Project Highlights

- Türkiye first MW-scale electrolyzer will soon start production of green H2 at Türkiye's largest green H2 facility,
- Türkiye first regional hydrogen roadmap, including plans for pipelines carrying 100% H2 , will be prepared,
- Feasibility studies will emerge for the production of green H2 derivatives such as ammonia and methanol which Türkiye is almost 100% dependent on imports.
- Türkiye's first domestic hybrid ceramic tile kiln using H2 will be developed.
- The commercial production of sodium borohydride for storing hydrogen in solid form will take place for the first time,
- A new power system utilizing green H2 from sodium borohydride will be developed,
- Experience and knowledge sharing will be ensured by establishing interactions with mature valleys & valley candidate regions,
- The first concrete step will be taken toward establishing Türkiye's first H2 training center.

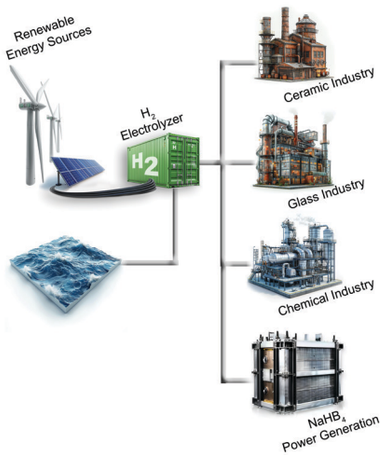
It is envisaged that the HYSouthMarmara Hydrogen Valley Project will make a significant contribution to the production and use of green H2, the development of related technology-oriented infrastructures and the strengthening of Türkiye potential in this field.

What is Green Hydrogen?

Green hydrogen is produced through electrolysis using renewable energy sources such as wind, solar, or hydroelectric power. It is a clean and sustainable form of hydrogen that generates zero carbon emissions during production, making it a crucial component in transitioning towards a green economy.

What is a Hydrogen Valley?

A hydrogen valley is a geographic area where hydrogen is produced, stored, distributed, and utilized across various sectors such as transportation, industry, and energy. It serves as a hub for hydrogen- related activities, fostering innovation, collaboration, and the integration of hydrogen technologies into everyday applications.



Green H2 Production, Transportation & Application in HYSouthMarmara Hydrogen Valley Project

For more information, please follow us

HYSouthMarmara HYSouthMarmara HYSouthMarmara

Türkiye's first Hydrogen Valley Project

HYSouthMarmara will Lead the Green Transition of Turkish Industry

HY South Marmara

Clean Hydrogen Partnership

This project has received funding from the Clean Hydrogen Joint Undertaking under Grant Agreement No. 101112054. This Joint Undertaking receives support from the European Union's Horizon Europe Research and Innovation programme, Hydrogen Europe and Hydrogen Europe Research.

Co-funded by the European Union

'South Marmara Hydrogen Shore - HYSouthMarmara':

A Gateway for Clean Energy & Green Transition

The overall global goal of the HYSouthMarmara project is to create a hydrogen ecosystem in South Marmara, which stands out as Türkiye's primary hub for green electricity production & utilizing modern renewable technologies, to make it the first carbon-neutral region of Türkiye.

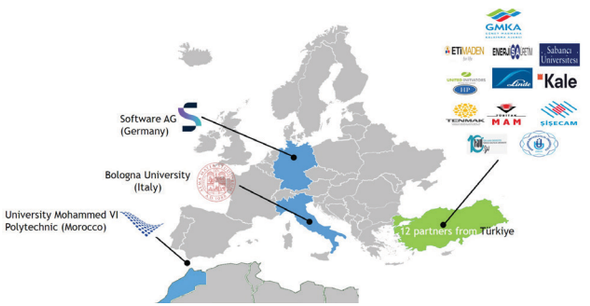
HYSouthMarmara aims to establish a successful model aligning with the goals of European Green Deal and the Clean Hydrogen Joint Undertaking's Strategic Research and Innovation Agenda for H2 Valleys.

The HYSouthMarmara project leverages a clean and sustainable approach for hydrogen production, distribution, and end-user applications and brings together various industrial partners to pioneer the production and utilization of green hydrogen, paving the way for a sustainable and carbon-neutral future for the South Marmara region.

Project Partners

HYSouthMarmara will be implemented by the coordination of the South Marmara Development Agency (GMKA) and consists of 15 stakeholders.

Within the scope of HYSouthMarmara, green H2 will be produced by EnerjiSa Üretim in Bandırma, distributed by Linde and used by Kale Seramik A.Ş., Şişecam A.Ş., Hidrojen Peroksit A.Ş. and Eti Maden in the region. Moreover, TUBITAK MAM will construct an off-grid fuel cell power system using green H2 from sodium borohydride, The Turkish-German University will conduct feasibility studies, while Sabancı University & IICEC will analyze the project's energy & climate contributions, enhance the impact, develop a communication strategy & interaction with other H2 valleys/candidate regions.



HYSouthMarmara Project Partners

Project Overview

Project Coordinator
South Marmara Development Agency (GMKA)

Project Partners
15 Stakeholders

Electrolyzer capacity
4 MW

Green H2 Production Volume
500 tons per year

EU fund
8 million EUR
A record in Turkey history of the Horizon Europe Framework Programs

Total Budget
~ 38 million EUR

The technical and economic feasibility model of HYSouthMarmara will be a demonstration for coastal regions in the Mediterranean countries: Italy, Emilia Romagna region and Morocco.