

Paris Air Show 2025

Ascendance unveils STERNA Hybrid Pack and partners with EXOES to accelerate the industrialization of hybrid-electric aviation

Toulouse, June 10, 2025 – At the 55th International Paris Air Show, [Ascendance](#), a European pioneer in **decarbonized aviation**, announced the **launch of the STERNA Hybrid Pack**, its **proprietary hybrid-electric propulsion system**. This modular solution natively integrates a propulsion battery designed specifically for hybrid-electric aviation, an energy management system, and an electrical distribution unit. The system is engineered to combine performance, energy efficiency, and compliance with stringent aviation certification requirements.

To develop this high-performance battery, **Ascendance partnered with [EXOES](#), a leading French specialist in thermal systems and batteries for mobility.**

This strategic partnership is based on a **shared vision to accelerate the industrialization of certifiable, hybrid-electric propulsion solutions** manufactured in France that meet the demanding standards of the aerospace and defense sectors.



Hybrid-Electric: The Pioneering Choice for Decarbonizing Aviation

Since 2018, Ascendance has been convinced that **hybrid-electric technology is the most realistic and effective way to reduce aviation's carbon footprint** in the short and medium term. Unlike all-electric solutions, which are limited by range and charging constraints, and unlike hydrogen, which is not yet mature, hybrid systems can reduce emissions while maintaining operational flexibility.

When combined with sustainable aviation fuels (SAFs), hybridization optimizes environmental performance by reducing SAF consumption and lowering operating costs for operators while easing pressure on alternative fuel production. This pragmatic solution is designed for a credible transition.

EXOES, a committed player in decarbonizing mobility, views **hybrid-electric aviation as a strategic means of combining safety, energy performance, and emissions reduction while creating new industrial opportunities in France and abroad.**

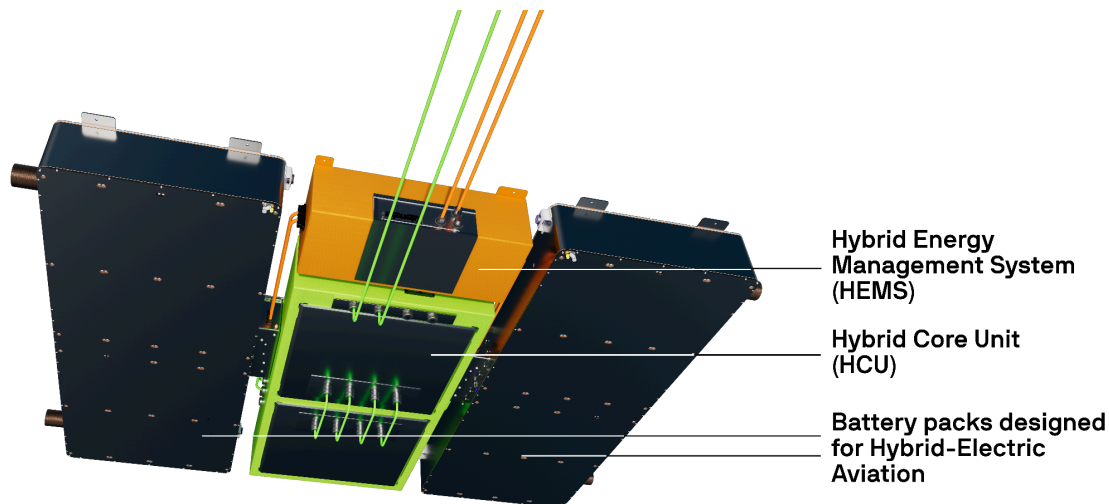
Ascendancy and EXOES have formed a key industrial partnership focused on performance.

Leveraging their respective areas of expertise, **Ascendancy and EXOES have joined forces to design and produce batteries tailored specifically for the needs of hybrid-electric aviation.**

These unique batteries power the **STERNA Hybrid Pack**, which offers a comprehensive hybrid-electric propulsion solution. This partnership is a **significant milestone for Ascendancy, demonstrating its ability to produce and industrialize hybrid-electric propulsion systems in France.**

Ascendancy is responsible for the system architecture, the **Hybrid Energy Management System**, onboard control and safety devices, and the **Hybrid Core Unit**, ensuring **performance and compliance** with **aviation certification standards.**

EXOES contributes cutting-edge expertise in **cell assembly, advanced thermal management**, and **extreme testing to guarantee robustness, reliability**, and **compliance** with aviation requirements.



"This partnership with EXOES demonstrates the consolidation of our hybridization strategy. Since Ascendancy's founding in 2018, we have developed and tested our hybrid technologies in order to build a decarbonized, certifiable hybrid aviation industry. The Hybrid Pack is not a transitional technology; it is the foundation of a new generation of propulsion."

—Jean-Christophe Lambert, CEO of Ascendancy

"Since 2017, EXOES has specialized in designing and manufacturing high-performance batteries with enhanced safety. Aerospace and defense are our top-priority markets. This partnership with Ascendancy has already attracted our first customers, and we are eager to accelerate the market launch of our joint products and services."

—Arnaud Desrentes, CEO of EXOES

An integrated system ready for multiple markets!

Unveiled exclusively at the Paris Air Show, the **STERNA Hybrid Pack**, owned by Ascendance, represents a major technological breakthrough. It is designed to meet the **operational, economic, and environmental needs of tomorrow's aviation**.

It is modular and compact and can be easily integrated into a **wide range of platforms**, including VTOLs like ATEA, long-range drones, light helicopters, and regional aircraft, to boost range, reduce emissions, and enable a gradual transition to cleaner aviation.

Designed for constrained environments, the **STERNA Hybrid Pack offers dual charging capabilities**:

- **In-flight** for time savings and total independence from ground infrastructure
- **On the ground**, to leverage existing networks when available

This operational flexibility enables a **wide range of real-world use cases**, such as medical or surveillance missions in remote areas, regional connections on short runways, and logistics or tourism services in non-electrified regions. These markets all seek immediately deployable, certifiable solutions.

About Ascendance

Founded in 2018, Ascendance is a pioneering aviation company focused on decarbonization. The company develops two complementary solutions for low-carbon air mobility: ATEA and the STERNA Hybrid Pack.

ATEA is a hybrid-electric VTOL aircraft designed as a cleaner alternative to light helicopters for regional air transport, including passenger, cargo, medical, and security operations.

It is powered by the STERNA Hybrid Pack, a high-performance hybrid-electric propulsion system that combines extended range with significant emission reductions.

Based in Toulouse — the European capital of aerospace — and supported by Bpifrance, France 2030, and the Occitanie Region, Ascendance targets both civil and defense markets to accelerate the shift toward sustainable aviation.

<https://www.ascendance-ft.com>

About EXOES

Founded in 2009 in Gradignan by Rémi Daccord and Arnaud Desrentes, EXOES specializes in advanced battery systems and thermal management solutions. The company brings deep expertise in the design, manufacturing, and testing of high-performance batteries, optimizing energy storage, thermal efficiency, and safety. Active in several sectors—including automotive, rail, defense, and aerospace—EXOES stands out for its mastery of cooling technologies, particularly with E-Mersiv, its patented immersion cooling system. This technology has been successfully applied in the development and validation of numerous battery concepts designed for fast charging and enhanced safety.

www.exoes.com