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. At the same time, objects may re-enter and cause damage on the ground.

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

In 2014, the European Union established the EU Space Surveillance and Tracking Support Framework: the **EU SST.**

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

Safeguarding European space infrastructure

Find out more on
www.eusst.eu

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SST COOPERATION

The EU SST activities have received funding from the European Union programmes, notably from the Horizon 2020 research and innovation programme under grant agreements No 952852, No 785257, No 760459, No 713630, and No 713762, and the Copernicus and Galileo programme under grant agreements No 299/G/GRO/COPE/19/11109, No 237/G/GRO/COPE/16/8935 and No 203/G/GRO/COPE/15/7987. This message reflects only the view of the SST Cooperation. The European Commission and the European Health and Digital Executive Agency are not responsible for any use that may be made of the information it contains.

European Commission

EU Space Surveillance and Tracking

EUSST

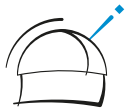
Space

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 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** that will be used for the provision of SST services.

Service Provision function

The Service Provision function is in charge of providing **three SST services**:

Collision Avoidance

Provides risk assessment of collision between space objects and recommendations to mitigate the risk

Re–entry Analysis

Provides risk assessment of uncontrolled re-entry of man-made space objects into the Earth's atmosphere

Fragmentation Analysis

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

SST services are provided upon request to EU Member States, EU institutions, public and private spacecraft owners and operators, and civil protection authorities across the European Union.

The **SST Front Desk** provides the secure interface for delivering the SST services to users (**SST Portal**) and supports, promotes and encourages the use of the SST services.

Access to the services requires registering in the SST Portal

https://portal.eusst.eu

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 improving the safety and sustainability of space activities.

More than 130 organisations
are currently receiving these services

and **more than 240 European satellites**
are safeguarded from the risk of collision.