An ESA optional programme managed by the Directorate of Space Transportation. 
ESA Participating States: France, Ireland, Italy, Portugal, Romania, Spain, Sweden, Switzerland and the United Kingdom.

Objectives
Design and develop a space transportation system, integrated with Vega-C, to provide regular access and return to/from space for users in the fields of microgravity experimentation, in-orbit technology demonstration, radiation exposure experimentation, Earth monitoring and others.

Technical features
- ‘Lifting body’-type reentry module strongly based on IXV spaceplane heritage
- Vega-C AVUM + ALEK (Avum Life Extension Kit) used as orbital service module
- 3-axis stabilised spacecraft with high pointing accuracy
- Solar array jettisoned just before reentry (no debris left in orbit)
- 600 W power available for payload
- Radio frequency systems: S-band for tracking and telecommand

Launch vehicle
Vega-C

Orbits
Reference mission is circular orbit (5° inclination, 400 km altitude). Higher inclination or altitude possible

Launch mass
Approx. 3000 kg including payload and fuel for the reentry module

Payload bay
Conditioned, hosting several types of payloads and a robotic arm

Payload volume
At least 1.2 m³

Payload mass
Up to 800 kg for the reference mission

Landing site
Santa Maria in the Azores archipelago (PT) for orbits with inclination > 37°. For lower inclination missions French Guiana and Dutch Curaçao are being considered

Mission duration
Minimum 2 months

Number of missions
Minimum 6

Turnaround time
Less than 6 months

Maiden flight date
Q1-2022

Ground segment
Comprises: Mission Control Centre (In-Orbit Control Centre, Payload/Landing Control Centre); ground stations; landing facilities; logistics and transportation facilities