

#EUSpace 

EU SPACE WEEK 2023

7 - 9 November - Sevilla, Spain

EU Space for Users: User Consultation Platform Plenary

Carmen Aguilera, Operational Market Development Manager, EUSPA

8th November 2023

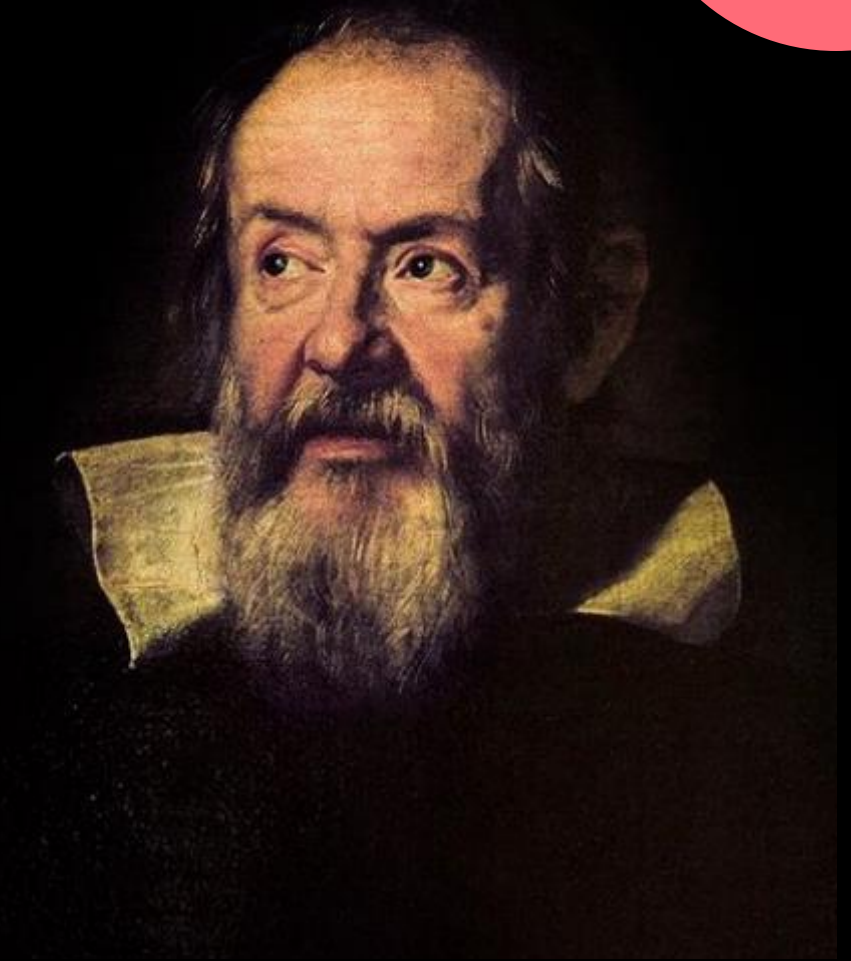


European
Commission

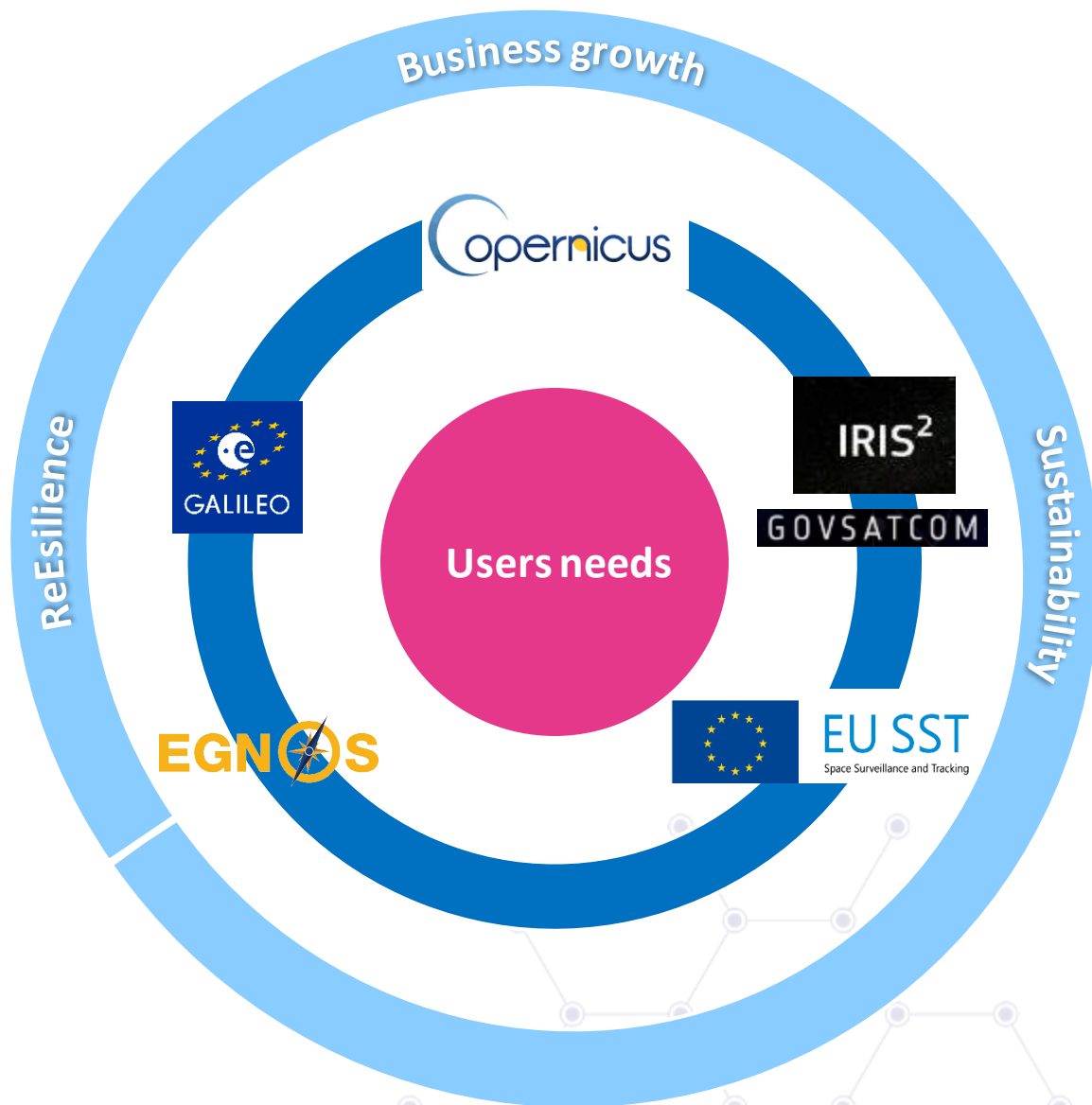


All **truths** are easy to understand
once they are discovered;
the point is to **discover them.**

– *Galileo Galilei*



User Consultation Platform: the voice of the users



#EUSpace 

The User Consultation Platform 2023: needs for all space components for the first time



GALILEO EGNOS

2017 - UCP 1st edition
(Madrid)

- Mass Market
- Road Transport
- Aviation
- Rail
- Maritime
- Agriculture
- Surveying & Mapping
- Timing & Synchronisation.

GALILEO EGNOS

2018 - UCP 2nd edition
(Marseille)

- Mass Market
- Road Transport
- Aviation
- Rail Transport
- Maritime and Inland Waterways
- Agriculture
- Surveying & Mapping
- Timing & Synchronisation

GALILEO EGNOS GOVSATCOM Copernicus

2020 UCP 3rd edition
(online)

- Mass market
- Road
- Aviation & Drones
- Rail
- Maritime & Ocean Monitoring
- Agriculture & Forestry
- Geomatics & Urban Planning
- Public Transport
- Natural Disasters & Emergency
- Critical Infrastructures
- Space Users
- Governmental.

GALILEO EGNOS GOVSATCOM Copernicus

2022 UCP 4th edition
(Prague)

- Aviation & Drones
- Maritime & Fisheries
- Emergency & Humanitarian Aid
- Insurance and Finance
- Infrastructure including 5G
- Energy and Raw Materials
- Consumer solutions

GALILEO EGNOS GOVSATCOM Copernicus IRIS² EU SST

2023 UCP 5th edition
(Sevilla)

- Agriculture and Forestry
- Biodiversity and Climate
- Road and Automotive
- Rail
- Public transport
- Resilient Societies
- Space
- SST

Needs and requirements from UCP are documented as inputs to the programme



Report on Aviation and Drones

User Needs and Requirements

#EUSpace EUSPA

Report on Consumer Solutions

User Needs and Requirements

#EUSpace EUSPA

Report on Infrastructure

User Needs and Requirements

#EUSpace EUSPA

Report on Emergency Management & Humanitarian Aid

User Needs and Requirements

#EUSpace EUSPA

6 USER REQUIREMENTS SPECIFICATION

The annex provides a summary of the user requirements in section 6.1 user UCP regarding an EUSPA reaction to and/or EU assistance. The content of the annex will be updated, completed and amended by EUSPA in future editions of the RUP based on the results of future consultations. The user needs specified in the RUP are:

6.1. Synthesis of Requirements relevant to GNSS

6.1.1 GNSS user requirements for Landslides and terrain deformation monitoring

ID	Requirements	Type	Owner
U-CP-2023-01	High-precision GNSS receivers for real-time monitoring of landslides and terrain deformation.	Functional requirement	EUSPA
U-CP-2023-02	Real-time data processing and analysis capabilities.	Functional requirement	EUSPA
U-CP-2023-03	Integration with existing monitoring systems.	Functional requirement	EUSPA
U-CP-2023-04	Robustness and reliability in adverse weather conditions.	Functional requirement	EUSPA
U-CP-2023-05	Scalability to monitor multiple sites simultaneously.	Functional requirement	EUSPA
U-CP-2023-06	Interoperability with other GNSS-based systems.	Functional requirement	EUSPA
U-CP-2023-07	Secure data transmission and storage.	Functional requirement	EUSPA
U-CP-2023-08	Comprehensive documentation and reporting capabilities.	Functional requirement	EUSPA

6.1.2 GNSS user requirements for Post-disaster damage assessment and building inspection

ID	Requirements	Type	Owner
U-CP-2023-09	High-precision GNSS receivers for post-disaster damage assessment and building inspection.	Functional requirement	EUSPA
U-CP-2023-10	Real-time data processing and analysis capabilities.	Functional requirement	EUSPA
U-CP-2023-11	Integration with existing damage assessment systems.	Functional requirement	EUSPA
U-CP-2023-12	Robustness and reliability in adverse weather conditions.	Functional requirement	EUSPA
U-CP-2023-13	Scalability to monitor multiple sites simultaneously.	Functional requirement	EUSPA
U-CP-2023-14	Interoperability with other GNSS-based systems.	Functional requirement	EUSPA
U-CP-2023-15	Secure data transmission and storage.	Functional requirement	EUSPA
U-CP-2023-16	Comprehensive documentation and reporting capabilities.	Functional requirement	EUSPA

Page 79

Report on Insurance and Finance

User Needs and Requirements

#EUSpace EUSPA

Report on Energy and Raw Materials

User Needs and Requirements

#EUSpace EUSPA

Report on Maritime, Inland Waterways, Fisheries and Aquaculture

User Needs and Requirements

#EUSpace EUSPA

6.2 Synthesis of Requirements relevant to SD

6.2.1 SD user requirements for Landslides and terrain deformation monitoring

Requirement	SDG	Priority	Impact	Stakeholders	Dependencies	Notes	Lead	Responsible	Timeline	Review
High-precision GNSS receivers for real-time monitoring of landslides and terrain deformation.	11 (Sustainable Cities and Communities)	High	Enhancing urban resilience and disaster preparedness.	Urban planning, disaster management, infrastructure development.	Integration with existing monitoring systems, data processing capabilities.	Real-time data processing and analysis capabilities.	EUSPA	GNSS Service Providers	2023-2024	Annual
Real-time data processing and analysis capabilities.	9 (Industry, Innovation and Infrastructure)	High	Enhancing infrastructure resilience and disaster preparedness.	Infrastructure development, disaster management, urban planning.	Integration with existing monitoring systems, data processing capabilities.	Integration with existing monitoring systems.	EUSPA	GNSS Service Providers	2023-2024	Annual
Integration with existing monitoring systems.	11 (Sustainable Cities and Communities)	High	Enhancing urban resilience and disaster preparedness.	Urban planning, disaster management, infrastructure development.	Integration with existing monitoring systems, data processing capabilities.	Robustness and reliability in adverse weather conditions.	EUSPA	GNSS Service Providers	2023-2024	Annual
Robustness and reliability in adverse weather conditions.	13 (Climate Action)	High	Enhancing climate resilience and disaster preparedness.	Climate action, disaster management, urban planning.	Integration with existing monitoring systems, data processing capabilities.	Scalability to monitor multiple sites simultaneously.	EUSPA	GNSS Service Providers	2023-2024	Annual
Scalability to monitor multiple sites simultaneously.	11 (Sustainable Cities and Communities)	High	Enhancing urban resilience and disaster preparedness.	Urban planning, disaster management, infrastructure development.	Integration with existing monitoring systems, data processing capabilities.	Interoperability with other GNSS-based systems.	EUSPA	GNSS Service Providers	2023-2024	Annual
Interoperability with other GNSS-based systems.	9 (Industry, Innovation and Infrastructure)	High	Enhancing infrastructure resilience and disaster preparedness.	Infrastructure development, disaster management, urban planning.	Integration with existing monitoring systems, data processing capabilities.	Secure data transmission and storage.	EUSPA	GNSS Service Providers	2023-2024	Annual
Secure data transmission and storage.	13 (Climate Action)	High	Enhancing climate resilience and disaster preparedness.	Climate action, disaster management, urban planning.	Integration with existing monitoring systems, data processing capabilities.	Comprehensive documentation and reporting capabilities.	EUSPA	GNSS Service Providers	2023-2024	Annual
Comprehensive documentation and reporting capabilities.	11 (Sustainable Cities and Communities)	High	Enhancing urban resilience and disaster preparedness.	Urban planning, disaster management, infrastructure development.	Integration with existing monitoring systems, data processing capabilities.		EUSPA	GNSS Service Providers	2023-2024	Annual

6.2.2 SD user requirements for Post-disaster damage assessment and building inspection

Requirement	SDG	Priority	Impact	Stakeholders	Dependencies	Notes	Lead	Responsible	Timeline	Review
High-precision GNSS receivers for post-disaster damage assessment and building inspection.	11 (Sustainable Cities and Communities)	High	Enhancing urban resilience and disaster preparedness.	Urban planning, disaster management, infrastructure development.	Integration with existing monitoring systems, data processing capabilities.	Real-time data processing and analysis capabilities.	EUSPA	GNSS Service Providers	2023-2024	Annual
Real-time data processing and analysis capabilities.	9 (Industry, Innovation and Infrastructure)	High	Enhancing infrastructure resilience and disaster preparedness.	Infrastructure development, disaster management, urban planning.	Integration with existing monitoring systems, data processing capabilities.	Integration with existing damage assessment systems.	EUSPA	GNSS Service Providers	2023-2024	Annual
Integration with existing damage assessment systems.	11 (Sustainable Cities and Communities)	High	Enhancing urban resilience and disaster preparedness.	Urban planning, disaster management, infrastructure development.	Integration with existing monitoring systems, data processing capabilities.	Robustness and reliability in adverse weather conditions.	EUSPA	GNSS Service Providers	2023-2024	Annual
Robustness and reliability in adverse weather conditions.	13 (Climate Action)	High	Enhancing climate resilience and disaster preparedness.	Climate action, disaster management, urban planning.	Integration with existing monitoring systems, data processing capabilities.	Scalability to monitor multiple sites simultaneously.	EUSPA	GNSS Service Providers	2023-2024	Annual
Scalability to monitor multiple sites simultaneously.	11 (Sustainable Cities and Communities)	High	Enhancing urban resilience and disaster preparedness.	Urban planning, disaster management, infrastructure development.	Integration with existing monitoring systems, data processing capabilities.	Interoperability with other GNSS-based systems.	EUSPA	GNSS Service Providers	2023-2024	Annual
Interoperability with other GNSS-based systems.	9 (Industry, Innovation and Infrastructure)	High	Enhancing infrastructure resilience and disaster preparedness.	Infrastructure development, disaster management, urban planning.	Integration with existing monitoring systems, data processing capabilities.	Secure data transmission and storage.	EUSPA	GNSS Service Providers	2023-2024	Annual
Secure data transmission and storage.	13 (Climate Action)	High	Enhancing climate resilience and disaster preparedness.	Climate action, disaster management, urban planning.	Integration with existing monitoring systems, data processing capabilities.	Comprehensive documentation and reporting capabilities.	EUSPA	GNSS Service Providers	2023-2024	Annual
Comprehensive documentation and reporting capabilities.	11 (Sustainable Cities and Communities)	High	Enhancing urban resilience and disaster preparedness.	Urban planning, disaster management, infrastructure development.	Integration with existing monitoring systems, data processing capabilities.		EUSPA	GNSS Service Providers	2023-2024	Annual

Implemented users needs from UCP: examples



EGNOS for non ATS environments

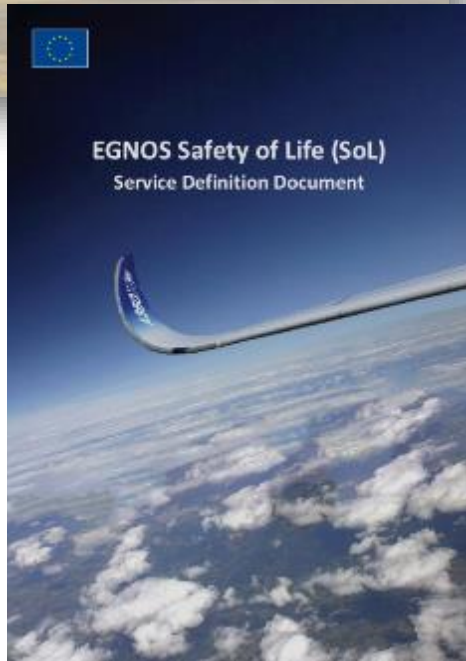
Galileo Remote beacon activation

Copernicus for drone Safety case

UCP 2017



EGNOS SoL SDD 3.2
Oct 2018



UCPs 2017-2020



ED-277, Feb 2021



UCPs 2020-2022



Pilot 2022-2023



#EUSpace

User Consultation Platform 2023

8 sessions, 10 market segments

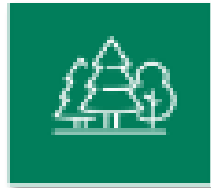


New!

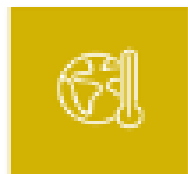
Agriculture &



Forestry



Environment



New!

Road and
Automotive



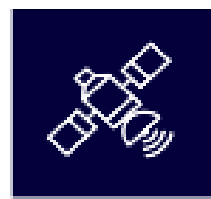
Public
Transport



Rail



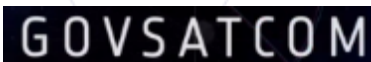
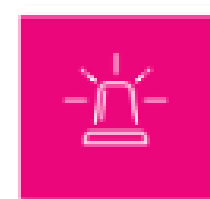
Space



SST



Resilient
societies



UCP 2023 Highlights

Agriculture & Forestry, Environment, Resilient Societies

EU
SPACE
WEEK
2023



- **Trends:** Food security, digitalization, sustainability and climate change
- **Regulation compliance:** CAP, EU green Deal, EUDR
- All **GNSS** applications (machinery guidance or automation, livestock) require sub-meter accuracy
- **EO:** need for scalable approaches for forest management



- **Trends:** climate informed decision making, ESG reporting
- **Regulation:** Green Deal, Corporate Sustainability Reporting Directive, EUDR
- **Location** of assets facing a climate risk, GNSS for supply chain traceability
- **EO:** more granular flora and biodiversity mapping, near real time, standardised products tailored to vertical segment.



- **Trends:** digital transformation of customs, Unexploded Ordnance (UXO) and cultural heritage
- Customs -> **authentication**, m-level.
- **EO** supports cultural heritage, m accuracy
- UXO -> **Satcom** and accuracy better than 10cm

UCP 2023 Highlights

Automotive, Rail and Public Transport

EU
SPACE
WEEK
2023



- **Trends:** Adapting to Climate change, Cooperative, connected & automated mobility, urban mobility
- **GNSS:** Integrity, dm accuracy, authentication, high availability for automated vehicles
- **EO** for sustainable infrastructure planning/management, tailored offer
- **Satcom** for seamless connected mobility



- **Trends:** Green Deal and ERTMS.
- **EGNOS service** rail demonstrator for ERTMS by 2025
- **Copernicus** to support infrastructure optimisation
- **Satcom** for Future Rail Mobile Communication system



- **Trends: Green Deal,** Autonomous shuttles & on demand public transport,
- **Meter** accuracy and high availability in urban areas.
- **EO for infrastructure** maintenance

UCP 2023 Highlights

Space and SST users

EU
SPACE
WEEK
2023



- **Trends:** New space is driving the market (mega constellations, reusable launchers, extra orbital activities) with reduced costs and the increased use of GNSS
- **GNSS Needs** vary: cm position, sub ns time accuracy for LEO radio occultation, 10m accuracy for GEO and MEO telecom satellites
- **Secure satcom** supporting safety and security of space infrastructure.



- **Basic/public services:** additional routine screening, analysis of primary asset information, enhancement of EU SST conjunction analysis
- **Advanced/commercial services:** enhanced manoeuvres support and active debris removal
- Different points of view on **marketplace**.
- **EU SST as public catalyst** for the EU industry
- Results will be shared within the **EU Industry and Start-Ups Forum on STM (EISF)**

The floor is yours



Georg Larscheid
Vice President Digital Business
CLASS



Laura Moreno
Co-founder and CEO
EarthPulse



Ana Luz
Provincial Head of Traffic
Traffic General Directorate



Valentín Alfaya
Sustainability Director
Ferrovial



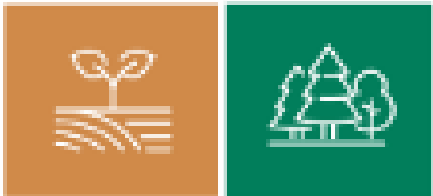
Valentin Barreau
Head of SNCF Localisation
SNCF



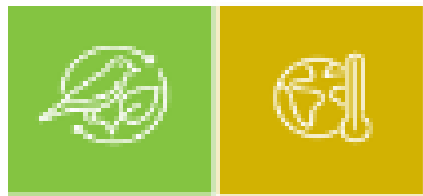
Adam Śmiątek
Space System Engineer
ICEYE



Michael Doherty
Technology expert
CBRA



Agriculture & Forestry



Environment



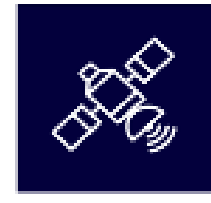
Road and Automotive



Public Transport



Rail



Space



SST



Resilient societies



EU
SPACE
WEEK

2023

www.euspaceweek.eu | #EUSW

