

## H<sub>2</sub>ADRIATIC: Hydrogen-Electric Hybrid Propulsion for Adriatic Vessels

**Sector:** Other - Sustainable maritime transport and the decarbonization of nautical activities through hydrogen technologies

### Short description of the needs:

#### Call 1 – Hydrogen and Marine Engineering Research

The project develops hydrogen-electric hybrid propulsion systems for small-to-medium Adriatic vessels. Three company-owned vessels serve as pilot platforms: motor vessel Marko Polo, sailing yacht Elan 450, and inflatable boat.

The initiative demonstrates cleaner vessel operations through hydrogen integration, addressing urgent maritime decarbonization while ensuring operational safety and reliability.

The company seeks collaboration with research institutions specialized in hydrogen technologies and marine engineering to advance the system to TRL 5–6 through real-environment validation and testing.

#### Call 2 – Nautical and Shipbuilding SMEs

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The initiative demonstrates cleaner vessel operations through hydrogen integration, addressing urgent maritime decarbonization while ensuring operational safety and reliability.

Currently at TRL 2–3, the project targets TRL 5–6 through real-environment validation and testing.

The initiative is looking for nautical and shipbuilding SMEs to support the development and adaptation of hybrid propulsion systems on three pilot vessels. Partners will contribute expertise to optimize integration and operational performance.

#### Call 3 – IT and Monitoring Systems

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Currently at TRL 2–3, the project targets TRL 5–6 through real-environment validation and testing.

Collaboration with IT companies is sought to develop advanced monitoring systems for hydrogen-electric hybrid vessels.

#### Call 4 – Regulatory and Testing Support

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Currently at TRL 2–3, the project targets TRL 5–6 through real-environment validation and testing. The project seeks partnerships with regulatory bodies to facilitate access to testing infrastructure and compliance frameworks. This will enable safe, controlled real-environment testing and validation of hydrogen propulsion technologies.

**More info:** For more information apply to PP2 Maritime Innovation Cluster MARINN via e-mail [nikolina.radic@gitone.hr](mailto:nikolina.radic@gitone.hr), [dora.vujnovic@gitone.hr](mailto:dora.vujnovic@gitone.hr).

**Point of contact for the brief/challenge:** Maritime Innovation Cluster MARINN

**Company position in the value chain:** OEM