

**AEM ELECTROLYSERS FOR SUSTAINABLE
AFFORDABLE GREEN HYDROGEN PRODUCTION
@Slovenian EU Innovation Fund Info Day 2025**

*HOUSE OF THE EU, LJUBLJANA
JANUARY 28TH, 2025*

VISION^{2H}

ABOUT VISION2H

Vision2H is a joint venture between **Valland SpA** and **CTA Group**.

Valland SpA is a Lombardy-based **manufacturer** of high quality and tailor-made **industrial valves** and **Additive Manufacturing** technologies enabler for Oil&Gas and Energy applications.



CTA Group is a worldwide **distributor of pipes, fittings, flanges and valves** for Chemical, Petrochemical, Refining, Gas Treatment, Power Generation and Nuclear industries.



Development of **Hydrogen related solutions** are at the core of our companies strategy and **Vision2H** stands as a testament to that.

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HYDROGEN
CHALLENGES

CHALLENGE #1

To pursue global decarbonization green hydrogen technologies must be **developed at scale**.

OUR SOLUTION

Vision2H has developed its first breakthrough 100 kW single-stack AEM electrolyser. Our stack technology development plan will enable us to deploy turnkey **AEM electrolysis solutions at MW scale by 2027**.

CHALLENGE #2

To secure its role as the energy vector of the future, green hydrogen **environmental impact must be minimized.**

OUR SOLUTION

Vision2H AEM technology operates with pure water or in **very low concentrated alkaline environment** combined with **reduced/zero PGMs and PFAS contents.**

CHALLENGE #3

To represent a real game changer, **green hydrogen price must reduce significantly.**

OUR SOLUTION

Combining low design complexity, operational flexibility, rational use of natural resources and being developed at scale, Vision2H AEM electrolysers represent **versatile, sustainable and affordable green hydrogen production solutions.**

We develop and manufacture AEM electrolysers for sustainable and affordable green hydrogen production, at scale.



This is our vision of Hydrogen.

AN INNOVATIVE AND WINNING TECHNOLOGY

SIMPLE.

FLEXIBLE AND MODULAR.

AT SCALE.

SUSTAINABLE.

AFFORDABLE.

Applications

Industry   

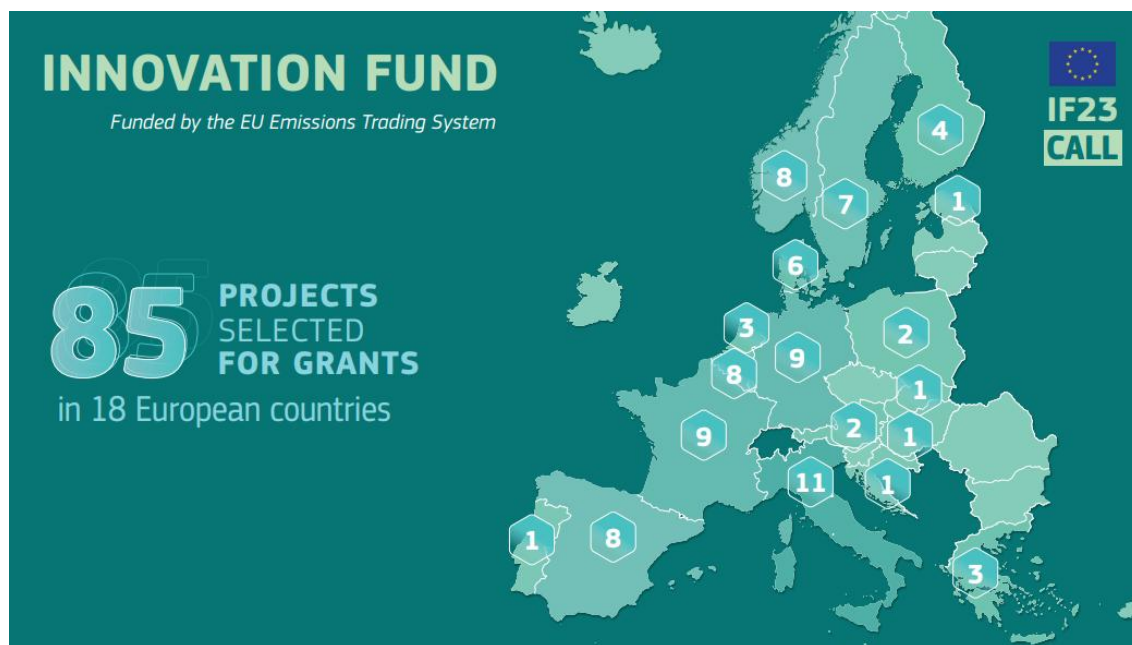
Heavy, maritime and
air transport   

Distribution and heating 

Storage for electric energy
generation 

H2MANUNET INVITED TO GAP PHASE

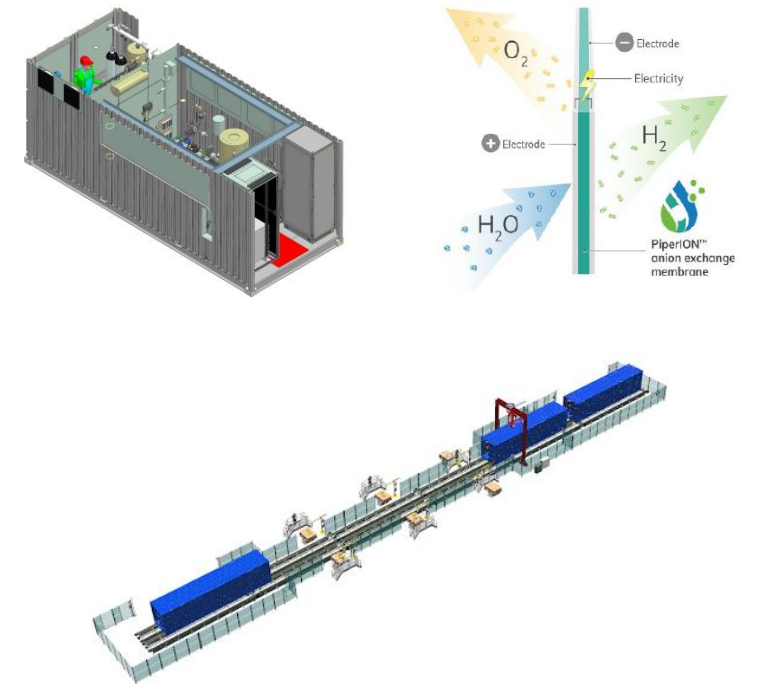
First-of-a-kind highly replicable factory to deploy a distributed GW-scale manufacturing network supplying Cost-Effective AEM electrolysers



1 out of 11 selected Italian projects on IF23Call

1 out of 2 selected Italian projects on IF23Call - Manufacturing

HZMANUNET: PROJECT OVERVIEW



HZMANUNET: WHERE AND WHEN

Lombardy region, ~30 km away from Milan



- Project start: April 2025
- Financial close: September 2027
- Entry into operation: April 2029

H2MANUNET: KPIs

- Expected production of 245 units (591 MW capacity) over 2029-2038 period with sizes ranging from 100 kW to 10 MW
- Estimated 1.616.686 tCO₂eq GHG emissions avoidance over 2029-2038 period
- ~9.2 mln€ project relevant costs
- ~8.6 mln€ CAPEX spent on technology development and advanced manufacturing solutions
- ~5.5 mln€ EU Innovation Fund contribution

Thank you for your attention.

ANY QUESTIONS?

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HYDROGEN RAISED TO POWER