PRESS RELEASE
20th March 2025

Industry/ Storage/ Energy

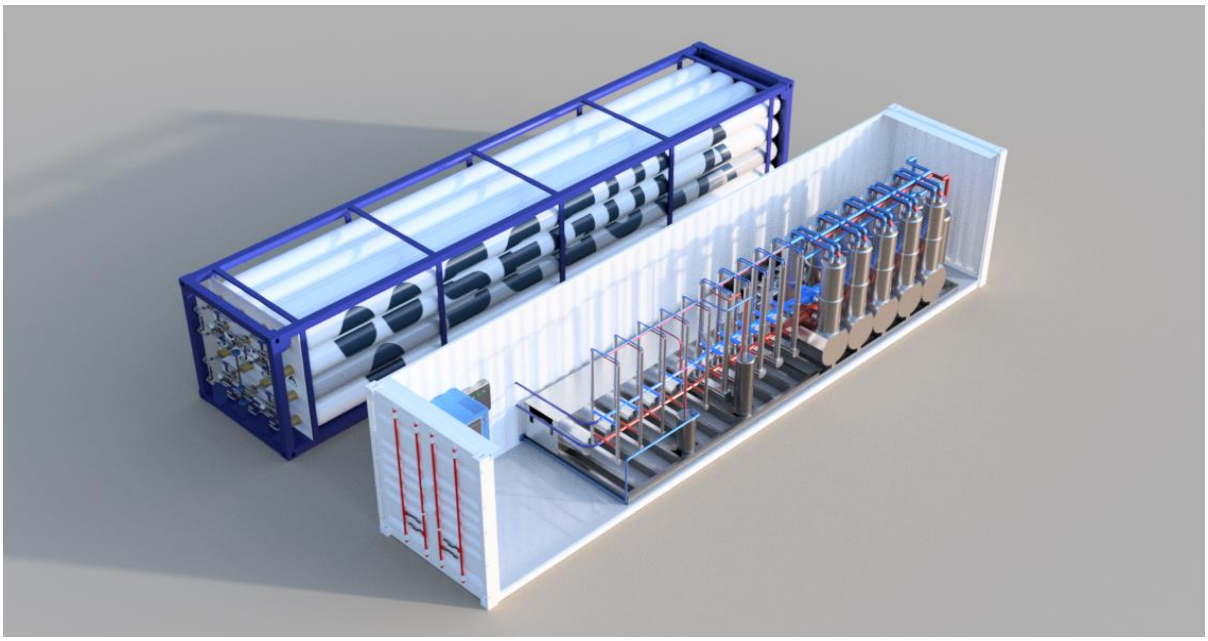
SEGULA Technologies presents the REMORA Stack project: an innovative energy storage solution for industry

• With Remora Stack, engineering group SEGULA Technologies is developing a technology that maximises the self-consumption of green energy by industrial sites and public infrastructures

• By storing excess energy on a massive scale, Remora Stack optimises energy management and significantly reduces costs.

• Initially designed for energy storage at sea, Remora technology is now being adapted for use on land.

• As part of the European Air4NRG project, Segula Technologies is receiving financial support to test and develop an industrial prototype by 2026.



Standard 40-foot container used by REMORA Stack for the massive storage of renewable energy (©SEGULA Technologies)

It's a promising project for the energy transition in industry: with REMORA Stack, SEGULA Technologies is working on a sustainable solution for the massive storage of renewable energy for sites requiring energy autonomy, such as factories and industrial estates, but also eco-districts, shopping centers, electricity parks and public infrastructures.

Based on an isothermal air compression method patented by SEGULA Technologies[1] , REMORA Stack takes the form of standard 12-metre-long containers installed outdoors. These are used to store surplus energy (generated by photovoltaic panels or wind turbines, for example) and then release it when production is lower, with an efficiency of 70%. **The whole system has a lifespan of at least 30 years, generates no polluting emissions and, unlike batteries, uses robust, durable materials.**

Modular, scalable technology

REMORA Stack offers unprecedented flexibility: its storage power is determined by the size of the compressor, its storage capacity depends on the volume of compressed air, and these two parameters can be adjusted independently of each other. This makes it possible to increase storage time simply by adding containers, without replacing the compressor. This modularity makes the solution more economical, scalable and adapted to the specific needs of manufacturers.

"We've been working on REMORA technology and its possible applications for around ten years now. The development of REMORA Stack, which is aimed primarily at industry, is based on a very practical approach, with the production of successive demonstrators that enable the solution to be validated step by step. So far, the initial results have been very promising. Eventually, REMORA Stack will be able to store energy for more than ten hours, without using rare earths or lithium," emphasises **David Guyomarc'h**, **Director of the REMORA project and R&D Manager at SEGULA Technologies.**

European Air4NRG project: testing and deployment by 2026

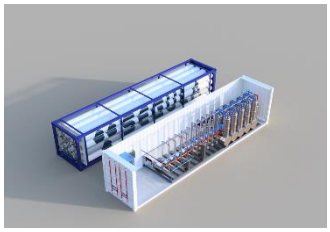
As part of the Air4NRG collaborative project funded by the European Union, SEGULA Technologies is piloting the development of test facilities to evaluate the REMORA Stack project in real-life conditions. These prototypes will be used to validate its performance and fine-tune the technology prior to its industrialisation.

The first industrial-scale pilot is scheduled for 2026, with the first production units to be rolled out in 2028-2029.

[1] REMORA Stack is an evolution of the REMORA technology, initially designed to store renewable energy under the sea. This technology is now also available in different versions: REMORA Stack for massive storage, and REMORA Home for private customers

PHOTO

Click on the image to download it in high resolution:



Legend: Standard 40-foot container (Length 12 m - Width 2.4 m - Height 2.5 m) used by REMORA Stack for the massive storage of renewable energy

Credit:©SEGULA Technologies

About SEGULA Technologies

SEGULA Technologies is a global engineering group, serving the competitiveness of all major industrial sectors: automotive, aerospace, energy, rail, naval, pharmaceuticals, etc. With a presence in more than 30 countries and 150 locations worldwide, the Group is committed to building close relationships with its customers through the skills of its 15,000 employees. As a leading engineering company with innovation at the heart of its strategy, SEGULA Technologies carries out large-scale projects, from design through to industrialisation and production.
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