

What is EU SST?

Space is a crucial matter for Europe. The **safety and security of European economies, societies and citizens** rely on space-based applications such as communication, navigation and Earth observation.

Due to the growing complexity of the orbital environment, satellites are increasingly at risk of collision with other operational spacecraft or debris. Additionally, space objects may re-enter the Earth's atmosphere and cause damage on the ground.

EU Space Surveillance and Tracking (EU SST) is a key capability to **protect space-based infrastructure, facilities and services.**

For the implementation of EU SST, established in 2021 as a full-fledged subcomponent of the EU Space Programme, the EU SST Partnership of 15 EU Member States and EUSPA work together to develop the EU SST capability.

The EU SST capability consists of three main functions: **sensor, processing and service provision.**

Ensuring space safety and sustainability

Find out more on www.eusst.eu



#EUSpace 



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EU SST
Space Surveillance and Tracking

Ensuring space safety and sustainability

EU Space Surveillance and Tracking



PROGRAMME OF THE
EUROPEAN UNION

Sensor function

The Sensor function consists of a **network of sensors to survey and track space objects in all orbital regimes** (LEO, MEO, HEO and GEO).

The network is composed of different types of sensors:



Radars



Telescopes



Laser ranging stations



Check the EU SST Sensors Network here

<https://www.eusst.eu/about-us>

Processing function

The Processing function **coordinates the data sharing** between the different Operations Centres (in charge of analysing and processing sensor data and generating the EU SST services) via a **common database** and **processes hundreds of thousands of daily measurements** from the sensors contributing to EU SST.



This data constitutes the basis for a future **EU SST Catalogue** which will further improve the provision of SST services

Service Provision function

The Service Provision function consists of three SST services, provided through the **SST Portal**:



Collision Avoidance

provides risk assessments of potential collisions between space objects as well as recommendations to spacecraft operators on how to mitigate the risk



Re-entry Analysis

provides risk assessments of uncontrolled re-entries of space objects into the Earth's atmosphere



Fragmentation Analysis

provides detection and characterisation assessments of in-orbit fragmentations, break-ups or collisions

The **EU SST services are provided upon request to all EU Member States, EU institutions, spacecraft owners and operators, and other public and private entities.**

Front Desk

The Front Desk provides the secure interface for delivering the SST services to users (**SST Portal**) and ensures user support and engagement.



Access to the services requires registering in the SST Portal

<https://portal.eusst.eu>



more than 190 organisations are currently receiving these services



more than 400 satellites are safeguarded from the risk of collision

What's next?

As part of the EU Space Programme, EU SST will continue to provide operational services related to surveillance and tracking of space objects that orbit the Earth, while expanding its user base and developing additional services aimed at further improving the safety and sustainability of space activities.