



ADVANCEPEM aims to develop a high-pressure electrolysis technology with a novel PEM electrolyser that can produce hydrogen at pressures up to 200 bar, by achieving breakthrough solutions for materials and system, and cost-effective large-scale application to reduce energy consumption.



FACTS & FIGURES

Start: 1st February 2023
 Duration: 36 months
 Total project budget: € 2.5M
 Partners & affiliates: 9

LINKS

[Project Website](#)
[News & Updates](#)
[Partners](#)
[First published article: Ce-radical Scavenger-Based Perfluorosulfonic Acid Aquivion® Membrane for Pressurised PEM Electrolysers](#)



PROJECT START

The ADVANCEPEM project officially started on 1st February 2023. The official kick-off meeting was held on Thursday 23rd of February 2023 in Messina hosted by CNR-ITAE, the Project Coordinator.

The ADVANCEPEM consortium involves six partners and three affiliates from the EU and UK, including an electrolyser manufacturer, a research institution, suppliers of membranes, catalysts and MEAs as well as an end-user for demonstrating the system.

DELIVERABLES

Submitted Deliverables

The past six months of the project have been very productive with 6 deliverables already submitted to the EU for approval according to the project timelines.

Upcoming Deliverables

D3.1 – Development of membranes and ionomers
 D4.1 – Electro-catalyst development

HARMONISED TEST PROTOCOLS

In deliverable D2.1 the project partners have established a benchmark for electrolyser components against which development progress can be assessed in terms of durability, performance and cost. Testing procedures for single cells, stacks and electrolysis systems under standard operating conditions are established in accordance with the Harmonised Testing Procedures by the European Commission Joint Research Centre (JRC).

PARTNERS



The project is supported by the Clean Hydrogen Partnership and its members including top-up funding by the UK Research and innovation under grant agreement No 101101318.

