



ARHYOSA

Greentech Equipment as a Service

# ARHYOSA™

## AIOT for Electrolyzers Optimisation



### FINANCIAL PROGRAMME

UE NEXT GEN MIMI START 4.0

ARHYOSA™ brings secure, explainable Edge + Generative AI to green-hydrogen machinery, boosting efficiency and enabling Equipment-as-a-Service while staying fully EU-compliant.

Next Generation EU (PNRR)  
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## About ARHYOSA™

ARHYOSA™ is an advanced Italian initiative that integrates Edge AI and Generative AI into green hydrogen production systems to improve efficiency, flexibility, and sustainability. Coordinated by MYWAI™ in partnership with Ansaldo Green Tech™, Knowhedge™, TICASS™, and the Istituto Italiano della Saldatura™, the project supports manufacturers by embedding smart, secure, and explainable AI directly into machinery and infrastructure.

Leveraging neuromorphic computing at the edge and GPT-based synthetic data generation in the cloud, ARHYOSA™ enables real-time optimization, continuous AI updates, and innovative business models like Equipment-as-a-Service (EaaS). Fully aligned with the EU AI Act and the New Machinery Directive, the platform offers a competitive edge in the transition toward a cleaner, more intelligent Green Hydrogen Economy.

### Edge AI

Real-time, secure AI on local devices. Fast, reliable, and low latency.

### XAI

Transparent AI you can understand, trust, and regulate.

### GEN AI

AI that creates content from data. Text, images, and more.

## OBJECTIVES

ARHYOSA™ aims to develop the first Italian platform for managing and monitoring green hydrogen machinery using an Equipment-as-a-Service approach.

By integrating Edge AI, Generative AI, and Explainable AI, it will deliver high-value services, from technical to financial, supporting the energy transition and decarbonization.

The platform includes modules for edge computing, cloud monitoring, and data certification (via DLT), plus new components for semantic interfacing and secure AI distribution. Tested on AGT's renewable-powered electrolysis plant, ARHYOSA™ will help enable low-emission energy through the Power-to-X model.



**Coordinator**

MYWAI

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**Partners**

ansaldo | green tech



knowhedge  
no edge to know how

