

Syensqo redefines the future of air travel with Climate Impulse innovations

First-ever, green hydrogen-powered flight around the world to showcase Syensqo's cutting-edge solutions

Alpharetta, Ga, April 15, 2025 – 9:00 AM EST

This week, [Syensqo](#) introduced the Climate Impulse initiative at its flagship Research & Innovation center in Alpharetta, Georgia. Renowned explorer and clean technology pioneer Bertrand Piccard, alongside Syensqo leadership, presented this ambitious project aiming for the world's first non-stop, round-the-world flight powered solely by green hydrogen by 2028.

Piccard made history by achieving two aeronautical firsts: non-stop around-the-world in a balloon and more recently without any fuel in a solar-powered aircraft. As the Main Technological Partner of Piccard's latest endeavor, Syensqo is at the forefront of this daring initiative. The company's innovative advanced materials solutions will power the aircraft, enabling it to endure the journey's duration and conditions during Piccard's planned nine-day non-stop flight.

Climate Impulse reflects a shared vision for a cleaner world through science and technology. It aims to revolutionize aviation while demonstrating the potential for global sustainability through innovative solutions in traditionally hard-to-decarbonize sectors.

"At Syensqo, our commitment to pioneering sustainable solutions is unwavering," says Mike Finelli, Chief Technology & Innovation Officer and Chief North America Officer at Syensqo.

"This project exemplifies our dedication to redefining what's possible in aviation and beyond through exceptional innovations developed at our R&I sites – including here in Alpharetta. Our sites in Greenville, TX, and Havre de Grace, MD, are at the forefront of producing the composites that make this initiative possible, underscoring the vital role the U.S. plays in our global efforts to set a new standard for innovation and scientific exploration."

In just a year's time, the project has already achieved significant milestones, including advancements in lightweight airframe and wing design, thanks to Syensqo's advanced composites and high-performance materials, such as for efficient hydrogen fuel cells, and

innovative coatings and adhesives. These innovations in lightweighting, performance and aerodynamics could extend the aircraft's range by 5,600 miles!

The airplane's construction is progressing with the cockpit completed and wing spar production underway. Interior components, including swivel seats, a bunk, a map table, and exercise aids, have been finalized and tested for functionality and pilot comfort.

In 2025, hydrogen fuel cells and propulsion systems will be tested using a modular test bench to ensure they can effectively provide the necessary electricity to power the electric motors and other components during the initial flights. Further R&D will focus on optimizing aircraft efficiency for both short- and long-haul flights, with future studies exploring scaled applications for light aircraft carrying up to 19-20 passengers. The first test flights are planned for 2026.

About Syensqo

Syensqo is a science company developing groundbreaking solutions that enhance the way we live, work, travel and play. Inspired by the scientific councils which Ernest Solvay initiated in 1911, we bring great minds together to push the limits of science and innovation for the benefit of our customers, with a diverse, global team of more than 13,000 associates in 30 countries.

Our solutions contribute to safer, cleaner, and more sustainable products found in homes, food and consumer goods, planes, cars, batteries, smart devices and health care applications. Our innovation power enables us to deliver on the ambition of a circular economy and explore breakthrough technologies that advance humanity.

Learn more at www.syensqo.com

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