

Green Hydrogen Partnership 2026

H2Vector

Miguel Angel Ocando (CEO)

(Start-up, SME)

MIGUELANGELOCANDO@H2VECTOR.COM

<https://h2vector.com/en/>

Please send to cristina.garrido@cdti.es before 2ND February 2026

If necessary, presentations will be selected by the maturity of the project idea and its adequacy to the proposed topic

H2VECTOR ENERGY TECHNOLOGIES SL

DECENTRALIZED HYDROGEN POWER SYSTEMS FOR CRITICAL APPLICATIONS

SME

MIGUEL ANGEL OCANDO; MIGUEL ANGEL.OCANDO@H2VECTOR.COM

[HYDROGEN SOLUTIONS - H2VECTOR ENERGY TECHNOLOGIES/](https://www.h2vector.com/)



**An energy solution today,
for a sustainable tomorrow**



1. Your organization and capacities

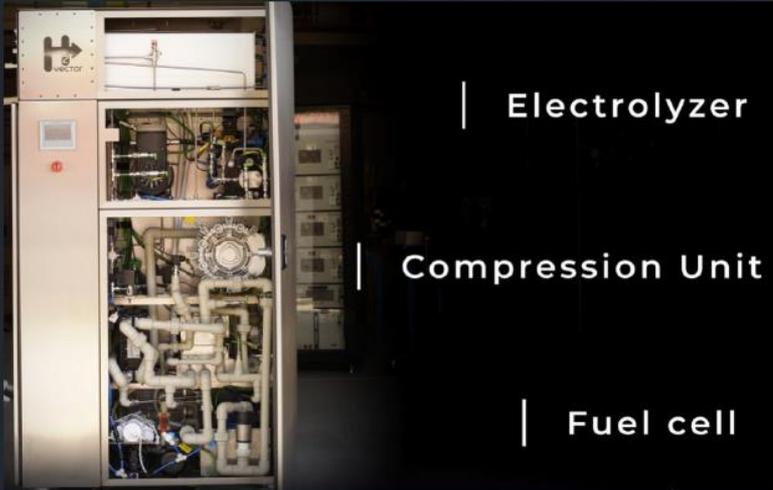
GHaaS (GreenH2-as-a-Service): Scope of supply



- **Engineering – from conceptual to detailed. Specialized on:**
 - Legal & Standardized design approach.
 - Safety studies: PL, SIL, Hazop
 - Process and Mechanical Calculations and Validations
 - P&ID, Flow Diagrams, Energy-Mass-Water Balance, Technical specifications and equipment data definition and datasheets, piping and process calculation, 3D modeling and simulations (structural and flow), BOM.
 - Electrical & Electronical Engineering
 - Line and Wiring Diagrams, calculations, BOM
 - Logic & PLC Development
 - Functional descriptions, Operational Program development, variables definition, program testing and validation, scalable block programming approach.
 - Manuals & Training documentation.
- **Procurement & Handling**
- **Equipment Construction & Commissioning to FAT**
- **Site Installation & Commissioning to SAT**

H2Vector Product Portfolio

HYDROGEN BATTERIES



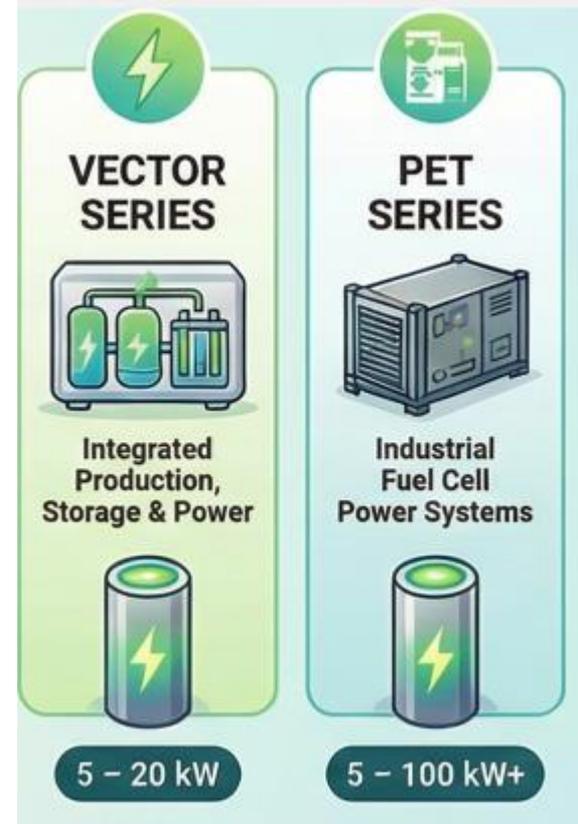
Electrolyzer

Compression Unit

Fuel cell

5 - 100 kW
MODULAR
POWER

SCALABLE
ENERGY
STORAGE



	Primary Function	Power Class
Vector		5 - 20 kW
PET		5 - 100 kW+

Target Power: 250 kW

Powering the Unreachable: H2Vector's Field-Ready Green-H₂ Revolution

THE MULTI-DAY POWER GAP (PAIN)



Beyond Battery & Diesel Limits

Batteries fail at 48h autonomy, H2Vector provides 24/7 reliability for critical field operations.



Elimination of "Stranded CAPEX"

Prevents the low asset utilization typical of static, underused electrolyzers at remote sites.

60%
REDUCTION IN
DIESEL OPEX

Zero-emission systems that are quieter and cheaper to maintain than traditional generators.

THE H2VECTOR ECOSYSTEM (DIFFERENTIATION & GAIN)



INNOVATION: MOBILE PRODUCTION, FIXED POWER

Fuel cells stay on-site while electrolyzers rotate, achieving 5-5x higher asset utilization.



VECTOR SERIES



Integrated Production, Storage & Power



5 - 20 kW



PET SERIES



Industrial Fuel Cell Power Systems



5 - 100 kW+



FIELD-READY ARCHITECTURE



Water-Resilient



Vibration-Rated



No Operator Dependency

	Primary Function	Power Class
Vector		5 - 20 kW
PET		5 - 100 kW+



PROJECTS
DELIVERED:
15 Projects
(4 EU Countries)

2. Topics of interest in call 2026

Topic	Experience and Contribution
<p data-bbox="129 435 1284 535"><u>Integration of control & monitoring tools and strategies for improved Fuel Cell System durability & reliability</u></p> <p data-bbox="129 606 898 714">HORIZON-JU-CLEANH2-2026-03-01 <i>RIA</i></p>	<p data-bbox="1420 406 1781 743">* Experience: Fuel Cell System Development for specific use cases * Contribution: Design, Development of Software and Hardware and AI algorithm</p>
Topic	Project idea and partners sought
<p data-bbox="129 871 1400 1028"><u>Development and validation of innovative approaches, catalysts, electrolytes and components for electrolysis technologies based on low-quality water</u></p> <p data-bbox="129 1099 898 1206">HORIZON-JU-CLEANH2-2026-01-01 <i>RIA</i></p>	<p data-bbox="1420 871 1781 1213">* Project idea: Rain water electrolysis testing * Partners sought: Research Center and Large Entreprises interested on scalability</p>

EU-funded Projects



- INVESTIGACIÓN Y DESARROLLO DE UN NOVEDOSO SISTEMA STACK DE PILA DE COMBUSTIBLE MEDIANTE TECNOLOGÍA AEM



- HYDROGEN HUB ASTURIAS



- DEVELOPMENT OF “POWER SKID” PROTOTYPE TO MAXIMISE THE ENERGY UTILISATION BASED ON THE USE OF HYDROGEN.



- STORAGE OF LIQUID-PHASE HYDROGEN TOWARDS POWER SUSTAINABILITY AND EFFICIENCY” -AHLAS ENERGÉTICAS-

