

Press release
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EUROSUIT: FIRST INTRA-VEHICULAR SPACE SUIT PROTOTYPE DEVELOPED BY CNES, SPARTAN SPACE, MEDES AND DECATHLON

Lille, France (14 November 2025) - France and Europe are taking a new step forward in human spaceflight. In 2026, European Space Agency (ESA) astronaut Sophie Adenot will test aboard the International Space Station (ISS) a groundbreaking intra-vehicular activity (IVA) space suit prototype, EuroSuit, as part of the Epsilon mission. This project brings together CNES, SPARTAN SPACE, MEDES, and DECATHLON around a shared ambition: to design the next generation of protective and comfort equipment for European astronauts.



An innovative prototype to be tested in orbit in 2026

Designed to enhance safety and ergonomics during the critical phases of a space mission (launch and landing), the EuroSuit introduces a breakthrough innovation: a suit that can be donned or removed in under two minutes, completely autonomously.

This marks a first in the space industry, addressing a dual challenge - improving operational responsiveness and ensuring astronaut safety in emergency situations.

Aboard the ISS, Sophie Adenot will validate the suit's ergonomics in microgravity by performing a series of test sequences: donning, manipulating small objects, interacting with the onboard touchscreen tablet, and doffing the suit.

The prototype also incorporates several groundbreaking advancements:

- **Custom-fit ergonomics:** a lattice-structured helmet design allows for perfectly tailored fits to each astronaut's morphology.
- **Freedom of movement:** bellows integrated at the shoulders, elbows, and knees ensure maximum mobility in confined environments.
- **Sealed, user-friendly zippers:** air-tight zippers with ergonomic pullers facilitate easy opening and closing of the suit.

A strategic collaboration between industry, research, and sports for human performance

The EuroSuit exemplifies an unprecedented synergy:

- **CNES** coordinates the project, ensuring alignment with European objectives and compliance with technical and regulatory milestones;
- **Spartan Space**, A start-up specialising in solutions for human intervention in extreme environments, with a strong experience in the development of space habitats and spacesuits, is the prime contractor, manages the technical architecture and develops the life support system
- **MEDES**, the Institute of Space Medicine and Physiology, works on an onboard biomonitoring system to track the astronaut's physiological parameters in real time;
- **DECATHLON**, through its Advanced Innovation division, designs the EuroSuit's textile and ergonomic solutions, demonstrating its ability to transfer its sports innovation expertise into the extreme environment of human spaceflight. This collaboration perfectly reflects the mission of the division: to anticipate the future of sport and explore how its innovations can be adapted to the most demanding contexts.

« *The EuroSuit embodies our ability to push the boundaries of innovation beyond our traditional fields of expertise. It is a remarkable opportunity to explore new applications for our textile and product design know-how in an environment as demanding as space* », outlines Sébastien Haquet, Head of Advanced Innovation at DECATHLON.

"In line with Europe's ambition to achieve greater autonomy in human spaceflight, CNES has decided to focus on intra-vehicular suits. By relying on the exceptional expertise of our partners, we are prepared to deliver this type of suit when the time comes," explains Sébastien Barde, Deputy Director for Exploration and Human Spaceflight at CNES. *"In doing so, we are fully playing our role of supporting and guiding our industry."*

« *Launched at the end of 2023, the project first made it possible in 2024 to assemble a team bringing together the skills required for a system as complex as a space suit. In 2025, the implementation phase begins, followed by testing in 2026–2027, including flights with Sophie Adenot to validate ergonomics and ground trials for technical aspects.*» explains Thibaut Pouget, Project Manager at Spartan Space.

The EuroSuit reaches a new milestone toward operational use

For the first time, a prototype designed by Decathlon will be flown aboard the International Space Station. The tests conducted by Sophie Adenot will validate the design and ergonomics of the prototype in microgravity conditions.

The resulting feedback will feed into the development of a fully operational version of the EuroSuit, integrating key systems such as air-tight sealing, fire resistance, breathable atmosphere control, built-in communications, and head-up display interfaces.

Visual assets and 3D renderings are available upon request.

GLOSSARY

- **ESA (European Space Agency):** Coordinates and develops European space programs in cooperation with its member states.
- **ISS (International Space Station):** A low-Earth orbit laboratory where astronauts conduct scientific and technological research.
- **IVA (Intra-Vehicular Activity):** Operations performed inside a spacecraft that require specific protective garments.
- **CNES (Centre National d'Études Spatiales) :** The French space agency, overseeing national space activities and contributing to European and international programs.
- **SPARTAN SPACE:** A French start-up specializing in human spaceflight systems, life-support technologies, and exploration missions.
- **MEDES (Institute of Space Medicine and Physiology):** A center of expertise in space medicine developing health and monitoring solutions for astronauts on mission.

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About CNES

CNES, the Centre National d'Études Spatiales, is the French government space agency responsible for shaping and implementing France's space policy within Europe and internationally. Founded in 1961, CNES plays a central role in developing space technologies, coordinating national research, and supporting industrial and scientific partners. Its activities span launch systems, Earth observation, telecommunications, exploration, and human spaceflight. CNES also represents France within the European Space Agency (ESA) and leads strategic initiatives that strengthen Europe's autonomy and innovation in space.

For more information: <https://cnes.fr/>

About SPARTAN SPACE:

Spartan Space is a Franco deep-tech company pioneering habitat systems for extreme environments, from space to the deep sea. Founded in 2021 the company develops inflatable habitats, life-support technologies, and pressure systems that enable sustainable human presence on the Moon, underwater, and in other hostile domains. Working with leading institutions such as CNES, ESA, DLR, and industry partners across Europe, Spartan Space bridges space and ocean innovation to create resilient infrastructures for exploration, research, and future off-Earth living.

For more information: www.spartan-space.com

About DECATHLON

A global multi-specialist sports brand for everyone, from beginners to elite athletes, Decathlon is an innovative designer of sporting goods for all levels of practice. With 101,100 teammates and 1,817 stores worldwide, Decathlon has been working since 1976 to pursue one continuous ambition: to inspire people to move through the wonders of sport, helping them live healthier and happier lives in a sustainable future.

More information: https://www.decathlon.media/fr_FR/

About MEDES

MEDES is the French Institute for Space Medicine and Physiology. It was created in 1989 by the French Space Agency, CNES and Toulouse University Hospitals, its two main members. Its activities are focused on support for space missions, clinical research (with a unique research infrastructure: the space clinic) and innovations between space and health. MEDES has more than 35 years of experience for crew health maintenance for human spaceflights, operational support for research in life sciences in space, in addition to a strong expertise in clinical research and on innovation projects for health applications.

More information: <https://www.medes.fr/>