

# NEWSLETTER

Issue #1

## Introducing NEREUS: Advancing the Future of Green Hydrogen in Europe

We are pleased to launch the first edition of the NEREUS Project Newsletter, marking the beginning of an exciting European initiative dedicated to advancing the next generation of hydrogen production technologies.

Coordinated by Antares Electrolysis S.r.l., and funded by the Clean Hydrogen Partnership and co-funded by the European Union, NEREUS brings together 11 partners from 8 countries for a 36-month collaborative effort supported by approximately €4 million in funding. The project's mission is to develop and validate innovative Anion Exchange Membrane (AEM) electrolyser technology capable of delivering sustainable, efficient and cost-competitive renewable hydrogen production.

As Europe accelerates its transition toward climate neutrality and energy independence, NEREUS aims to strengthen the European hydrogen value chain through technological innovation, industrial collaboration and market-oriented solutions.



### NEREUS numbers in brief

**11** Partners

**8** Countries

**36**-Month of duration

EUR **4** Million of funding



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Co-funded by  
the European Union

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## Why NEREUS Matters

Hydrogen is expected to play a crucial role in Europe's decarbonisation pathway, particularly in sectors where direct electrification is difficult. However, widespread adoption depends on producing renewable hydrogen efficiently, affordably and at scale.

AEM electrolysis is considered one of the most promising emerging technologies because it combines:

- the cost advantages of conventional alkaline electrolysis;
- the compact design and dynamic operation associated with PEM electrolysis;
- the potential to reduce dependence on critical raw materials.

Despite its potential, important technological and industrial challenges remain. NEREUS was launched specifically to address these barriers and accelerate the commercial readiness of AEM electrolysis.



## What are the main challenges?

Despite its strong potential, AEM electrolysis still faces barriers to large-scale market adoption. NEREUS addresses key challenges related to materials durability, system efficiency, scalable manufacturing, renewable energy integration, operational safety and cost competitiveness.

By overcoming these limitations, the project aims to accelerate the industrial deployment of high-performance and affordable green hydrogen technologies across Europe.



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## Looking ahead

NEREUS envisions a future where renewable hydrogen can be produced more efficiently, sustainably and cost-effectively through next-generation AEM electrolysis. By combining innovative materials, smart system integration, AI-driven monitoring and scalable manufacturing solutions, the project aims to accelerate the deployment of reliable hydrogen technologies and strengthen Europe's transition towards a clean, resilient and competitive energy system.

As the project progresses, NEREUS will transform this vision into concrete technological advances, bringing Europe one step closer to a sustainable hydrogen economy.

## The NEREUS Project Partners



Politecnico  
di Torino



## Stay connected

Website: [www.nereusproject.eu](http://www.nereusproject.eu)

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