

European Space Programme 2021-2027

The European Space Programme aims to promote an innovative and competitive European space sector, upstream and downstream, to strengthen the Union's space ecosystem and enhance its role as a global player in the sector.

Objectives

The **general objectives** of the programme are:

1. To provide or contribute to the provision of **up-to-date, high quality, secure, seamless** and, where possible at a global level, **space services, information and data**, which can meet the current and future needs of the European Union, as well as capable of supporting its policy priorities such as climate change, transport, and security issues;
2. To maximise the **socio-economic benefits**, in particular by fostering the development of innovative and competitive European upstream and downstream sectors, including SMEs and start-ups. The purpose is to enable **growth and job creation** in the Union, promoting the widest possible dissemination and use of data, information, and services provided by the programme components, both inside and outside the Union, while ensuring synergies and complementarities with the Union research and technological development activities carried out under the EU Regulation 2021/695; (<https://eur-lex.europa.eu/eli/reg/2021/695/oj>)
3. To strengthen the intrinsic and extrinsic **security of the Union** and its Member States and enhance its autonomy, in particular in terms of technology;
4. To promote the Union's role as a **global player in space**;
5. To encourage international cooperation;
6. To strengthen European space diplomacy by promoting the principles of reciprocity and fair competition
7. To strengthen the European role in **addressing global challenges** and in supporting global initiatives, including sustainable development, as well as in raising awareness of space as a common heritage of mankind;
8. To reinforce the intrinsic and extrinsic **safety and sustainability** of all outer-space activities related to space objects, space debris proliferation, as well as the space environment, through the implementation of appropriate measures, including the development and deployment of technologies for the disposal of space debris and spacecraft at the end of their operational lifecycle.

The **specific objectives** of the programme are:

1. For **Galileo** and **EGNOS**: to provide state-of-the-art and secure long-term positioning, navigation and timing services, while ensuring the continuity and robustness of the services;
2. For **Copernicus**: to produce accurate and reliable Earth observation data and information, as well as to produce services complementing other relevant data sources, provided in the long term and sustainably, to support the formulation, implementation, and monitoring of Union and Member States' policies and user-driven actions;
3. For the **Space Situational Awareness (SSA)**: to improve the capabilities to monitor, track and identify space objects and space debris, to further improve the performance and autonomy of the capabilities under the Space Surveillance and Tracking (<https://www.eusst.eu/>) (SST) subcomponent at Union level, to provide Space Weather (<https://swe.ssa.esa.int/ssa-space-weather-activities>) (SWE) services and to map and network Member States' capabilities under the near-Earth object (https://www.esa.int/Space_Safety/Near-Earth_Objects_-_NEO_Segment) (NEO) subcomponent;
4. For **GOVSATCOM**: to ensure the long-term availability of reliable, secure and cost-efficient satellite communication services for GOVSATCOM users.

Components

The programme consists of the following components:

1. **Galileo**: a civil and autonomous global navigation satellite system (GNSS) under civil control, on which numerous EU economic sectors rely, from transport and agriculture to border management. It consists of a constellation of satellites, centres, and a global network of ground stations, providing positioning, navigation and timing services and fully integrating security needs and requirements;
2. **European Geostationary Navigation Overlay Service (EGNOS)**: is the European Geostationary Navigation Overlay Service, a regional satellite navigation system under civil control, consisting of centres and ground stations and various transponders, installed on geosynchronous satellites, which augment and correct the open signals emitted by Galileo and other GNSS for, inter alia, air traffic



management, air navigation services and other transport systems;

3. **Copernicus**: is the European Earth Observation (EO) system, an operational, autonomous, user-oriented observation system under civil control, building on existing national and European capacities, providing geo-information data and services, including satellites, ground infrastructure, data and information processing facilities, and distribution infrastructure, based on a policy of open, full, and free access to data and, where appropriate, fully integrating security needs and requirements. The system is already operational in 426 airports and helipads;
4. **GOVSATCOM**: a civil and government-controlled satellite communications service, enabling the provision of satellite communications capabilities and services to Union and Member State authorities, managing mission and security-critical infrastructure.

Moreover, the European Space Programme pushes on the knowledge of the space environment or **Space Situational awareness (SSA)**, comprising the following subcomponents:

Space Surveillance and Tracking (SST) subcomponent: space surveillance and tracking system, which purpose is to enhance, manage and provide data, information, and services, related to the surveillance and tracking of space objects orbiting the Earth;

Space Weather (SWE) subcomponent: observation parameters related to space weather events;

Near-Earth object (NEO) subcomponent: monitoring of the risk of near-Earth objects approaching the Earth.

In February 2022, the European Commission proposed two new flagship initiatives to boost satellite-based secure connectivity and Space Traffic Management:

EU space-based secure connectivity system: it will ensure worldwide access to safe and cost-effective satellite communications services, for governmental communications and commercial use. It aims to protect critical infrastructures, support surveillance and crisis management, and enable high-speed broadband everywhere in Europe to best anticipate future challenges of our economy;

Space Traffic Management: as the exponential applications of space services involve more and more satellites during the last years, and the congestion of satellites and debris create more traffic in space, threatening the viability of space infrastructure, the European Commission presented an EU approach; on **Space Traffic Management (STM)**. The system will further strengthen the Union's **space surveillance and tracking capabilities** (already providing collision avoidance services to more than 260 European spacecraft) and will set clear standards and regulation for a safe, sustainable and secure use of space.

Access to space

The programme supports the **acquisition and aggregation of launch services** for programme requirements and, at their request, aggregation for Member States and international organisations.

In synergy with other Union programmes and funding schemes, and without prejudice to the European Space Agency (ESA) activities in the field of access to space, the Programme may support:

adaptations, including technological development, to **space launch systems** that are necessary for the launch of satellites, including alternative technologies and innovative space access systems, for the implementation of the components of the Programme

ground space infrastructure adaptations, including new developments, which are necessary for the implementation of the programme.

Actions in support of the space sector

The programme shall promote the development of capabilities throughout the Union by supporting:

innovation activities to make the best use of space technologies, infrastructures, or services and measures to facilitate the uptake of innovative solutions resulting from research and innovation activities

the development of the **downstream sector**, in particular through synergies with other Union programmes and financial instruments, including the InvestEU Programme

activities to promote public demand and **innovation in the public sector**, to realise the full potential of public services for citizens and businesses entrepreneurship, including from early stages to expansion

the emergence of a **space ecosystem** conducive to entrepreneurship, through business cooperation in the form of a network of space poles that: brings together, at national and regional level, space, digital, and other industry sectors, and users;

aims to provide support, facilities, and services to citizens and businesses, to foster entrepreneurship and skills, improve synergies in the downstream sector and promote cooperation with digital innovation hubs established under the **Digital Europe programme**;

the provision of **education and training activities**, especially for professionals, entrepreneurs, graduates, and students, in particular through synergies with initiatives at national and regional level, for the development of advanced skills;

access to processing and testing facilities for professionals, students, and entrepreneurs in the public and private sector;

certification and standardisation activities;

the strengthening of European supply chains across the Union through the broad participation of enterprises, in particular SMEs and start-ups, in all components of the programme.

In implementing the activities, the need to develop capacities in Member States with an emerging space industry shall be supported, to provide **equal opportunities for all Member States to participate in the programme**.

Forms of funding

The programme can provide funding in the form of **grants** (up to 100% of eligible costs), **prizes, contracts and financial instruments**, under mixed

financing operations.

Synergies with other **European funds** are also foreseen, through **cumulative financing** (that is the possibility of cumulating contributions from the space programme with those from another European programme), provided that the contributions in question do not cover the same costs - and alternative financing, thanks to the brand excellence (Seal of Excellence), awarded to projects that have been evaluated positively but cannot be financed due to a lack of resources. Projects with the Seal of Excellence can receive support from the European Regional Development Fund (https://ec.europa.eu/regional_policy/en/funding/erdf/) (ERDF) or the European Social Fund Plus (<https://ec.europa.eu/european-social-fund-plus/en/>) (ESF+).

The Budget

The **budget** for implementing the programme for the period **from 1 January 2021 to 31 December 2027** and for covering the associated risks is **14.880.000.000 euros** in current prices.

Links

European Space Programme 2021-2027 (https://ec.europa.eu/info/funding-tenders/find-funding/eu-funding-programmes/european-space-programme_en)

PUBLISHED

27 Oct 2022

EXTENT

Europeo

SECTORS

Ict, Industria, Pubblica amministrazione, Trasporti

BUDGET

€ 14 880 000 000

AIMS

Innovazione, Ricerca, Sviluppo

PLACES TO INVEST

Europa

TAGS

Space