



5/8 JUNE 2023 LA SPEZIA NAVAL BASE

The logo for GREEN & BLUE INNOVATION HUB. It features a blue and green wavy background with the text 'GREEN & BLUE' in white, bold, uppercase letters, and 'INNOVATION HUB' in white, uppercase letters below it.

**“How to decarbonize shipping using hydrogen:
Simplifhy approach”**

SERGIO TORRIANI

President and Founder, Simplifhy SB Srl

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F H Y

Hydrogen Solutions, Simplified.

We integrate experiences and products to provide advanced hydrogen based solutions delivering engineering, construction and operation services to energy, industry and mobility

OUR PRESENT
 OFFERING LINE

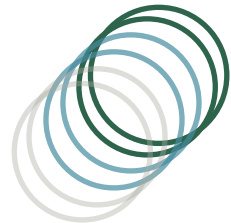
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How we work and what we offer today.



Assess & consult

We provide you with the expertise in technologies, markets and value chains to support you in creating or evaluating innovative business models based on green hydrogen.



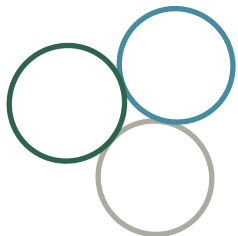
Pilot

We quickly test your idea with minimal investment and we deliver value within weeks.



Innovative Solution co-creation

We work side by side in defining the decarbonisation targets, building together customised solutions to your application needs



Engineering

We deliver feasibility studies, basic engineering and detailed engineering. We support you on approval, permittal, and safety studies.



Project execution

From small skid building to 20MW electrolyzer plant, we deliver turnkey project for hydrogen generation to refueling



Service & Operation

To maintain and operate hydrogen assets, optimizing effective use of operation

CURRENT APPLICATIONS



Energy Autonomy

Fuel cell installations for remote locations
Hydrogen production in renewable energy communities as energy storage
Hydrogen as fuel for logistic



Natural Gas to Hydrogen Transformation

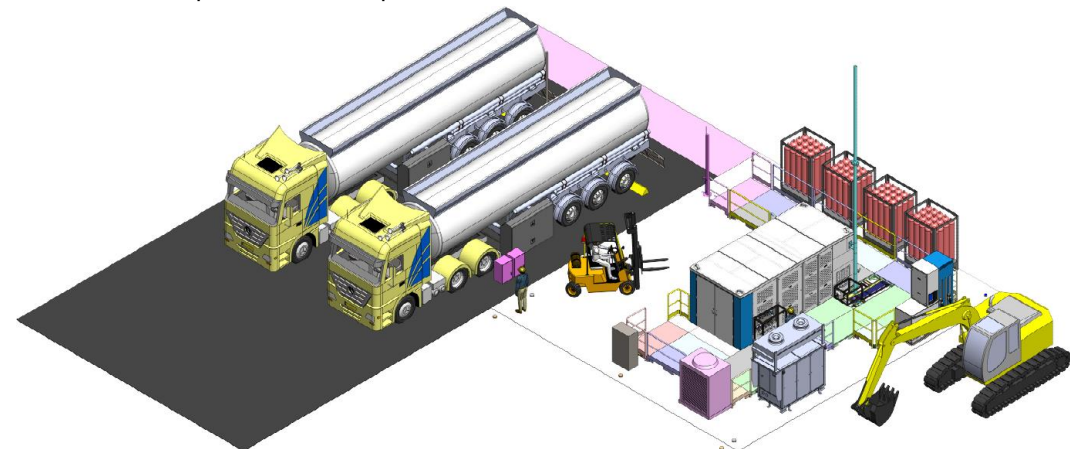
Turnkey projects in ceramic, glass, steel, food to produce, compress, store and blend Hydrogen for hard to abate processes.



Hydrogen plant valleys- Ecosystem

Project development of complete supply chain
Hydrogen production for public transportation

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8TH EDITION 2023
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INNOVATION HUB



Fast Track to Innovation H2 Ready

In collaboration with

magellan
circle
EUROPEAN AFFAIRS CONSULTANCY

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H2 Ready

Simplifhy with its strong know-how in designing and implementing H2 based decarbonization strategies and **Magellan Circle**, with more than 20 years of experience in the EU Consultancy in Transport, Logistics, Mobility, Environment and Circular Economy combine their expertise to offer you:



SCENARIO ANALYSIS

in keeping with your specific ecosystem, we present opportunities and risks related to the suitable H2 solutions



SUPPORT IN THE SELECTION OF THE BEST OPTIONS

in accordance with your key strategic priorities (i.e. efficiency, distinctiveness, stakeholders' management etc.)



ABSTRACT PRESENTATION

provision of a high-level description of the necessary interventions



EU FUNDING ACCELERATOR

Continuous monitoring of the EU funding opportunities suitable for the identified best scenario



EU FUNDING OPPORTUNITIES PRESENTATION

Provision of a comprehensive list of open calls for application to EU Funding programmes

SUPPORT IN THE IDENTIFICATION OF THE BEST CALL FOR FUNDING

According to the outcomes of the scenario analysis and the potential consortia under development, identification of the most suitable option for funding



Benefits



- Single point of contact for a complex process both on the consultancy and technical level
- Technical leadership of experienced experts on Hydrogen, able to identify the H2 most adequate technologies according to the context and the market readiness
- Decades-long and specialized knowledge of the port and logistics market and dynamics of financing with European funds.
- Extensive experience in Hydrogen Ecosystems (hydrogen valleys, industry, logistic) allow easy multidisciplinary synergies to get best options available on local territories.

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Focus - H2 Implementation in Ports

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Goods handling

Use as a **primary energy source** for goods handling vehicles. **Increasing autonomy** and **reducing charging times** compared to battery systems.

- Hydrogen is particularly effective in all vehicles that require high availability during the day and reduced downtime.
- Charging times comparable to those of commercially available vehicles can be achieved, thus decarbonizing



Ship Transport

Distribution of hydrogen as an energy carrier for large and small-scale shipping. Use in both inland and coastal areas.

- Shipping is currently 99.6% fossil-fuelled with emissions of about 1 billion tonnes of CO2 each year.
- Hydrogen can be a solution as it can be used directly in gas/liquid form, or as a raw material for the generation and distribution of other clean fuel.



Industrial Decarbonization

Direct use for chemical processes, high-temperature heat generation and high-efficiency power generation via fuel cells.

- As a substitute or through mixing with methane gas to generate high temperature heat.
- In the chemical sector, hydrogen can be used for the production of green ammonia or methanol.



Decarbonization on Shipping thoughts

- a. No Decarbonization Fuel for Marine is defined
Liquid Hydrogen, Methanol, Ammonia, LOHC.
One will not fits all – But Hydrogen will matter.
- b. More than fuel for Ships, key factor will be enabling infrastructures: how to produce, store, bunkering and loading alternative fuels in ports area.
- c. Public Support is needed.
EU, driving shipping decarbonization will drive global scale adoption. But choices need to be taken now.





Let's make change happen.
Let's make it possible. Together.

THANK YOU FOR YOUR ATTENTION