

## ECHO

# Creating a greener future by making hydrogen power more sustainable, accessible, and efficient

### In a nutshell

The demand for renewable energy - such as hydrogen, wind, or solar power - continues to increase. However, it's often difficult to meet the high demand for green power, particularly in isolated or mobile settings. While batteries and hydrogen options are available in these hard-to-reach areas, they too have their drawbacks. Battery technology is ready to deploy but falls short when it comes to the demands of heavy industry. Hydrogen has the capability of powering heavier applications, but faces challenges in infrastructure, storage capacity, and the high costs of transport and distribution.

ECHO has developed a new chemical catalyst made from sustainable materials which transforms ammonia liquid into hydrogen gas - opening possibilities for isolated and heavy mobility industries powered by green power.

### Why is our technology important?

ECHO believes it can reshape the renewable energy landscape. With our unique catalyst, we can transform ammonia into hydrogen on demand, profiting from the specific properties of each molecule. Ammonia is the second most-produced chemical in the world. It can be turned to liquid easily, making it ideal for hydrogen transport and storage. Thanks to its traditional use as a fertilizer, there is already a global infrastructure in place, ready to use, reducing cost.

ECHO is paving the way for cleaner energy for transportation, industry, and homes, making an immediate and measurable impact on global carbon emissions.

### The benefits of our solution

- **Sustainable and safe:** our technology offers a safer, more manageable alternative to hydrogen gas, one that is easier to handle and transport, reducing the risk of explosions.
- **High energy density:** thanks to ammonia's comparatively high energy density, it allows for longer ranges in zero-emission vehicles or power supplies in isolated places.
- **Cost effective:** by using existing infrastructure, we're lowering the barriers of entry for green hydrogen production and use, perfectly aligned with EU decarbonization policies
- **Limited environmental impact:** our technology operates at low temperatures through a sustainable catalyst made up from non-rare elements (unlike current solutions). This ensures minimal environmental impact and opens up the possibility of using the catalyst directly in hydrogen modified combustion engines, turbines, or fuel cells.

ECHO is actively seeking partnerships to bring our technology to the market. We believe this is the first step in creating a world in which humans live in harmony with the environment, guided by collaborative innovation and shared knowledge.

### Keywords

Green energy - sustainability - hydrogen - mobility - heavy industry - decarbonisation - climate change - renewables - power generation - catalyst - ammonia

### Founding Team

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