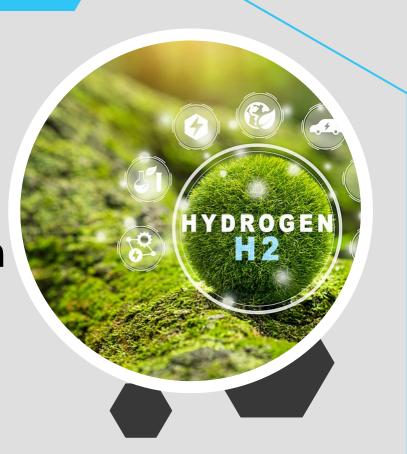


# Acca Industries S.r.l

HYMOOV Device: Evolution



# 01

Green hydrogen tests fror waste:

**H2E Project** 

Hydrogen supply chain







## OI – H2E Project

www.h2e-project.eu





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The H2E project was born from a partnership of companies working together to create a complete supply chain for the production, storage and use of green hydrogen in Lombardy, following the logic of circular economies.





## 01 - H2E Project www.h2e-project.eu



#### **IN PROGRESS**

## PRODUCING HYDROGEN FROM ZOOTECHNICAL LIQUIDS AND FISH FARMING TO DECARBONATE THE AGRICULTURE AND FISHERIES SECTOR

The H2E project not only aims to make hydrogen usable on existing engines, but also aims to develop a NEW GREEN HYDROGEN PRODUCTION SYSTEM, from secondary raw materials.

Unlike electrolysis, in which hydrogen is produced from water, Acca Industries and Nutritech, partners of the H2E project, have developed a system for producing hydrogen from ammonia (NH3) coming from liquids. zootechnics and fish farming.

The technology used to carry out this process is a catalyst dedicated to stripping hydrogen at low temperatures.





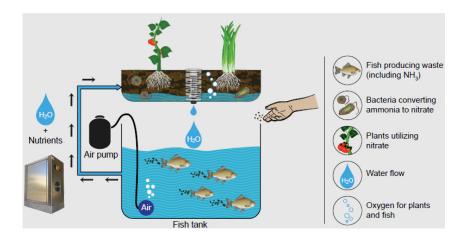
## 01 – H2E Project

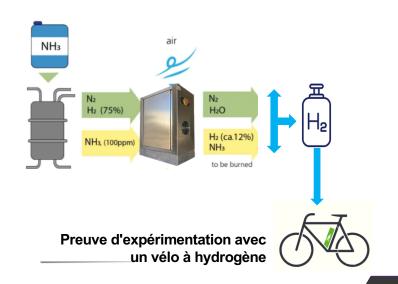


www.h2e-project.eu

### Simplified explanations of the entire project process

IN PROGRESS: Production of hydrogen from animal waste

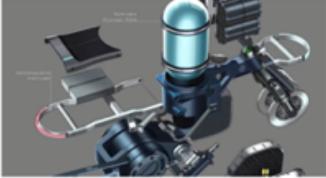




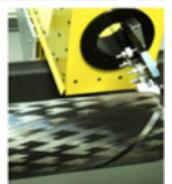
















# 02

Development of the HYMOOV system (from 2024)

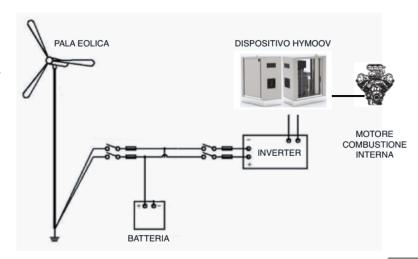


## **02** Evolution of the HYMOOV Device(2024)

### Use of renewable energy

## COMPLETION of the DEVICE with the installation of a SMALL WIND BLADE for the PRODUCTION OF GREEN HYDROGEN

- The HYMOOV device, completed by a small wind turbine, will be the first step towards a very interesting new way of producing and using clean energy (green hydrogen) to power our device, instead of the energy used from of the engine battery.
- We will soon create and install on-site integrated systems capable of enabling self-production during fishing vessel activities.
- Micro wind system for the production of electricity to power our device: system components, applications, hybrid systems.









## 03 Evolution of the HYMOOV Device

#### **GREEN HYMOOV Device**

#### AN INTEGRATED H2 SOLUTION FOR THE PRODUCTION AND STORAGE OF GREEN HYDROGEN

#### AN INTEGRATED H2 SOLUTION FOR VERTICAL HYDROGEN PRODUCTION AND STORAGE

Development of a HYGREEN device/system which:

- will contribute to the on-demand production of green hydrogen. It will allow the selfproduction of green hydrogen at an unrivaled cost. CO2 emissions will be zero, thus making it possible to pursue the objective of total decarbonization of emissions.
- will include a high-pressure storage device for self-produced excess energy from photovoltaic panels or wind turbines. The surplus will be used for the generation of hydrogen which will then be stored in appropriate containers developed and patented by us. If necessary, the latter can be used as energy for various purposes.

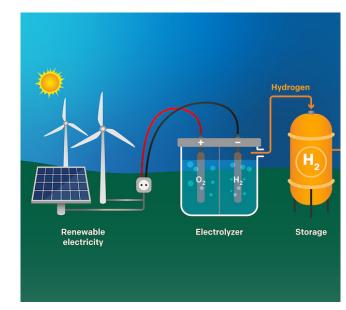
# Evolution of the HYMOOV Device GREEN HYMOOV Device

#### **COMPLETION OF THE MISSION**

Produce "green" hydrogen and oxygen from water using renewable energy and secondary energy as waste).

#### **VISION**

- Today, Acca Industries S.r.I has a standardized device that can be stacked and combined for projects of different sizes, modulated and plug-and-play.
- Tomorrow Acca Industries technology, at the basis of water electrolysis, will make the use of the 100% green hydrogen vector more practical and accessible to all thanks to the design of a new compact electrolyser which will produce and store the green hydrogen produced.





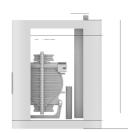
## 03 HYMOOV Device Evolution

### **OBJECTIVES**

- The device was created with the aim of providing an easy to install and integrate product, a more compact plug-&-play system than the current Acca system, which can significantly reduce installation time.
- Massive price reduction thanks to large-scale green hydrogen production.
- Check the entire cycle; from the production of green hydrogen for "on-demand" consumption to storage for deferred use of the hydrogen produced.













Andreas Hummer CEO - Founder



**Stefano Corsi** CTO-Founder



Massimo Brunelli Additive Manufacturing Specialist



**J. C. Arroyo Rodrìguez** Additive Manufacturing Specialist



Claire Lusardi CMO-Innovation



Marco Romani Electronic Engineer





**Silvia Alfeo** Adm.Dept Social Media



**Nicolò Rossetti** Material Sciences



Massimo Bruni Tech.Dept



**Lucrezia Solofrano** Product & Visual Designer



Fabio Ferrulli Product & Visual Designer



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