

#EUSpaceResearch

ACCESS TO SPACE
ENABLING THE INDUSTRIAL
COMPETITIVENESS
WITH NEW SERVICES,
SOLUTIONS AND CONCEPTS



Horizon Europe,
a programme of the
European Union



Horizon Europe,
a programme of the
European Union

© ESA

#EUSpaceResearch

ACCESS TO SPACE

Enabling the industrial competitiveness
with new services, solutions and concepts

About Access to Space

and why it is crucial for European competitiveness in space

There is no EU space policy without an independent access to space.

Access to space is strategic for Europe: it allows the deployment of space infrastructures such as Galileo, Copernicus and EGNOS, and in the future, Secure Connectivity, that are essential for our society as they boost economy and enhance security. In a globally ultra-competitive environment, Europe needs to support a cost-efficient, responsive and flexible access to space.

Shifting to sustainable, green, reusable technologies

to support Access to Space

Launching spacecraft is a very resource-intensive and expensive endeavour. Existing launch systems and industrial processes need to be further optimised to establish a **globally competitive, yet economically and ecologically sustainable European space sector**. In this context, the Horizon Europe programme has four R&I priorities:

- Innovation for launcher competitiveness – targeting initial operational capability by 2030;
- Disruptive concepts for access to space – starting at low technological readiness levels;
- Fostering and enabling new commercial space transportation solutions;
- Modern, flexible and efficient European test, production and launch facilities, means and tools.

Among others, these lines of R&I activities include projects aimed at developing greener propulsion systems and reusable launch vehicles. Moreover, the projects are also looking into disruptive concepts and technologies that reduce the cost as well as the environmental impact of launch services.



Boosting innovative R&I

16 projects focusing on Access to Space selected for funding of €56.7 million under Horizon 2020



Accessing space

Using innovative launcher concepts and enabling new commercial space transportation solutions



Supporting EU objectives

By fostering EU non-dependence and reinforcing Europe's autonomy in accessing space

Ensuring competitiveness

for an innovative and autonomous European Space Transportation Sector

Europe faces several challenges to an autonomous European access to space. The global launch service market is getting more and more competitive with an increasing number of competitors (USA, Japan, China, India, etc.) and attractive prices on the commercial market. European actors have yet to seize the emerging opportunities in space transportation, induced by the evolution of the commercial satellite market (e.g. small satellites, larger constellations).

What should Europe do?

1. **Rapidly improve launch competitiveness**, in terms of cost and increased flexibility. The aim is to contribute to reduce the cost of launch services by 50% in the next decade.
2. **Stimulate the development of new space transportation solutions**, including through the emergence of new launch systems, to complement the current EU launchers family and increase the responsiveness and flexibility of launch services.

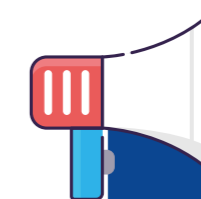
The Horizon Europe R&I Programme is a major leverage in support of the EU industry developing access to space solutions. While enhancing the competitiveness and agility of existing launchers, it also contributes to the technological maturation of new launch systems. In early 2022, the European Commission awarded a €10 million EIC Horizon Prize to reward the most innovative, cost-effective and commercially viable solution for launching light satellites into Low-Earth Orbit, which promotes European technology non-dependence.

Introducing current space R&I projects

Examples of Horizon 2020 projects

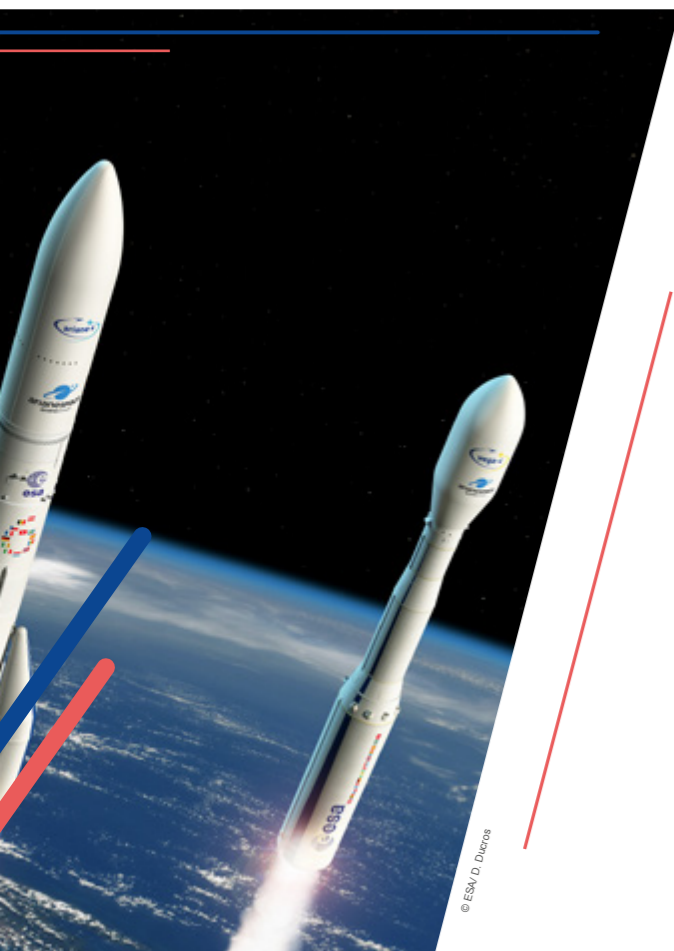
RETALT (Retro Propulsion Assisted Landing Technologies) investigates launch system reusability technology for operational and future launch vehicles to make reusability state-of-the-art in Europe.

SAMMBA (Standard And Modular Microlauncher Based services) develops affordable, safe and flexible launch base services to meet Europe's growing demand for dedicated, reliable and frequent small satellite launches.



Be part of the
EU-funded space R&I

Horizon Europe is the EU's key funding programme for research and innovation, with a budget of around €95 billion over 2021-2027, of which close to €1.6 billion is dedicated to space research. The space R&I is managed by the **Health and Digital Executive Agency (HaDEA)**, the **EU Agency for the Space Programme (EUSPA)**, the **European Space Agency (ESA)** and the **European Commission** itself. Most calls are also published on the **EC Funding and Tenders participant portal**.



© ESA/D. Ducros