2-2026-01-04: Innovative business models advancing renewable electrolysis integration in industry.	* Project idea: * Partners sought:
<ul style="list-style-type: none"><li>• The project aims to design, validate and stress-test innovative business models for renewable hydrogen integration in industry, focusing on bankability, investment readiness and replicability across the EU.</li></ul> <p>Rather than developing new hardware, the project will:</p> <ul style="list-style-type: none"><li>• Analyze why industrial hydrogen projects succeed or fail at FID, design new ownership, contractual and revenue models, validate them through advanced techno-economic optimization, and apply them to at least one real industrial case.</li><li>• The outcome will be a practical, evidence-based toolkit enabling developers, investors and policymakers to accelerate Final Investment Decisions for industrial hydrogen projects.</li></ul>	Project idea

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HORIZON-JU-CLEANH2-2026-01-04: Innovative business models advancing renewable electrolysis integration in industry.	* Project idea: * Partners sought:
<p><b>1) Industrial Case Owner / Offtaker (Mandatory according to the scope)</b></p> <p>What's NEEDED: an industrial host with actual or planned H2 consumption (chemicals, fertilizers, etc.)</p> <ul style="list-style-type: none"> <li>- access to CAPEX/OPEX/energy/water data</li> <li>- capacity to validate PPAs/HPAs and risks.</li> </ul> <p><b>Profile sought</b></p> <ul style="list-style-type: none"> <li>• Energy-intensive industrial company (in the following areas: <b>chemicals and fertilizers</b>).</li> <li>• Owns or develops a <b>real renewable hydrogen integration project</b> (pre-FID or early development stage).</li> </ul> <p><b>Expected contribution</b></p> <ul style="list-style-type: none"> <li>• Provide the <b>real industrial case</b> required by the call.</li> <li>• Share operational, cost and demand data (anonymised if needed).</li> <li>• Participate in validation of business models and bankability assessment.</li> <li>• Assess replicability potential within its sector.</li> </ul>	<p>Partners sought</p>

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Topic	Project idea and partners sought
HORIZON-JU-CLEANH2-2026-01-04: Innovative business models advancing renewable electrolysis integration in industry.	* Project idea: * Partners sought:
<p><b>2) Financial / Project Finance Expert (Mandatory as a “Bankability” actor)</b></p> <p><b>Profile sought</b></p> <ul style="list-style-type: none"><li>• Organisation with proven experience in infrastructure or energy project finance.</li><li>• Familiar with hydrogen, industrial decarbonisation or large CAPEX projects.</li></ul> <p><b>Expected contribution</b></p> <ul style="list-style-type: none"><li>• Perform bankability stress-tests of proposed business models.</li><li>• Develop simplified financial structures, sensitivity analyses and risk allocation.</li><li>• Contribute to investment-readiness criteria and lender perspectives.</li></ul>	Partners sought

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<p><b>3) Legal &amp; Contractual Expert (Business models to be contractually feasible)</b></p> <p><b>Profile sought</b></p> <ul style="list-style-type: none"><li>• Legal or advisory entity specialised in energy and industrial contracts.</li><li>• Strong experience with PPAs, HPAs, EPC/EPCM, SPVs, leasing, tolling and joint ventures.</li></ul> <p><b>Expected contribution</b></p> <ul style="list-style-type: none"><li>• Analyse and structure innovative contractual architectures.</li><li>• Develop checklists and template clauses for PPAs/HPAs and related contracts.</li><li>• Support risk allocation analysis across business model archetypes.</li></ul>	Partners sought

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HORIZON-JU-CLEANH2-2026-01-04: Innovative business models advancing renewable electrolysis integration in industry.	* Project idea: * Partners sought:
<p><b>4) Policy &amp; State-Aid Expert (CSA explicitly target policymakers and alignment of support frameworks)</b></p> <p><b>Profile sought</b></p> <ul style="list-style-type: none"> <li>• Policy institute, think tank or consultancy with expertise in:               <ul style="list-style-type: none"> <li>o EU and national hydrogen support schemes,</li> <li>o State Aid rules,</li> <li>o cumulation and cross-border frameworks.</li> </ul> </li> </ul> <p><b>Expected contribution</b></p> <ul style="list-style-type: none"> <li>• Map existing and evolving support schemes.</li> <li>• Analyse policy interactions with business models.</li> <li>• Produce policy briefs and recommendations for EU and national decision makers.</li> </ul>	<p>Partners sought</p>

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HORIZON-JU-CLEANH2-2026-01-04: Innovative business models advancing renewable electrolysis integration in industry.	* Project idea: * Partners sought:
<p><b>5) Research &amp; Technology Organisation / University (improves Excellence score as Knowledge Management actor)</b></p> <p><b>Profile sought</b></p> <ul style="list-style-type: none"> <li>• Academic or applied research organisation with expertise in:               <ul style="list-style-type: none"> <li>o hydrogen techno-economics, o LCA/LCCA, open modelling frameworks.</li> </ul> </li> </ul> <p><b>Expected contribution</b></p> <ul style="list-style-type: none"> <li>• Ensure methodological robustness of analyses.</li> <li>• Support development of LCA/LCCA templates.</li> <li>• Strengthen scientific credibility and open-access dissemination.</li> </ul>	<p>Partners sought</p>