

SPACE SYSTEMS SYMPOSIUM (D1)
Innovative and Visionary Space Systems Concepts (1)

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DREAM CHASER FOR EUROPEAN UTILIZATION (DC4EU): ESA PILOT PHASE

Abstract

As a response to the ESA “Call for Ideas for Strategic Partnership with the private sector in the field of Space Exploration”, Sierra Nevada Corporation, OHB System AG and Telespazio jointly worked to develop the DC4EU Idea.

DC4EU enables:

- An independent European access to LEO using the world’s only commercial runway-landing, reusable, lifting body spacecraft, Dream Chaser® (DC), enabling full end-to-end European space missions.
- Uncrewed autonomous European LEO service missions using European infrastructure, systems, launchers, control centers, and landing sites.
- Free-flight Space Utility Vehicle (SUV) platform for multiple missions: scientific research, technology development, and operational demos (e.g. on-orbit assembly, repair) and maturation of European capabilities for space exploration.
- Pioneering pursuit of broader markets and customers, fostering space as a major economic opportunity that delivers significant value to Europe.

DC4EU was one of the 8 selected partnerships to start with a Pilot Phase within ESA. This paper summarizes the key elements of this pilot phase, objectives, benefits for ESA and Europe, as well as how international collaboration and New Space can join forces together towards LEO exploitation, post-ISS activities and exploration beyond LEO.