PARTNERS

PROJECT DETAILS

PROJECT TITLE >	Hydrogen Economy Benefits and Risks: tools development and policies implementation to mitigate possible climate impacts
ACRONYM >	HYDRA
TOPIC >	HORIZON-CL5-2023-D1-01-03 | Climate impacts of a hydrogen economy
STARTING DATE >	01 November 2023
ENDING DATE >	31 October 2027
PROJECT NUMBER >	101137758
TOTAL BUDGET >	4 479 807,50 Euro
EU CONTRIBUTION >	3 847 500.00 Euro

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CONNECT

hydraproject.eu

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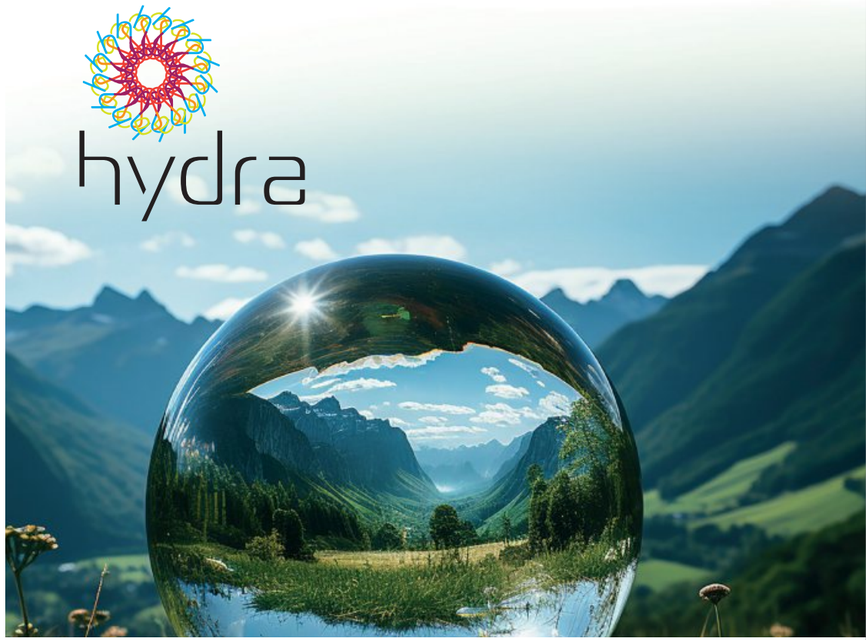

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THE PROJECT

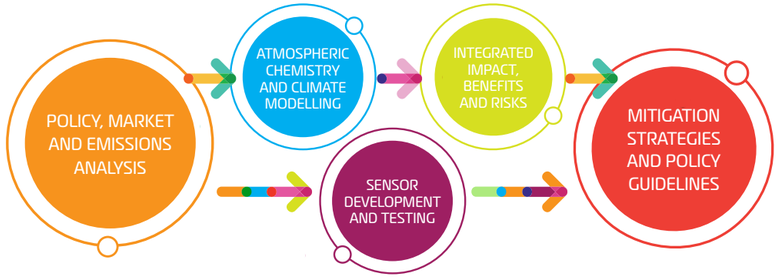
Hydrogen has gained interest in the global search for cleaner and more sustainable energy sources. The HYDRA project focuses on the implications of hydrogen's widespread adoption as a **carbon-free** energy vector.

HYDRA aims to assess **potential impacts** (e.g., on climate and the environment) linked to a **large-scale** deployment of hydrogen technologies.
The main actions include market analysis, atmospheric modelling, climatic projections, development of a leakage monitoring tool, and suggestion of mitigation actions.

The overall goal is to **inform policy makers** and relevant **stakeholders** about the potential long-term implications of **hydrogen adoption** at large scale.

HYDRA will produce new **scientific knowledge** for the scientific community and useful results for policy makers. HYDRA will also contribute in increasing **awareness** about the need of **sustainable energy vectors**.

METHODOLOGY



EXPECTED RESULTS

HYDRA results can be grouped in the following five pillars:

ENVIRONMENT, EMISSIONS AND ENERGY

HYDRA will provide **energy**, **socio-economic and emission scenarios**, including the possible effects on the environment (e.g. land use and water consumption).

CLIMATE

HYDRA will assess the **climatic impacts of the hydrogen economy** by analysing how increasing hydrogen emissions could affect the atmospheric composition, water vapour, the ozone layer, and the radiative forcing.

SAFETY

HYDRA will develop **a monitoring system** to detect and prevent hydrogen leakages to increase safety of hydrogen technologies.

SUSTAINABILITY

HYDRA will update the **LCA methodology** to take into account potential environmental impacts of hydrogen technologies.

POLICY

HYDRA will assess risks and benefits of a large-scale hydrogen economy, considering climatic and socio-economic factors, and provide **mitigation actions** and **guidelines for policymakers**.