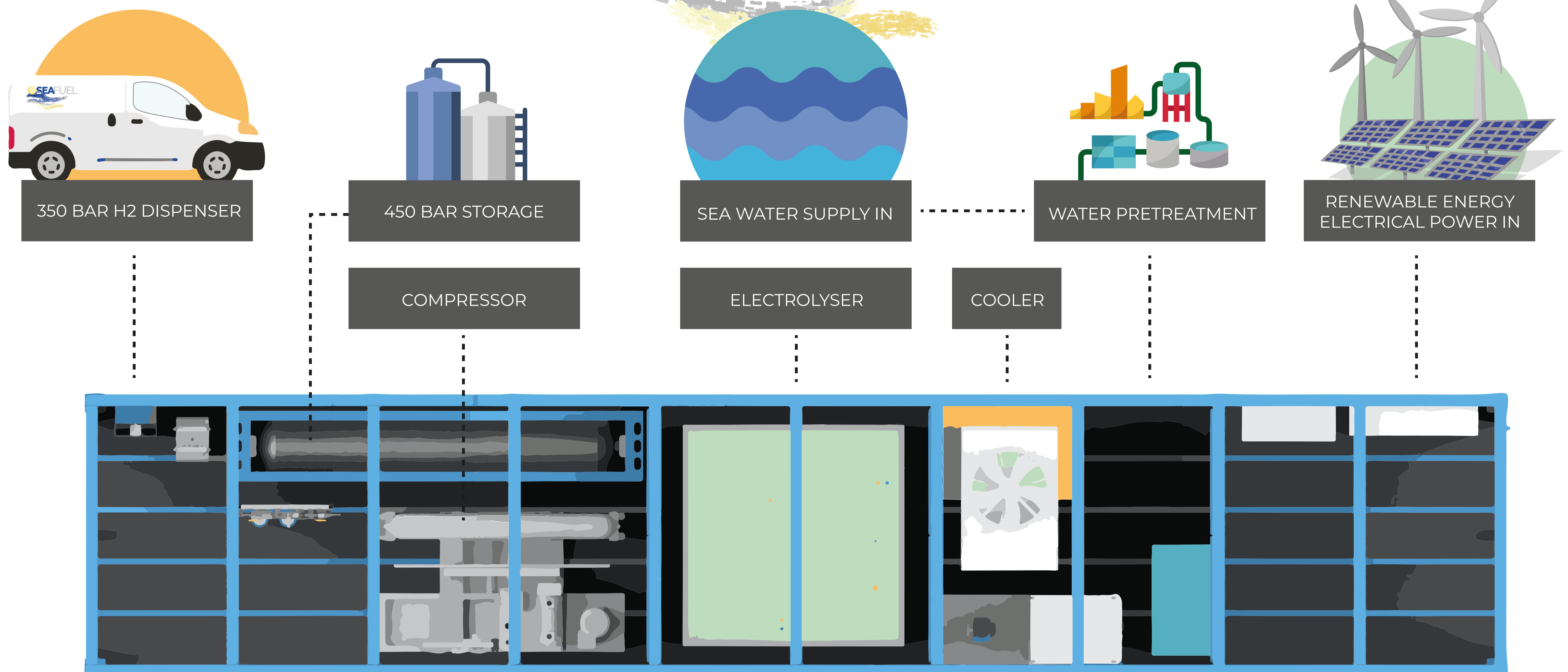


Sustainable integration of renewable fuels in local transportation



DESCRIPTION

SEAFUEL aims to use renewable resources across the Atlantic Area to power the local transport fleet and support the shift towards a low carbon economy. The project will use the expertise and infrastructure of the partners in renewable energy, namely solar, wind and marine, to demonstrate the viability of hydrogen as a fuel to be used by the local transport authorities. Success of the project will promote a sustainable transport system that can be adopted by other Atlantic regions.

CHALLENGES

The regions involved are located in closed environments with a common goal of becoming self sufficient in the generation of energy, which currently depend on oil imports with high costs.

Renewable Energy implementation differs among regions where Madeira and Ireland are opposite examples, thus facilitating knowledge exchange. Directive Com (2010)2020 states that CO2 emissions must be reduced by 2050 focusing on mobility systems, and at least 20% of the energy produced by renewable energies.

The project promotes an innovative approach translating R&D into local transport industry in isolated and rural areas.

An innovative feasibility model will be developed to promote an institutional approach and invest integrated technologies defined by the Atlantic strategy, with the support of partners and stakeholder s attending regional events. The partners focus on long-term WU objectives of low carbon economy and investment in RE to promote a sustainable environment and also be able to enhance the economic growth.

OPORTUNITIES

ECONOMIC TECHNICAL SOCIAL

Create business model from the pilot to be exported in other sites

Feasibility study of a model of hydrogen-powered transport network, applicable to all atlantic regions

Case studies in other EU locations within partnership (Portugal and Ireland)

Pilot plant in Spain (Canary Islands) for H2 production from solar energy and seawater

Partial replacement of diesel-fuelled cars

Study on power intermittency on the electrolyser

Chemical study on anode and cathode materials for less stringent purity of the water source.

Surveys in each region to study citizen perception towards H2 as alternative fuel

Engage local and regional stakeholders, creation of a H2 cluster

Legal framework to use own energy sources for fuel production

CONDITIONALITIES

- Isolated Territories
- Expensive fuel/energy imports
- Large energy dependence
- Bad grid connection
- Aim at small/medium scale installations

CONSORTIUM/ALLIANCES

Partners from quadruple helix

Academia, Research & Innovation



Industry



Nonprofit Organisation



Civil Society



Government

