New space transportation solutions and services

There are emerging opportunities in space transportation that are not yet seized by European actors characterised by new uses of space (e.g. small satellites, larger constellations and payload recovery) new destinations (e.g. direct GEO, re-entry from LEO).

Scope:

- "Low thrust" green and low cost propellant functional propulsion systems and vehicle system aspects of existing propulsion systems;
- Green engine, attitude control systems (RACS), thruster, ignition, fluid control equipment, propellant tank;
- Actuation systems and pyrotechnic systems, light weight structure concepts for micro launchers and re-entry vehicles;
- Smart and flexible dispenser for multi-satellites, constellations, and payloads launch solutions;
- Advanced avionics, attitude orbital module and re-entry module, descent and landing;
- GNC, autonomous localization and termination, modern TM/TC data handling, low-cost and modular avionics, automated rendezvous, capturing and spacecraft management technologies, avionics and test bed.

Topics

- Contribute to EU Green Deal through the reduction of the environmental impact of space transportation;
- Contribute to expand commercial space transportation offer and services with new space transportation solutions;
- Design and performance studies as well as business cases;
- Matured technologies up to TRL5-6 including functional and qualification test on ground.



The indicative budget for this category is EUR 3.00 (Million).

Reference:

HORIZON-CL4-2021-SPACE-01-23

Research and Innovation Opening: 28 Oct 2021 Deadline: 16 Feb 2022

Call overview, Produced 04/10/2021. Visit our website www.opencalls.space

Countries



EU member states, Iceland, Norway

Technology



Space Transportation, Low trust thrusters, fluid control, pyrotechnic systems, lightweight structures, micro launchers, avionics, GNC, TM/TC data handling, Spacecraft management technologies, TRL

Activities



Engineering, Innovation management, Design & performance studies, Business case development, qualification, testing

Contact



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