



ARIEMA: Hydrogen as the key for a definitive entrance of renewable energies



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ARIEMA History

- ✓ SPIN-OFF from the National Institute for Aerospace Technology, INTA-Huelva.
- ✓ Integrated by scientists and engineers specialised in energy and R&D&I management since 1990.
- ✓ +25 years of experience in hydrogen-based technologies.

Current business situation



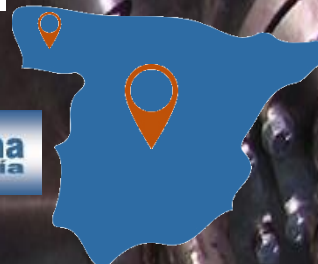
ARIEMA Energía y Medioambiente S.L. 

Parent Firm- Madrid

Consultancy, engineering, installations and equipment

ARIEMA Enerxía S.L.

Subsidiary entity: Santiago de Compostela
Fishing & Aquaculture Energy Efficiency



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ARIEMA develops activities focused on
six basic action fields:



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1 Energy consulting

Energy, Hydrogen and Fuel Cells specialised consultancy



Some of our clients



2 Equipment and Installations

01



Hydrogen generators

02



Fuel Cell Technologies

03



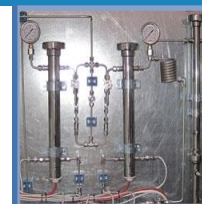
High purity compressors

04



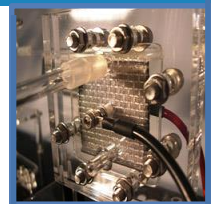
Hydrogen storage

05



Tailored Products

06



Educational kits



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3

R&D Consulting

European Projects Office:

Promote efficiently and effectively the participation of the national business community in International R&D&I activities.



4

R&D projects

Efficient Energy and Environmentally Friendly Solutions

"Innovation is a business growth driver"

+30

R&D&i projects at national and international level

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AURORA

A photograph of the AURORA autonomous mobile unit, a large white container-like vehicle, inside a warehouse with a high, corrugated metal roof and skylights.



Autonomous Mobile Unit for Renewable Energy Generation

Budget: 1.688.283 €.

Partners: SACYR y KemTecnía
Tecnología Química y
Renovables.

CALL: FEDER -
ININTERCONECTA

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AQUASEF

CHARACTERISTICS

Oxygen in-situ produced is injected into the hatcheries allowing to dispense the use of liquid oxygen. That reinforces sustainability at fish and mollusks production life cycle

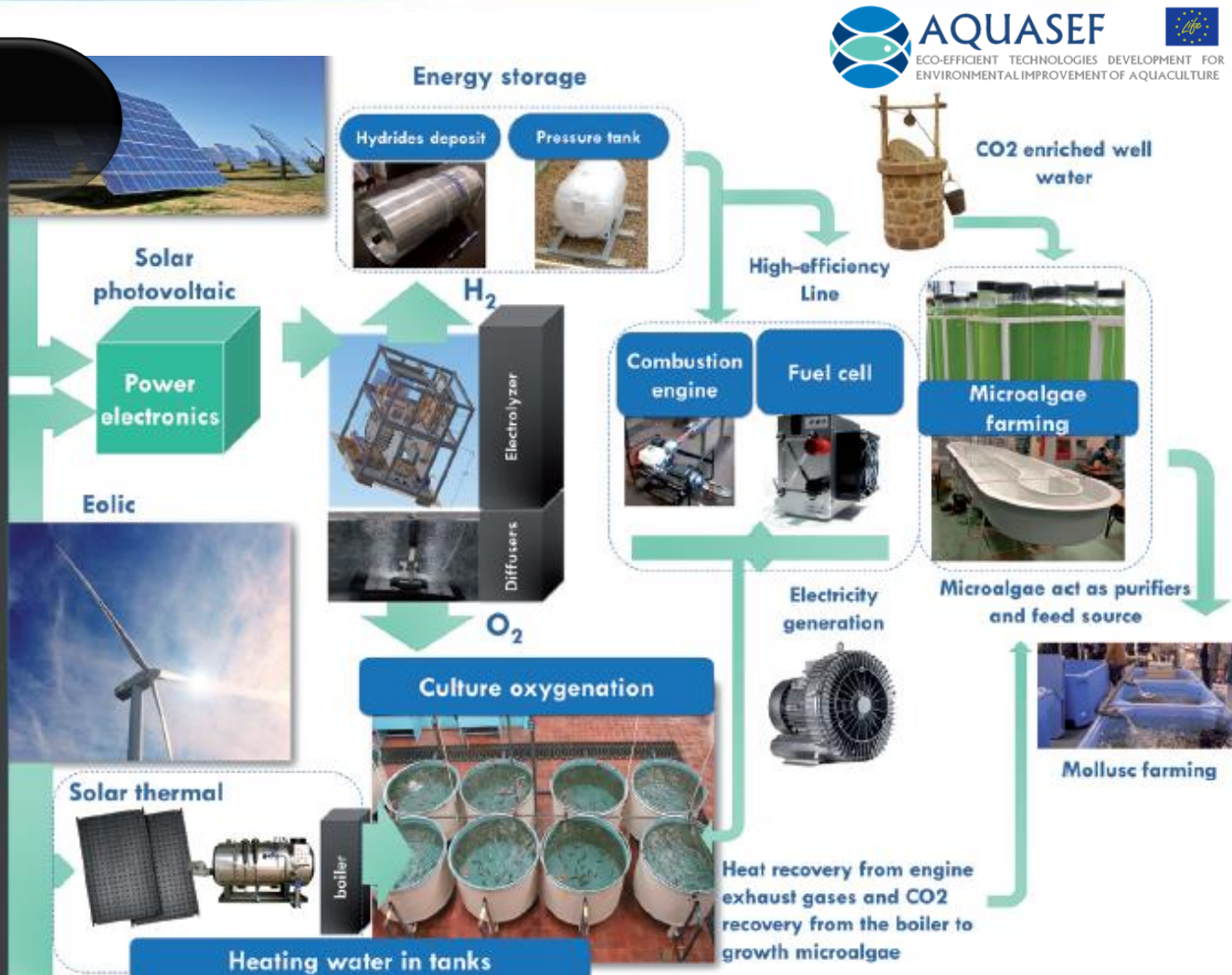
**TOTAL PROJECT
BUDGET**

1.899.318 €

Partners: Aquaculture
Sector

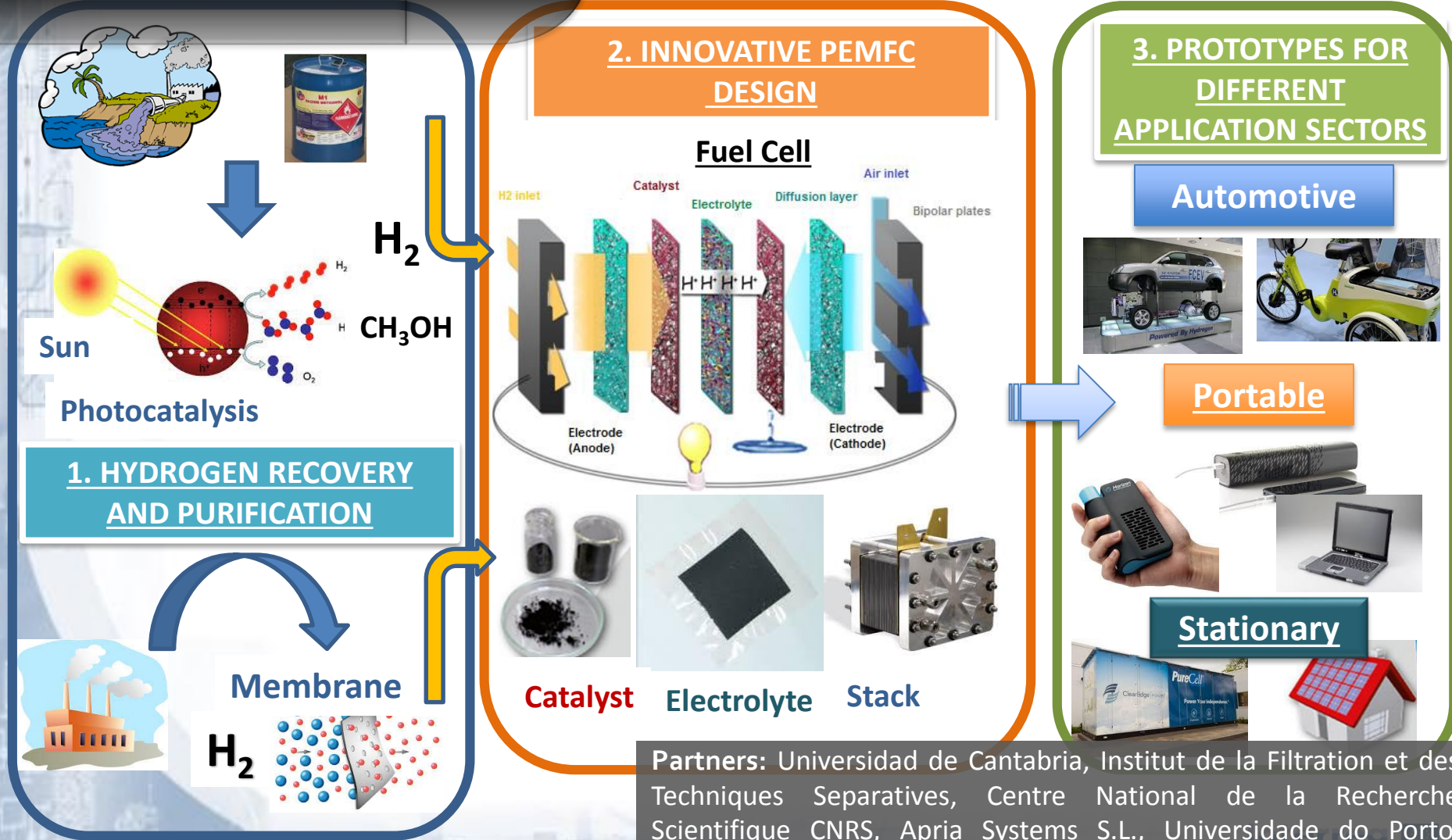
CALL: LIFE+

RENEWABLE ENERGIES



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PEMFC SUDOE



TOTAL PROJECT BUDGET 1.812.666,00 €

Partners: Universidad de Cantabria, Institut de la Filtration et des Techniques Separatives, Centre National de la Recherche Scientifique CNRS, Apria Systems S.L., Universidade do Porto, Laboratorio Nacional de Energia e Geologia (Lisbon), NanoInnova Technologies, Ariema Energía y Medioambiente S.L.

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5 Technical management

ARIEMA manages
Technical Secretariats of:



Technical Secretariat of the
Spanish Hydrogen Association (AeH₂)



Co-Technical Secretariat of European Fisheries
Technology Platform (EFTP)



Secretariat of the AENOR Technical Committee of
Normalization in Hydrogen Technologies
(AEN/CTN 181)



Technical Secretariat of the
Spanish Fishing & Aquaculture Technology
Platform (PTEPA)



Manage and support the Technical Secretariat of the
Spanish Water Technology Platform (PTEA)



Manage and support the Technical Secretariat of the
Spanish Hydrogen & Fuel Cells Technological
Platform (PTEHPC)



Start up the Galician Technological Platform
TECNOPEIXE



Interim manager of the National Hydrogen Center
(CNH₂) during its start-up phase

6 Training and dissemination



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CHALLENGES OF HYDROGEN STORAGE

Non-specific regulation for the energetic use of hydrogen

Lack of proper resources

Lack of knowledge among the population

Need of a stable frame for medium-term technological development

Shortage of hydrogen storage manufacturers

Lack of CE certification bodies for hydrogen equipment



**TAKE THE
CHALLENGE**

*Thank
you*

Esperanza Montero

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