

EU SPACE PROGRAMME

REGULATION (EU) 2021/696 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU

RELEVANT WEBSITE FOR MORE INFORMATION

<https://europa.eu/!Kb99rt>

FINANCIAL PROGRAMMING (EUR MILLION)

| | |
|-------------------|-----------------------|
| 2014-2020 | 11 092.9 ⁷ |
| 2021 | 1 997.4 |
| 2022 | 2 008.2 |
| 2023 | 2 045.4 |
| 2024 | 2 088.5 |
| 2025 | 2 131.4 |
| 2026 | 2 175.3 |
| 2027 | 2 221.8 |
| Total programming | 14 668.0 |

IMPACT ASSESSMENT

The Impact Assessment of the Space Programme and the European Union Agency for Space Programme was adopted in 2018.

For further information please consult: <https://europa.eu/!XF34px>

The interim evaluation of Copernicus was carried out in 2017. For further information please consult: <http://europa.eu/!GJ34Xr>

The assessment of Copernicus ex ante benefits was adopted in 2017. Please consult:

https://www.copernicus.eu/sites/default/files/2018-10/Copernicus-Ex-Ante-Final-Report_0_0.pdf

The EGNOS and Galileo mid-term review was carried out in 2017. For further information please consult: <http://europa.eu/!KF39Ug>

Challenge

Space technology, data and services are indispensable in the daily lives of Europeans, and key for Europe to reinforce autonomy in areas of strategic importance and for implementing the Union's political priorities such as the green deal and the digital strategies to tackle climate change, sustainability, safety and security. Thanks to major investments, the EU has a strong edge in space activities and the European space industry is one of the most competitive at the global stage. However, there are many new challenges and actors across the world.

The *EU Space Programme* bundles financial and technical capacities of Member States and yields economies of scale for the public spending involved. Furthermore, provision of data and services throughout all Member States requires coordination at Union level. Given the requirements in terms of security, all Member States must be involved.

Mission

The *EU Space Programme* provides, maintains and promotes the use of space data, information and services to support the Union's political priorities. It also fosters the development of European space industry, enhances the security of the Union and its Member States, it reinforces autonomy in areas of strategic importance and promotes the role of the Union as a strong global space actor.

Objectives

The *EU Space Programme* pursues the following objectives:

1. to provide state-of-the-art, robust and secure positioning, navigation and timing services;
2. to deliver accurate and reliable Earth Observation data, information and services;
3. to enhance Space Surveillance and Tracking (SST) capabilities for purposes such as monitoring space objects and space debris, and providing space weather services;
4. to ensure the long-term availability of reliable, secure and cost effective satellite communications services;
5. to support an autonomous, secure and cost-efficient capability to access space;
6. to foster the development of a strong Union space economy by reinforcing the competitiveness, innovation, entrepreneurship, skills and capacity building in all Member States and in particular for small and medium-sized enterprises and start-ups.

Actions

The *EU Space Programme* brings all existing and new space activities under a single Programme. The existing flagships, Galileo and EGNOS for satellite navigation and Copernicus for Earth observation, are fully operational and deliver free and open data and services to the benefit of EU citizens, businesses and public authorities.

The new initiatives include GOVSATCOM, which will provide reliable and secure satellite communication and Space Situational Awareness, which will assist to preserve assets of the *EU Space Programme* and to reinforce links between space, security and defence.

Delivery mode

Directorate-General for Defence Industry and Space (DG DEFIS) is the lead DG for the programme, which is implemented mainly through indirect management with the European GNSS Agency (EUSPA), the European Space Agency (ESA) and EUMETSAT. A small part of the budget is implemented through direct management by the Commission.

Link to the 2014-2020 MFF


The *EU Space Programme* builds on the success of its predecessor programmes, which will all continue with a greater focus on synergies with other EU policy areas. The *EU Space Programme* for 2021-27 introduces a number of new features, e.g. fostering a strong and innovative space industry in Europe, maintaining Europe's autonomous access to space and a unified system of governance.

⁷ includes Copernicus, EGNOS, and Galileo.

Performance Framework


 **To provide long term, state-of-the-art and, secure positioning, navigation and timing services whilst ensuring service continuity and robustness;**

| Indicator | Dimension measured | Type | Source | Data availability |
|--|--|--------|---|---|
| Accuracy of navigation and timing services provided by Galileo and EGNOS separately | Accuracy of navigation signals and timing services | Result | EUSPA (European Union Agency for the Space Programme) | First data in 2022; estimated lag 1 quarter; quarterly. |
| Availability and continuity of services provided by Galileo and EGNOS separately | Availability and continuity of services | Result | EUSPA (European Union Agency for the Space Programme) | First data in 2022; estimated lag 1 quarter; quarterly. |
| EGNOS services geographical coverage | Geographical coverage | Result | EUSPA (European Union Agency for the Space Programme) | First data in 2022; estimated lag 1 quarter; quarterly. |
| Number of EGNOS procedures published (both APV-I and LPV-200). | Number of airports with EGNOS procedures | Output | EUSPA (European Union Agency for the Space Programme) | First data in 2022; estimated lag 1 quarter; quarterly. |
| EU user satisfaction with respect to Galileo and EGNOS services | User satisfaction concerning positioning, navigation and timing services | Result | Annual user survey conducted by the European Union Agency for Space (EUSPA) | First data in 2022; estimated lag 1 year; annually (TBC). |
| Share of Galileo and EGNOS enabled receivers in the worldwide and the EU Global Navigation Satellite Systems/ Satellite Based Augmentation System (GNSS/SBAS) receivers market | Market share | Impact | GNSS Market Report | First data in 2021; estimated lag 2 years; biannually. |

 **To deliver accurate and reliable Earth Observation data, information and services integrating other data sources, supplied on a long-term sustainable basis, to support the formulation, implementation and monitoring of the Union and its Member States' policies, and actions based on user requirements**

| Indicator | Dimension measured | Type | Source | Data availability |
|--|---------------------------------|--------|---|---|
| Number of EU users of Copernicus Services, Copernicus data, and Data and Information Access Systems (DIAS) providing, where possible, information such as the type of user, geographical distribution and sector of activity | Number of users | Impact | Quarterly and Semester reports and data dissemination dashboards of the Copernicus Entrusted Entities | First data in 2022; estimated lag 1 semester; biannually. |
| Where applicable, number of activations of Copernicus Services requested and/or served | Number of requests for services | Result | Quarterly and Semester reports of the relevant Copernicus Services | First data in 2022; estimated lag 1 semester; biannually |
| EU User satisfaction with respect to Copernicus Services and DIAS | User satisfaction | Result | Annual user survey | First data in 2022; estimated lag 1 year; annually (TBC). |

| | | | | |
|--|--|--------|--|---|
| Reliability, availability and continuity of the Copernicus Services and Copernicus data stream | Reliability, availability and continuity in the provision of data and services | Output | Copernicus Data IT dashboards, Quarterly and Semester Implementation Reports | First data in 2022; estimated lag 1 semester; biannually. |
| Number of information products delivered in the portfolio of each Copernicus Service | Total number of products available to users by the Copernicus services | Output | Quarterly reports and product dissemination dashboard | First data in 2022; estimated lag 1 quarter; quarterly. |
| Amount of data generated by the Sentinels | IT Volume of Sentinel data | Result | Quarterly reports and data dissemination dashboards | First data in 2022; estimated lag 1 quarter; quarterly. |

 **To enhance Space Surveillance and Tracking (SST) capabilities to monitor, track and identify space objects and space debris, with the aim to further increase the performance and autonomy of SST capabilities at Union level, to provide space weather services and to map and network Member States Near-Earth Objects (NEO) capacities**

| Indicator | Dimension measured | Type | Source | Data availability |
|---|--|--------|--|--|
| Number of EU users of SSA components providing, where possible, information such as the type of user, geographical distribution and sector of activity. | Users' number and geographical dissemination | Impact | EU SST consortium operators and front desk | First data in 2022; estimated time lag 1 year; annually (TBC). |
| Availability of services | Availability | Result | EU SST consortium operators and front desk | First data in 2023; estimated time lag 1 year; annually (TBC). |

 **To ensure the long-term availability of reliable, secure and cost-effective satellite communications services for GOVSATCOM users.**

| Indicator | Dimension measured | Type | Source | Data availability |
|--|--|--------|---|--|
| Number of EU users of GOVSATCOM providing, where possible, information such as the type of user, geographical distribution and sector of activity. | User number and geographical dissemination | Impact | Member States (GOVSATCOM National Authority), EU Institutions | First data in 2022; estimated time lag 1 year; annually (TBC). |
| Availability of Services | Availability | Result | European Commission, GOVSATCOM Hub | First data in 2023; estimated time lag 1 year; annually (TBC). |

 **To support an autonomous, secure and cost-efficient capability to access space, taking into account the essential security interests of the Union.**

| Indicator | Dimension measured | Type | Source | Data availability |
|---|--------------------|--------|---------------------|--|
| Number of launches for the Programme (including numbers by type of launchers) | Number of launches | Output | European Commission | First data in 2022; estimated time lag 1 year; annually. |



To foster the development of a strong Union space economy including by supporting the space ecosystem and by reinforcing the competitiveness, innovation, entrepreneurship, skills and capacity building in all Member States and Union regions, with particular regard to small and medium-sized enterprises and start-ups or legal and natural persons from the Union active or wishing to become active in that sector

| Indicator | Dimension measured | Type | Source | Data availability |
|---|--|--------|--|--|
| Number and location of space hubs in the Union | Number of space hubs; ecosystem impact | Impact | European Commission (with inputs from Member States; ESA and other stakeholders) | First data in 2022; estimated time lag 1 year; annually |
| Share of SMEs established in the EU as a proportion of the total value of the contracts relating to the programme | Impact on SMEs | Impact | European Commission | First data in 2023; estimated time lag 1 year; annually. |

Estimation of baselines and targets

| Baseline | Specific objective 1: |
|----------|---|
| | <ul style="list-style-type: none"> The baseline for the indicators measuring i) the accuracy of navigation and timing services and ii) the availability and continuity of services provided, respectively, by Galileo and EGNOS is calculated based on the reported values in the latest available service performance quarterly reports. The baseline for the indicator measuring the EGNOS services' geographical coverage is calculated based on that reported values in the latest available service performance quarterly reports that include the monitoring of the actual EGNOS performance versus those commitments. The baseline for the indicator measuring the EU user satisfaction will be zero. The baseline for the indicator measuring the market share of Galileo and EGNOS enabled receivers is calculated based on data from the previous reports. |
| | <p>Specific objective 2:</p> <ul style="list-style-type: none"> The baseline for the indicators measuring i) the number of EU users of Copernicus Services, Copernicus data, and Data and Information Access Systems and ii) where applicable, number of activations of Copernicus Services requested and/or served is calculated based on the reported values and existing indicators for calendar year 2020. With regard to the former indicator, in cases of new data, new service elements, or new data and information distribution channels, the baseline value will be set to zero. The aggregated availability index for 2020 will be used as the baseline for the indicator measuring the reliability, availability and continuity of the Copernicus Services and Copernicus data stream. The baseline for the indicator measuring the number of information products delivered in the portfolio of each Copernicus Service will be set out on the basis of the number of information products and periodicity, as defined in the Copernicus Service Specifications. On request or ad-hoc service products, the number of actual requests will be used. |
| | <p>Specific objective 3:</p> <ul style="list-style-type: none"> The baseline for the indicator measuring the number of EU users of SSA components will be set at zero (0) as the future SST Partnership does not exist yet. Considering the lack of historical data, the baseline remains TBD and will depend on the type of Space Weather Service selected. |
| | <p>Specific objective 4:</p> <ul style="list-style-type: none"> The baseline for the indicator measuring the number of EU users of GOVSATCOM will be based on formally adopted technical specifications and programme technical expectations The baseline value will be determined on the basis of data elaborated by EUSPA (as responsible for of the operations). |
| | <p>Specific objective 5:</p> <p>The baseline will be zero.</p> |
| | <p>Specific objective 6:</p> <ul style="list-style-type: none"> In absence of historical data, the baseline for both indicators remains to be determined on the basis of an ad-hoc study. |

Target

Specific objective 1:

- The targets for the indicators measuring i) the accuracy of navigation and timing services and ii) the availability and continuity of services provided by Galileo and EGNOS, respectively are determined on the basis of the formally adopted technical and operational specifications for each service of Galileo and EGNOS as determined by the Programme Manager.
- The forecast of the target for the indicator measuring EGNOS services geographical coverage is based on the formally adopted technical and operational specifications for EGNOS services evolution, as determined by the Programme Manager.
- The target for the indicator measuring the EU user satisfaction is based on previous survey reports and programme technical expectations.
- The target for the indicator measuring the market share of Galileo and EGNOS enabled receivers is based on previous reports and programme technical expectations.

Specific objective 2:

- The targets for the indicators measuring i) the number of EU users of Copernicus Services, Copernicus data, and Data and Information Access Systems and ii) where applicable, number of activations of Copernicus Services requested and/or served are calculated based on based on previous reports and programme technical expectations taking into account for the former indicator that the number of EU users are growing and for the latter indicator that 100% of requested activations are served.
- The target for the indicator baseline for the indicator measuring the reliability, availability and continuity of the Copernicus Services and Copernicus data stream will be determined based on the formally adopted technical specifications and programme technical expectations.
- The target for the indicator measuring the number of information products delivered in the portfolio of each Copernicus Service will be determined based on previous reports and programme technical expectations. Estimates values will be determined based on previous reports and programme technical expectations. 100% of the specified Copernicus information products are delivered by the Copernicus Service Component.

Specific objective 3:

The targets will be determined taking into account the baseline and the programme's technical expectations

Specific objective 4:

The targets will be determined taking into account the baseline and the programme's technical expectations

Specific objective 5:

The target will be will be determined based on historical data on launches previously performed for the EU space programmes and on programme technical expectations for each component under the EU Space Programme.

Specific objective 6:

The targets will be determined taking into account the baseline and the programme's technical expectations