EUSPA Annual Activity Report 2022

#EUSpace

EUSPA
European Union Agency for the Space Programme

European Union Agency for the Space Programme
Consolidated Annual Activity Report 2022

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Administrative Board Chair's analysis and assessment

It is with pride that I present the EUSPA Annual Activity Report for 2022. This year, celebrating the 10th anniversary of the Agency headquarters in Prague, was a landmark for the European Union Space Programme and its Agency, EUSPA.

This report highlights the progress that has been made, and demonstrates the commitment of all stakeholders involved in the EU Space Programme and its Agency. It is also illustrating how the growth of the Agency is prepared and managed both at organisational and technical levels.

Without being exhaustive, I will mention here some of the key milestones reached and some new initiatives launched in 2022. The European GNSS services delivered again outstanding performances together with the continuous development of new services, such as the Galileo High Accuracy Service. The responsibilities of the Agency keep increasing and it is getting ready with the preparation of the GOVSATCOM Hub and the transfer of the SST Front Desk next year. In relation to the market uptake responsibilities, EUSPA succeeded to become the reference point for SMEs wanting to use the EU Space technologies, with the publication of the Market Report tackling GNSS and Earth Observation, and the organisation of the first CASSINI Entrepreneurship Day in Prague.

Let me also underline the initiative proactively developed by the Agency, EUSpace4Ukraine. Through this initiative, EUSPA has proven that the opportunities provided by the EU Space technologies can also be efficiently used for humanitarian support.

With the continued support of the Administrative Board and its Members, the EUSPA Executive Director and SAB Chair, its dedicated team of professionals and all stakeholders, EUSPA will continue to deliver on our shared objectives, ensure the success of the EU Space Programme and reach its goals for the coming year.

Václav Kobera

Chair of the Administrative Board, European Union Agency for the Space Programme

Note by the Chair of the Security Accreditation Board

The security accreditation activities for the EU Space Programme components progressed in 2022 based on the Programme milestones.

With regards to Galileo in 2022,

- The SAB maintained the authorisation of the Galileo services up to and including the signal in space as well as the authorisation of the overall Galileo infrastructure and its evolutions (System Build 1.7);
- The SAB authorised High Accuracy Service (HAS) Initial Service declaration;
- The SAB defined the PRS Initial Operational Capability (PRS IOC) accreditation specific conditions to provide maximum anticipation and flexibility to the Programme, defining how the implementation of security measures will be checked, in particular with audits, and defining the evidence needed to ensure security assurance can be maintained up to the Full Operational Capability (FOC). SAB Member States decided to perform, before PRS IOC, tests with 2 Member States' operational PRS receivers developed or under development and to share the results with all SAB members with Competent PRS Authorities;
- The SAB provided recommendations to the Programme with regards the Design of Galileo Second Generation (G2G) to facilitate FOC accreditation decision maintenance and therefore future FOC accreditation decision;
- The SAB authorised the L11 satellites to enter into service, the upload of updates of Navigation Signal Generation Unit and Avionic software. The security assurance activities within the Launch 12 campaign were performed by the SAB Formation Flight Keys (F-FK);
- The SAB maintained the ground segment sites' accreditation, authorised the interim approval to operate (IATO) of the Galileo VAL system and performed cyber configuration audit on GCC and GSMC;
- At the end of 2022, 169 EU bodies had valid SAB authorisation for developing or manufacturing PRS technology in 3 different categories. A new PRS bodies authorisation process has been adopted as of December 31st.

With regards to EGNOS in 2022,

- The SAB decided to perform a security assessment campaign on EGNOS V.2.
- The EUSPA security accreditation department maintained frequent coordination meetings with the Programme and participated as observer in Programme reviews, such as EGNOS v3 CDR.

With regards the other EU space programme components in 2022,

- The SAB prepared the significant extension of its activities to all EU Space Programme Components by further standardising its decisions related to the accreditation conditions and its security checks through audits.
- The SAB initiated discussion with the Programme to prepare Security Accreditation Strategies of the new EU space components and established its workplan for 2023.

With regards to the transversal services in the Agency and the Administrative Board

- While implementing a robust working relationship with bi-weekly coordination meetings, the Chairperson of the SAB and EUSPA Executive Director prepared and Agreement on cooperation covering division of appointing authority powers, recruitment, selection procedures, other staff and organizational matters and cooperation on administrative issues.
- The SAB and its national experts, supported by the technical bodies and the EUSPA security accreditation department, kept working proactively to support the Programme and to maintain a high standard of security assurance for the Programme's Components.

- The SAB maintained and provided to the Chairperson of the Administrative Board, the European Commission and the EUSPA Executive Director its Risk Management Register informing on the SAB risk assessment and advising on residual risk treatment options.

Philippe Bertrand

Chair of the EU Space Programme Security Accreditation Board

Note by the Executive Director

The European Union Agency for the Space Programme (EUSPA) has a crucial role in implementing the EU Space Programme. In 2022, we have been working tirelessly to meet the EU's space ambitions and we have achieved significant milestones.

We delivered

EUSPA has accomplished significant steps in the European GNSS activities throughout the year. Among others, it has signed the Next EGNOS Service Provision contract and the new Galileo SAR service contract and contracted EGNOS V2 maintenance and launched the EGNOS GEO4 payload, an essential element in the evolution of the European SBAS.

EUSPA continued to deliver safe and secure Galileo services with outstanding performances despite the COVID-19 pandemic. The entry into service of two new Galileo satellites and the first operational implementation of Council Decision 2021/698 highlighted the role of the GSMC in security monitoring. We have witnessed a growing interest from users with now 3.5 billion Galileo-enabled devices sold worldwide since the declaration of the Galileo services.

EUSPA has created a network of 1000 start-ups and 28 investors and organised the 1st CASSINI Space Entrepreneurship Day. Our Market Report, covering both EO and GNSS, remains a key document for public and private actors, and has been downloaded more than 100.000 times.

Together with the Czech Presidency of the Council and the European Commission, EUSPA organised the EU Space Week, which attracted 3000 participants, of which 1100 on-site, including the User Consultation Platforms that place the users at the centre of the EU Space programme.

We continued to grow

EUSPA has welcomed 83 newcomers onboard, including staff and trainees. Also, we have now occupied two new buildings in Saint Germain en Laye (GSMC France) and La Marañosa (GSMC Spain).

At the organisational level, EUSPA updated its anti-fraud strategy, and since end 2021, EUSPA has deployed and implemented the new organisation established to ensure that we can deliver on our enlarged responsibilities and the FFPA agreement. Furthermore, in 2022, we have also been preparing the transfer of the SST front desk to EUSPA, that will take place in July 2023.

We are preparing for the future

EGNOS continues to progress, and the first EGNOS V3 sites are being set. New Galileo services are now ready or in the final stages of preparation: we got ready for the Galileo High Accuracy Service, re-opened a testing campaign for INAV improvements implementation and conducted the Open Service Navigation Message Authentication test phase with continuously increasing user engagement. The deployment of hardware towards PRS IOC has started, and the preparation for the GOVSATCOM Hubs is ongoing. EUSPA is preparing for its role as Galileo System Prime of the System in Operations, including the definition and execution of stress tests on infrastructure in operations.

EUSPA completed the first call of Horizon Europe, with all grants signed and 40% SME participation, and launched the second call.

EUSPA is also mobilising the EU Space innovation community in support of the Ukrainian people to provide technological solutions to enhance humanitarian support. This platform aims to match innovators, app developers with NGOs and other helpers through #EUSpace4Ukraine Network.

In conclusion, EUSPA work and initiatives, partnerships and collaborations, and support for innovation and research are all contributing to the development of the implementation and advancement of the EU Space programme, to make the Union Space ambitions a reality.

Rodrigo da Costa

Executive Director, European Union Agency for the Space Programme

Executive Summary

The Annual Activity Report 2022 provides an overview of the Agency activities in relation to core and entrusted tasks, with also information on budget, human resources, and control aspects.

In 2022, EUSPA was responsible for a range of activities, including:

- Ensuring the security accreditation of Galileo and EGNOS, through its independent Security Accreditation Board (SAB).[1] To that effect it initiates and monitors the implementation of security procedures and performs system security audits;
- Operational Security for the EGNSS component of the Programme;
- Ensuring the operation of the Galileo Security Monitoring Centre (GSMC);
- Performing certain tasks provided for in Decision No 1104/2011/EU on the rules for access to the Public Regulated Service (PRS) of Galileo;
- Contributing to the promotion and marketing of Galileo, EGNOS and Copernicus services, including carrying out the necessary market analysis, and establishing close contacts with users and potential users of the systems.

EUSPA also performs other tasks relating to the implementation of the EU Space Programme, entrusted to it by the European Commission (EC) by means of delegation and contribution agreements, such as:

- Operational activities including infrastructure management, maintenance and continuous improvement of the EGNOS and Galileo systems, certification and standardisation operations and provision of the services;
- Development and deployment activities for the evolution and future generations of the GNSS systems, and contribution to the definition of service evolutions, including procurement;
- Promoting the development of applications and services based on the systems, as well as raising awareness of such applications and services, including identifying, connecting and coordinating the network of European centres of excellence in GNSS applications and services, drawing on public and private sector expertise, and evaluating measures relating to such promotion and awareness-raising;
- GOVSATCOM activities, including those related to the GOVSATCOM hub;
- Promoting the development of Fundamental Elements, such as Galileo-enabled chipsets and receivers;
- Fulfilling defined tasks related to the management of projects under the Horizon Europe framework programme for navigation applications research and innovation.

[1] The activities related to security accreditation, described in Chapter III of Regulation No 9012/2010, including the Agency staff performing them, are fully the responsibility of the Chairperson of the Security Accreditation Board.

1 ACHIEVEMENTS IN 2022

Important milestones were achieved by EUSPA in the course of 2022. With respect to Operational Security, during 2022 a set of important accreditation decisions for Galileo and EGNOS were achieved. The basis of these decisions is the security risks analysis, with the corresponding treatment plan status implementation and the oversight of the overall security status of the systems.

In relation to the Operation of the Galileo Security Monitoring Centre, the Agency continued the execution of Security Monitoring and Incident Handling 24/7 real-time operations in accordance with the baseline, the execution of PRS service operations and provision of services, in addition to cyber security operations and support to operations.

Regarding PRS, the Agency fully reviewed and updated the PRS management plans (ruling the way the Agency accesses PRS and manages PRS information for the performance of the tasks entrusted to it).

Concerning Communication, Promotion and Marketing of the Services, in line with the new mandate, EUSPA continued working on the uptake of all space programme components, EGNSS, Copernicus, GOVSATCOM and their synergies.

In relation to Agency Management, EUSPA provided state-of-the-art services to all operations in the areas of legal, procurement, grants, contracts, finance and budget, human resources management, ICT, facility management and logistics.

1.1 Security Accreditation Activities

In accordance with article 80 of Regulation (EU) 2021/696, the Security Accreditation Board prepared this section. It is being incorporated into this document, without any change.

1.1.1 Tasks until 2024

The table below is based on the SPD 2022-2024 previously approved. The table approved by SAB at the end of 2022 in the context of the endorsement of the SPD 2024-2026, even if not reported in this document, has to be considered as the new reference table.

	Tasks	Objective	Year
1	Approvals of satellite launches	The Agency shall perform security assurance activities, inform the SAB of the results and administer corresponding accreditation decisions for satellite launches.	2022 – 2024
2	Authorisations to operate the systems set up under the components of the Programme or the elements of these components in their different configurations and for the various services they provide, up to and including the signal in space	The Agency shall perform system, operations, and services security assurance activities, establish a monitoring process of the security risk assessment and related security measures, inform the SAB thereof and administer corresponding accreditation decisions	2022 – 2024
3	Authorisations to operate ground sites	The Agency shall perform site security assurance activities including site visits, inform the SAB thereof and administer corresponding accreditation decisions	2022 – 2024
4	Authorisation of bodies to develop or manufacture sensitive technology	The Agency shall administer security accreditation decisions on authorisation of bodies to develop or manufacture sensitive PRS technologies, PRS receivers or PRS security modules, or any other technology or equipment which has to be checked under the general security requirements referred to in Article 34(2), for PRS service in Galileo or any other secure service stemming from the components of the Programme.	2022 – 2024
5	SAB Secretariat	The Agency shall ensure the SAB secretariat and general support to the SAB chairperson in discharging the related regulatory responsibilities	2022 – 2024

	Tasks	Objective	Year
6	SAB Subordinate Panel (and related groups of experts)	The Agency shall organize the special subordinate Panel acting on instruction of the SAB, comprised of Member State security experts in order to conduct security analysis reviews and tests and produce relevant risk reports and accreditation recommendations to the SAB to assist in its decision making. Expert groups may be set up and disbanded to contribute to the work of the Panel. The Agency provides chairmanship and independent technical expertise in support of the Panel and of the expert groups.	2022 – 2024
7	Assurance for Programme keys	The Agency shall organize a special subordinate body under the supervision of the SAB representing the Member States to provide assurance in particular on the management of programme flight keys. It shall also conduct verification, monitoring and assessment of the establishment and enforcement of procedures for accounting, secure handling, storage, distribution and disposal of the PRS keys of Galileo.	2022 – 2024
8	SAB regulatory responsibilities on Copernicus, GOVSATCOM and SSA	The SAB shall progressively ramp up the accreditation activities for the three new components (Copernicus, GOVSATCOM, SSA), till their implementation under the tasks detailed in the previous objectives as relevant.	2022 – 2024

1.1.2 Highlights for 2022

The SAB met six times in 2022, in physical meetings in the EUSPA Head Quarters in Prague. SAB meetings were preceded by the meetings of the SAB subordinate bodies in order to discuss classified matters and provide recommendations to the SAB for its accreditation decision. The Panel met in the Formations Galileo and EGNOS (four meetings). The special subordinate body on keys met in its two Formations, a Formation for Flight Keys (one meeting) and a Formation for PRS keys (two meetings).

The EUSPA security accreditation department (SAB secretariat) provided the technical and administrative secretariat support to the SAB all along 2022 to support informed SAB decisions.

1.1.3 Tasks for 2022

<table>
<tr><th colspan="4">Objective 1: Operate effective administration of the SAB so as to support timely decision making</th></tr>
<tr><th colspan="2">Expected results</th><th colspan="2">2022 results</th></tr>
<tr><td colspan="2">• Reporting to SAB chairman
• SAB meeting plan proposed in coordination with the Programme to anticipate possible milestones
• Distribution of working papers in due time before each meeting
• Establishment of minutes in due time after each meeting
• Administrate written procedures as necessary
• Record and transmit all SAB decisions</td><td colspan="2">• Regular reports to SAB chair, in particular after each meeting of the technical bodies.
• The SAB meeting plan was established at the end of 2021 and maintained in 2022 to keep it aligned with the changes in the Programme schedule. Due to the lack of candidate to apply for SAB chair position, more SAB meetings took place in 2022 (6) than initially planned.
• Relevant documents were distributed in advance of each meeting. The SAB secretariat drafted a recommendation/decision note for each SAB decision, containing the assessment of the topic and a recommendation to the SAB.
• Minutes were established after each meeting, submitted to the SAB chair for review and approval, and finally for SAB approval. All minutes were approved by SAB and archived.
• Decisions that could not be taken during the meetings, e.g. to meet Programme timescale expectation were administered via silence procedures (around 140). SAB meetings have started with physical presence since April 2022 again and always reached quorum.</td></tr>
<tr><th colspan="2"></th><th>Targets</th><th>2022 results</th></tr>
<tr><td rowspan="2">Indicators</td><td>Successful implementation of required administrative processes.</td><td>100%</td><td>100%</td></tr>
<tr><th colspan="2">Planned outputs</th><th colspan="2">Actual outputs</th></tr>
</table>

Outputs relating to the multi-annual work programme objectives:

- Up-to-date register of SAB actions and decisions
- SAB minutes of meeting
- Yearly SAB meeting plan
- SAB Statements
- Archive of Accreditation Statements
- Up-to-date register of SAB membership

Other outputs:

- Recommendations to the SAB / SAB Chair

- Up-to-date register of SAB actions and decisions. Archive of approved SAB minutes of meetings.
- 2022 SAB meeting plan approved at the end of 2021 and then kept aligned to the needs of the Programme. 2023 SAB meeting plan approved at the end of 2022.
- Archive (paper and electronic formats) of accreditation statements and official communications.
- Register of SAB membership kept updated.
- Recommendations of SAB secretariat and technical bodies to the SAB for each decision, summarised into Decision Notes to SAB chair and SAB.
- SAB Risk Management Register kept updated and provided to EC, EUSPA Administrative Board, and EUSPA Executive Director.

<table>
<tr><th colspan="3">Objective 2: Support to SAB Management</th></tr>
<tr><th colspan="2">Expected results</th><th>2021 results</th></tr>
<tr><td colspan="2">• SAB relevant part of the multiannual work programme (including financial and human resources) adopted and provided to Administrative Board on time
• SAB relevant part of the annual work programme (including financial and human resources) adopted and provided to Administrative Board on time
• SAB relevant part of the annual report on activities adopted and provided to Administrative Board on time</td><td>• Sections in the Single Programming Document (SPD) covering the SAB security accreditation activities were adopted by the SAB.
• Draft budget for SAB activities was prepared and integrated in the approved SPD.
• Regular reports on the implementation of the SAB Budget were made.</td></tr>
<tr><td colspan="2"></td><th>Targets</th><th>2022 results</th></tr>
<tr><td rowspan="3">Indicators</td><td>SAB relevant part in the multiannual work programme provided to SAB for approval by established deadline</td><td>Yes</td><td>Yes</td></tr>
<tr><td>SAB relevant part in the annual work programme provided to SAB for approval by established deadline</td><td>Yes</td><td>Yes</td></tr>
<tr><td>SAB relevant part in the annual report provided to SAB for approval by established deadline</td><td>Yes</td><td>Yes</td></tr>
<tr><th colspan="2">Planned outputs</th><th>Actual outputs</th></tr>
<tr><td colspan="2">Outputs relating to the multi-annual work programme objectives:
• SAB Work Programme
• SAB annual activity report</td><td>• SPD chapters on accreditation approved by SAB.
• 2021 CAAR chapters on accreditation approved by SAB.</td></tr>
</table>

<table>
<tr><th colspan="4">Objectives 3: To provide all authorisation statements needed by the Programme and approved by SAB</th></tr>
<tr><th colspan="3">Expected results</th><th>2022 results</th></tr>
<tr><td colspan="3">• Approvals of satellite launches
• Authorisations to operate the systems set up under the components of the Programme or the elements in their different configurations and for the various services they provide, up to and including the signal in space.
• Authorisations to operate the ground stations
• Authorisations of bodies to develop and manufacture sensitive technologies
• Security accreditation statements
• Changes to existing security accreditation statements
• Re-accreditation statements</td><td>• Approvals for Space Segment: L11 satellites enter into service, upload of the NSGU v1.4 and ASW 3.1
• Launch 12 campaign: assurance activities performed by the F-FK
• Authorisation of the Galileo infrastructure (IATO), authorisation to operate System Build 1.7
• Authorisation for the service provision of Open Service (OS), Public Regulated Service (PRS) and Search and Rescue (SAR).
• Authorisation of HAS Initial Service declaration
• Authorisations for system evolutions requested by the Programme analysed and provided according to the SAB decisions
• Authorisation to operate the Galileo stations maintained
• All body authorisation requests submitted by Member States processed in the timeline
• Approval of the new process for authorisation of developers and manufacturers of PRS Receivers and Security Modules
• Security Accreditation statements and needed changes to them were released by the SAB for each accreditation milestone and for each request by the Programme.
• All accreditation statements were kept up to date and extended/amended when needed according to their validity.</td></tr>
<tr><td colspan="2"></td><td>Targets</td><td>2022 results</td></tr>
<tr><td rowspan="2">Indicators</td><td>All SAB statements provided to Programme Management within two weeks after decision.</td><td>100%</td><td>100%</td></tr>
<tr><td>All authorisations of bodies processed</td><td>100%</td><td>100%</td></tr>
<tr><td colspan="3">Planned outputs</td><td>Actual outputs</td></tr>
</table>

- Approval to launch
- Authorisations to operate the system in its different configurations and services
- Authorisation to operate the ground stations
- Authorisation of bodies to develop and manufacture sensitive technologies
- Various accreditation statements

- Authorisation of the Galileo service provision of OS, PRS, and SAR, as per last service definition documents.
- Authorisation of HAS Initial Service declaration
- Approval to Operate (IATO) for Galileo, maintained updated with the configuration evolution; authorisation to operate System Build 1.7.
- Authorisations to operate the ground stations: 31 extensions of Galileo site authorisations,10 new Site Approval To Operate and 5 sites already authorised for OPE have been authorised for VAL,3 authorisations to connect for GRON sites
- Updated process for site accreditation (site approval to operate, SATO)
- Authorisations of bodies to develop and manufacture PRS receivers or PRS security modules: 23 new authorisations; 73 reauthorisations/extensions; 123 Authorisation scope updates; for a total of 169 SAB authorised bodies
- Interim approval to operate (IATO) the Galileo VAL system
- Authorisation to deploy and connect GSC v1.3
- Pre-authorisation to operate for GRSP v1.1 on both GCCs.

Objective 4: Ensure management of the Panel and expert groups contributing to it	
Expected results	**2022 results**
• Propose panel meeting plan • Organise panel meetings throughout the year • Preparation for technical discussion in each meeting • MoM approved at each meeting • Deliver accreditation recommendations from the subordinate body to SAB	• SAB meeting plan for 2022, including the Panel meetings, was approved by SAB and subsequently maintained to take into account the changes in the Programme schedule. 2023 meeting plan was approved at the end of the year 2022. • 4 Panel meetings were organised in 2022 (including Formation Galileo and Formation EGNOS). • The staff of the Security Accreditation Department (SAB secretariat) ensured the chairmanship and the technical and administrative secretariat of those meetings. • The SAB secretariat drafted a recommendation note for each item on which the Panel had to provide a recommendation to the SAB in view of a decision. Each note included the assessment of the SAB secretariat and it was discussed by the Panel, amended if needed and provided as recommendation to the SAB in an associated decision note drafted by the SAB secretariat. • Minutes of the Panel meetings were approved either at each meeting or shortly after, in time for submitting approved MoM to SAB for their meetings as timely input for decision making containing Panel recommendations for SAB decisions • Recommendations of the Panel were summarised by the Panel chairmen at each SAB meeting

		Targets	**2022 results**
Indicators	Successful implementation of required administrative processes.	100%	100%
	Minutes of meeting submitted for approval at each meeting or immediately after.	100%	100%

	Outcomes of each meeting reported to each SAB.	100%	100%
	All accreditation milestones and other decisions in SAB Agenda, in need of security risk assessment, addressed by the Panel	100%	100%

Planned outputs	Actual outputs
• Outputs relating to the multi-annual work programme objectives: • Security accreditation recommendations from the Panel to the SAB. • Briefing to SAB and SAB chair on the outcome of the Panel.	• Draft recommendation notes from SAB secretariat to Panel. • Recommendation notes produced by Panel. • Decision notes provided to SAB for each decision point. • The Panel chairmen provided a briefing to SAB and SAB chairman for each item of relevance.

<table>
<tr><th colspan="4">Objective 5: Ensure independent assessment of system level security</th></tr>
<tr><th colspan="2">Expected results</th><th colspan="2">2022 results</th></tr>
<tr><td colspan="2">• Carry out independent security assessments and system audits/reviews and report to subordinate body and SAB
• Participate in programme reviews at system level and, where necessary, ad hoc participation in segment reviews
• Monitor risks and treatment plans and report to subordinate body and SAB
• If requested by the SAB, review existing strategies to ensure consistency with the regulation/ programme and propose enhancements as appropriate</td><td colspan="2">• The experts of the SAB accreditation team (together with the contractors) carried out a review of the security accreditation dossier for preparation of every accreditation decision. Recommendations to the SAB Panel and SAB were made accordingly in the form of recommendation/decision notes
• The experts of the SAB accreditation team participated to main Programme reviews. Examples of reviews for Galileo: L12 ORR, PRS IOC Service Consolidation Review, HAS Initial Service Validation Review, OSNMA Service Consolidation Review, EWS Service Concept Review, SAR/Galileo Remote Beacon Activation Service Concept Review. Examples of reviews for EGNOS: EGNOS v3 Critical Design Review 1.1
• The experts of the SAB accreditation team participated to several meetings as observers, such as Programme Cyber Board.
• Independent security vulnerability assessment was performed on GSMC PRS secops.
• Risks and treatment plans were constantly monitored and discussed at Panel and SAB meetings. Analysis of evidence of vulnerabilities remediation and feedback to Programme.
• SAB accreditation specific conditions for PRS IOC approved and addressed to the Commission
• SAB recommendation on G2G approved addressed to the Commission and shared with G2G PDR Board.</td></tr>
<tr><th colspan="2"></th><th>Targets</th><th>2022 results</th></tr>
<tr><td rowspan="2">Indicators</td><td>Participation to security-sensitive Programme reviews when invited by the Programme.</td><td>100%</td><td>100%</td></tr>
<tr><td>Organisation of independent security vulnerability tests and/or system audits allocated to SAB secretariat.</td><td>100%</td><td>100%</td></tr>
</table>

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: • Recommendations to SAB	• Internal reports from participation to Programme reviews, Task Forces, Programme WGs, briefings to SAB chair. • Recommendation/decision notes to Panel and SAB for each decision

<table>
<tr><th colspan="3">Objective 6: Assurance for programme keys (flight keys and Galileo PRS)</th></tr>
<tr><th colspan="2">Expected results</th><th>2022 results</th></tr>
<tr><td colspan="2">• Propose meeting plan for the special subordinate body representing the Member states
• Organise meetings throughout the year
• Preparation for technical discussion in each meeting
• MoM approved at each meeting
• Deliver accreditation recommendations from the subordinate body to SAB</td><td>• 1 meeting Formation Flight Keys meetings
• 2 Formation PRS keys meetings
• The SAB secretariat provided the chairmanship, and the technical and administrative secretariat for each meeting
• MoM approved at each meeting or shortly after
• Recommendations notes delivered for SAB decision points</td></tr>
<tr><td colspan="2"></td><th>Targets</th><th>2022 results</th></tr>
<tr><td rowspan="5">Indicators</td><td>Successful organisation of meetings following SAB instruction</td><td>2</td><td>3</td></tr>
<tr><td>Successful implementation of required administrative processes</td><td>100%</td><td>100%</td></tr>
<tr><td>Minutes of meeting submitted for approval at each meeting</td><td>100%</td><td>100%</td></tr>
<tr><td>Outcomes of each meeting and recommendations reported to each SAB</td><td>100%</td><td>100%</td></tr>
<tr><td>Timely execution of tasks related to flight key assurance per each launch campaign</td><td>2 launch campaigns</td><td>1 (Launch 12)</td></tr>
<tr><th colspan="2">Planned outputs</th><th>Actual outputs</th></tr>
<tr><td colspan="2">Outputs relating to the multi-annual work programme objectives:
• Assurance statements to SAB meetings
• Recommendations to the SAB and/or SAB Chair</td><td>• Minutes of meetings</td></tr>
</table>

<table>
<tr><th colspan="3">Objective 7: Prepare for the new SAB regulatory responsibilities on Copernicus, GOVSATCOM and SSA</th></tr>
<tr><th colspan="2">Expected results</th><th>2022 results</th></tr>
<tr><td colspan="2">• Plan for the accreditation activities for the three new components (Copernicus, GOVSATCOM, SSA)
• Progressively initiate the accreditation activities for Copernicus, GOVSATCOM, and SSA, in order to integrate them in the implementation as per Objectives above.</td><td>• First exchanges with Programme on accreditation activities involving the SAB for Copernicus, GOVSATCOM, and SSA
• Collection of information, follow up of GOVSATCOM WG.</td></tr>
<tr><td rowspan="2"></td><td></td><td>Targets</td><td>2022 results</td></tr>
<tr><td>Indicators</td><td>Plan for initial accreditation activities for Copernicus, GOVSATCOM, and SSA in compliance to the SAB processes</td><td>Yes</td><td>Yes</td></tr>
<tr><th colspan="2">Planned outputs</th><th>Actual outputs</th></tr>
<tr><td colspan="2">Outputs relating to the multi-annual work programme objectives:
• Contact network with main security stakeholders and security bodies active in Copernicus, GOVSATCOM, and SSA
• Draft and management of relevant accreditation documents (e.g. Security Accreditation Strategy) needed for the accreditation of Copernicus, GOVSATCOM, and SSA
• Maintenance of the plan for initial accreditation activities for Copernicus, GOVSATCOM, and SSA
• Informative points relevant to the accreditation of the three components inserted in the SAB Agenda, with related preparation of slides/notes
• First accreditation activities initiated, as requested</td><td>• SAB secretariat participated as observer to the WG on GOVSATCOM.
• Regular slot in the SAB Agenda meeting for status report by the Commission.
• Exchange on security risk and threat analysis for Copernicus
• First elements for the draft of the Security Accreditation Strategies</td></tr>
</table>

1.2 Operational Security of EGNSS Components

1.2.1 Tasks until 2024

	Activity	Objective	Year[2]
1	Threat and security risk assessment and analysis	Regular and robust risk assessments of activities to ensure they do not pose a risk to the security of the EU GNSS systems, Member States or the EU.	2022 – 2024
2	Operations security	Provision of security oversight of the programme operators.	2022 – 2024

1.2.2 Highlights for 2022

During 2022 a set of important accreditation decisions for Galileo and EGNOS were achieved. The basis of these decisions is the security risk analysis, with the corresponding treatment plan implementation and the oversight of the overall security status of the systems. For what concerns Galileo, accreditation files have been prepared to obtain the following authorisations from the SAB:

- extension of the authorisation to operate the system already in operation for the provision of the defined associated services,
- authorisation to use 2 new (Launch 11 – L11) satellites in the constellation,
- authorisation to declare the High Accuracy Service (HAS) initial services.

For what concerns EGNOS, the Programme presented to the SAB the security risks of EGNOS V2 and agreed on the plan related to security accreditation of EGNOS V3, for which the Critical Design Review took place in December 2022.

[2] The year indicates when the Agency expects to perform that action. These dates are correct as of time of writing and are based on the current plans.

1.2.3 Tasks for 2022

<table>
<tr><th colspan="4">Objective 1: Galileo Threat and Risk analysis</th></tr>
<tr><th colspan="2">Expected results</th><th colspan="2">2022 results</th></tr>
<tr><td colspan="2">Maintain the Galileo Services and System Security Plan registering, for the system and service milestones:
Risk and threat analyses
Identified security risks
Identified treatment plans and status of implementation
Maintain the Galileo Security Accreditation Milestones and Schedule
Assessment of security risks associated with the Galileo system, its operations and services delivery
Report the status of the security risks and the required mitigations to the relevant Galileo Management Boards and bodies proposing risk management actions
Prepare, deliver and report on the accreditation files to the Security Accreditation Board (SAB) and its subordinate bodies to obtain the required authorisations and maintain the security accreditation certificates as per the regulation.</td><td colspan="2">The Security Plan for Galileo is regularly updated and maintained for the different milestones as required, delivering it in accordance with the different Programme review outcomes and different activities.

The System Security Plan contains the risk and threat analysis, the identified security risks and the identified treatment plans with the status of implementation.

The Galileo Security Accreditation Milestones and Schedule (SAMS) has been maintained through 2022, except in the last quarter, where the changes in the System Build 2.0 deployment activities and the lack of finalisation of the schedule did not allow a proper update of the SAMS.

The report for the security risks and associated treatment plans has been regularly done.

The preparation of the accreditation files for the SAB has been performed in accordance with the planned authorisations and the maintenance of the existing certificates.</td></tr>
<tr><th colspan="2"></th><th>Targets</th><th>2022 results</th></tr>
<tr><td rowspan="2">Indicators</td><td>Security Risk analysis and identification for the Galileo Programme milestones delivery to SAB for decision</td><td>100%</td><td>100%</td></tr>
<tr><td>Galileo Services and System Security Plan</td><td>100%</td><td>100%</td></tr>
</table>

	Galileo Security Accreditation Milestones and Schedule	100%	75%
Planned outputs			**Actual outputs**
Outputs relating to the multi-annual work programme objectives: • The Galileo Services and System Security Plan • The Galileo Security Accreditation Milestones and Schedule			SSP with all associated volumes and evidences (SoC to the security baseline: SSRS 3.9 and cyber) for each milestone. SAMS for each SAB meeting (quarter) except for Q4 (December 2022 SAB meeting).

Objective 2: Galileo Operations Security			
Expected results			**2022 results**
• Monitor the status of implementation of the applicable high-level security requirements • Monitor and track the implementation of the identified treatment plans for the system in operations • Ensure security oversight of Galileo operators • Ensure Cyber Security governance (Cyber Security Manager and Cyber Internal Auditor activities)			Overall SoC to the security baseline monitored, with associated evidences and processes in place (outcome of operational validations, operational cyber review board and programme cyber board).
		Targets	**2022 results**
Indicators	Number of Service Exploitation Reviews – security sessions	2	All reviews held as expected.
	Number of QSPR on GSOp – review of implementation reports	4	All meetings held as expected.
Planned outputs			**Actual outputs**
Outputs relating to the multi-annual work programme objectives: • Service Exploitation Reviews – security sessions: report on implementation status of requirements			Service Exploitation Reviews held. Inputs from the operator included in the overall security status of implementation of security measures.

<table>
<tr><th colspan="4">Objective 3: EGNOS Threat and Risk analysis</th></tr>
<tr><th colspan="3">Expected results</th><th>2022 results</th></tr>
<tr><td colspan="3">Maintain the EGNOS Services, System and Sites Security Plan registering for the system and service milestones:
Risks and threat analysis (V2+V3)
Identified security risks (V2+V3)
Identified treatment plan and status of implementation (V2+V3)
Site Accreditation Review (SAR)
Maintain the EGNOS Security Accreditation Milestones and Schedule (SAMS V2 & V3)
Management of security risks associated with the operations and service delivery (V2)
Report to the EGNOS Management Boards and bodies the status of the security risks and the required mitigations
Prepare, deliver and report on the accreditation files to the Security Accreditation Board (SAB) and its subordinate bodies to obtain the required authorisations as per regulation (V3 & V2)</td><td>The EGNOS V2 Security Risk Register has been approved in Q3/2022 by the Security Risk Assessment Board as from the relevant Management Plan. The security risk analysis, the identified security risks and the identified risk treatment recommendations with their status of implementation are available and maintained.
The EGNOS V3 “As Designed” Security Risk Analysis has been presented to the Security Accreditation Panel, pending its confirmation in 2023 following closure of the V3 CDR.
The EGNOS Security Accreditation Milestones and Schedule (SAMS) has been maintained through 2022, in particular with respect to the EGNOS V3 sites aspects whereas aspects related to the EGNOS V3 System were discussed with SAB.
The report for the EGNOS V2 and V3 security risks and associated treatment plans has been regularly done.
The preparation of the accreditation files for the SAB has been performed in accordance with the Programme needs. For what concerns the EGNOS V3 Sites SAR, 14 out of the 16 planned milestones have been concluded in 2022. The remaining 2 have been shifted to Q1 2023 due to readiness status of the relevant sites.</td></tr>
<tr><th colspan="2"></th><th>Targets</th><th>2022 results</th></tr>
<tr><td rowspan="2">Indicators</td><td>Number of accreditations Data packages prepared over the number of expected accreditation milestones</td><td>100%</td><td>100 %</td></tr>
<tr><td>EGNOS V3 Services and System Security Plan (including sites)</td><td>100%</td><td>100 %</td></tr>
</table>

	EGNOS V3 Security Accreditation	100%	100 %
	EGNOS V3 Sites SAR	100%	89 %
Planned outputs			**Actual outputs**
Outputs relating to the multi-annual work programme objectives: • The EGNOS Service Evolution Plan – SEP • The EGNOS V2 and V3 Services and System Security Plan • The EGNOS V2 & V3 Security Accreditation Milestones and Schedule			The EGNOS V2 Security Risk Analysis has been assessed (together with the security risk mitigation recommendations). For EGNOS V3 a security risk status as per Critical Design Review (VDR) 1.1 has been provided. The SAMS has been regularly updated to account for sites aspects and communicated to the Security Accreditation Panel /Security Accreditation Board when needed.

Objective 4: EGNOS Operations Security	
Expected results	**2022 results**
• Ensure implementation and follow up of the EGNOS SMP at programme and Service Provision contracts level • Ensure security oversight of the GEO and EGNOS Service Providers contracts activities in the field of security • Ensure security incidents raised by the Services Providers for the part concerning the Agency (impacts on the programme, report to EC) are managed	The EGNOS Exploitation Plan security annex has been updated. Delays in some 2022 deliveries had been encountered and a closer follow-up of deliveries is established for 2023 in Programme boards. Security oversight has been reinforced in the new NESP contract, in particular with a stronger role of EUSPA in the incident handling process and the observation/non-compliance reporting. The oversight of GEO contracts has been reinforced for newer contracts (GEO3/4) while the oversight of older contracts (GEO1/2) is expected to be reinforced in 2024. A more formal security incident management process for EGNOS is about to be implemented while for major security events in 2022, including the Ukraine invasion by Russia events they have still been managed based on strong skills and experiences developed by EUSPA internally and by the Service Provider with the support of the industrial partners.

		Targets	2022 results
Indicators	Number of Service Exploitation Reviews – security sessions (EC/Agency QPM)	100%	100 %
	Number of EGNOS Service Provider Reviews – security sessions	100%	100 %
	Number of EGNOS Service Provider Reviews – security sessions	100%	100 %

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: • Service Reviews – security sessions • Service Provision Reviews – security sessions	• Monthly security splinter with ESSP Security • Monthly EGNOS Service Provision Reviews (SPR) plenary (with input from Security Splinters) • Security oversight of the GEO Service Providers with bi-annual SPRs, as per contractual settings.

1.3 Operation of the Galileo Security Monitoring Centre

1.3.1 Tasks until 2024

	Activity	Objective	Year
M1	Management of the organisation and communication (Management Process)	Define the GSMC Operations strategy and objectives.	2022 - 2024
		Prepare and implement the GSMC's operations by scheduling milestones and main activities.	
		Report to programme stakeholders on the GSMC operations activities.	
		Provide an overview on the GSMC internal communication (top-down and bottom-up approaches) and team organisation.	
		Ensure the development and implementation of project management processes, methodologies, tools, and reporting.	
M2	Integrated Management System (Management Process)	Guarantee maintenance of the Agency's ISO 9001 certification, including adaptation to ISO 9001 evolutions.	2022 - 2024
		Ensure Product Assurance (PA) and Quality Assurance (QA).	
M3	Risk and business continuity management (Management Process)	Identify and manage risks that could impact the Galileo operations and the Programme.	2022 - 2024
		Ensure the maintenance and readiness of a Business Continuity Plan.	
M4	Health & Safety management (Management Process)	Maintain the responsibilities for health and safety at work and maintain a safe environment on both GSMC sites in line with Agency policy.	2022 - 2024
M5	Resolution and continuous improvement management (Management Process)	Ensure that problems and improvements are identified, recorded and handled.	2022 - 2024
C1	Engineering and requirement management (Support Process)	Identify, analyse and implement the requirements applicable to the GSMC and track evolutions of the applicable baseline.	2022 - 2024
		Ensure and report on the GSMC's compliance with programme requirements.	
		Design, validate and deploy Standard Operating Procedures (SOP) and Operational tools in support to the operations.	
		Define processes, tools and plans for system development activities, including maintenance for the two sites.	
		Ensure the security accreditation of sites, services and IT systems	
C2	Operations, expertise and analysis (Core Process)	Ensure the continuous monitoring of the security and system status of the Galileo system and the timely reaction to security incidents	2022 -

	Activity	Objective	Year
		Provision of expertise on PRS and Galileo security	2024
		Enable PRS access to authorised stakeholders, in compliance with PRS access rules.	
		Maintain the GSMC IT Operational Systems required to meet the GSMC's core missions in both GSMC sites (master and backup).	
C3	Crisis management (Core Process)	Be ready for specific operations in case of a crisis affecting the Galileo system, including supporting the Council decision (joint action) process.	2022 - 2024
S2	Local security (Support Process)	Prepare for, ensure, and maintain local security operational support to protect EU classified information present on GSMC sites and its assets.	2022 - 2024
S3	Hosting management (Support Process)	Provide facilities services to support GSMC operations	2022
		Implement, ensure, and maintain Configuration Management	- 2024

1.3.2 Highlights for 2022

The key highligst of the operation of the Galileo Security Monitoring Centre in 2022 are addressed in 4 main fields of activities: Security monitoring (SECMON) Operations, PRS Operations, Cyber Security Operations, and support to operations

On what concerns the Security monitoring (SECMON) Operations, the main achievements were:

- Execution of Security Monitoring and Incident Handling 24/7 real-time operations without any discontinuity of service, as per expected outcome and baseline. Service level was above the committed service level targets, despite COVID-19 restrictions and the continuous increase of the security monitoring perimeter (inclusion of GRON and SOIF systems).
- GSMC increased awareness and reporting due to the Russian invasion of Ukraine.
- Start the preparatory activities for the Security Monitoring of EGNOS V2.
- Council Decision (CFSP) 2021/698 – European External Action Service (EEAS).
    - Attend the EEAS ad-hoc experts group monthly meetings;
    - Provide support to the EEAS for the preparation of their operational procedures;
    - Prepare and execute STRA22 exercise and prepare the STRA23 exercise organised, scheduled and led by EEAS;

- Manage the Incident Response Coordination (IRC) operational architecture.
- Bi-monthly tests with the IRC Member States, of the IRC communication means;
- Coordination with Spain for the setting up of their IRC operational POC;
    - Preparation of the IRC exercise part of the EEAS STRA23 exercise;
- Support the Service Reviews, mainly the PRS IOC Service Consolidation Review.
- Contribution to preparation of SB2.0 (supporting PRS IOC).
    - Follow-up and contribution to SECMON 3.0.1 pre-OPE migration strategy;
    - contribution to preparation for the SECMON SB 2.0 procedures and related operational documentation;
- Co-chairing for security aspects the operational and anomaly review boards.
- Contract Management: SECMON III framework contract (GSA-OP-08-19) Lot1 (backup SECMON operators, GCC colocation and 24/7 cyber shift) and Lot3 (Cyber experts and SIEM experts).

For PRS Operations, the main highglights were:

- Continuous execution of PRS service operations and provision of services as per IS PRS SDD v1.1 in dual site configuration (GSMC-FR and GSMC-ES). Operational configuration GSMC-ES and GCC-D successfully verified for PRS operations.
- FAST NAGU concept contribution and roll-over to GSMC operations and integration of upgrades (Service notices and NAGUs) following “GAL-SOM service provision management plan”.
- Active participation and contribution to Service Reviews (PRS IOC SCR), Service Exploitation reviews (PRS SER#09 and PRS SER#10), WG SPECIAL PRS sessions (8 over 2022), Systems Reviews (GMS/GSF 3.1.1 DDKP, pre-OPE migration). Main outcomes:
    - Delivery of Secure Operation High Level Validation plan for PRS IOC;
    - Delivery of PRS Resources Organisation evolution for PRS IOC (SB 2.0);
    - Delivery of PRS Service Migration Org Note (PRS SIS V2 migration);
    - Consolidation of GSF 3.0.1.1 pre-OPE migration strategy;
    - Consolidation of PRS policies as part of the PRS CONOPS;
    - Consolidation of PRS baseline for PRS IOC (POSI, KMP, CONOPS);
- Active participation and contribution to Programme-CPA bilateral meetings on PRS status and PRS SIS V2 migration with up to 10 CPAs. Participation to PRS joint test activities (JTA) workshops.
- Coordination and execution of GSMC V3.2 (SOIF) Delta Service Validation Campaign and Delta operational Service Campaign (D-OSRR). Entry of GSMC V3.2 (SOIF) into operations achieved in January 2023.

Regarding Cyber Security Operations, the following milestones were achieved:

- Vulnerability Analysis tool was validated for cyber services under GSMC 3.2 D-OSRR after Service Validation Campaign.
- Cyber-security operational scenarios and interfaces have been validated.
- EUSPA OPS Cyber Review Board (OPS CRB) process created and implemented. 10 regular meetings and 1 Special CRB have taken place in 2022. The GSMC was providing recommendations and prioritization on vulnerability remediations.
- First GSMC Cyber Status Report (CSR) was produced and delivered as per operational baseline.
- Active participation to the Programme Cyber Boards.
- Active contribution to ensure security of the System in operations.

And lastly, for support to Operations, these were the main highlights in 2022:

- Execution of preventive and corrective L1 maintenance activities ensuing availability of GSMC-FR and GSMC-ES OPE chains.
- 2 Successful operational hand-overs carried out between GSMC sites to ensure robustness of GSMC operations (one without prior notice to the teams to test administrative urgent procedures, and one in coordination with GCC-I to GCC-D handover).
- Successful SAB audit covering L1 and system administration operational processes.
- Completed Step 1 of the Operations Validation in support of the PRS IOC milestone.
- Ensured 100% certification of all GSMC operators in 2022.
- Initiated new continuous service improvement process in GSMC.

1.3.3 Tasks for 2022

Objective 1: Ensure that Galileo services and operations are secure	
Expected results	**2022 results**
Operations, expertise and analysis: • Security and system status Monitoring: monitor system security and health, detecting, containing, investigating and reacting to security incidents (System Incident Management) • PRS access management: enable access to PRS to authorised stakeholders, in compliance with PRS access rules (including the Common Minimum Standards) within the limit of the system design. Manage the lifecycle of PRS access in order to assure service continuity, including through service support and secure communication interfaces. • Cyber Security Management. Galileo vulnerabilities management by consolidating the cyber vulnerabilities present in the Galileo operational systems, linking them to the current threat landscape (i.e. threat intelligence) and monitoring their lifecycle until their effective correction • Crisis management: specific activities and configuration of the GSMC to respond to the needs and requirements of a crisis affecting the Galileo system, including supporting any Council Decisions (CD 2021/698). This will be activated only under specific conditions. • IT OPS Sysadmin support: Ensure on-going L1 maintenance of the IT operational and validation systems in both GSMC sites (FR and ES). Support to configuration and asset management, escalation to Level 2, and liaison with Supporting ICT systems.	• The Security Monitoring and Incident Handling 24/7 real-time operations were performed in accordance with the baseline and without any discontinuity of service. All KPIs were above the committed levels. • PRS Access management operations performed in line with service commitments. Service continuity ensured with the support of contingency options. • Cyber Security Management. GSMC Security Monthly Reports including the cyber status of the vulnerabilities reported by Galileo CSMs and Threat Landscape relevant notifications from CERT EU after analysis. Monitoring of open vulnerabilities via OPS CRB. In case of critical cyber-issues Special CRB have been called. • The Crisis Management architecture was activated only for simulation exercises in 2022.

		Targets	2022 results
Indicators	Incident handling / defined SLA	Restricted	Restricted
	PRS access service within agreed response time	Restricted	Restricted

	PRS operations contingency plans rehearsal	Restricted	Restricted
	GSMC availability	Restricted	Restricted
Planned outputs			**Actual outputs**
Outputs relating to the multi-annual work programme objectives: • System status and security monitoring: incident handled, escalation of Member States or to CD 2021/698, resolution of security incident, assessment of vulnerabilities and recommendations, security reports, anomalies and requests for change/deviation/waiver, Service Level Agreement chart • PRS access management: availability of PRS access, workarounds, PRS security reports (incl. security message reports), Notification to Galileo Users, anomalies and requests for change/deviation/waiver, Service Level Agreement chart, PRS contingency plans. • Crisis management: Council Decision (CD-698) instructions implementation report, Notification, Council Decision assessment report, Acknowledgement of the cancellation of a Council Decision. • Security Expertise and Analysis. • Operations: service validation campaigns execution and reports, IT OPS systems availability, local operations procedures development and implementation.			All the outputs of the Security monitoring and Incident Handling operations were delivered in 2022 in accordance with the operational baseline and within the service commitments. All KPIs and service operations for PRS Access management were delivered in 2022 in line with the expectations and commitments. The Crisis Management architecture was activated only for simulation exercises in 2022. The expected outputs during the exercises were delivered in accordance with the operational baseline and within the service commitments.

Objective 2: Ensure Engineering activities in support of deployments and operations	
Expected results	**2022 results**

• **Service and requirement management:**
  o Maintenance of the applicable baseline (Concept of Operations)
  o Identification, analysis and flow-down of requirements that could impact the GSMC.
  o Ensure on GSMC compliance with programme requirements.
 	
• **System operations and supporting activities engineering**:
  o Design and validate new procedures, support to the operations, as well as the related business continuity plans.
  o Train and Certify operators for the new GSF/SOIF/SECMON equipment.
 	
• **Technical engineering:**
  o Identify and define the processes, methods, tools and logic of system development activities, including maintenance and support capabilities for the two sites.
  o Manage the lifecycle of the technical processes that lead to the in-production setting of new technical supporting assets and processes.
  o GRON deployment, qualification and accreditation of GRON.
  o Configuration Management: through the CMDB implemented at GSMC, following configuration management, maintaining configuration status accounting and performing configuration audit.
 	
• **Site and system security accreditations:**
  o Design of the security framework, preparation of the security accreditation documents for the new sites/systems and maintenance of the security accreditation for the existing systems.
Implementation of Security Operations (SECOPs) for Communication Information System (CIS) monitored and systems audited.
	• **Service and requirement management:**
	  o GSMC V3.1 operational baseline was maintained
	  o GSMC SVRD updated in line with Galileo SB2.0, and analysis of EGNOS SecMon impact
	  o Ensure on GSMC compliance with programme requirements.
	
	• **System operations and supporting activities engineering:**
	  o the GSMC SecMon operational procedures were updated and validated in the frame of the first step of SB2.0 Operational Validation.
	  o Operators training and certification was performed for the current GSF/SOIF equipment, since the new GSF/SECMON equipment is going to be handed-over to OPS only in Mar-2023
	
	• **Technical engineering:**
	  o The applicable ILS processes were fully implemented, and applied to both GSMC sites.
	  o The maintenance service transition from ESA/WP2x to GSOp was successfully managed, avoiding adverse effects on service provision.
	  o GRON V2 deployment, qualification and accreditation was implemented according to of GRON.
	  o GSMC Configuration Management was successfully ensured, including the performance of audit inspections, and the preparation of the CMDB migration towards CMAT was initiated.
	
	• **Site and system security accreditations:**
	  o Design of the security framework, preparation of the security accreditation documents for the new sites/systems and

	maintenance of the security accreditation for the existing systems. ○ The implementation of the applicable SECOPs was monitored, and the relevant systems audited, with positive results

		Targets	2022 results
Indicators	% of success rate of operator training (certification)	100%	100%
	Percentage of data-packs timely released for accreditation requests (new or renewals) against annual plan baseline schedule	100%	100%

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: • Requirement management: service level management, statement of compliance with SSRS • Engineering: validation reports, overall catalogue of operations procedures, anomalies, change requests • Technical engineering: new catalogue of maintenance procedures, anomalies, change requests • Hosting engineering: lead in follow-up of new buildings deployments by France and Spain. Establish requirements for upgrades or changes to existing infrastructure as necessary for deployment of operational IT systems or hosting availability. Contribute to monitoring or validating the implementation of such changes. • Site and system security accreditation: ○ Security Risk Analysis, CIS and sites security accreditation data-pack followed by Authorisation to Operate, security accreditation plan updated, SECOPs maintained, periodic audit reports ○ Access granted or denied to staff, staff security briefed. Configuration Management: A CMDB that ensures the process for establishing and maintaining consistency of GSMC systems performance, functional, and physical attributes with requirements, design, and operational information overtime.	As planned.

Objective 3: Ensure the availability of Hosting Services	
Expected results	**2022 results**
Hosting management: prepare for, ensure and maintain technical operations support to provide site hosting and equipment necessary for the core missions of the GSMC and its staff. Provide a continuity of hosting services through building maintenance and extra request management related to the evolution of the facilities and IT: ➢ Facilities management (Hosting Services). • Ensure the provision of uninterrupted hosting services of GSMC sites (Facility maintenance, technical support, obsolescence management, logistics and ancillary support). • • Maintain GSMC dual site capability. • • Renovation (obsolescence treatment and rescoping) for EUSPA needs of the Building 123 in GSMC-FR. • • Final configurations buildings constructions: support structural works and accreditation processes in order to reach GSMC-FR long term extension and GSMC-ES Final configuration building delivery in accordance with programme objectives.	• Achieved, annual support contracts renewed. • Achieved • A draft list has been prepared with key obsolescence aspects known. As building 123 is still expected to used operationally until end of 2023 it was too early to specify re-scoping needs as targeted usage after 2024 is not yet known. • Achieved for both ES-E6 and FR-132. To accommodate system timeline constraints, UNCLA deployments of HW were started in advance of FR-132 TEC & SEC SAR.

		Targets	**2022 results**
Indicators	Final Configuration (GSMC-FR)	TEC SAR and SEC SAR milestones achieved	TEC SAR BOARD 05/07/2022 & 31/07/2022. Close-out activities ongoing. SEC SAR collocation 16/09/2022 with certificate issued 28/09/2022.
	Final Configuration (GSMC-ES)	Delivered	Delivered Q2
Planned outputs			**Actual outputs**
Outputs relating to the multi-annual work programme objectives: • Building extension at GSMC-FR completed in 2022, with support to staff and systems relocations in 2023.			Building initial delivery in October 2022. EUSPA had pre-deployed furniture and ICT Admin assets. RUE network deployed in Q4.

• Joint GSMC/FR MOD maintenance provider management of GSMC-FR Extension. • GSMC-FR current building: Renovation plan agreed by early 2023, done within 12 months after transfer of Galileo operations in Extension building. • Joint GSMC/ES MOD maintenance provider management of Final configuration at GSMC-ES after move of equipment and staff in 2022.	Started in Sept 2022 and ramping-up. Not achieved. The renovation plan can be established when the targeted usage of building 123 will be established. Maintenance /guarding of E6 were started as pre-condition for the SEC SAR in Q2 2022. Deployments have started in E6. Staff and usage of E2 has continued as EUSPA/EC engaged discussions with ES MOD/INTA for prolonged usage.

Objective 4: Ensure continuity of service of GSMC operations, continuous improvement, quality and efficiency	
Expected results	**2022 results**
Management of the organisation and communication: • Organise activities to ensure the GSMC milestones are achieved on time using available resources while also ensuring the reliability of information and its timely dissemination • Lead the organisation by providing a clear strategy **Integrated Management System and Product Assurance:** • Guarantee maintenance of the Agency ISO 9001 certification, including adaptation to ISO 9001 evolutions • Coordinate PA/QA RAMS activities related to EC-EUSPA Delegation/Contribution Agreements in line with GSOp, GSC and GRC requirements • Support the activities of the ARB, NRB, and CCB **Risk and business continuity and disaster management:** • Risk management: identify potential risks that could impact the proper functioning of the Galileo programme and undertake relevant actions to mitigate those risks • Business continuity and disaster: in case of service breach, ensure availability and continuity of services in a reduced functionality mode **Health and safety management:**	All management and quality related services were delivered in 2022 in line with the commitments.

- Implement EUSPA policy relating to health and safety at work, provide and maintain a safe work environment for staff, visitors and contractors

Resolution and continuous improvement management:
Ensure that problems and actions for improvement are identified and handled until the business cases are delivered to the Change Approval Board for implementation and/or the non-conformance is solved

		Targets	2022 results
Indicators	Management: Monthly/quarterly report released per year	12 monthly reports; 4 quarterly reports.	100%
	Quality: percentage of audit performed/planned	100%	100%
	Business Continuity plan update 1/year	Two/year	2

Planned outputs	Actual outputs

Outputs relating to the multi-annual work programme objectives:
• Management of the organisation and communication: planning execution, budget metrics
• IMS: ISO 9001 certification
• Health and safety management: Document Unique d'Evaluation des Risques professionnels, Plan de prévention (according to French regulation)
• Risk and business continuity disaster management:
  ○ Risks are monitored and controlled
  ○ GSMC business continuity plan updated and tested
• Resolution of anomalies and continuous improvement: Anomalies (problems) and NCR solved, effective PA organisation, service evolution roadmap
	IMS: ISO 9001 – completed 100%
	DUER update (B132) done. Plans de prévention prepared and signed whenever mandatory in compliance with French regulation.

Objective 5: Ensure local security on GSMC sites	
Expected results	**2022 results**
1. Security: Prepare, ensure and maintain the local security needed to protect EU classified information and assets present on site. a. **[Registry control management**]: handling and storage of classified documents, management of classified document registry, ensuring the timely on- and off-site EUCI back-ups, briefings on EUCI handling and storage. Preparation of operators RCO certification trainings. b. **[Local security management]:** Ensure personnel and physical security including facilities, activities and information; management of guarding support, coordination with national and local authorities. Auditing activities. Briefings on security awareness. c. **[Local Informatics Security (LISO)]**: ensuring compliance with the security operating procedures, and reporting any discrepancies or incidents related to their implementations. **2. [COMSEC management and crypto management and operations]:** Manage COMSEC/crypto procedure evolutions and validations. Ensure reception, preparation and shipment of crypto items to or from crypto accounts and users, destroying crypto material, performing Crypto Operations related to PKI, non-PRS keys and SINA VPN management, SECTRA and regulatory inventories and audits. **3. [INFOSEC (Local Informatics Security Officer)]:** overall management of security of the GSMC communications and information systems, maintains an overview of the information security risk management process and of the development and implementation of information system security plans, reports on IT security, identify shortfalls and improvements, advise the GSMC manager on the security-related issues.	All security related services were delivered in 2022 in line with the commitments.

		Targets	2022 results
Indicators	[Registry Control MGT]: receipt, dispatch, storage, destruction of classified documents and tracking of their lifecycle	100%	100%

	[Local Security MGT]: New or leaving staff/contractors/visitors, need to issue and renew the security clearance	100%	100%
	[COMSEC MGT]: new access requested, need to transfer COMSEC items, new COMSEC item, crypto operations (PKI, non-PRS keys, SINA VPN management, SECTRA)	100%	100%
	[Crypto Account MGT]: receipt, dispatch, storage, destruction of crypto materiel, need to execute the key management plan	100%	100%
	[LISO MGT]: Communication and information systems SecOps, the Cyber, the GSMC SecOps and OSRD requirements, the reports from authorized users, the systems logs, users access requests.	100%	100%
Planned outputs			**Actual outputs**

Outputs relating to the multi-annual work programme objectives:
• Registry control management:
  ○ Up-to-date registry[3] (successfully audited)
  ○ Classified information managed according to procedures – incidents managed
  ○ Staff EUCI briefed
  ○ EUCI backed up (on- and off-site)
• Local security management:
  ○ Staff security briefed
  ○ Supervision of RCO functioning through regular audit
• Local informatics security
			For the 4 topics, no discrepancy except yearly audit on EUCI not yet performed. Nevertheless, monthly inventories were performed in 2022.

[3] Regarding CONFIDENTIEL UE/EU CONFIDENTIAL or SECRET UE/EU SECRET.

- Staff and consultant authorisation to access systems
- Validation of access rights

- Management of physical security of the site COMSEC and crypto management:
  - Up-to-date account registry (successfully audited)
  - Transportation plan executed
  - Crypto assets and keys managed according to procedures – incidents managed
  - Key and certificates timely renewed

1.4 Public Regulated Service

1.4.1 Tasks until 2024

	Activity	Objective	Year
1	EUSPA internal organisation and PRS management plans	Implementation and continuous improvement of the Agency's internal organisational for the management of PRS items and PRS information.	2022 – 2024
2	PRS Article 14 implementation report	Create a report summarising the management of PRS information, all movements of PRS equipment and the associated cryptographic keys, and security breaches observed in relation to the Specific Arrangement concluded between the EC and the Agency pursuant to Article 14(c) of Decision 1104/2011/EU.	2022 – 2024
3	Support to CPAs	Provide technical assistance to CPAs on the basis of specific arrangements.	2022 – 2024
4	Designated PRS Authority implementation	Implementation of the designated PRS Authority in support of entities requesting the Agency to act as their CPA (Art.5 of Decision 1104/2011/EU).	2022 – 2024
5	Support to the European Commission	Provide assistance to the European Commission carrying out audits or Inspections to CPAs and reporting to the European Parliament and the Council on the compliance by the CPAs with the common minimum standards (CMS).	2022 – 2024

1.4.2 Highlights for 2022

These activities are in support to the implementation of the Specific Arrangement concluded between the European Commission and the Agency pursuant to Article 14(c) of Decision 1104/2011/EU.

The main achievements for 2022 can be described as follows:

- Full review and substantial update of the PRS management plans (ruling the way the Agency access PRS and manages PRS information for the performance of the tasks entrusted to it) following:
    - Enter into force of the new EU Space Programme Regulation
    - Enter into force of the new EUSPA organisation
    - Availability of new PRS information management instructions released by the European Commission
- Nomination, in the new EUSPA organisation, of the PRS Point of Contacts per department as mandated by the Specific Arrangement concluded between the EC and the Agency pursuant to Article 14(c) of Decision 1104/2011/EU
- Complete re-building of the EUSPA PRS need-to-know tables to reflect the change in scope and in internal organisation and the need to introduce an "access profile" approach (i.e. identifying only a very limited number of access profiles to cope with the increasing staff)
- Support the Agency, in collaboration with ESA, on the impact analysis of the new PRS information management instructions introduced by the European Commission

- Support to the European Commission in the elaboration of PRS Annex I to the Galileo Programme Security Instructions
- Regular and timely provision of the quarterly report summarising the management of PRS information, all movements of PRS equipment and the associated cryptographic keys, and security breaches observed in relation to the Specific Arrangement concluded between the European Commission and the Agency pursuant to Article 14(c) of Decision 1104/2011/EU
- Keep the maximum compliance level to the provisions set by the Specific Arrangement concluded between the European Commission and the Agency pursuant to Article 14(c) of Decision 1104/2011/EU

1.4.3 Tasks for 2022

Objective 1: Implement PRS Article 14c arrangement	
Expected results	**2022 results**
This objective includes all activities related to managing the implementation of the EC-Agency arrangement pursuant to Article 14(c) of the PRS Decision, in particular regarding the different reporting streams, compliance checks and associated risk assessments. This objective also implements the provisions related to the Agency's access to, use and ownership of PRS information, PRS technology and PRS items. This activity includes: • Preparing and maintaining the PRS management plans (Access to PRS General Management Plan, PRS Management Plan (PMP) and the related PRS information management plan (PIMP) and PRS key management plan (KMP)) defining the organisational structure and the rules for implementing the management of PRS items, PRS technology and PRS information • Reviewing the Article 14(c) arrangement (if required) • Preparing Article 14 quarterly implementation reports and delivering them to the Commission • Carrying out regular inspections of the departments within the Agency dealing with PRS items and PRS classified information • Supporting regular risk assessments • Analysing those activities requiring the processing of PRS items and PRS information to ensure compliance with Article 14(c) arrangement Maintaining PRS items and PRS information database and drafting a report summarising movements, requests and security breaches associated with the PRS items/PRS information under the responsibility of the Agency	The PRS management plans (Access to PRS General Management Plan, PRS Management Plan (PMP) and the related PRS Information Management Plan (PIMP) and PRS dataset management policy) have been fully reviewed and updated. The Arrangement pursuant Article 14(c) of Decision 1104/2011/EU has been reviewed regularly (feedback is sent to EC as part of the quarterly report). PRS Point of Contacts per department (as mandated by the Specific Arrangement concluded between the EC and the Agency pursuant to Article 14(c) of Decision 1104/2011/EU) have been nominated with the involvement of all Heads of Department. EUSPA PRS need-to-know tables have been re-built to reflect the change in activities and in internal organisation of the Agency. In re-building them, an "access profile" approach has been adopted. Regular and timely provision of the quarterly report summarising the management of PRS information, all movements of PRS equipment and the associated cryptographic keys, and security breaches observed in relation to the Specific Arrangement concluded between the European Commission and the Agency pursuant to Article 14(c) of Decision 1104/2011/EU. The compliance level to the provisions set by the Arrangement concluded between the EC and the Agency pursuant to Article 14(c) of Decision 1104/2011/EU has been kept to the maximum extent possible (considering the overall context) and remains stable with respect to the

			values of 2021. The improvement by 1% in terms of compliance set as a target for 2022 was not achieved due to unchanged overall framework for the handing of PRS information and items and the conditions of the Arrangement pursuant Art.14(c) of Decision 1104/2011. It must be said that the PC depend overall by factors and dependencies external to the Agency.
		Targets	**2022 results**
Indicators	Timely review of PRS management plans (and related processes)	1/year	1/year
	Level of compliance with Article 14	C:95% PC[4]:5% NC:0%	C:94% PC:6% NC:0%
Planned outputs			**Actual outputs**
Outputs relating to the multi-annual work programme objectives: • Quarterly Article 14 implementation report sent to the Commission			Quarterly Article 14 implementation report sent to the Commission.

[4] The residual partial compliance is mainly due to dependencies from actors external to the Agency.

1.5 Communication, Promotion and Marketing of the Services

1.5.1 Tasks until 2024

	Activity	Objective	Year
1	Market and technology monitoring, including cooperation with receiver manufacturers.	1.1 Be the source of competence in GNSS and Copernicus market and technological developments. Output of the objective is the publication of GNSS market and technology report. 1.2 Support chipset and receiver manufacturers in implementing EGNSS. Output of the objective is the List of receiver manufacturers with Galileo and EGNOS capability.	2022 - 2024
2	User scheme management.	2.1 Build user experience and satisfaction; implement user feedback in the evolution of EGNSS and provide elements related to other users for Copernicus. Actions to be undertaken are: o Include user input in the evolution of the mission requirements document for EGNSS and provide inputs related to other users for Copernicus. o Create EGNSS user support improvement plan based on feedback from downstream user sectors and their value chains. o Monitor user satisfaction of EGNSS services and performance. o Define the Galileo GSC support improvement plan based on feedback from downstream user sectors and their value chains.	2022 - 2024
3	Market development by user segment (Agriculture, Forestry, Fisheries and Aquaculture, Urban Development and Cultural Heritage, Insurance and Finance, Infrastructures, Road and Automotive, Aviation and Drones, Rail, Maritime and Inland Waterways, Energy and Raw Materials, Environmental Compliance, Climate and Weather Services, Biodiversity, Ecosystems and natural capital, Emergency Management and Humanitarian Aid, Consumer Solutions, Health and Tourism, Space, Governmental and Security).	3.1 Identify needs and opportunities for services and applications. Actions to be undertaken are: o Management of user fora and consultation platforms on user needs per segment. o Support standardisation and certification activities. 3.2 Maximise market uptake of EGNSS and Copernicus by value chain and its availability to users designing and implementing market uptake synergies by segment	2022 - 2024

	Activity	Objective	Year
4	Development and implementation of targeted communication initiatives, as well as campaigns for the general public.	4.1 Management of effective and efficient communications strategy and initiatives, including the new segments part Copernicus. Actions to be undertaken are: o Participate in conferences and exhibitions and organise targeted events o Create and disseminate high quality, tailored content. o Manage active and internet-based communications via websites, social media, newsletters, etc. o Production and targeted distribution of informative, timely and relevant print, video and multi-media materials. o Seize opportunities for organising effective, tailored public, media and stakeholder relations activities.	2022 - 2024

1.5.2 Highlights for 2022

In line with the new mandate, EUSPA continued working on the uptake of all space programme components, EGNSS, Copernicus, GOVSATCOM and their synergies.

Regarding market uptake, the Agency prepared the market uptake strategy for 17 market segments, including detailed value proposition, objectives, KPIs and uptake roadmap. This internal strategy will be used as input for the EU Space comprehensive strategy to be prepared by the DG DEFIS. Moreover, EUSPA consolidated the implementation of innovative proofs of concept to explore the use of Copernicus data in new markets as the deployment of 5G networks and the drone flight planning. This will be complemented with a proof of concept on healthcare and another one on insurance and finance. In addition, a tender was launched to procure the implementation of Copernicus demonstrators in 10 different application areas: Aircraft Emission Measurement and Monitoring, Emergency Preparedness and Early warning of Floods, Emergency Preparedness and Early warning of Floods, Smart mobility and Autonomous cars, Infrastructures monitoring, Fisheries and Aquaculture, Digital Tourism and Cultural Heritage, Insurance & Finance, Forest vegetation health monitoring and Green mining and Energy.

Finally, as part of the User Consultation Platform 2022, Earth Observation user requirements were the main focus of many of the addressed market segments. The requirements collected will included for the first time in thecorresponding User Requirements Documents to be published during 2023.

Regarding GOVSATCOM, EUSPA worked with European Commission on the user consultation process and the consolidation of use cases and requirements for secure satellite communications.

Regarding CASSINI, EUSPA worked to implement several actions including competitions, hackathons and matchmaking with investors as well as supporting a large network of start-ups to scale up.

The Agency continued working to further strengthen Galileo and EGNOS market uptake all over the Union and worldwide with more than 3.5 billion Galileo enabled devices reached by the end of the year. And in parallel, EUSPA worked closely with the market community (users, operators, receiver manufacturers). As a result, the E-GNSS market penetration is constantly increasing.

The Galileo differentiators progressed further in 2022. In addition to SAR Return link, the Open Service Navigation Message Authentication (OS-NMA) testing phase successfully concluded supported by essential users and prototypes developed within several EUSPA R&I projects.

An important achievement in 2022 was the High Accuracy Service (HAS) testing campaign, involving major European receiver manufacturers and supporting the HAS Service Declaration in 2023. Preparation activities continue for other new services including the Commercial Authentication Service, the Emergency Warning Service, the SAR/Galileo Remote Beacon Activation Service and the use of Galileo for Safety of Life applications.

In the consumer solutions segment, the Galileo penetration grew constantly, capitalising on the partnership established by EUSPA with leading manufacturers and focused testing campaigns. By the end of 2022, there were in the market 1364 different Galileo compatible smartphone/tablet models, over 37% more than those available by end of 2021 (991). A similar percentage increase was registered in the number of dual-frequency enabled smartphones models passing from 243 models in 2021 to 309 in 2022.

Within the road segment, EGNOS and Galileo are in more than 15 million cars in Europe, more than 200 car models from 59 car brands, powered by the EU eCall regulation, with the vast majority of automotive suppliers having solutions in the market.

With regards to the rail segment, Galileo continues to celebrate adoption success within non-safety critical railway applications, with more than 160,000 telematic devices already mounted on the railway wagons in EU. European parliament within its resolution on Railway safety and signalling, acknowledged the role of GNSS in rail signalling, calling on the EU rail stakeholders to close the residual gaps and speed up the adoption of GNSS in ERTMS. Railway stakeholders confirmed strong interest to start demonstration activities of fail-safe train localisation using EGNOS in 2025. In public transport, Galileo has been included into the ITxPT standards, used by the public transport authorities and operators globally for procurement of new vehicles.

In the aviation market segment, the use of EGNOS has continued to grow as available operational procedures resulted in 870 in 462 airports. 67% of all European instrument runway ends rely on EGNOS, supporting the PBN regulation. In 2022, EUSPA launched the implementation on EGNOS in non-instrument runways, with pilot projects in different member states and achieving the first implementation in Lahti-Vesivehmaa Aerodrome in Finland. EGNOS reached the commercial fleet, realised with the delivery of the first EGNOS capable A320 from Airbus to EasyJet, and the development of the first SBAS solution for modification of the Boeing 737NG by Fokker. The added value of Copernicus to support particle matter and emissions monitoring as well as terrain obstacle survey was endorsed by users. Aviation Search and rescue beacons implementing Galileo SAR Return Link are now available in the market. It responds to the new aviation safety mandates to enhance global aircraft tracking, following the MH370 and AF447 accidents. The market for drones grew significantly, reaching more than 45% of GNSS receiver models for drones are Galileo-capable EUSPA pioneered the use of Copernicus for drones, launching a pilot project to assess the suitability of several Copernicus data sets for flight planning and Specific Operations Risk Assessment (SORA).

In the maritime domain, after Galileo recognition as part of Worldwide Radionavigation Systems (WWRNS), the number of Galileo-enabled receiver's models further increased with 58 global manufacturers.

In the Critical Infrastructure, the EGNSS penetration is slowly but constantly increasing fostered by the 5G roll-out. And in order to explore the synergies among space programme components, EUSPA developed a proof of concept for the use of various Copernicus-based geospatial dataset for the 5G network planning that demonstrated the added value of Copernicus for the radio planning of 5G cross-border corridors in rural areas.

Also, EUSPA has consolidated a comprehensive catalogue of governmental applications, developed a solid methodology to assess the EGNSS services' suitability that will be validated through a consultation in 2023 with key stakeholders.

In April 2022, EUSPA launched the EUSpace4Ukraine initiative, which mobilised the EU Space innovation community to provide technological solutions that enhance humanitarian aid actions of NGOs supporting Ukrainian people. The initiative builds on a set of activities, which included: a matchmaking online event (10 matches), a hackathon (7 participating teams and 3 winners) and a special session in the User Consultation Platform with NGOs. As a result of the Hackathon, one new venture was created. In November 2022, EUSPA

launched the EUSpace4Ukraine Demonstrator, a one-year project, which will practically demonstrate the value-adding of EUSpace solutions in NGOs operational environment.

Also, EUSPA worked on the evolution of the Green Lane app. By easing traffic flow through the EU's borders the Green Lane is a key tool in the EU's COVID-19 pandemic response and is helping to support a fundamental EU principle - the free movement of goods and freight in the internal market. In 2022 EUSPA developed an advanced prototype, Galileo Solidarity Lanes, for the monitoring of EU road border crossings and also railway corridors adjacent to the borders. The solution is foreseen to remain in daily operation throughout 2023 and will be further improved, integrating more border crossings and relations within the EU rail network, in order to timely identify bottlenecks negatively impacting the EU freight transportation.

At the beginning of 2022 EUSPA published the brand-new Earth Observation (EO) and GNSS Market Report, a major tool for European companies and investors across 17 market segments. This work has been complemented during 2022 with the definition of the Copernicus user uptake strategy roadmaps focused on other users and addressing all market segments.

In addition to this, the Agency, in cooperation with European Commission and with the support of the Czech Presidency of the EU Council, organised the EU Space Week 2022 in Prague. The event attracted three thousand online and onsite visitors. It brought together various EU companies, policymakers, and the EU Space industry partners. In the context of the EU Space Week, the User Consultation Platform 2022 has also taken place in Prague. This is a unique initiative of EUSPA to capture all new needs and trends to improve and shape our EU Space services. More than 300 users from around Europe joined this platform addressing both EGNSS and Earth Observation components within six parallel fora, namely Aviation and Drones, Maritime & fisheries, Emergency & humanitarian aid, Insurance and Finance, Infrastructure (including 5G optimisation), Energy and Raw materials, Consumer solutions (including Tourism, healthcare). The main findings and results of the discussions have been collected to update the user needs and requirements for several applications discussed during the fora.

With respect to CASSINI, taking place at our Headquarters in June 2022, the Entrepreneurship Day was the first large EUSPA event for entrepreneurs and investors since the launch of CASSINI. It gathered more than 100 entrepreneurs, finalists of myEUspace competition and rising stars with whom EUSPA has been working over the last months. It also featured around 20 investors and European business accelerators that were searching for new investment opportunities.

In addition, EUSPA continued to work in capacity building of fund managers as well as seeding new ideas with the CASSINI Hackathons and creating new partnerships with the CASSINI Matchmaking.

EUSPA continuously supports the industry, start-ups and academia not only within the CASSINI initiative but also in cooperation with the European Investment Bank (EIB). In the framework of the Memorandum of Understanding between EUSPA and EIB, the Agency concluded the Investment Report to estimate the overall investment needs to support commercialisation of Space downstream innovation. The Investment Report reflects the insights from over 250 firms and providing a comprehensive investment analysis of the GNSS market that examines and forecasts the dynamics of the sector overall.

Regarding outreach, large promotion campaigns (social media, press, animations) have been developed for myEUspace Competition (and other CASSINI initiatives), the launch of the 2nd Horizon Europe Call, EU Space User Consultation Platform (as a part of the EUSW2022), Copernicus Workshops.

1.5.3 Tasks for 2022

Objective 1: Increase adoption in the Aviation and Drones sector by building on user needs and providing feedback for improvement of services	
Expected results	**2022 results**
1. Aviation and drones market and user technology understood and fully analysed and Aviation and drones user needs updated and analysed; 2. Penetration of EGNOS/Galileo in receiver models for aviation and drones;[5] 3. Support to aviation and drones companies commercialising EGNOS/Galileo products; 4. Technical support, and CBA to airports/heliports, Air Navigation Service Providers (ANSP), airspace users on implementing LPV/LPV 200/PinS/RNP 0.3, in support of the implementation of EU Regulation 2018/1048, which lays down airspace usage requirements and operating procedures concerning performance-based navigation and towards an integrated CNS strategy; 5. Demonstrate EGNOS/Galileo's added value for drones operations and U-Space and integrate differentiators (e.g. OS-NMA) in receivers/UTM (navigation, surveillance, combination with other technology); 6. EGNOS and Galileo user satisfaction survey completed; 7. Preliminary roadmap designed for the adoption of Copernicus data in aviation and drones (e.g. the improvement of air traffic management, turbulences impact in route and approaches, airport infrastructure planning and operations management, Search and rescue) contributing to the priority ecosystem "Mobility-Transport-Automotive".	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. The model of aviation in the market monitoring and forecasting process has been modified and updated including a new segmentation and applications; User needs on aviation and drones analysed and validated at the 2022 User Consultation Platform; 2. Report on increased EGNSS (including EGNOS and Galileo) penetration completed and published on the Market Report. Updated database on EGNOS cable avionics available on the EGNOS user support website. Updated list of EGNOS/Galileo capable user devices available in useGalileo.eu; 3. User relationship management strengthened, via partnership with main user associations (commercial, business, regional airlines and general aviation); 4. Updated Cost Benefit Analysis (CBA) tool to compute environmental benefits due to EGNOS operations in aviation published in the EGNOS user support portal. CBAs and traffic assessments offered on demand to airports, ANSPS and operators; 5. The EGNOS/Galileo added value for drone navigation started in intensive flight campaigns with more than 200 flights, also in cooperation with drone receiver manufacturers, including urban air mobility scenarios. Draft proposal for RNP specification for drone operations tested;

[5] Analysis based on internal Agency Technology Monitoring Process and the GNSS Users Technology Report issue 2 and related assumptions included in Annex 5.

			6. EGNOS and Galileo Satisfaction survey for 2021 completed and survey for 2022 launched; 7. Preliminary roadmap designed for the adoption of Copernicus data in aviation and drones.
		Targets	**2022 results**
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. Galileo prototype receivers for navigation in aviation	3	3
	3a) Number of companies commercialising EGNOS/Galileo products	150	218
	3b) Adopters' retention Index (i.e. % of EGNSS adopters that confirm EGNSS usage)	100%	100%
	4a) Annual tracking of EGNOS based procedures	820	870
	4b) Annual tracking of EGNOS capable airlines and avionics	90	115
	5. Penetration of EGNOS and Galileo in drone receiver models and added value demonstrated	35%	45%
	6. Positive annual EGNOS and Galileo User Satisfaction survey outcome	>60% of respondents "very satisfied	2022 survey under analysis

	7. % design of the roadmap for Copernicus data adoption	10%	10%

Planned outputs	Actual outputs
1. Aviation and drones section of the market report published in 2021/2023 and technology report published in 2022 and Report on aviation and drone user needs and requirements updated; 2. Report on Galileo penetration in aviation and drone receivers 3. a. Industry database for aviation; b. Coordinated work plans to foster EGNOS and Galileo in aviation with key stakeholders: EASA, SESAR JU, SESAR Deployment Manager (SDM); 4. a. EGNOS approach procedures; b. Report on Galileo and EGNOS penetration in EU airspace users, report on available avionics; 5. Updated list of receivers with EGNOS and Galileo for drones published on Galileo websites and report on demonstrations; 6. Results of User Satisfaction surveys; **7.** Preliminary adoption roadmap of Copernicus use in Aviation and Drones, contributing to the priority ecosystem “Mobility-Transport-Automotive”.	Outputs relating to the multi-annual work programme objectives 1. *Aviation and drones section of the market report published in 2022. First User Consultation platform on Copernicus and GNSS and report on aviation and drone user needs and requirements updated;* 2. *Galileo receivers for drones, general aviation and SAR updated, EGNOS penetration in aviation receivers updated;* 3. *a) Industry database publicly available in the useGalileo website and EGNOS support portal;* b) EUSPA coordinates the Aviation Taskforce with EASA, DG-MOVE and DEFIS and work closely with Eurocontrol and SESAR Joint Undertaking; EUSPA-EASA working group on General Aviation consolidated and delivered Guidelines on safety assessment for LPV to non-instrument runways; 4. a) Annual tracking of EGNOS approach procedures (870 by end of 2022); b) EGNOS penetration in operators updated and EGNOS/Galileo penetration in receivers, including drones updated; 5. List of Galileo and EGNOS avionics (including drones and aviation SAR beacons) available on EGNOS and UseGalileo portal; 6. EGNOS and Galileo Satisfaction surveys 2021 published, first integrated EGNOS and Galileo survey launched in 2022 and results under analysis; 7. Joint roadmap for adoption of EGNSS and Copernicus in drones consolidated with Member States, EC, other EU agencies and stakeholders, preliminary roadmap designed for the adoption of Copernicus data in manned aviation, including prioritisation of application areas.

Objective 2: Increase adoption in Road and Automotive segment by building on user needs and providing feedback for improvement of services	
Expected results	**2022 results**
1. Road and automotive market and user technology understood and fully analysed and needs updated and analysed; 2. Penetration of Galileo in road chipsets and automotive brands; [6] 3. Support to road and automotive companies commercialising Galileo products; 4. Strategic partnership of EUSPA with key groups of road and automotive stakeholders; 5. Technical support (including plan and testing) to smart (digital) tachograph industry for EGNSS adoption, in cooperation with the Joint Research Centre (JRC); 6. Implementation of standardisation/certification process in Cooperative Intelligent Transport Systems (C-ITS) and autonomous vehicles, in cooperation with EC; 7. Implementation of the adoption roadmap in autonomous driving; 8. EGNOS and Galileo user satisfaction survey completed; 9. Preliminary roadmap designed for the adoption of Copernicus data in congestion charging and traffic management applications, contributing to the priority ecosystem "Mobility-Transport-Automotive".	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022; 2. Report on increased Galileo penetration completed and published on the Market Report; 3. User relationship management strengthened; 4. Cooperation consolidated with road industry stakeholders (ERTICO, ACEA, ASECAP...) and DG MOVE (new Contribution Agreement signed); 5. Technical support provided to smart (digital) tachograph industry for EGNSS adoption, including cabotage activities; 6. European Telecommunications Standard (ETSI TS 103 300) published on location/timing techniques for the detection of Vulnerable Road Users; CEN/TR 17447:2020 published on GNSS error models for road & automotive applications; the development of positioning standards in CEN focusing on autonomous driving needs (CEN EN16803 series) is in progress. Preparatory actions to launch a GNSS standard for automotive at ISO; 7. Adoption Roadmap for Autonomous Driving implemented, focussing on regulatory actions: EC Delegated Regulation (EU) 2021/1958 on Intelligent Speed Adaptation (ISA) requires EGNSS compatibility (Nov. 2021) and EC proposal of the ITS Directive update (COM (2021) 813) includes Galileo OS-NMA and Copernicus. (Dec. 2021); 8. EGNOS and Galileo Satisfaction survey 2021 published and 2022 under analysis;

[6] Analysis based on internal AgencyTechnology Monitoring Process and the GNSS Users Technology Report issue 2 and related assumptions included in Annex 5.

			9. Preliminary roadmap designed for the adoption of Copernicus data, including prioritisation of potential application areas for the adoption of Copernicus data in road.
		Targets	**2022 results**
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. % of Galileo penetration in automotive brands (assuming 100 automotive brands represent 99.9% of the worldwide production)	50%	59%
	3a) Number of companies commercialising Galileo products	160	196
	3b) Adopters' retention Index (i.e. % of EGNSS adopters that confirm EGNSS usage)	100%	100%
	4. Number of partnerships with key road organisations	4	4
	5. Number of smart (digital) tachograph models with OS-NMA tested, in cooperation with JRC	3	3
	6. % development of standardisation/certification procedures for GNSS in C-ITS and autonomous driving functions	50%	55%

	7. Car makers commercialising autonomous vehicles models with Galileo	3	6
	8. Positive annual EGNOS and Galileo User Satisfaction survey outcome	>60% of respondents “very satisfied”	2022 survey under analysis
	9. % design of the roadmap for Copernicus data adoption	10%	10%
Planned outputs			**Actual outputs**
Outputs relating to the multi-annual work programme objectives: 1. Road and automotive section of the market report published in 2021/2023 and technology report published in 2022 and Report on road and automotive user needs and requirements updated; 2. Report on Galileo penetration in road chipsets and automotive brands; 3. Industry database for road and automotive; 4. Membership or MoU with road and automotive organizations; 5. Test plan and testing campaigns; 6. Draft standards for C-ITS and autonomous driving applications; 7. Adoption roadmap for autonomous vehicles; 8. Results of User Satisfaction surveys; Preliminary adoption roadmap of Copernicus use in congestion charging and traffic management, contributing to the priority ecosystem “Mobility-Transport-Automotive”.			Outputs relating to the multi-annual work programme objectives: 1. Road and automotive section of the market report published in 2022; 2. Report on Galileo and EGNOS penetration in receivers and chipsets models in road segment updated; 3. Industry database publicly available in the useGalileo website; 4. Cooperation consolidated with road industry stakeholders and new Contribution Agreement signed with DG MOVE; 5. Test plan agreed for the Annex IC of the Smart Tachograph EU regulation; 6. Standards ETSI TS 103 300 and CEN/TR 17447:2020 published; 7. Strategy on Road and Automotive (focus on Autonomous driving); under implementation, including relevant EU legal acts published; 8. EGNOS and Galileo user satisfaction survey results published, first integrated EGNOS and Galileo survey launched in 2022 and results under analysis; 9. Preliminary roadmap designed for the adoption of Copernicus data, including prioritisation of potential application areas, such as road infrastructure monitoring, driving comfort, and congestion control.

Objective 3: Increase adoption in Maritime & Inland Waterways segment by building on user needs and providing feedback for improvement to services	
Expected results	**2022 results**
1. Maritime & Inland Waterways market and user technology understood and fully analysed and user needs updated and analysed; 2. Penetration of Galileo and EGNOS in Maritime & Inland Waterways receiver models;[7] 3. Support to Maritime & Inland Waterways companies commercialising Galileo products; 4. Galileo tested in shipborne receivers; 5. Galileo timing requirements for R-MODE System established and strategy defined for the inclusion of OS-NMA in fishing vessels receivers and VDES within IALA; 6. Coordination established with EMSA, EFCA and FRONTEX for maritime surveillance (collaborative and non-collaborative vessels) in relation to illegal activities (e.g. illegal fishing) and Search and Rescue; 7. EGNOS and Galileo user satisfaction survey completed; 8. Synergies identified between the use of Galileo services and Copernicus services for Maritime & Inland Waterways activities (e.g. sea and river water level and early flood and tsunamis detection), Coastal and Marine Exploitation and Preservation, Oil and Gas activities, Maritime Surveillance and Search and Rescue; 9. Preliminary roadmap designed for the adoption of Copernicus data for Maritime & Inland Waterways, contributing to the priority ecosystem “Mobility-Transport-Automotive”.	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. User needs on Maritime analysed and validated at the 2022 User Consultation Platform; 2. Report on increased EGNSS (including EGNOS and Galileo) penetration completed and published on the Market Report; 3. User relationship management strengthened; via partnership with main user associations (e.g. IALA, CIRM, RTCM, ICS); 4. Galileo ship-borne receivers tested with manufacturers via different funded EU projects and also within a dedicated testing campaign; 5. Galileo Timing Requirements defined for R-MODE and published in IALA guidelines G-1158 for VDES, highlighting the contribution from Galileo timing and OS-NMA to fulfil the system requirements. Strategy for the inclusion of OS-NMA in fishing vessels defined in collaboration with EFCA; 6. Cooperation established with EU maritime-related agencies (EFCA, EMSA and Frontex), via participation in dedicated workshops; 7. EGNOS and Galileo Satisfaction survey for 2021 completed and survey for 2022 launched; 8. Synergies between Galileo and Copernicus services identified for several application domains (i.e. maritime, inland waterways, emergency and search and rescue); 9. Preliminary roadmap designed for the adoption of Copernicus data in Maritime & Inland Waterways.
Targets	**2022 results**

[7] Analysis based on internal Agency Technology Monitoring Process and the GNSS Users Technology Report issue 2 and related assumptions included in Annex 5.

Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. % of Galileo and EGNOS receivers in overall number of shipborne models Platform (UCP) outcomes	40 (Galileo) 90 (EGNOS)	44% for Galileo 91% for EGNOS
	3a) Number of companies commercialising Galileo products	50	58
	3b) Adopters' retention Index (i.e. % of EGNSS adopters that confirm EGNSS usage)	100%	100%
	4. Number of shipborne receiver manufacturers engaged in Galileo testing	2	2
	5. Validation with IALA Members	2	2
	6. Validation with EMSA, EFCA and Frontex	1	2
	7. Positive annual EGNOS and Galileo User Satisfaction survey outcome	1	2022 survey under analysis
	8.Validation with stakeholders	10%	25%
	9.% design of the roadmap for Copernicus data adoption	10%	10%
Planned outputs			**Actual outputs**

1. Maritime & Inland Waterways section of the market report published in 2021/2023 and technology report published in 2022 and Report on Maritime & Inland Waterways user needs and requirements published in 2022; 2. Report on Galileo and EGNOS penetration in maritime receivers; 3. Industry database for Maritime & Inland Waterways; 4. Agreement with ship-borne receiver manufacturers interested in testing campaign; 5. Draft IALA Guidelines on Timing and R-Mode and Guidelines on Cybersecurity and VDES; 6. Report on Activities; 7. Results of User Satisfaction surveys; 8. Report on Synergies; 9. Preliminary adoption roadmap of Copernicus use in Maritime & Inland Waterways, contributing to the priority ecosystem “Mobility-Transport-Automotive”.	Outputs relating to the multi-annual work programme objectives: 1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. User needs on maritime analysed and validated at the 2022 User Consultation Platform; 2. Report on Galileo and EGNOS penetration in receivers and chipsets models in maritime segment updated; 3. Industry database publicly available in the useGalileo website; 4. Agreement with 2 with ship-borne receiver manufactures for testing; 5. IALA Guidelines G-1158 (timing R-Mode) and G-1117 (VDES including authentication) published; 6. Workshop report within the European Coast Guards Forum (EFCA, EMSA and Frontex); Validated during UCP and EFCA Workshop; 7. EGNOS and Galileo user satisfaction survey results published, first integrated EGNOS and Galileo survey launched in 2022 and results under analysis; 8. Reports on Synergies for several application domains (maritime, inland waterways, Emergencies and Search and Rescue); 9. Preliminary roadmap designed for the adoption of Copernicus data, including prioritisation of application areas.

Objective 4: Increase adoption in Rail by building on user needs and providing feedback for service improvements	
Expected results	**2022 results**
1. Rail market and application potential understood and fully analysed and Consolidation of user requirements for safety relevant applications and analysis of their impact on EGNSS services; 2. Penetration of Galileo and EGNOS in rail receiver models;[8] 3. Cooperation and coordination with rail stakeholders and associations; 4. EUSPA roadmap for rail signalling implemented and updated; 5. EGNSS-based signalling solution on low density lines demonstrated; 6. EGNOS and Galileo user satisfaction survey completed; 7. Preliminary roadmap designed for the adoption of Copernicus data for rail, contributing to the priority ecosystem "Mobility-Transport-Automotive".	1. Annual market monitoring, analysis and forecasting performed and Annual Technology monitoring update performed; New EUSPA Market Report finalised and published in January 2022; 2. Analysis on Galileo and EGNOS penetration in rail receivers finalised; 3. User relationship management strengthened; 4. Implementation of the EGNSS in rail signalling roadmap performed and update version published at EUSPA website; 5. Virtual balise concept use on low density lines demonstrated and architecture agreed by Rail stakeholders in Shift2Rail; 6. EGNOS and Galileo Satisfaction survey for 2021 completed and survey for 2022 launched; 7. Preliminary roadmap designed for the adoption of Copernicus data for rail.

		Targets	2022 results
Indicators	1. Validation of market and technology analyses, including UCP outcomes, economical KPI's and CBA results by main stakeholders, users etc	1	1
	2. % of vehicles equipped with EGNSS enabled receivers	25	30
	3a) Number of companies commercialising Galileo products	30	30
	3b) Adopters' retention Index (i.e. % of EGNSS adopters that confirm EGNSS usage)	100	100

[8] Analysis based on internal Agency Technology Monitoring Process and the GNSS Users Technology Report issue 2 and related assumptions included in Annex 5.

	4.EGNSS in Rail signalling roadmap objectives achieved	72%	72%
	5. Demonstrator / pilot operational low-density railway line with EGNSS-based train positioning system certified	85%	85%
	6. Positive annual EGNOS and Galileo User Satisfaction survey outcome	>60% of respondents "very satisfied"	2022 survey under analysis
	7. % design of the roadmap for Copernicus data adoption	10%	10%

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: 1. Cost/benefit analysis for railway signalling application available, Rail section of the market report published in 2021/2023 and technology report published in 2022 and Report on rail user needs and requirements updated; 2. Report on Galileo penetration in rail receivers; 3. EGNSS based train positioning system architecture and documentation available; 4. Industry database for Rail; 5. EGNSS in rail signalling roadmap partially implemented and certification plan available; 6. Results of User Satisfaction surveys; **7.** Preliminary adoption roadmap of Copernicus use in rail contributing to the priority ecosystem "Mobility-Transport-Automotive".	Outputs relating to the multi-annual work programme objectives: 1. EUSPA Cost Benefit Analysis (CBA) results confirmed business case for EGNSS. Results were shared at several conferences and adopted also within Shift2Rail X2RAIL2 by main stakeholders and users. New EUSPA Market Report finalised and published in January 2022; 2. Report on Galileo and EGNOS penetration in rail receivers and chipsets updated; 3. Architecture documentation for GNSS-based fail-safe train localization concepts available; 4. Industry database publicly available in the useGalileo website; 5. EGNSS in rail signalling roadmap updated including the certification part; 6. EGNOS and Galileo user satisfaction survey results published, first integrated EGNOS and Galileo survey launched in 2022 and results under analysis; 7. Preliminary roadmap designed for the adoption of Copernicus data in rail.

Objective 5: Increase adoption in Agriculture & Forestry applications by building on user needs and providing feedback for improvement to services	
Expected results	**2022 results**
1. Agriculture & Forestry applications market and user technology understood and fully analysed and user needs updated and analysed; 2. Penetration of Galileo and EGNOS in receiver models for Agriculture & Forestry;[9] 3. Support to Agriculture & Forestry companies commercialising Galileo products; 4. Support EGNSS adoption through dedicated awards for innovative integration of EGNSS in high-precision segment; 5. Support for implementation of Galileo differentiators with focus on High Accuracy Service; 6. EGNOS and Galileo user satisfaction survey completed; 7. Preliminary roadmap designed for the adoption of Copernicus data in Agriculture & Forestry, contributing to the priority ecosystem "Agri-food".	1. Annual market monitoring, analysis and forecasting performed and Annual Technology monitoring update performed; New EUSPA Market Report finalised and published in January 2022; 2. Analysis on Galileo and EGNOS penetration in Agriculture & Forestry receivers finalised; 3. User relationship management strengthened; 4. Organisation and launch of the myEUspace Farming by Satellite contest; 5. Organisation of the HAS testing campaign with external stakeholders; 6. EGNOS and Galileo Satisfaction survey for 2021 completed and survey for 2022 launched; 7. Preliminary roadmap designed for the adoption of Copernicus data for agriculture and forestry.

		Targets	2022 results
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1

[9] Analysis based on internal Agency Technology Monitoring Process and the GNSS Users Technology Report and related assumptions included in Annex 5.

	2. % of Galileo and EGNOS receivers in overall number of models for Agriculture & Forestry	70% (Galileo) 97% (EGNOS)	80% (Galileo) 93% (EGNOS)
	3a) Number of companies commercialising Galileo products	150	160
	3b) Adopters' retention Index (i.e. % of EGNSS adopters that confirm EGNSS usage)	100%	100%
	4. Award of dedicated prizes for innovative integration of EGNSS in high precision, agriculture and forestry applications and/or devices	1	1
	5. Number of receiver models implementing HAS	1	5
	6. Positive annual EGNOS and Galileo User Satisfaction survey outcome	>60% of respondents "very satisfied"	2022 survey under analysis
	7. % design of the roadmap for Copernicus data adoption	10%	10%

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: 1. Agriculture & Forestry section of the market report published in 2021/2023 and technology report published in 2022 and Report on user needs and requirements published in 2018 and 2020; 2. Report on Galileo penetration in Agriculture & Forestry receivers; 3. Industry database for Agriculture & Forestry; 4. Report describing the metrics and statistics of participant success after award; 5. Report on Galileo penetration in Agriculture & Forestry receivers, with focus on High Accuracy Service;	Outputs relating to the multi-annual work programme objectives: 1. Annual market monitoring, analysis and forecasting performed and Annual Technology monitoring update performed; New EUSPA Market Report finalised and published in January 2022; 2. Report on Galileo and EGNOS penetration in receivers and chipsets models in agriculture segment updated; 3. Industry database publicly available in the useGalileo website;

6. Results of User Satisfaction surveys; 7. Preliminary adoption roadmap of Copernicus use in Agriculture & Forestry, contributing to the priority ecosystem "Agri-food".	4. Information from awarded prizes published and statistics published; 5. Analysis on Galileo penetration finalised; 6. EGNOS and Galileo user satisfaction survey results published, first integrated EGNOS and Galileo survey launched in 2022 and results under analysis; 7. Preliminary roadmap designed for the adoption of Copernicus data in Agriculture & Forestry, in collaboration with EC.

Objective 6: Increase adoption in Urban Development and Cultural Heritage applications by building on user needs and providing feedback for improvement to services	
Expected results	**2022 results**
1. Urban Development and Cultural Heritage applications market and user technology understood and fully analysed and applications user needs updated and analysed; 2. Penetration of Galileo and EGNOS in receiver models for Urban Development and Cultural Heritage;[10] 3. Support to Urban Development and Cultural Heritage companies commercialising Galileo products; 4. Support EU Space Programmes adoption through dedicated awards for innovative integration of EGNSS and Copernicus in Urban Development and Cultural Heritage; 5. Accelerate upgrade to Galileo in private and public reference networks; 6. Support for implementation of Galileo differentiators with focus on High Accuracy Service (HAS); 7. EGNOS and Galileo user satisfaction survey completed; 8. Preliminary roadmap designed for the adoption of Copernicus data in Urban Development and Cultural Heritage, contributing to the priority ecosystem "Construction".	1. Annual market monitoring, analysis and forecasting performed and Annual Technology monitoring update performed; New EUSPA Market Report finalised and published in January 2022; 2. Analysis on Galileo and EGNOS penetration in Urban Development and Cultural Heritage receivers finalised; 3. User relationship management strengthened; 4. Execution and award of the phase 2 of the Map my World challenge in the myEUspace competition; 5. Augmentation service providers map updated; 6. Organisation of the HAS testing campaign with external stakeholders with 5 prototypes under development thanks to the testing campaign; 7. EGNOS and Galileo Satisfaction survey for 2021 completed and survey for 2022 launched; 8. Preliminary roadmap designed for the adoption of Copernicus data for Urban Development and Cultural Heritage.

[10] Analysis based on internal Agency Technology Monitoring Process and the GNSS Users Technology Report issue 2 and related assumptions included in Annex 5

		Targets	2022 results
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. % of Galileo and EGNOS receivers in overall number of models for Urban Development and Cultural Heritage	82% (Galileo) 98% (EGNOS)	82% (Galileo) 94% (EGNOS)
	3a) Number of companies commercialising Galileo products	155	157
	3b) Adopters' retention Index (i.e. % of EGNSS adopters that confirm EGNSS usage)	100%	100%
	4. Award of dedicated prizes for innovative integration of EGNSS in high precision Urban Development and Cultural Heritage	1	1
	5. Number of RTK/PPP network providers confirming upgrade to Galileo	52	84
	6. Number of receiver models implementing HAS	3	5
	7. Positive annual EGNOS and Galileo User Satisfaction survey outcome	>80% of respondents "very satisfied"	2022 survey under analysis
	8. % design of the roadmap for Copernicus data adoption	10%	10%
Planned outputs			**Actual outputs**

Outputs relating to the multi-annual work programme objectives: 1. Urban Development and Cultural Heritage section of the market report published in 2021/2023 and technology report published in 2022 and Report on user needs and requirements updated; 2. Report on Galileo penetration in Urban Development and Cultural Heritage receivers; 3. Industry database for Urban Development and Cultural Heritage; 4. Report describing the impact success of the award; 5. Report on Galileo implementation in the reference networks; 6. Report on Galileo penetration in Urban Development and Cultural Heritage receivers, with focus on High Accuracy Service (HAS); 7. Results of User Satisfaction surveys; 8. Preliminary adoption roadmap of Copernicus use in for Urban Development and Cultural Heritage, contributing to the priority ecosystem "Construction".	1. Annual market monitoring, analysis and forecasting performed and Annual Technology monitoring update performed; New EUSPA Market Report finalised and published in January 2022; 2. Report on Galileo and EGNOS penetration in receivers and chipsets models in agriculture segment updated; 3. Industry database publicly available in the useGalileo website; 4. Information from awarded prizes of the myEUspace 2nd phase published in 2022; 5. Update of augmentation service providers map at GSC website; 6. Penetration of Galileo reported. HAS still not available commercially; 7. EGNOS and Galileo user satisfaction survey results published, first integrated EGNOS and Galileo survey launched in 2022 and results under analysis; 8. Preliminary roadmap designed for the adoption of Copernicus data in Urban Development and Cultural Heritage.

Objective 7: Increase adoption in Consumer Solutions, Health and Tourism applications by building on user needs and providing feedback for service improvements	
Expected results	**2022 results**
1. Consumer Solutions, Health and Tourism market and user technology understood and fully analysed and user needs updated and analysed; 2. Penetration of Galileo in smartphones increased;[11] 3. Support to Consumer Solutions, Health and Tourism companies commercialising Galileo products;	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. User needs on consumer solutions analysed and validated at the 2022 User Consultation Platform;

[11] Analysis based on internal Agency Technology Monitoring Process and the GNSS Users Technology Report issue 2 and related assumptions included in Annex 5

4. Development of innovative mobile applications leveraging EU space programme components; 5. EGNOS and Galileo user satisfaction survey completed; 6. Preliminary roadmap designed for the adoption of Copernicus data in Consumer Solutions, Health and Tourism, contributing to the priority ecosystem "Digital".	2. Analysis on Galileo and EGNOS penetration in Consumer Solutions receivers finalised; 3. User relationship management strengthened; 4. New innovative mobile apps developed within hackathons; 5. EGNOS and Galileo Satisfaction survey for 2021 completed and survey for 2022 launched; 9. Preliminary roadmap designed for the adoption of Copernicus data in Consumer Solutions, Health and Tourism.

		Targets	2022 results
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. % of Galileo penetration in smartphones shipments in Europe	75%	87%
	3a) Number of companies commercialising Galileo products	170	175
	3b) Adopters' retention Index (i.e. % of EGNSS adopters that confirm EGNSS usage)	100%	100%
	4. Positive annual EGNOS and Galileo User Satisfaction survey outcome	>70% of respondents "very satisfied"	2022 survey under analysis
	5. % design of the roadmap for Copernicus data adoption	10%	50%

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: 1. Consumer Solutions, Health and Tourism section of the market report published in 2021/2023 and technology report published in 2022 and Report on user needs and requirements updated; 2. Report on Galileo penetration in Consumer Solutions, Health and Tourism receivers; 3. Industry database for Consumer Solutions, Health and Tourism derived from UseGalileo;	Outputs relating to the multi-annual work programme objectives: 1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. User needs on consumer solutions analysed and validated at the 2022 User Consultation Platform;

4. News items published on EUSPA website summarising hackathon/competition results; 5. Results of User Satisfaction surveys; 6. Preliminary adoption roadmap of Copernicus use in Consumer Solutions, Health and Tourism, contributing to the priority ecosystem "Digital".	2. Report on Galileo and EGNOS penetration in receivers and chipsets models in Consumer Solutions, Health and Tourism segment updated; 3. Industry database publicly available in the useGalileo website; 4. News items published on EUSPA website summarising hackathon/competition results; 5. EGNOS and Galileo user satisfaction survey results published, first integrated EGNOS and Galileo survey launched in 2022 and results under analysis; 6. Preliminary roadmap designed for the adoption of Copernicus data in Consumer Solutions, Health and Tourism.

Objective 8: Increase adoption in Insurance and Finance, Infrastructures, Energy and Raw Materials segments by building on user needs and providing feedback for service improvements	
Expected results	**2022 results**
1. Insurance and Finance, Infrastructures, Energy and Raw Materials market and user technology understood and fully analysed and user needs updated and analysed; 2. Penetration of Galileo in Insurance and Finance, Infrastructures, Energy and Raw Materials receiver models;[12] 3. Support to Critical Infrastructures companies commercialising Galileo products; 4. Support Commission in regulatory actions or technical studies for adopting Galileo in Insurance and Finance, Infrastructures, Energy and Raw Materials; 5. Galileo based multi-frequency receiver close to commercialisation; 6. Provision Plan of emerging Timing & Synchronisation (T&S) application offerings (i.e. time integrity, trusted time distribution and remote audit, etc.) defined; 7. Galileo user satisfaction survey completed; 8. Preliminary roadmap designed for the adoption of Copernicus data for Insurance and Finance, Infrastructures, Energy and Raw Materials, contributing to the priority ecosystem "Energy Intensive Industries".	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. User needs on Infrastructure, Energy and raw Materials, Insurance and Finance analysed and validated at the 2022 User Consultation Platform; 2. Analysis on Galileo and EGNOS penetration in Insurance and Finance, Infrastructures, Energy and Raw Materials receivers finalised; 3. User relationship management strengthened; 4. Continuous support to EC provided: support to DG DEFIS for standardisation of Timing Receiver, support to DG-ENER to promote go-to-areas from RePowerEU policy. Support to DG-GROW to promote the Critical Raw Materials Act and inclusion of Earth Observation as possible technical solution; 5. Galileo Receiver prototype developed with TRL 7, in the process of industrialisation and commercialisation;

[12] Analysis based on internal Agency Technology Monitoring Process and the GNSS Users Technology Report issue 2 and related assumptions included in Annex 5

			6. Provision Plan of emerging Timing & Synchronisation (T&S) application offerings (i.e. time integrity, trusted time distribution and remote audit, etc.) defined; 7. EGNOS and Galileo user satisfaction survey results published; 8. Preliminary roadmap designed for the adoption of Copernicus data in Insurance and Finance, Infrastructures, Energy and Raw Materials.
		Targets	**2022 results**
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. % of Galileo and EGNOS receivers in overall number of Critical Infrastructures models	55% (Galileo) 40% (EGNOS)	49% (Galileo) 38% (EGNOS)
	3a) Number of CI companies supporting Galileo products	55	57
	3b) Adopters' retention Index (i.e. % of EGNSS adopters that confirm EGNSS usage)	100%	100%
	4. Specific support to EC on Critical Infrastructures related activities and studies	100%	100%
	5. Definition of plans for the launch of new emerging CI Timing functions	1	1
	6. Positive annual Galileo User Satisfaction survey outcome	>70% of respondents "very satisfied"	2022 survey under analysis
	7. % design of the roadmap for Copernicus data adoption	10%	50%
Planned outputs			**Actual outputs**

1. Insurance and Finance, Infrastructures, Energy and Raw Materials sections of the market report published in 2021/2023 and technology report published in 2022 and Report on user needs updated; 2. Report on Galileo penetration in CI receivers; 3. Industry database for Critical Infrastructures; 4. Deliver supporting materials or review of documents on EGNSS in CI to Commission (on request); 5. Galileo based multi-frequency receiver commercialisation plan report; 6. T&S Application Offering provision implementation Plan Report; 7. Results of User Satisfaction surveys; 8. Preliminary adoption roadmap of Copernicus use in Insurance and Finance, Infrastructures, Energy and Raw Materials, contributing to the priority ecosystem "Energy Intensive Industries".	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. User needs on Insurance and Finance, Infrastructures, Energy and Raw Materials analysed and validated at the 2022 User Consultation Platform; 2. Report on Galileo and EGNOS penetration in receivers and chipsets models in Insurance and Finance, Infrastructures, Energy and Raw Materials segment updated; 3. Industry database publicly available in the useGalileo website; 4. Review of documents delivered to EC; 5. Galileo based multi-frequency receiver commercialisation plan defined; 6. T&S Application Offering provision implementation Plan defined; 7. EGNOS and Galileo user satisfaction survey results published, first integrated EGNOS and Galileo survey launched in 2022 and results under analysis; 8. Preliminary roadmap designed for the adoption of Copernicus data in Finance, Infrastructures, Energy and Raw Materials.

Objective 9: Contribution to the adoption roadmap for Governmental and Security applications by building on user needs and providing feedback for improvement to services	
Expected results	**2022 results**
1. Market and user technology understood and analysed; 2. In close cooperation with EC to promote Governmental Services within Member States user communities; 3. Preliminary roadmap for integrated governmental services adoption including EGNSS, Copernicus and GOVSATCOM.	1. Governmental Market Report finalised in 2021, shared with MS in January 2022; 2. Support to Member States provide for the promotion of Galileo PRS within their user communities; 3. Preliminary roadmap for integrated governmental services adoption including EGNSS, Copernicus and GOVSATCOM defined.

	Targets	**2022 results**

Indicators	1. Report on potential market size of EU Space programme components in governmental applications (Gov Market Report)	1	1
	2. % design of the roadmap for integrated governmental services adoption	50%	50%
	3. Specific support on PRS user related activities.	100%	100%
	4. Consolidation of the GOVSATCOM User Requirements and Use Cases	1	1
	5. Preliminary gap analysis and roadmap for downstream technology R&I in secure SatCom	1	1

Planned outputs	**Actual outputs**
Outputs relating to the multi-annual work programme objectives: 1. Preliminary report on potential penetration of EU Space programme components in governmental and security applications and user technology; 2. Material about governmental services provided by EU Space programme components, including status synergies and supportive actions; 3. Report on "Preliminary roadmap of an integrated governmental services adoption including EGNSS, Copernicus and GOVSATCOM".	1. Governmental Market Report finalised in 2021 shared with MS in January 2022; 2. Support to Member States provide for the promotion of Galileo PRS within different workshops, fora and events; 3. Preliminary roadmap for integrated governmental services adoption including EGNSS, Copernicus and GOVSATCOM defined.

Objective 10: Increase adoption in Emergency Management and Humanitarian Aid segment by building on user needs and providing feedback for service improvements	
Expected results	**2022 results**
1. Main beacon manufacturers implementing SAR return link for maritime applications; 2. Concept of Operation defined for the remote activation of EPIRBs in maritime; 3. Galileo differentiators "SAR Return Link" implemented in the beacons for aviation applications; 4. Concept of Operation defined and demonstrated for the remote activation of ELT-DTs in aviation; 5. Emergency Management and Humanitarian Aid market and user technology understood and fully analysed and user needs analysed; 6. Preliminary roadmap designed for the adoption of EU Space Programme components for Emergency Management and Humanitarian Aid contributing to all priority ecosystems.	1. Main beacon manufacturers (7) implemented Galileo return link; 2. Concept of operation for remote activation defined and validated with EC Working Group on SAR Evolution; 3. Main beacon manufacturers (2) implemented Galileo return link; 4. Concept of operation defined and published in Eurocae ED-277 demonstration; 5. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. User needs on Emergency Management and Humanitarian Aid analysed and validated at the 2022 User Consultation Platform; 6. Preliminary roadmap designed for the adoption of Copernicus data in Emergency Management and Humanitarian Aid.

		Targets	2022 results
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. % design of the roadmap for EU Space Programme components adoption	1	1
	3. Number of maritime SAR beacons including Galileo RLS ready for type approval	6	11
	4. RBA concept discussed with maritime stakeholders	100%	100%

	5. Development of the first aviation SAR beacon including Galileo RLS complete	100%	100%
	6. Concept of aviation operations defined for the remote activation of ELT-DTs	100%	100%

Planned outputs	Actual outputs
1. Maritime SAR beacons that includes Galileo RLS developed and published on usegalileo.eu; 2. Report on concept of maritime operation 3. Aviation SAR beacon that includes Galileo Return Link Service (RLS) ready for type approval and installation certification; 4. Concept of aviation operations for remote beacon activation using GAL RLS for ELT-DT demonstrated and acknowledged by end users; 5. Emergency Management and Humanitarian Aid section of the market report published in 2021/2023 and technology report published in 2022 and Report on user needs and requirements updated; 6. Preliminary adoption roadmap of EU Space Programme components in Emergency Management and Humanitarian Aid contributing to all priority ecosystems.	1. Fastfind Return link, the first beacon in the market. 10 models finalising type approval process; 2. Report on concept of maritime operation shared with EC SAREG WG and included in service description; 3. Kannad ultima-DT and Kannad ultima-Survival; 4. Concept of operation defined, demonstrated, acknowledged by end users, and published in Eurocae ED-277; 5. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. User needs on Emergency Management and Humanitarian Aid analysed and validated at the 2022 User Consultation Platform; 6. Preliminary roadmap designed for the adoption of Copernicus data for Emergency Management and Humanitarian Aid.

Objective 11: Increase adoption Space segment by building on user needs and providing feedback for service improvements	
Expected results	**2022 results**
1. Space Users market and user technology understood and fully analysed and Space user needs analysed; 2. Support to Space Users stakeholder companies commercialising Galileo products or Copernicus data; 3. Preliminary roadmap designed for the adoption of EGNSS in space borne applications;	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022. 2.Innovative GNSS spaceborne receivers development ongoing with projects targeting commercialisation;

4. Preliminary roadmap for the implementation of entrusted tasks for Space Situational Awareness (SSA).	3. Preliminary roadmap for the adoption of EGNSS in space borne applications defined; 4. Preliminary roadmap for the implementation of entrusted tasks for Space Situational Awareness (SSA) defined.

		Targets	2022 results
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. Number of companies commercialising Galileo products	3	4
	3. % design of the roadmap for EGNSS adoption analysed and prioritised	10%	50%
	4. % design of the roadmap for SSA Programme adoption analysed and prioritised	50%	50%

Planned outputs	Actual outputs
1. Space section of the market report published in 2021/2023 and technology report published in 2022 and Report on Space user needs and requirements published; 2. Industry database for Space; 3. Preliminary adoption roadmap for EGNSS use in space applications; **4.** Preliminary adoption roadmap for SSA Programme use.	1. Market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022; 2. Database updated; 3. Preliminary roadmap included in the EGNSS and EO Market Uptake in Space document; 4. Preliminary roadmap included in the EGNSS and EO Market Uptake in Space document.

Objective 12: Increase adoption in Fisheries and Aquaculture segment by building on user needs and providing feedback for service improvements	
Expected results	**2022 results**
1. Fisheries and Aquaculture market and user technology understood and fully analysed and Energy user needs updated and analysed; 2. Preliminary roadmap designed for the adoption of EU Space Programme components for Fisheries and Aquaculture, contributing to the priority ecosystem "Agri-food".	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022; 2. Preliminary roadmap designed for the adoption of Copernicus data in Fisheries and Aquaculture.

		Targets	**2022 results**
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. % design of the roadmap for EU Space Programme components adoption	10%	10%

Planned outputs	**Actual outputs**
1. Fisheries and Aquaculture section of the market report published in 2021/2023 and technology report published in 2022 and Report on Energy user needs and requirements published; 2. Preliminary adoption roadmap of EU Space Programme components used in Fisheries and Aquaculture applications,	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022; 2. Preliminary roadmap designed for the adoption of Copernicus data for Fisheries and Aquaculture**.**

Objective 13: Increase adoption in Environmental Compliance-Climate and Weather Services-Biodiversity, Ecosystems and Natural Capital segments by building on user needs and providing feedback for service improvements	
Expected results	**2022 results**
1. Environmental Compliance-Climate and Weather Services-Biodiversity, Ecosystems and Natural Capital market and user technology understood and fully analysed and Environment & Air Quality user needs updated and analysed; 2. Preliminary roadmap designed for the adoption of EU Space Programme components in Environmental Compliance-Climate and Weather Services-Biodiversity, Ecosystems and Natural Capital, contributing to all priority ecosystems.	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022; 2. Preliminary roadmap designed for the adoption of Copernicus data in Environmental Compliance-Climate and Weather Services-Biodiversity, Ecosystems and Natural Capital.

		Targets	**2022 results**
Indicators	1. Validation of market and technology analyses, including UCP outcomes, by main stakeholders	1	1
	2. % design of the roadmap for EU Space Programme components adoption	10%	10%

Planned outputs	**Actual outputs**
1. Environmental Compliance-Climate and Weather Services-Biodiversity, Ecosystems and Natural Capital sections of the market report published in 2021/2023 and technology report published in 2022 and Report on Environment & Air Quality user needs and requirements published; 2. Preliminary adoption roadmap of EU Space Programme components in Environmental Compliance-Climate and Weather Services-Biodiversity, Ecosystems and Natural Capital, contributing to all priority ecosystems.	1. Annual market and technology monitoring, analysis and forecasting performed. New EUSPA Market Report finalised and published in January 2022; 2. Preliminary roadmap designed for the adoption of Copernicus data in in Environmental Compliance-Climate and Weather Services-Biodiversity, Ecosystems and Natural Capital.

Objective 14: Develop services, applications and R&D communications on Galileo and EGNOS			
Expected results			**2022 results**
Communication activities relating to EGNOS and Galileo services, and GOVSATCOM, and applications for research and development comprise of the following items: 1. Increased awareness of EGNOS and Galileo, their high performance and many benefits, including synergies with Copernicus, 2. Increased awareness and understanding of EGNOS and Galileo as a useful feature and enabling technology for application developers, in particular those requiring more precise and reliable Positioning, Navigation and Timing (PNT) information, 3. Strengthened communication with user networks and communities for EGNOS and Galileo services, 4. Increased awareness amongst innovative enterprises, with a focus on SMEs, who can benefit from leveraging EGNOS and Galileo in their applications, products or services or who can increase the functionality within existing applications by enabling it with EGNSS functionality, 5. Increased awareness of the Galileo programme, its role within the global multi-constellation satellite navigation system, and the benefits of its services, including in combination with other EU space programmes.			As planned.
		Targets	**2022 results**
Indicators	YoY (Year on Year) increase of traffic to key events/ media/ social media/ and websites	10%	+10% increase has been achieved. 2 new social media accounts (Mastodon & Peertube (GDRP friendly Twitter/YouTube alternatives) have also been created. The return to physical events, including EUSW with +3k participants (onsite and online), as well as EUSPA Open Days (over 1.2k onsite participants) and Entrepreneurship Day (100 entrepreneurs + 30 investors) has also generated increased traffic.
	Production and distribution of news and social media content related to services, applications and R&D communications on Galileo and EGNOS	10 news 5 ad hoc SM campaigns	The SoMe campaigns are launched usually in parallel to news publication (more than 100 published in 2022). This year, we launched several SoMe campaigns answering to this objective such as myEUspace, Horizon Europe Call, Galileo SAR, Cassini, EGNOS and Galileo User Satisfaction Survey.
	Joint Communication plan gathering EGNSS activities	1	1

	including common activities with Entrusted entities of Copernicus and the MS		
Planned outputs			**Actual outputs**
Outputs relating to the multi-annual work programme objectives: • Annual communications plan • Website creation, maintenance and management • Social media campaigns; publications • Video and multi-media production and distribution • Event creation, participation and management • Media, public relations and stakeholder initiatives • Newsletter production and distribution • Feedback surveys and studies			As planned.

1.6 Agency Management

1.6.1 Highlights for 2022

This activity supported the Agency's core (and entrusted) mission by providing state-of-the-art services to all operations in the areas of legal, procurement, grants, contracts, finance and budget, human resources management, ICT, facility management and logistics. The main 2022 achievements can be described as follows:

- Efficient execution of the establishment plan with a rate of 100% fulfilment (including 40 new posts). Gradual reduction of overall number of contract agents to the level foreseen in the legislative financial statement.
- Establishment of Learning and Development priorities for 2023-2024.
- Introduction of the Agency Competency Framework, including a self-assessment tool.
- Further streamlining of HR processes by implementing additional modules of Sysper (e-HR tool).
- Efficient management of available resources, including provision of administrative support services.
- Enabling staff to take part in volunteering activities
- Efficient undertaking and awarding of procurement processes.
- Completion of the construction work and acceptance procedures in GSMC FR (building 132) and GSMC SP (building E6) which allowed progressive move of staff and equipment to the new premises. Significant progress reached on the preparation of new HQ premises in Prague
- The datacentre of the Czech government in Zelenec is technically ready to receive EUSPA unclassified and EU Restricted systems, signature of a lease is expected in Q1/2023
- Activation of datacentre in GSMC Spain
- Design and build of a new infrastructure for SST Front Desk in GSMC Spain
- Replacement of many servers in the HQ, upgrade of EUSPA Wide Area Network
- Progress on the preparation of transition of unclassified systems to cloud, design and migration plans ready, pending resolution of data protection concerns
- Major reorganisation and merger of ICT and Facility management resources into one department
- Transition to a new support contract for ICT without loss of business continuity
- 100% commitment of core budget which was 23% greater in 2022 when compared with 2022.
- 100% commitment of all remaining delegated budget from the EGNOS exploitation delegation agreement before its final date for commitments of 31 December 2022.
- All financial reporting for entrusted budget submitted on time and with accuracy
- Annual accounts for 2021 finalised and audited with no findings

1.6.2 Tasks for 2022

<table>
<tr><th colspan="4">Objective 1: Implement efficient management of all legal arrangements for the Agency, in-line with the service delivery needs</th></tr>
<tr><th colspan="3">Expected results</th><th>2022 results</th></tr>
<tr><td colspan="3">1. Procurement management: planning, preparing and executing procurement file up to signature of legal commitment.
2. Grant management: planning, preparing and executing grant file up to signature of legal commitment.
3. Legal commitments management: drafting, negotiating, signing, amending, assigning and other support throughout the lifetime of a legal commitment.
4. Legal advisory services: identification, verification, assessment and provision of legal opinions.</td><td>As planned.</td></tr>
<tr><td colspan="2"></td><th>Targets</th><th>2022 results</th></tr>
<tr><td rowspan="2">Indicators</td><td>Procurement and contract award: % of contracts in place and on time</td><td>90 %</td><td>100% achieved</td></tr>
<tr><th colspan="3">Planned outputs</th><th>Actual outputs</th></tr>
<tr><td colspan="3">• Executive Director documentation (decisions, letters, guidelines).
• Policies.
• Documents relating to court decisions.
• Institutional agreements (delegation agreements, working arrangements, regulatory documents).
• Acquisition documentation (tenders, calls for proposal).
• Legal commitments (contracts, grant agreements, non-disclosure agreements, licenses, etc.).
• Reporting (on procurement, grants, contracts on core and delegated tasks).</td><td>As planned.</td></tr>
</table>

Objective 2: Identifying, developing and implementing activities leading to a workforce capable of delivering the Agency's business needs	
Expected results	**2022 results**
1. Core operational services - delivering core processes such as selection & recruitment, onboarding of new hires, facilitating medical services, contract management, salaries processing - remuneration, organisation of trainings, individual rights entitlements, benefits management etc. ensuring legal compliance and effectiveness and efficiency. 2. Managing talent – get the most suitable people into critical roles by leading performance management exercises, i.e. annual objective setting linked to Agency high level objectives, their regular assessment providing targeted feedback to staff. Find, develop, keep, motivate and help them to perform by implementing best practices in the selection procedures, i.e. behavioural interviewing techniques, assessment centres for management roles, promoting internal mobility etc. 3. Supporting a high-performance organisation – by enabling and promoting the right culture, supporting individual, team and organisational performance through optimisation of available and future resources, analysis and identification of future workforce needs, comprehensive corporate L&D activities, including induction training process, fostering dialogue with staff and their representatives by using various channels and tools. 4. Other management responsibilities: a. Support to Corporate Risk Management implementing and enforcing the application of the Risk Management process b. Development and tracking of Performance Indicators c. Support to QM/ IMS and audit programmes (IAS, IAC, Internal) d. Support to Continual Improvement and Lessons Learned e. Ensure the compliance to data protection internal policies and applicable public regulations 5. Attendance/ Support to various Working Groups and Boards: a. Inter-Agency meetings b. Complaints Committee c. Disciplinary Board d. Agency Reviews e. Biweekly Administration meetings f. ICM and ExCOM	As planned and in addition: • Selection procedures carried out mostly remotely, considering the efficiency and environment sustainability aspects. • Detailed description of the selection process published online to increase transparency for candidates. • Establishment of strategic learning and development priorities • Competency framework finalised and made available to staff via an interactive tool. • Continuity of induction and other training activities, including remote delivery. • Entitlements of staff processes carried out online (majority via Sysper tool), gaining efficiency and minimising delays.
Targets	**2022 results**

Indicators	% execution of the Establishment Plan	95%	100%
	Turnover rate	≤ 10%	5.9%
	Average rating of quality of training	>6	8.6

Planned outputs	**Actual outputs**
• HR policies, procedures, instruction • AB related documentation (decisions etc.) • ED related documentation (decisions etc.) • Legal documents (contracts of employments • HR working documents, manuals	• New EC decision on working time & hybrid working applied by analogy • ED decisions (decision on volunteering, change in social measure, posts reassignments, appointments) and contracts of employments prepared for all the new joiners as well as staff reassigned • HR guidelines and manual on hybrid working

Objective 3: Plan, manage and report on the Agency budget and process all financial transactions	
Expected results	**2022 results**
Budgeting and regular financial management: • Budgeting, monitoring and reporting on level of budget execution to all internal and external clients • Daily management of Agency financial transactions • Provide Commission with report on the financial management of Delegation Agreements (quarterly and annually) and cash management of all Delegation Agreements • Cash flow status (twice a year) and cash management of the EU subsidy • Management of Value Added Tax (VAT) exemption for all Agency sites • General finance and VAT-specific training as they pertain to EU financial procedures	As planned.

• Manage paperless tool			
		Targets	**2022 results**
Indicators	Commitment rate and rate of payment within prescribed time limits	95%	Commitment rate 100% Payments within prescribed time limits 98,13 %
Planned outputs			**Actual outputs**
• Monthly financial reporting • Draft budget document • Official budget documents and amendments for publication in the Official Journal • Annual Budget Implementation Report • VAT exemption certificates and reimbursement claims • Quarterly and annual financial reports for delegated budget			As planned.

Objective 4: Provide a secure and digital working environment on enterprise level for Agency departments within defined scope		
Expected results		**2022 results**
The Agency's ICT activities are split along four fundamental lines: 1. Systems and infrastructure management: ensure that all systems operate within optimal parameters, are reliable and available to Agency users as required by business 2. User management: ensure the appropriate provision of technical assistance and support 3. Project management of all ICT projects 4. ICT security: ensure the confidentiality integrity and availability of Agency systems		Alignment between ICT and business is ensured via quarterly ICT Steering Committee meetings. All systems perform to the specifications and maintain very high availability levels. Users receive personal assistance 9h/day from a team of 7 specialists within the KPIs defined internally Projects are managed according to the PM^2 methodology and controlled via the ICTSC. ICT Security is ensured via strict preventive and monitoring activities allowing for a fast reaction, no breach of confidentiality, integrity or availability has been declared in 2022.
	Targets	**2022 results**

Indicators	L1/L2 support responsiveness	95% in 5 days	90.8% in 5 days 76% in 24h (better than expected 65%)
	Core System availability	99%	99.58%
	Detection of attempts to compromise core systems	100%	100% despite significant increase of intrusion attempts
	Projects/delivery schedule respected	60% in time closure	50%

Planned outputs	**Actual outputs**
• Regular monthly/weekly meetings for teams or all department as a whole • Meeting with ICT stakeholders • Execution and control of core ICT projects (following PM^2 project management methodology) • Quarterly produced ICT SEC reports • Availability of systems and its services as defined by business • Annual ICT overview report on the infrastructure, budget and HRs dedicated to ICT domain	• Monthly meetings of the whole department, multiple weekly meetings of teams and per project • Quarterly ICT Steering Committee meetings with formal agenda, datapacks, minutes and decisions • Project management reorganised and supported by a new IT platform • ICT SEC reports are on the agenda of the respecting meetings of ISSB • Availability of systems exceeds expectations and the level of security remains very high, no successful intrusions • Annual report for 2021 was presented to ICTSC in March 2022, the report for 2022 will be presented in March 2023

<table>
<tr><th colspan="4">Objective 5: Maintain operational capability of Agency premises in Prague to support Agency activities</th></tr>
<tr><th colspan="3">Expected results</th><th>2022 results</th></tr>
<tr><td colspan="3">1. Timely facility management and logistical support to internal customers
2. Accurate asset and inventory management
3. Timely building management
4. Good cooperation with building owner and its representatives</td><td>In 2022, the HQ energy backup solution improvements were finalised in cooperation with the building owner. Backup lines were extended to the entire ground floor, including AB meeting room, reception area and security installations. The aim was to extend the operational capability in case of the power failures.

Minor heating issues experienced in December had no impact on the premises operational capability.</td></tr>
<tr><td></td><td></td><td>Targets</td><td>2022 results</td></tr>
<tr><td>Indicators</td><td>Operational capability monitored (i.e. number of days building operational capability was maintained expressed as a percentage of days required)</td><td>100%</td><td>100%</td></tr>
<tr><th colspan="3">Planned outputs</th><th>Actual outputs</th></tr>
<tr><td colspan="3">• On demand facility services report
• Activity report for building maintenance and invoicing support
• Bi-weekly activity reporting to the Head of Administration management meeting
• Execution report on, for example, cleaning services or building management
• Specific feedback to requesting party as part of the escalation procedure for reception services, building management, etc.
• Updated records of solutions found, or information provided to internal customers, procurement officers or contract managers (tickets solution)
• Monthly report based on ticketing tool outputs upon request
• On demand facility management satisfaction survey (or feedback based on day-to-day business)
• Updated inventory system based on movement and inventory checks
• Inventory committee reports and assets review report based on valid financial regulations</td><td>• On demand facility services report
• Activity report for building maintenance and invoicing support
• Bi-weekly activity reporting to the Head of Administration management meeting
• Execution report on, for example, cleaning services or building management
• Specific feedback to requesting party as part of the escalation procedure for reception services, building management, etc.
• Updated records of solutions found, or information provided to internal customers, procurement officers or contract managers (tickets solution)
• Monthly report based on ticketing tool outputs upon request
• Updated inventory system based on movement and inventory checks</td></tr>
</table>

<table>
<tr><th colspan="4">Objective 6: Identify and implement activities leading to successful Administrative Board activities</th></tr>
<tr><th colspan="2">Expected results</th><th colspan="2">2022 results</th></tr>
<tr><td colspan="2">In-line with the Agency's regulation and the Rules of Procedure for the Administrative Board (Board). During this period, the Agency intends to hold a minimum of two scheduled Board meetings. The Agency will also provide the Board with the necessary secretariat over the course of the year.

The Agency's strategic planning function is a combination of several activities that are required to support the management team and, indirectly, the Administrative Board. In particular, this function focuses on:

• Ensuring the development of the programme documents, including the Single Programming Document and the Annual Activity Report</td><td colspan="2">As planned, there have been 4 meetings of the EUSPA Administrative Board in 2022:

• EUSPA AB 4 (January)
• EUSPA AB 5 (March)
• EUSPA AB 6 (June)
• EUSPA AB 7 (October)

All decision items, information documents, presentations, and minutes of meetings were provided with the due advance, in line with the Administrative Board Rules of Procedure.

The Single Programming Document 2023-2025 has been adopted in October 2022, in line with the EU Space Regulation. Several rounds of consultation took place, including a dedicated workshop, as requested by the Administrative Board Chair.

The Annual Activity Report 2021 has been adopted in June 2022, in line with the EU Space Regulation.</td></tr>
<tr><th colspan="2"></th><th>Targets</th><th>2022 results</th></tr>
<tr><td rowspan="2">Indicators</td><td>Schedule of meetings for year are not altered</td><td>Yes</td><td>Yes</td></tr>
<tr><td>Timely preparation of programming documents and corresponding reporting</td><td>100%</td><td>100%</td></tr>
<tr><th colspan="3">Planned outputs</th><th>Actual outputs</th></tr>
<tr><td colspan="3">• Agenda and minutes of each meeting
• Board decisions, including written procedures</td><td>• Agendas and minutes of meetings
• Board decisions, written procedures</td></tr>
</table>

	• Presentations and documents for information. EUSPA State of Play for each Board meeting. • Single Programming Document 2023-2025 • Annual Activity Report 2021

Objective 7: Achieve Agency-wide process capability for Documents and Records Management			
Expected results			**2022 results**
Create and implement policies, processes and procedures for documents and records management covering the Agency's existing tools to improve the efficiency and comply with relevant legal obligations.			As planned
		Targets	**2022 results**
Indicators	Policies, processes and procedures to manage the Agency's documents and records	DM: 100% RM: based on development & implementation of a Records Management (RMS)	100% for documents management (policy, processes, and procedures available) 10% for records management (Documents and Records Management Policy)
	Implementation of the enterprise content management system	NA	DMS development and implementation: 100%; RMS design, development and implementation: 0% Overall 85% (RMS represents a smaller part of the ECM)
	All new employees and relevant contractors trained	DMS: 100%	DMS: 100% RMS: 0%
Planned outputs			**Actual outputs**
• Policies, processes and procedures to manage the Agency's documents and records • Training and awareness sessions			• ECM – the part managing documents is in place. It includes CADM functionalities, e.g. management of incoming and outgoing deliveries, reviews and baseline management. • Available documentation: Documents and Records Management Policy; • Documents Management Process; • Documents management procedures and video tutorials;

	• All Agency's employees are trained via induction training sessions for new comers, monthly training sessions offered to all users, training sessions requested by users as needed.

Objective 8: Successful compliance with personal data protection rules applicable to the Agency			
Expected results			**2022 results**
Full Agency compliance with data protection rules (Regulation (EU) 2018/1725)			Full compliance
		Targets	**2022 results**
Indicators	% of compliance with data protection rules	95%	100%
Planned outputs			**Actual outputs**
At the Agency / departmental level there are no further outputs.			No further outputs

Objective 9: Successfully undertake key planning and risk and opportunities management activities		
Expected results		**2022 results**
Ensuring that the corporate risks and opportunities management process is implemented. Successful communication of risks to Agency stakeholders. Successful implementation of risks mitigation/opportunities exploitation plans.		Risks and opportunities management implemented and running smoothly A quarterly presentation on risks and opportunities is now part of the Administration Board meetings
	Targets	**2022 results**

Indicators	Quarterly Corporate Risk Boards held	Keep the Risk and Opportunities Register up to date. 4 Risk Management Boards held	Risks and Opportunities Register maintained up to date throughout the year 4 Risk Management Board meetings held
Planned outputs			**Actual outputs**
Outputs relating to the multi-annual work programme objectives: • Risk and Opportunities register updates			The risks of the Agency were regularly re-assessed. In particular new risks concerning the complicated 2022 geo-political and economic situation were identified and put under the watch of the Risk Management Board.

Objective 10: Measure and improve the quality of Agency processes			
Expected results			**2022 results**
ISO 9001 required Agency Quality Management activities (annual quality audit planning and management review) and the related ISO 9001 certification of the Agency. Development of an Integrated Management System (IMS) for other standards that the Agency intends to be certified against in the future.			All activities oriented towards the maintenance of the ISO 9001 certificate were successfully performed. The IMS continued its development and its adaptation to the changing Agency.
		Targets	**2022 results**
Indicators	Concerns with regard to Non-conformances with regards to ISO 9001:2015 requirements raised by ISO external auditors	0	0
	Progress of implementing quality audits (% of audit reports available)	100%	100%
	Implementation of open actions in the continuous improvement database	80%	93%
Planned outputs			**Actual outputs**
• Continued ISO 9001 Certification			• 2nd external quality auditor visit took place successfully

• Annual Quality Audit Plan and Audit Reports • Agency WBS and WPDs describing organisation of Agency tasks • Quarterly review of core tasks and performance indicator and procurements tracking • Performance indicator definition (Linked from SPD to work packages and staff annual objectives) • Implementation of Continual Improvement activities including CIDB management, Lessons Learned, Surveys • Management Review Board • IMS document libraries (including policies, processes, procedures and work instructions) • Staff training on quality, IMS and best practices	• Annual Quality Audit plan and Internal and External Quality Audits Reports • A process to replace the WBS with Activity Maps stemming from the Agency's regulatory framework started • 4 Quarterly Performance Reviews held • Performance indicators of the SPD reviewed and improved • Followed up the implementation of continual improvement actions and suggestions of improvement documented during the quality audits • The IMS Management Review Board conducted in January 2022 • IMS libraries moved from their former place in the PCQ department's DMS to the new one in the Inspector General and Quality department • An update of training materials for staff took place

Objective 11: Ensure Agency fulfils statutory audit and control obligations	
Expected results	**2022 results**
The Agency's internal control coordination and risk management activities are on-going tasks that help fulfil its statutory obligations. These include: 1. Manage interaction with auditors (IAS, IAC, external) following the different steps of their respective audit procedures, manage audit reports, and implementation of recommendations until timely closure of each the audits. 2. Develop EUSPA Internal Control Framework (mirroring EC's), implementing it, managing up-to-date performance, and adequate reporting. 3. Incorporate, in the SPD period, the results of the review of the Agency's Anti-Fraud Strategy and the recent issuance of EUSPA Conflict of Interest Implementing Rules aiming at enhancing information and training, deepen and structure preventive Conflict of Interest assessments (experts, staff, procurement related actions, AB members); define cooperation with OLAF; enhance access in whistleblowing; and improve reporting on Anti-Fraud topics.	1. 2022 was a very active year for IAC audits: a major internal audit was completed; two review audits were executed and the audit on ESA expenditure was also successfully finalised. The external audits on DA/CA funds were executed with no findings. The corporate Audit & Control reports library has been operationalised as well and improvement on usability are under-way. 2. Draft ICF Indicators have been developed but still need to be internally debated and finalised. 3. The anticipation of the drafting of the new Anti-Fraud Strategy boosted internal related risk assessments. Training materials on Conflict of Interest issues have been recently upgraded, as part of the corporate Ethics training.
	Targets	**2022 results**

Indicators	Timely execution of the corresponding yearly audits	100%	80%. Some delay experienced in the release of external auditors' and the EUSPA-DG DEFIS ESA audit reports and the need to launch a second audit on Galileo DA activity lowered our performance.
	% of key components of the different elements of the Anti-Fraud Strategy defined and implemented	100%	100%. Delivery of the new AFS anticipated from June 2023, delaying delivery of audits reports.
	Timely issuance of the Internal Control Standards compliance report	100%	100%, report delivered to AB in January 2023.
	Timely issuance of the Declarations of Compliance	100%	100%

Planned outputs	**Actual outputs**
• Agency Internal Audit Capability audit reports and annual audit review reports.	Audits and review audits completed, reports delivered in Q1 2023.
• EC Internal Audit Service audit reports and annual audit review reports.	No IAS audit took place in 2023. Annual audit review reports pending.
• Procurement for external auditors services. And their audit reports for delegated funds.	Procurement for 2022 not required. Audit reports delivered.
• Declaration of Assurance and Management Declarations under Delegation Agreements.	MDs and Assurance delivered.
• Internal Control Framework and its compliance report.	ICF compliance report delivered.
• Anti-fraud internal regulation, information and daily support.	AFS delivered. AFS coverage assured.
• Gifts and conflict of interest registries.	Gifts & Hospitality registry maintain. Coverage assured.
• Business continuity management framework documentation	BC framework review initiated.

Objective 12: Develop Corporate Communications for the Agency	
Expected results	**2022 results**
1. Rebrand exercise for the new EUSPA, creation of a new corporate identity and communication to old and new stakeholders, user communities and general public 2. Enhanced overall awareness of the new Agency and better understanding of its mission, vision and values	The visibility within the various stakeholders has been increased thanks to the multilingual approach of our publications (with most of our PR being in all the EU languages). We also took the opportunity of the Presidency of the Council in the hosting country of the Agency

3. Increased awareness of EUSPA 's Work Programme and achievements 4. Consolidated and strengthened relationships with existing and new key European players in the space sector, key GNSS user communities, as well as Copernicus, GOVSATCOM and SSA communities. 5. Strategic partnerships built and/or strengthened 6. Increased awareness of and appreciation for the Agency's work by relevant EU stakeholders in the Member States 7. Strengthen and create new partnership and appreciation for the Agency's contribution by Agency facility host countries 8. Established Agency crisis communications procedures	headquarters to welcome more than 30 high level representatives of the Member States. Several events (such as the EU Space Week or a SAR event in Greece) have been organised in collaboration with the Member States.

		Targets	**2022 results**
Indicators	YoY increase in traffic to key event/ media/social media/internet touchpoints	10 %	Achieved, the number of media clipping reached 1100 thus 10% increase. The number of followers increased by 12k (+ 20% in comparison with 2021) and a new social media account (Mastodon) has been created.
	Annual communications Plan	1	The Annual Communication Plan has been published.

Planned outputs	**Actual outputs**
• Crisis communications manual • Website creation, maintenance and management • Social media campaigns • Production and dissemination of publications • Production and dissemination of videos • Event creation, participation and management (exhibition creation, advertising, promotion and presentation) • Media and public relations initiatives • Newsletter production and distribution • Feedback surveys and studies	As planned.

<table>
<tr><th colspan="4">Objective 13: Develop internal communications for the Agency</th></tr>
<tr><th colspan="3">Expected results</th><th>2022 results</th></tr>
<tr><td colspan="3">The Agency uses internal communications to empower its staff and create an inclusive learning environment to ensure staff retainment and growth. This objective is meant to:
1. Foster a culture of positive team spirit and customer service
2. Promote better staff understanding and awareness of the Agency's mission, team and objectives
3. Enable staff to project a correct and consistent message about the Agency's key objectives to the outside world, allowing them to serve as "communication ambassadors"
4. Improve working environment by increasing communication flow across departments and by enhancing information sharing</td><td>45 CONNECT, internal newsletter has been published in 2022 including HR corner, Cybersecurity corner and dedicated news on the re-organisation of the Agency.

Communication on the Environmental/EMAS taskforce and its activities preparing the launch of the Environmental policy of EUSPA has been developed.

A training has been organised with more than 100 participants to highlight the importance of EU Space and EUSPA brand awareness and professional use of social media, particular focus on LinkedIn.</td></tr>
<tr><td colspan="2"></td><td>Targets</td><td>2022 results</td></tr>
<tr><td rowspan="3">Indicators</td><td>YoY involvement of staff in Agency internal communication activities</td><td>10% increase</td><td>Following EUSPA's growth, 100+ more EUSPA colleagues have added EUSPA as their employer to LinkedIn and actively engaged in EUSPA's LinkedIn activities (sharing/liking/reposting)</td></tr>
<tr><td>Staff improved understanding of the Agency mission, vision, and objectives (through surveys and consultations)</td><td>10% increase</td><td>Achieved</td></tr>
<tr><td>YoY increase in staff understanding or their role of EUSPA ambassadors</td><td>10% increase</td><td>Achieved</td></tr>
<tr><th colspan="3">Planned outputs</th><th>Actual outputs</th></tr>
<tr><td colspan="3">• Annual communications plan
• Event creation, participation and management
• Newsletter production and distribution
• Specific Briefing material
• Feedback surveys and studies
• Learning and development initiatives</td><td>As planned.</td></tr>
</table>

<table>
<tr><th colspan="4">Objective 14: Develop stakeholder communications for the Agency</th></tr>
<tr><th colspan="2">Expected results</th><th colspan="2">2022 results</th></tr>
<tr><td colspan="2">The Agency maintains and improves stakeholder liaison, and reach out to new stakeholders vis a vis the new EUSPA responsibilities and communications to:
1. Increase dialogue and strategic partnerships aimed at fulfilling mutually-shared goals
2. Enhance positive and open working relationships, exchange information and facilitate communications and liaison
3. Increase the visibility of and appreciation for the Agency's work and its role within the EGNSS programmes as well as Copernicus and GOVSATCOM
4. Build trust and engage stakeholders as partners who can act as multipliers and further share key information and actively participate in the Agency's work and success
5. Better awareness amongst key stakeholders of the Agency's vision, mission and what it needs to succeed
6. Increase understanding and appreciation for the Agency's work, especially amongst the Commission, related DG colleagues, members of the Administrative Board, Copernicus entrusted entities and other key contacts from the EU Member States and relevant members and committees in the European Parliament</td><td colspan="2">Several promo packs and promo activities done together with DG DEFIS, Copernicus Entrusted Entities, and other stakeholders, including myEUspace promo and EU Space Week.

New target audiences added based on the expansion of EU Space Market Segments and EU Space Programme (GOVSATCOM, IRIS2, SSA)</td></tr>
<tr><td colspan="2"></td><td>Targets</td><td>2022 results</td></tr>
<tr><td rowspan="2">Indicators</td><td>YoY increase in joint communication initiatives with stakeholders</td><td>10% increase</td><td>Achieved</td></tr>
<tr><td>YoY increase in profile and awareness by the stakeholder base across all target audience entities</td><td>10% increase</td><td>Achieved</td></tr>
<tr><td colspan="3">Planned outputs</td><td>Actual outputs</td></tr>
<tr><td colspan="3">• Communication plan</td><td>As planned.</td></tr>
</table>

• Website development and management • Social media campaigns • Production and dissemination of publications • Production and dissemination of videos • Event creation, participation and management (exhibition creation, advertising, promotion and presentation) • Joint communication activities and synergies • Media and public relations initiatives • Newsletter production and distribution • Feedback surveys and studies	

Objective 15: Ensure full compliance with the applicable[13] Security Rules for the Agency	
Expected results	**2022 results**
1. Management of authorisations to access EU Classified Information (EUCI) 2. Management and maintenance of COMSEC accounts held by the Agency 3. Issuing security incident reports 4. Maintaining records of entries/exits to secured areas 5. Delivery of EUCI documents	101 Authorisations to access EUCI issued 3 COMSEC accounts managed throughout the Agency (HQ, GSMC FR & ES) 18 Security incidents reports issued (some still under process of approval) Records kept in relevant logbooks on permanent basis C-UE/EU-C – S-UE/EU-S EUCI management: 1154 deliveries registered (531 incoming, 623 outgoing), 9310 files processed (3784 incoming, 5526 outgoing)
Targets	**2022 results**

[13] Pursuant art.96 of Regulation 2021/696, the Agency shall adopt its own security rules equivalent to those of the Commission. Until then, the Commission security rules are applied pursuant art.110 of the same Regulation.

Indicators	% of compliance with Commission decisions 2015/444 and 2015/443 (or equivalent decisions adopted in the meantime by the Administrative Board of the Agency)	100%	100 % (the EUSPA Security Rules drafted and prepared for adoption)
Planned outputs			**Actual outputs**
• Authorisations to access EUCI • Security incident reports • Delivery of EUCI documents • COMSEC transfers and transportations			See 2022 results above

Objective 16: Security assurance of internal Agency systems/areas			
Expected results			**2022 results**
1. Organisation of the accreditation review of internal systems/areas of the Agency for the handling of EUCI and report accordingly to the Agency's Security Accreditation Authority 2. Security Accreditation statements for internal systems signed by the Security Accreditation Authority of the Agency 3. Organisation of the reviews of the Information Security Steering Board (ISSB) for the internal systems of the Agency, in compliance with the ICT Security Policy of the Agency			14 Accreditation reviews performed by the Accreditation Panel for Internal Systems 8 Security Accreditation Reports issued 16 Accreditation statements were signed by SAA 2 meetings of the ISSB took place
		Targets	**2022 results**
Indicators	Number of internal accreditation reviews	5	14
	Number of ISSB reviews	>2	2
Planned outputs			**Actual outputs**
• Security accreditation report • SAA decision/authorisation/approval to operate Agency areas/systems/HW			See 2022 results above

• ISSB recommendations	

Objective 17: Support the electronic exchange of R-UE/EU-R information.			
Expected results			**2022 results**
1. Implementation of the Space Programme Infrastructure for Delivery of Encrypted Restricted (SPIDER) service 2. SPIDER Networks operational management			The Space Programme Infrastructure for Delivery of Encrypted Restricted (SPIDER) service has been managed and operated throughout the year nominally: cryptographic material has been produced, handled and distributed according to the applicable operational procedures.
		Targets	**2022 results**
Indicators	Number of keys generated	TBC	320
	Number of distributions to external CDAs	TBC	213
	Key copies distributed	850	4589
	Number of community management requests	1800	1342
Planned outputs			**Actual outputs**
• Cryptographic material • Distribution notes			See 2022 results above.

1.7 Delegated Activities (FOR INFORMATION ONLY)

1.7.1 EGNSS Exploitation Programme Management

In 2022, the Galileo services were provided in line with the service declaration. The number of Galileo receivers continued growing, and has now reached more than 3.5 billion users worldwide. The Galileo performances continued being published in the GNSS Service Centre (GSC) website. The Galileo Reference Centre (GRC) continued monitoring the Galileo service performance, and to act as the main source of input for the Key Performance Indicators (KPI) reporting (complemented with Member States reports).

Furthermore, the main highlights of 2022 include:

- the Galileo service provided with outstanding performances despite COVID-19, thanks to strong commitment from EUSPA and all institutional and industrial partners and the support from the Members States;
- Concerning the Open Service (OS), the service continued to be delivered in accordance with the updated Service Definition Document (SDD) published last December 2021. This enables to provide Users with improved performance commitments as a further step towards OS FOC. EUSPA continued to support the Commission in the re-assessment of the programmatic definition of the OS FOC Programme objectives, in particular in relation to the constellation sustainability analysis and the steps to reach the FOC constellation operational configuration given the impact on the launch calendar. In addition, major progress was achieved in relation to the preparation activities leading to an intermediate programme milestone ('enhanced service declaration') while awaiting the next launches to complete the satellite fleet for the OS FOC declaration;
- In relation to the Public Regulated Service (PRS), service continued to be delivered in accordance with the initial service update published last October 2021. This provides Users with improved performance commitments as a further step toward PRS IOC. The PRS IOC Service Consolidation Review is progressing, while the User Segment procurement activities continued. Bilateral discussions with the Members States are ongoing, in order to share and collect additional information, which are not necessarily addressed in the frame of the current PRS forum;
- In relation to the High Accuracy Service (HAS), the service validation campaign was successfully completed and the outcome presented to the Security Accreditation Board in December 2022 leading to the authorisation to proceed with the service declaration. The HAS services was ultimately declared on 24 January 2023. With the declaration of the Galileo HAS Initial Service, users within the service area can now achieve improved user positioning performance in real-time by exploiting the HAS data delivered in the Galileo E6-B signal component and by terrestrial means (Internet). This is a major achievement for the Programme;

- Concerning the Open Service Navigation Message Authentication (OS-NMA), the performances are since Q4-2021 documented as part of the Open Service Performance Report published on the GNSS Service Centre web portal. While the public observation phase is still ongoing, the new Signal in Space ICD was published end 2022 in order to enable the receiver developer to get ready for the initial services. A two-step implementation approach was agreed at programme level in order to provide an initial operational capability in the first Semester 2023 and an initial service in the second Semester 2023;
- With respect to the Search and Rescue (SAR), the service was delivered well beyond the commitment to the Users, for both forward and return link services. The site Acceptance of the fourth MEOLUT was completed in July 2022, and operational validation and ground segment commissioning are now ongoing;
- In relation to I/NAV, the deployment of the space segment was progressed nominally, and the target set by the Programme was reached by end of year 2022 ('I/NAV patching of at least 6 satellites by end 2022');
- Preparation activities continue for other new services continue including the Commercial Authentication Service, the Emergency Warning Service, the SAR/Galileo Remote Beacon Activation Service, Quasi-pilot, contribution to Ionospheric Prediction and the use of Galileo for Safety of Life applications;
- Following the suspension of the cooperation with Europe on Soyuz launches from French Guiana, the Galileo launch 12 preparation activities have been put on hold. EUSPA has been and will continue working closely with the European Commission in finding the best solutions with respect to the programme objectives. Given the recent event, the need for a launch solution has been re-enforced and special care shall be taken to ensure appropriate provision will be in place;
- The industrial activities in relation to the so-called pre-operational chains paving the way to PRS IOC and FOC are ongoing. The qualification programme of this new ground infrastructure suffered delays during the year. The authorisation to proceed with the pre-operational chain sites inter-connection and connection to the validation chains was not granted by the security accreditation board. Specific measures are being put place, notably the establishment of a PRS task force to gather all the key actors (including industry): (1) to continuously monitor & control the Galileo ground segment qualification and deployment activities, and (2) to manage any risks arising, in order to secure the timely achievement of the programme objectives;
- The new SAR/Galileo Data Service Provider (SGDSP) contract was concluded in December 2022, while the signature ceremony was organised in January 2023. This ensures the seamless delivery of the SAR/Galileo service;
- The procurement procedure for the new framework contracts to pave the future (GSC, GRC) are ongoing;

- The Galileo Reference Centre (GRC) has provided daily/weekly reporting all over the year on the situation in East Europe and Baltic area notably in relation to interference monitoring;
- In terms of operational infrastructure, the new buildings at GSMC-FR and ES are now completed, and the new building at GCC-D is well in progress. In addition, the relocation of the GSS in Kerguelen was completed and the GSS in Wallis was connected to the operational chain of the Galileo System. Finally, the in-orbit commissioning test activities for the L11 satellite launch in December 2021 was concluded and the satellites are now part of the operational constellation (GSAT0224 and GSAT0223);
- Implementation of the System Prime for the System in Operations continued and an impressive set of activities is being transitioned to the Exploitation Authority. In addition, the first stress/resilience test was executed and brought valuable results, demonstrating among other the readiness of the operators and of the system. The second stress test is planned in the coming weeks;
- Preparations for the transfer of the Contracting Authority for Galileo for the contract execution to EUSPA from the Commission were completed. In this regards it is important to note that the EUSPA internal procurement process has been adapted to ensure full compliance and implementation of FFPA Procurement Annex.
- The tri-parties Galileo and EGNOS Management Plan (GEMP) was completed setting the basis for the change management mechanism in accordance with the FFPA/CA.

These highlights were sustained by regular activities in the areas of project management, project control, contract and procurement management, operations, accreditation preparation, service and security engineering, market uptake, and quality.

In 2022, EGNOS planned activities were affected by:

- The Russian Invasion of Ukraine in February, which required EUSPA teams, and in particular the security team, to redirect their efforts to managing this emergency. The war jeopardised the V242-B site deployment activities in Kyiv and eventually led to the removal of the site from the V242-B baseline, generating delays on the overall Entry into Service schedule.
- The identification of a CPF anomaly which could have led to a Common Mode Failure (CMF) and to a 48h service outage. The identification of the issue forced ESSP to stop the planned deployment of the V242-A_YSR5 release (initially scheduled in early 2022)

Despite the urgency of the situation, the CPF-CMF issue was successfully managed by the team: EUSPA and industry succeeded in identifying a correction, and qualifying and deploying a fast-fix release in less than 4 months after the issue was raised. In May 2022, the V242-A_YSR5-PSS1 release was deployed, putting an end to the risk on service provision. The Agency organised a lessons learned exercise with all stakeholders on this event, under the authority of the EUSPA Inspector General. It issued a set of recommendations related to the areas of Programme Management, Communication, Safety assessment, Mission requirement, Process, Qualification, Technical support, aiming in particular at improving the process for the involvement of the different actors, with respect of their responsibilities, in similar unplanned circumstances.

Regarding service performance, EGNOS services were degraded in two main areas from January to April 2022: the south-west area over the Canary Islands for both APV-I and LPV-200, and the north area for LPV-200. The degradations were linked to system limitations in terms of iono monitoring in presence of increased ionospheric activity, and in terms of GPS monitoring capability. EGNOS service performance was significantly improved in Q2, partly thanks to the entry into service of the V242-A_YSR5-PSS1, which embarked a correction of the "negative TEC" anomaly. APV-I and LPV-200 coverage was excellent from May to August, and exceeded SDD commitments. In September, the seasonal effect of equatorial scintillation events in the south west started, and underperformances were recorded in that area. These events continued in Q4, along with geomagnetic storms in the north. A series of GPS short-term outages also occurred in October-November. These occurrences were triggered by a GPS maintenance campaign performed on over 10 satellites. Additionally, in November, the Canary Islands RIMS was only available 40% of the time, due to network equipment malfunction and failure. It is worth noting that, according to the SIS test campaign performed in Q4, V242-B is expected to greatly improve the performance and its robustness to ionospheric activity and GPS feared events.

GEO-1 and GEO-2 provided nominal performances during the year. GEO-3 services were also delivered as expected. HotBird13G, which embarked GEO-4 payload, was launched on 3 November. At the beginning of the year, an early end of life of INM4F2 was announced, but the risk was mitigated by the team thanks to successful negotiations with SES and Inmarsat.

Regarding V2 system evolutions, despite difficulties due to the war in Ukraine, V242-B development activities progressed during the year. The System Critical Design Review-2 was successfully passed in October and the Integration Validation Qualification phase was performed and finalised early 2023. The release is on track for an Entry into Service by end of 2023, as per Contribution Agreement Objective. However, considering the early start of the Solar Cycle 25, EUSPA, and industry are working together to optimise the schedule and reach an earlier target.

The V243 main contract was kicked-off in January-2022. The V243 CDR process was split in two in order to validate the elements which did not require the V242-B CDR outcomes (delayed by the removal of Kyiv from the baseline). The V243 CDR part-1 board was held in July, and part-2 will be held in 2023. Overall, the release is on track for an Entry into Service by end of 2024, as per Contribution Agreement Objective.

Regarding EGNOS V3 development, the first semester was dedicated to the finalisation of the subsystem CDRs, followed by the preparation of the system CDR1.1. The CDR was kicked-off end of September and the Board was held in December. The board concluded that all objectives were achieved, except for one related to the preparation of the operational phase. The close-out process will be performed in 2023. The Performance activities have also progressed during the year, with Performance Key Points held in March and November. In parallel, EUSPA and ESA have worked together throughout the year to propose a dedicated workplan, in order to secure the entry into service of EGNOS V3 Legacy before end of 2027.

Concerning the V3 RIMS sites: some delays on site preparation continued to be experienced, in large part due to COVID-19 and its aftermath (worldwide raw material crisis). In December-2022, a total of 14 sites had passed the Infrastructure Acceptance Review-2 (including 10 which had reached the milestone in 2022). Among these 14 sites, 9 have been delivered to ESA during the year (between May and December). 7 new contracts were signed in 2022, and, at the end of year, only 14 out of 44 sites still remained to be procured (with 5 close to signature). 2 sites were unblocked following missions on site (Nouakchott and Athens). Overall, 8 sites still remained problematic despite EUSPA and EC attempts at recovery. Sofia, Aqaba and Oran continued to show slow progress and were at risk of further delay, while Agadir, Alexandria, Djerba, Abu Simbel and Kyiv were considered blocked. In view of this situation and in agreement with EC, the decision was made to remove the last 5 sites from the baseline and to replace them with back-up sites. Though, the sites of Agadir, Djerba and Kyiv will still be considered as part of the activity to extend EGNOS V3 towards ENI-South and ENI-East areas.

EUSPA delivered the EGNOS V3 Operation Coordination Centre (OCC) to ESA and industry as per contractual need date. The site hosting services contract was re-assigned to EGNOS Service Provider mid-December. The Mission Control Centre (MCC) Ciampino site preparation and hosting services contract was signed end of January-2022 and kicked off in March. The MCC Torrejón site preparation was finalised in

2022 (the CFI was delivered to ESA early 2023 as per contractual date). The NLES sites preparations progressed well during the year, with the exception of the NLES GEO-4 sites, which suffered delays due to issues with suppliers. However, margins remain in EUSPA schedule compared to industry actual need dates. All sites are expected to be delivered in 2023.

Regarding security activities: following the Russian invasion of Ukraine at the beginning of the year, EUSPA immediately performed the necessary activities to cope with the potential impacts at RIMS Kyiv. The security team also performed an analysis of the system level impacts of these events. In parallel, 2022 was also dedicated to the preparation of EGNOS V3 Security Accreditation Certification Plan (SACP), and in Q4, the SAB issued positive decisions on V3 accreditation tasks for the on-site tests. This marked the first step in reducing the risk on the accreditation process.

Regarding safety activities, progress was made during the year on EUSPA support to the EASA rule making process to replace the interoperability regulation and on the development of the Quality Framework tailored for EGNOS. In that respect, an agreement was found with the European Commission for the requirements establishing the Quality Framework for the Space Programme, including the set up of an Oversight Function applicable to EGNOS and Galileo (for which the policy and procedures have been defined and approved). In parallel, the team also contributed to the management of the CPF-CMF issue and worked on the related Lessons Learned activity run by the Oversight Function (the final report was delivered end of November).

Regarding new services, the EGNOS Maritime Service Consolidation Review (SCoR) board was held in February; a close-out review was decided which is planned to take place in May 2023. Actions were taken and implemented by EUSPA during the year, including the definition of the SDD parameters. In parallel, EUSPA and JRC submitted to IEC an initial change proposal to the draft IEC SBAS receiver standard in September (the standard voting is planned in May-2023). The Performance Monitoring Tool development was delayed during the year due to issues with the subcontractor. And, at the end of the period, the Maritime Safety Information tool had yet to be procured.

Regarding EDAS service, evolutions are expected to be enabled through the Service Data Access Facility (SDAF). However, due to priority management, SDAF procurement was put on hold. Progress was made during the year on the service baseline definition, and a preliminary Risk Analysis was approved in October.

1.7.2 GOVSATCOM Activities

The preparation and the implementation of the GOVSATCOM activities included in the Contribution Agreement have been performed in close cooperation with the Commission.

During 2022 EUSPA provided support to the EC in the preparation of the definition of GOVSATCOM component. EUSPA has set up a transversal team to prepare the related documents and to support the preparation of the Implementing Acts.

EUSPA prepared and provided drafts of the “Service Portfolio” and “Sharing and Prioritization” Implementing Acts” to the EC. EUSPA supported the Commission during the meetings of the GOVSATCOM Programme Committee, processed the related comments and prepared updated versions of the documents. Moreover, EUSPA has prepared the GOVSATCOM MRD which has been submitted to the EC and subsequently distributed to the members of the Programme Committee.

EUSPA supported the EC in the preparation of component security baseline (e.g. HLD-x, MRD-x, SRA, SSRS) and supported the preparation of the GOVSATCOM Security Management Plan. EUSPA supported the Commission during the meetings of the of the GOVSATCOM Security Workgroup, processed the related comments and prepared updated versions of the documents. Moreover within 2022, EUSPA after Commission’s request prepared the draft site requirements for the GOVSATCOM Hubs.

Within 2022 EUSPA has performed activities in the fields of user coordination and market activities, stemming from GOVSATCOM PA CA. The ENTRUSTED project, which is managed by EUSPA, has drafted and submitted the majority of its deliverables including the deliverables “User requirements” and “Use

cases", which have been subsequently used for the consolidation of GOVSATCOM documentation. Furthermore the Agency has managed the market study for GOVSATCOM which included the estimation of current and future needs of governmental users for secure satellite communications and services. An Horizon Europe call for GOVSATCOM has been announced by EUSPA at the last quarter of the year.

Regarding the procurement of secure operational ground segment design studies, the Agency has received the initial offers from the bidders and the submission of subsequent offers is anticipated.

Finally within 2022, EUSPA has supported the Commission in the coordination of GOVSATCOM activities with ESA, with the view to avoid overlaps and ensure complementarity of activities.

1.7.3 Space Situational Awareness Activities

EUSPA conducted a detailed observation on how the SST front desk is currently performed at SatCen and assessed the implications related to the transfer of responsibility for its operation to EUSPA, to ensure a smooth and seamless continuity of the service.
Following the approval and in line with priority of the Commission in 2022 on the establishment of the general security requirements during 2022, EUSPA contributed to the major tasks:

1. Procurement of the component of the SST Front-desk IT system that cannot be transferred from SatCen;
2. Establishment of the risk and threat analysis in support of the Commission's general security requirements.
3. Establishment of a security monitoring architecture.

The transfer of competence from SatCen SST staff to EUSPA has been analysed with particular attention and 11 TA vacancy notices have been opened in order to identify the future key personnel covering the relevant profiles. The procedures were completed in Q4 2022.

An extensive exchange between the SatCen and EUSPA teams took place in December 2022, in order to consolidate the relationship between the parties. Moreover, on 14 December, the EC has shared with EUSPA an invitation to submit a proposal for a grant on behalf of EUSPA and the 15 EU SST Partnership members, for which EUSPA is a co-beneficiary (without budget).

With regards to the SST Front Desk deployment plan, the SST integrated schedule has been consolidated, with inputs from SatCen and EUSPA stakeholders. The deployment plan for the Front Desk was consolidated despite some initial delays in the procurement of some IT components, subject to global supply chain issues which have impacted deliveries worldwide.

1.7.4 Research and Development Activities

The EC delegated activities for implementing the Horizon 2020 - Framework Programme for Research and Innovation to the Agency via the Delegation Agreement signed in April 2014.

In 2022, the Agency managed a portfolio of 81 projects from Horizon 2020's first, second, third, fourth and fifth calls. By the end of 2022:

- 1st call: all the 27 projects successfully closed their technical activities,
- 2nd call: all the 13 projects successfully closed their technical activities,
- 3rd call: all the 18 projects successfully closed their technical activities,

- 4th call: out of the 12 projects, 9 projects have been concluded and the remaining 3 projects are in the implementation of the second period,
- 5th call: all the 11 projects are running, except 1 project that has successfully concluded the technical activities .

The following is the portfolio of projects managed by the Agency in 2022, including the projects of all the five Calls:

Name of the Grant	Market Segment	Status	Description
5LIVES	Aviation	Closed	Product and services within the rotorcraft sector, and in particular for handling Aerial Mission Critical operations.
BELS	Awareness Rising	Closed	Coordinated supporting actions to enhance the presence of EGNSS and of European enterprises in South East Asia.
BEYOND	Aviation	Closed	Coordination and support action in Eastern Europe and Mediterranean countries.
CaBilAvi	Aviation	Closed	Bridging activity for production, update and revision of education and training materials on new GNSS-based avionics.
COREGAL	Surveying & Mapping	Closed	Fixed-plane unmanned aerial platform equipped with GNSS-based biomass sensor.
DEMETRA	Timing & Synchronisation	Closed	Common Core Infrastructure supporting nine Time Services, composed by a Time Service Generator and User Terminals.
e-Airport	Aviation	Closed	Integrated ICT application based on EGNSS empowering airport operators, ground handlers, and Air Traffic Control (ATC).
E-KnoT	Awareness Rising	Closed	Concrete and effective set of actions in the field of education in GNSS.
ELAASTIC	Location Based Services (LBS)	Closed	Proposal of a variety of technological enablers to be exploited both in the LBS and the road markets.
ERSAT EAV	Rail	Closed	Unified GNSS based solution for a safe localization that can be tailored to the needs of individual railway applications.
FOSTER ITS	Road	Closed	Design and develop the first secured GNSS Module.
G MOTIT	Road	Closed	Innovative electric scooter sharing service, in which users may pick up and drop off vehicles wherever and whenever they want.

Name of the Grant	Market Segment	Status	Description
GALENA	Road	Closed	Develop equipment, information system, and supervision platform for cross supply chain orchestration for freight pooling in urban areas.
GEO VISION	LBS	Closed	Software for field observation, communication, data sharing, and operations support for the overlap of humanitarian and financial market.
GHOST	LBS	Closed	Intelligent transport system on vehicles of the public network with, automatic snapshots collection operations.
GMCA	Aviation	Closed	Enhanced GNSS Performance Monitoring System to include EGNSS and other constellations and augmentations for use beyond Europe.
GNSS.asia2	Awareness Rising	Closed	Outreach activities promoting EGNSS in Asia through a professional communication software suite and presence at industry events in Europe and Asia.
JUPITER	Road	Closed	Implementation and delivery of support activities for the breakthrough of EGNSS in Information Technology Solutions (ITS) worldwide.
LARA	LBS	Closed	Mobile solution for underground utility management making use and integrating mobile Augmented Reality (AR) interfaces.
MAGNIFIC	Awareness Rising	Closed	Field trials to valorise GALILEO and to promote EGNOS in Africa in a wide range of business and scientific applications.
mapKITE	Surveying & Mapping	Closed	Mature prototype of a tandem terrestrial-aerial mobile mapping system (geodata acquisition and post-mission processing).
PARADISE	Surveying & Mapping	Closed	GNSS receiver to make GNSS-based positioning available in challenging situations.
POSITION	Awareness Rising	Closed	Integrated innovation support stimulating sustainable uptake in Poland.
SAT406M	SAR	Closed	Improved Personal Locator Beacon (PLB) and a new communication method between SAR/Galileo and the PLB.
spyGLASS	Maritime	Closed	Passive Bistatic Radar (PBR) based on Galileo transmissions for maritime surveillance.
MISTRALE	Agriculture	Closed	Prototype of a GNSS Reflectometry sensor integrated on a dedicated Remotely Piloted Aircraft System (RPAS).
UKRAINE	Aviation	Closed	Set of coordinated supporting actions for EGNSS penetration in aviation.

Name of the Grant	Market Segment	Status	Description
GRICAS	SAR	Closed	Innovative operational procedures for inflight activation of SAR (Search And Rescue) beacons onboard aircraft.
EASY Pv	Surveying & Mapping	Closed	Thermal cameras installed on board a Remotely Piloted Aircraft System (RPAS) in order to detect thermic anomalies on defective photovoltaic modules.
MOBNET	LBS	Closed	Unmanned Aerial Vehicle (UAV)-based Search and Rescue (SAR) system for the location of isolated victims in the case of natural or man-made disasters.
INLANE	Road	Closed	New generation, low-cost, lane-level, precise turn-by-turn navigation application through the fusion of EGNSS and Computer Vision technology.
STRIKE3	Signal processing	Closed	New international standards for the monitoring, reporting and testing of GNSS threats.
LOGIMATIC	Maritime	Closed	Advanced automated navigation solution based on the integration of GNSS and sensors onboard the vehicles, and a GIS-based control module.
STARS	Rail	Closed	Measurement campaign to evaluate the railway environment.
RHINOS	Rail	Closed	Train Location Detection System (LDS) and supporting infrastructure.
BLUEGNSS	Aviation	Closed	Training and Required Navigation Performance (RNP) approach procedures.
InDrive	Road	Closed	Automotive enhanced positioning platform, based on the integration of GNSS and other on-board sensors.
AUDITOR	Agriculture	Closed	Improved GNSS ground-based augmentation system and services in precision agriculture based on it.
HELIOS	SAR	Closed	Second Generation range of Beacons (SGB) and antennas designed to operate with the full capability of the new Meosar Cospas/Sarsat International Programme.
SKYOPENER	Aviation	Closed	Coordination-as-a-service for all stakeholders that are taking part in Remotely Piloted Aircraft System (RPAS) operations.
PRoPART	Road	Closed	High-availability positioning solution for connected automated driving applications.
ENSPACE	Space	Closed	Innovative Space GNSS software platform supporting multi-applications and multi-missions in LEO, MEO, GEO, interplanetary missions, and launchers.

Name of the Grant	Market Segment	Status	Description
ERSAT GGC	Rail	Closed	Process and toolset for classifying tracks in terms of characteristics and reception of the GNSS signal.
GRIMASSE	Aviation	Closed	Prototype of an Emergency Locator Transmitter of a Distress Tracking beacon, a set of applications to optimize SAR information transmission and collection, and MEOLUT algorithms.
GNSS.asia3	Awareness Rising	Closed	Outreach activities promoting EGNSS in Asia through a professional communication software suite and presence at industry events in Europe and Asia.
SARA	SAR	Closed	Semi-automatic deployable RPAS (Remotely Piloted Aircraft System) tethered to a ship architecture.
BELS-PLUS	Awareness Rising	Closed	Promotion activities to EU companies, within EU clusters and at conferences.
GALILEO 4 Mobility	Road	Closed	Four demonstrations held across Europe to test how the integration of GALILEO technology could improve urban mobility.
GREENPATROL	Agriculture	Closed	Robotic solution for Integrated Pest Management in crops, capable of autonomously navigating greenhouses.
FLAMINGO	LBS	Closed	Data and positioning services for high accuracy positioning and navigation on Smartphones, IoT and wearables.
AIOSAT	LBS	Closed	Combination of a portable system for firefighters in rescue interventions and a Mobile Coordination Centre.
GIMS	Surveying & Mapping	Closed	Low-cost system based on EGNSS, Copernicus SAR and other in-situ sensors, to monitor landslides and subsidence.
SINSIN	SAR	Closed	Enhanced Personal Locator Beacon (PLB), embedded EGNSS receiver, and enhanced MEOLUT station.
GOEASY	LBS	Closed	Pilot applications, ApesMobility and AsthmaWatch.
TransSec	Road	Closed	Security truck with precise positioning and navigation, movement monitoring, communication security, pre-crash detection, and autonomous emergency manoeuvring.
SIA	Rail	Closed	4 ready-to-use new services for the rail sector: iWheelMon, iRailMon, iPantMon and iCatMon.
GAUSS	Aviation	Closed	High-performance positioning system for drones within U-Space framework, focusing on Very Low Level and Unmanned Aircraft System operations.
H2H	Maritime	Closed	Implementation of a pilot sensor package, to be demonstrated in Norway and Belgium.

Name of the Grant	Market Segment	Status	Description
AMPERE	Surveying & Mapping	Closed	Semi-automated drone with LiDAR, optical, and thermal cameras to gather information on electrical power networks, processed by a GIS cloud platform.
ARIADNA	Awareness Rising	Closed	Outreach activities to spread Galileo awareness and to support Public Transport Authorities and Operators interested in EGNSS.
CLUG	Rail	Closed	Multi-sensor train-localization system combining EGNSS and other sensors.
DELOREAN	Aviation	Open	Integrity monitoring techniques for safe Urban Air Mobility (UAM) and Urban Air Delivery (UAD) while demonstrating EGNSS-specific services like accurate, reliable, high-precision postal delivery.
GALIRUMI	Agriculture	Open	Integrated solution for dairy farming composed of 2 EGNSS-powered electrocuting and laser-based defoliating weeding robots and software for mission planning and control.
GEONAV IoT	LBS	Closed	Positioning algorithms leveraging EGNSS and Ultra-Wide Band (UWB) beacons.
GISCAD-OV	Surveying & Mapping	Open	Integrated solution combining GNSS and local augmentation with the whole value chain of cadastral mapping.
GNSS.asia 4	Awareness Rising	Closed	Outreach activities promoting EGNSS in Asia through a professional communication software suite and presence at industry events in Europe and Asia.
HELMET	Rail	Closed	Advanced prototype able to provide integrity and augmentation data for road, rail and Unmanned Aerial Vehicle (UAV) applications.
HUUVER	LBS	Closed	Highly integrated drone prototype combining air and ground-based propulsion to address the existing limitations of autonomous systems.
POINT.IoT	Awareness Rising	Closed	Coaching support to find, mentor, and develop 20 GNSS applications in IoT.
PREPARE Ships	Maritime	Closed	Integrated solution with new precise positioning system based on the features of Galileo and EGNSS signals within merchant ships.
AgriBIT	Agriculture	Open	Combines GNSS and EO information with on-field and on-machine sensors and actuators to deliver simple, high-precision and continuously available services

Name of the Grant	Market Segment	Status	Description
BroadGNSS	Timing & Synchronisation	Open	First procurement steps to exploit EGNOS and Galileo differentiators for operational advantages in public safety.
ESRIUM	Road	Open	EGNSS-based digital map of road damages and safety risks at centimetre-level resolution.
GAMBAS	Maritime	Open	A modernized anti-piracy Ship Security Alert System (SSAS) beacon leveraging Galileo's return link, MEOSAR independent location capability, and solutions for rescue operators and vessels.
GAMMS	Surveying and Mapping	Open	A mapping robot for geodata acquisition and an AI-based highly automated mapping software to produce HD maps from the MMS remote sensing data
MOLIERE	Road	Open	Open data commons for mobility services, a Mobility Data Marketplace (MDM) underpinned by blockchain technology.
PASSport	Maritime	Open	Fleet of automated aerial (rotary wings and fixed wings) and underwater drones.
RADIUS	Rail	Open	Drone platform interacting with Traffic Management System and Intelligent Asset Management System.
RAILGAP	Rail	Open	High accuracy, high precision ground truth and digital maps for rail mobility.
ROOT	Timing & Synchronisation	Open	Analysis from the stage of the received GNSS signals, their processing, and exploitation in the network architecture.
SCORPION	Agriculture	Open	Safe and autonomous precision spraying tool integrated into a modular unmanned tractor which will focus on steep slope vineyards.

In addition, five PRS procurements (one under H2020 PRS Item 1, four under H2020 PRS item 2) were contracted in 2016 and managed between 2017 and 2022.

- The DISPATCH project planned under H2020 PRS was closed in January 2023.
- The PRISMA project had four contracts, all of which were successfully closed.

The following is a list of PRS user segment projects managed:

Acronym	Title	Comments
DISPATCH	Development of Innovative PRS server based TeCHnologies to support future applications	H2020- PRS Item 1 One contract

PRISMA	Development of low end operational PRS receivers including security modules architectures	H2020-PRS Item 2 Four contracts

The EC also delegated activities for the implementation of Horizon Europe downstream and integrated applications via the Contribution Agreement signed in 2021 and EUSPA started the implementation activity of the three Innovation Actions , namely:

i. EGNSS and Copernicus applications fostering the European Green deal,
ii. EGNSS applications for Safety and Crisis management, and
iii. EGNSS applications for the Digital Age launched the first Horizon Europe call.

They were launched in October 2021 and closed in February 2022 within the first Horizon Europe call. As result 13 projects were signed in the last months of 2022.

The Horizon Europe project portfolio is included in the table below with status:

Name of the Grant	Market Segment	Status	Description
100KTREES	Environmental Monitoring	ongoing	Decision Toolbox for cities to improve air quality, biodiversity, human wellbeing and reduce climate risks by planting more trees in our cities
BIRDWATCH	Biodiversity, Ecosystems and Natural Capital	not yet started	BirdWatch - a Copernicus-based service for the improvement of habitat suitability of farmland birds via satellite-enabled monitoring, evaluation and optimisation of CAP greening measures
BUILDSPACE	Infrastructure	not yet started	Enabling Innovative Space-driven Services for Energy Efficient Buildings and Climate Resilient Cities
CERTIFLIGHT	Drones	ongoing	Certified E-GNSS Remote Tracking of Drone and Aircraft FLIGHTs
CHRISS	Critical Infrastructure	ongoing	Critical infrastructure High accuracy and Robustness increase Integrated Synchronization Solutions
CLUG 2.0	Rail	not yet started	CLUG Demonstration of Readiness for Rail
EGENIOUSS	Consumer Solutions, Tourism and Health	ongoing	EGNSS-based Visual Localisation to enable AAA-PNT in small devices & applications
EWOKS	Emergency Management and Humanitarian Help	ongoing	Enabling EWS/Galileo Market Uptake in widespread PWS Solutions

Name of the Grant	Market Segment	Status	Description
MAGDA	Agriculture	ongoing	METEOROLOGICAL ASSIMILATION FROM GALILEO AND DRONES FOR AGRICULTURE
OVERWATCH	Emergency Management and Humanitarian Help	ongoing	Integrated holographic management map for safety and crisis events
RESPONDENT	Energy	ongoing	Renewable Energy Sources Power Forecasting and Synchronisation for Smart Grid Networks Management
SPACE4GREEN	Agriculture	ongoing	Trusted and Green traceability through EU Space Technologies
SWIFTT	Forest	ongoing	Satellites for Wilderness Inspection and Forest Threat Tracking

Fundamental Elements is an EU Research and Development funding mechanism supporting the development of E-GNSS-enabled chipsets, receivers and antennas and fostering the competitiveness of EU industry. The Fundamental Elements activities are included in the delegation agreements for Galileo and EGNOS exploitation, and are coordinated as an integrated activity.

In 2022, the Fundamental Elements projects related to all the E-GNSS services focused on the main market segments and, in particular:

- Aviation with two ARAIM projects, one concluded in June 2020 (GLAD), second one in April 2022 (DARP) and other two projects (DEGREE and GEODESY) still on-going developing drone-borne double frequency receivers. Under EGNOS activities there are two ongoing projects (EDG2E, MUGG) focused on DFMC SBAS receiver development;
- Aviation and Maritime with three MEOSAR projects in the last phases of testing (AMETRINE, COBALT, ISSAR) and two already concluded (TAUCETI, PHOENIX);
- Maritime with the Satellite Based Augmentation System (SBAS) shipborne receiver (MAREC project) successfully concluded in 2020, while other three projects (ASGARD; Blue Box Porbeagles VMS; SEGRA) for shipborne double frequency multi-constellation receivers still on-going;
- Road with one (ERASMO) still ongoing and other three successfully concluded (ACCURATE focused on OBU; PATROL developed OS-NMA user terminal; ESCAPE with an E-GNSS positioning module combined with 4G connectivity);
- Rail with two on-going projects (GALITS and TRENI) developing receiver for localisation in train signalling;
- Timing and Synchronisation with the Galileo timing receiver for critical infrastructures projects (GIANO and GEARS) successfully concluded.

- Mass Market with six projects (APOLLO, eMAPS, Galileo of Things, H-GEAR, OSCAR, PROLONG), five concluded while one (PROLONG) is in the closing phase.
- Transversal activities, such as development of
    - multi-frequency multipurpose antenna with two projects (GAMMA successfully concluded in August; MAGICA approaching the Final Review);
    - an advance interference detection system (EGIPRON still ongoing);
    - a close-to-market receiver with six projects still on-going (GEYSER, BANSHEE, GREAT, PHOENIX, REMOT and UNION) and one successfully concluded (NEWSPAPER);
    - OS-NMA enhanced user terminals with one ongoing project (OS-NMA+) and one concluded (ARGOS) developing;
    - Galileo reference High Accuracy Service User Terminal and User Algorithm with project HAUT successfully concluded;
- The Public Regulated Service (PRS). There was only one project for PRS called FRAME. No activity was carried out during the reporting period except for the internal preparation of a new specific contract expected to be launched in the next calendar year.

In summary, in 2022 under Fundamental Elements program there are 38 projects (financed by grants) and five procurements. Out of 38 grants in total, 20 are completed, and in particular 10 are closed in 2022.

	Name of the project	Market segment	Status	Expected output
1	ACCURATE	Road	Concluded	On-Board-Unit for fully automated driving.
2	AMETRINE	Maritime	On-going	Personal Locator Beacon including GNSS receiver with Return Link Services.
3	APOLLO	Mass Market	Concluded	GNSS software receiver for Internet of Things (IoT), Technology Readiness Level (TRL) 7.
4	ARGOS	Transversal	Concluded	GNSS User Terminal implementing OS-NMA, TRL 7.
5	ASGARD	Maritime	On-going	Close-to-market complete shipborne integrated equipment (TRL 7)
6	BANSHEE	Transversal	On-going	Navigation solution hybridizing GNSS and Wi-Fi ranging to enhance navigation in urban scenarios
7	Blue Box Porbeagle VMS	Maritime	On-going	Trusted shipborne receiver based on Galileo authentication to be integrated in the EU VMS
8	COBALT	Maritime	On-going	Personal Locator Beacon including GNSS receiver with Return Link Services.
9	DARP	Aviation	Concluded	Advanced ARAIM receiver prototype.
10	DEGREE	Aviation	On-going	Drone-borne low-cost double-frequency Galileo multi-constellation receiver, integrated with INS

	Name of the project	Market segment	Status	Expected output
11	EDG2E	Aviation	On-going	DFMC SBAS receiver prototype.
12	EGIPRON	Transversal	On-going	Advanced interference detection and robustness capabilities system
13	eMAPS	Mass Market	Concluded	Localisation Based Service (with receiver) for smart cities and autonomous driving.
14	ERASMO	Road	On-going	Enhanced Receiver for autonomous driving/navigation
15	ESCAPE	Road	Concluded	GNSS Engine for autonomous driving protype.
16	FANTASTIC	Agriculture, Surveying	Concluded	High-precision professional receiver and antenna prototypes.
17	Galileo of Things	Mass Market	Concluded	GNSS software receiver for IoT, TRL 7.
18	GALITS	Rail	On-going	Multi-frequency, multi-constellation antenna, TRL 7.
19	GAMMA	Transversal	Concluded	Multi-frequency multipurpose GNSS antenna with multi-stage interference protection (TRL 7)
20	GEARS	Timing & Synchronization	Concluded	GNSS software receiver for IoT, TRL 7.
21	GEODESY	Aviation	On-going	Drone-borne low-cost double-frequency Galileo multi-constellation receiver, integrated with INS
22	GEYSER	Transversal	On-going	Close-to market (TRL 7) space receiver supporting Dual frequency (E1/E5) positioning and timing
23	GIANO	Timing & Synchronization	Concluded	Timing Receiver prototype TRL 7
24	GLAD	Aviation	Concluded	Advanced ARAIM receiver prototype.
25	GREAT	Transversal	On-going	Next generation of low-cost GNSS reference stations
26	HAUT	Transversal	Concluded	Galileo Reference HAS User Algorithm and HAS User Terminal for Galileo and GPS signals
27	H-GEAR	Mass Market	Concluded	eCall and anti-theft system, including a device, TRL 7.
28	iSSAR	Aviation	On-going	MEOSAR beacon for aviation.
29	MAGICA	Transversal	On-going	Multi-frequency, multi-constellation antenna, TRL 7.
30	MAREC	Maritime	Concluded	SBAS-enabled Shipborne Receiver, TRL 7.
31	MUGG	Aviation	On-going	DFMC SBAS receiver prototype.
32	NEWSPAPER	Transversal	Concluded	GNSS receiver with PPP based on Galileo's E6 signal, resulting in a TRL 7 demonstrator

	Name of the project	Market segment	Status	Expected output
33	OSCAR	Mass Market	Concluded	GNSS receiver for premium mass market.
34	OS-NMA+	Transversal	On-going	GNSS User Terminal implementing OS-NMA, TRL 7.
35	PATROL	Road, digital tachograph	Concluded	User Terminal implementing OS-NMA capability for digital tachograph.
36	PHOENIX	Maritime	Concluded	Personal Locator Beacon including GNSS receiver with Return Link Services.
37	PHOENIX	Transversal	On-going	Commercial GNSS OEM-board receiver offering PPP capability using Galileo EB6 based HAS
38	PROLONG	Mass Market	On-going	Prototype of a receiver for Premium Mass Market (IoT).
39	REMOT	Transversal	On-going	Prototype of a wearable device enabled by data fusion of GNSS precise positioning and IMU
40	SEGRA	Maritime	On-going	Guidelines for Manufacturers for SBAS DFMC in shipborne receivers
41	TAUCETI	Aviation	Concluded	MEOSAR ELT beacons for aviation.
42	TRENI	Rail	On-going	Railway GNSS receiver and antenna to be used directly or integrated in a multi-sensor positioning platform
43	UNION	Transversal	On-going	Real-time GNSS receiver algorithm(s) based on a hybrid solution making use of Galileo HAS, other high accuracy techniques and connectivity

1.7.5 Support to the continuous development of EGNOS and Galileo programmes in the field of Aviation

Aviation is one of the first sectors which adopted EGNOS for navigation since 2011 when EGNOS SoL was declared. EUROCONTROL is one of the main aviation stakeholders and possesses the technical expertise to understand, reflect and preserve the needs of the civil and military aviation users. To support the definition of aviation users' needs, continuous operational introduction and long-term adoption of EGNOS and Galileo in the aviation sector, EUSPA and EUROCONTROL signed a Framework Partnership Agreement (FPA) on 30th November 2022. The FPA foresees financial contributions to EUROCONTROL via specific EUSPA Grants for a total of €4.300.000. In 2022, EUSPA awarded to EUROCONTROL a Specific Grant of €2.149.450 over 3 years. Further grants might be awarded as part of the FPA.

In line with Article 194 (1) (e) and (2) of the Financial Regulation (FR) EUSPA reports that the time needed to sign the grant agreements exceeded the time limits prescribed by the Financial Regulation due to delay on applicant's side.

As part of the first specific grant, EUROCONTROL is supporting EUSPA in the following priorities:

- Support to Advanced Autonomous Receiver Integrity Monitoring (ARAIM) and SBAS authentication standardisation

- SBAS fleet capacity forecast (monitoring of current flights with SBAS capacity and forecast of the evolution of the fleet)
- Standardisation of use of Galileo in GBAS (Ground-based Augmentation System) CAT IIII
- UAS (Unmanned Aircraft Systems) activities, especially to define flight navigation specifications tailored to the needs of drones
- The standardisation work at RTCA/EUROCAE to define spoofing and RFI requirements at receiver level
- Definition of the user needs and requirements from Space (positioning surveillance and navigation) in order to support flights above FL600

1.7.6 User Uptake Activities

The Agency has been delegated actions to support start-ups and entrepreneurship.

With a prize pool of almost € 1million, the myEUspace competition was launched with the objective to support entrepreneurs developing innovative commercial applications that leverage data and signals from the EU Space Programme. Applicants could choose to compete in one of two tracks, depending on the maturity of their solution. Track 1 focused on taking an idea to prototype or beta version, whilst Track 2 was for advancing prototypes/beta versions towards commercial readiness. After receiving more than 200 applications, 43 start-ups have been eventually selected for disruptive, space-based solutions that addressed diverse sectors such as location-based services, smart mobility, geomatics and smart agriculture. myEUspace was culminated with the Entrepreneurship Day where start-ups had the opportunity to demonstrate their solutions. On top of the start-up showcase, the Entrepreneurship Day featured panel discussions on how to grow a start-up and best practices in start-up investment and also initiated discussions between start-ups and investors.

Other activities delegated by European Commission are related to the Copernicus user uptake. One of the main highlights was the publication of the Copernicus Demonstrators procurement call that intends to demonstrate six innovative Proof of Concepts of new usage of Copernicus for business and commercial users, in their operational environment. In particular the 6 proof of concepts will be selected within the following areas:

1. aircraft emission;
2. measurement and monitoring, emergency preparedness and early warning of floods;
3. autonomous navigation and ship route optimization;
4. smart mobility and autonomous cars;
5. infrastructures monitoring
6. fisheries and aquaculture;
7. digital tourism and cultural heritage;
8. insurance and finance;
9. forest vegetation health monitoring;
10. green mining and energy.

With respect to GOVSATCOM and the ENTRUSTED project, EUSPA consolidated the user requirements and use cases that were validated in a two-day workshop with governmental users.

In addition, EUSPA worked with the European Commission on the definition and evolution of the ENTRUSTED initiative.

The Agency is also implementing EGNOS Adoption Grants since 2014, with the objective to accelerate the operational deployment of EGNOS based solutions in application domains with high infrastructure costs, such as Transport. The initial three calls (2014-2017) focused on Aviation and funded 39 projects with a tota; budget of Million euros. The last call, launched in 2021, awarded 7 projects in 2022, with an extended scope to cover not only aviation and drones, but also Rail, Maritime and Inland Waterways.

2 MANAGEMENT

2.1 Management Board

The Agency has an Administrative Board that is described in section 2.1.1. It also has a separate SAB, which is responsible for accreditation matters, described in section 2.1.2.

2.1.1 The Administrative Board

The Administrative Board brings together representatives of the Member States, EU Institutions, Norway and the European Space Agency. The Administrative Board is responsible for defining the Agency's priorities, establishing the budget and monitoring the Agency's operations.

2.1.1.1 Composition

Voting Members	EU Member States (27 representatives) and EC (3 representatives). A detailed list of Board Members is available on the Agency website.
Non-Voting Members	European Parliament (1 representative with 1 alternate), Norway
Observers	Chair of the SAB High Representative for Foreign Affairs and the Security Policy (1 representative) ESA (1 representative)
Chair	Mr Václav Kobera
Deputy Chair	Mr Juan-Manuel Codosero Bolaños

2.1.1.2 List of Administrative Board Decisions

The Administrative Board met four times in 2022: January, March, June, and October. These meetings, named EUSPA AB 4 to EUSPA AB 7, decided upon the following items:

Mtg	Date	Decision number	Title
04	27/01/2022	04-22-01-01	Adoption of the agenda
04	27/01/2022	04-22-01-02	Minutes of the EUSPA AB 3 meeting
04	27/01/2022	04-22-01-03	Endorsement of the provisional Single Programming Document 2023-2025
04	27/01/2022	04-22-01-04	Decision on non-automatic carryover of payment appropriations for 2021 Budget
04	27/01/2022	04-22-01-05	Decision on the first amendment of 2022 Budget
04	27/01/2022	04-22-01-06	Decision on adopting the draft 2023 Budget
05	31/03/2022	05-22-03-01	Adoption of the agenda
05	31/03/2022	05-22-03-02	Minutes of the EUSPA AB 4 meeting
05	31/03/2022	05-22-03-03	Decision on general implementing provisions on the conduct of administrative enquiries and disciplinary proceedings
05	31/03/2022	05-22-03-04	Adoption of the Single Programming Document 2022-2024
05	31/03/2022	05-22-03-05	Adoption by analogy of Commission Decision C(2021) 8179 of 16 November 2021 laying down general implementing provisions regarding the payment of education allowance
06	20/06/2022	06-22-06-01	Adoption of the agenda
06	20/06/2022	06-22-06-02	Minutes of the EUSPA AB 5 meeting
06	20/06/2022	06-22-06-03	Adoption of the Annual Activity Report of the European Union Agency for the Space Programme for 2021
06	20/06/2022	06-22-06-04	Adoption of the Annual Accounts for 2021
06	20/06/2022	06-22-06-05	Application by analogy of Commission Decision C(2022) 1788 of 24 March 2022 on working time and hybrid working
06	20/06/2022	06-22-06-06	Application by analogy of Commission Decision C(2022) 1715 final of 24 March 2022 repealing Commission Decision C(2013) 9035 final of 16 December 2013 on home leave for officials, temporary staff and contract staff serving in a third country

06	20/06/2022	06-22-06-07	Decision concerning the terms and conditions for internal investigations in relation to the prevention of fraud, corruption and any illegal activity detrimental to the Union's interests and the accession to the Interinstitutional Agreement of 25 May 1999 concerning internal investigations by the European Anti-Fraud Office
06	20/06/2022	06-22-06-08	Decision on the second amendment of 2022 Budget
07	25/10/2022	07-22-10-01	Adoption of the agenda
07	25/10/2022	07-22-10-02	Minutes of the EUSPA AB 6 meeting
07	25/10/2022	07-22-10-03	Adoption of the Single Programming Document 2023-2025
07	25/10/2022	07-22-10-04	Decision on the new EUSPA Anti-Fraud Strategy
07	25/10/2022	07-22-10-05	Amendment of the EUSPA Administrative Board Rules of Procedure

The Administrative Board made the following decisions based on written procedures:

WP	Date	Reference:	Title
03	27/09/2022	EUSPA-AB-WP-03	Decision on the third amendment of 2022 Budget
02	29/09/2022	EUSPA-AB-WP-04	Decision of the Administrative Board on the amendment to the Agreement between the French Republic, the European Commission and the European Union Agency for the Space Programme (EUSPA) on the hosting of the Galileo Security Monitoring Centre

2.1.2 The Security Accreditation Board

The SAB is the security accreditation authority for all of the EU Space Programme's components and takes its decisions in an independent manner including with regard to the Commission and the other bodies responsible for the implementation of the components and provision of service.

SAB objectives include verifying that the systems comply with the applicable security rules and regulations as established by the Council and the EC. They also include ensuring the systems continuously comply with applicable security requirements, identifying possible new risks and, where appropriate, complementing the system security plan.

2.1.2.1 Composition

The SAB brings together representatives of the Member States, EC, the High Representative for Foreign Affairs and the Security Policy, ESA and Norway.

Members	EU Member States (27 representatives)
Non-voting Members	EC (1 representative) High Representative for Foreign Affairs and the Security Policy (1 representative) Norway (1 representative)
Observers	ESA (1 representative)
Chair	Mr Bruno Vermeire; Mr Philippe Bertrand from 22 May 2022
Deputy Chair	Mr Claude Schanet

2.1.2.2 List of Accreditation Board Decisions

The Security Accreditation Board met six times in 2022. These meetings, numbered 51, 52, 52b, 53, 54, 55, decided upon the following items:

Mtg	Date	Decision Number	Title
SAB#51	10/03/2022	D1	Adoption of the agenda SAB#51
SAB#51	10/03/2022	D2	Adoption of SAB#50 MoM
SAB#52	27/04/2022	D1	Adoption of the agenda SAB#52
SAB#52	27/04/2022	D2	Adoption of SAB#51 MoM
SAB#52	27/04/2022	D3	Approval of first version of the SAB Risk Management Register
SAB#52	27/04/2022	D4	Agreement on a retro-active consultation of the implementing measures of the Staff Regulations and the Conditions of Employment, which entered into force in 2019 and 2020
SAB#52	27/04/2022	D5	Agreement for SAB voting members not to acknowledge anymore each written/silence procedure

SAB#52	27/04/2022	D6	Agreement on reimbursement to SAB chair for handover to new chair
SAB#52	27/04/2022	D7	Agreement on use of SAB budget to engage experts from the EUSPA pool of experts
SAB#52	27/04/2022	D8	GSAT0223 into service
SAB#52	27/04/2022	D9	Maintenance of System Build 1.7 pre-authorisation to operate
SAB#52	27/04/2022	D10	Approval of updated SATO process document (EUSPA-ACC-PRCS-A17099 v1.0)
SAB#52	27/04/2022	D11	SAB#45 D16 extended to 31 December 2022
SAB#52b	18/05/2022	D1	Adoption of the agenda SAB#52
SAB#52b	18/05/2022	D2	Mr Philippe Bertrand is appointed as new SAB chairperson
SAB#53	28/06/2022	D1	Adoption of the agenda SAB#53
SAB#53	28/06/2022	D2	Adoption of SAB#52 MoM and SAB#52b MoM
SAB#53	28/06/2022	D3	Approval of second version of the SAB Risk Management Register
SAB#53	28/06/2022	D4	Repeal of SAB#50 D4
SAB#53	28/06/2022	D5	Authorisation of the deployment of the NSGU patch to the L11 satellites for an in-orbit validation test campaign for I/NAV modification on the two L11 satellites
SAB#53	28/06/2022	D6	Authorisation of the upload of the ASW 3.1 to one of the L3 satellites (GSAT0202) and GSAT 0204
SAB#53	28/06/2022	D7	Decision on Galileo System IATO certificate
SAB#53	28/06/2022	D8	Authorisation of to operate the third OSPF in OPE (both GCCs)
SAB#53	28/06/2022	D9	Maintenance of System Build 1.7 pre-authorisation to operate
SAB#53	28/06/2022	D10	Decision on GSMC-ES equipment
SAB#53	28/06/2022	D11	Decision on GSMC-FR equipment
SAB#53	28/06/2022	D12	Decision on qualification process including end to end tests with MSs national PRS receivers or security modules, before IOC then before FOC
SAB#53	28/06/2022	D13	Decision on GSC v1.3 and HADG
SAB#54	13/10/2022	D1	Adoption of the agenda SAB#54
SAB#54	13/10/2022	D2	Adoption of SAB#53 MoM

SAB#54	13/10/2022	D3	The SAB elected Mr. Claude Schanet (Luxembourg) as deputy chairman
SAB#54	13/10/2022	D4	Approval of updated version of the SAB Risk Management Register
SAB#54	13/10/2022	D5	Approval of the SAB meeting calendar 2023
SAB#54	13/10/2022	D6	Authorisation to operate System Build 1.7
SAB#54	13/10/2022	D7	Authorisation of the upload of the NSGU v1.4 and ASW 3.1 to the rest of the constellation
SAB#54	13/10/2022	D8	Authorisation of the provision of the E5c quasi pilot signal component from the L3 satellites for the purposes of in-orbit testing
SAB#54	13/10/2022	D9	Approval of an audit to evaluate the qualification achievement for IOC/FOC
SAB#54	13/10/2022	D10	Approval of the SAB Independent Security Assessment Roadmap

In addition, the SAB took the following decisions in 2022 via written procedure:

Date	Decision Number	Title
23/03/2022	D3	Delta SATO Jan Mayen (NO)
23/03/2022	D4	Delta SATO Svalbard (NO)
25/03/2022	D5	Extension of SAB authorisation of PRS body
25/03/2022	D6	SAB authorisation of PRS body
25/03/2022	D7	SAB authorisation of PRS body
22/03/2022	D8	SAB-approval process for L11 entry into service
04/04/2022	D9	Extension of SAB authorisation of PRS body
25/04/2022	D10	CAAR 2021 accreditation chapters
25/04/2022	D11	Extension of SAB authorisation of PRS body
25/04/2022	D12	Extension of SAB authorisation of PRS body
25/04/2022	D13	Extension of SAB authorisation of PRS body
22/04/2022	D14	Decision on way forward for SB 2.0 pre-OPE chain connection between sites

10/05/2022	D12	Extension of SAB authorisation of PRS body
30/05/2022	D13	SAB authorisation of PRS body
30/05/2022	D14	Update of SAB authorisation of PRS body
02/06/2022	D3	Proposal for decision of the AB on protection of the role of the SAB Chair and recognition of an indemnity
22/06/2022	D4	SAB authorisation of PRS body
22/06/2022	D5	SAB authorisation of PRS body
23/06/2022	D6	Administrative extension of the Site Authorisation To Operate for: GSS, ULS, TT&C Kourou (FR) GSS, ULS, TT&C Papeete (FR) GSS, ULS, TT&C La Réunion (FR) GSS, ULS, TT&C Nouméa (FR)
17/06/2022	D7	Extension of SAB authorisation of PRS body
27/06/2022	D8	Authorisation to connect GRON CPA IT, Italy
27/06/2022	D9	Delta SATO GSC 1.3 Spain
12/07/2022	D14	GSAT0224 to enter into service
27/07/2022	D15	VAL SATO for GCC-D
27/07/2022	D16	VAL SATO for GCC-I
27/07/2022	D17	VAL SATO for GSMC – FR
27/07/2022	D18	VAL SATO for GSMC – ES
27/07/2022	D19	extension of SATO - GSS Azores
27/07/2022	D20	extension of SATO - GSS Redu
27/07/2022	D21	extension of SATO - GSS Kerguelen (new site)
04/08/2022	D22	Extension of SAB authorisation of PRS body
29/07/2022	D23	Authorisation to connect GRON ESA ESTEC, Noordwijk.
19/08/2022	D24 – D31	Extensions of SAB authorisation of PRS bodies
19/08/2022	D32	SAB authorisation of PRS body
19/08/2022	D33	SAB authorisation of PRS body
26/08/2022	D34 – D37	Extension of SAB authorisation of PRS body

09/09/2022	D38 – D42	Extension of SAB authorisation of PRS body
02/09/2022	D43	Authorization to operate OSPF v2b.13.04.00
06/09/2022	D44	VAL SATO Kourou (FR) TTC-7
14/09/2022	D45	Administrative extension of SATO certificate for the site IOT ESEC, REDU (BE)
16/09/2022	D46 – D49	Extensions of SAB authorisation of PRS bodies
09/09/2022	D50	Extension of SAB authorisation of PRS body
09/09/2022	D51	Extension of SAB authorisation of PRS body
23/09/2022	D52	Extension VAL/OPE SATO for GSMC-FR (building 123)
07/10/2022	D53 – D67	Extensions of SAB authorisation of PRS bodies
13/10/2022	D68	Authorisation to connect GRON EUSPA HQ (Prague, CZ)
14/10/2022	D69	SAB authorisation of PRS body
17/10/2022	D70	Extension of SAB authorisation of PRS body
21/10/2022	D71 – D74	Extension of SAB authorisation of PRS body
20/10/2022	D15	Approval of the EUSPA Anti-Fraud Strategy
28/10/2022	D16 – D21	Extensions of SAB authorisation of PRS bodies
20/10/2022	D22	GSC SATO
21/10/2022	D23	Decision on the protection and indemnity related to the role and tasks of the Chairperson of the SAB
28/10/2022	D24	Extension of SAB authorisation of PRS body
28/10/2022	D25	Extension of SAB authorisation of PRS body
28/10/2022	D26	SAB authorisation of PRS body
28/10/2022	D27	SAB authorisation of PRS body
21/10/2022	D28	Approval of letter “SAB decision on VAL accreditation, pre-OPE accreditation and VAL-pre-OPE interconnection”
03/11/2022	D29	Extension of SAB authorisation of PRS body
31/10/2022	D30	SPD 2024-2026, security accreditation chapters
03/11/2022	D31	Extension of SAB authorisation of PRS body
03/11/2022	D32	Extension of SAB authorisation of PRS body

10/11/2022	D33	Extension of SAB authorisation of PRS body
10/11/2022	D34	Extension of SAB authorisation of PRS body
07/11/2022	D35	VAL SATO RLSP in the CNES premises in Toulouse (FR) and extension of the SATO certificate in the OPE.
14/11/2022	D36	SATO GRSP in GCC-D
17/11/2022	D37 – D39	SAB authorisations of PRS bodies
18/11/2022	D40	SATO GRSP in GCC-I
24/11/2022	D41	SAB authorisation of PRS body
17/11/2022	D42	SATO GALSEE in Italy
02/12/2022	D43	SATO TSP in GCC-I
02/12/2022	D44	SAB adoption of the document defining the updated SAB Authorisation Process for Developers and Manufacturers of PRS Receivers and Security Modules.
05/12/2022	D45	SAB authorisation of PRS body
25/11/2022	D46	Extension of SAB authorisation of PRS body
08/12/2022	D47	Extension of SAB authorisation of PRS body
07/12/2022	D48	Extension of SAB authorisation of PRS body
15/12/2022	D49	SATO GSS in Saint-Pierre et Miquelon (France)
16/12/2022	D49	SATO GCC-D (VAL and OPE).
20/12/2022	D51	SAB authorisation of PRS body
22/12/2022	D20	Decision on Panel travel expenses reimbursement

2.2 Major Developments

Over the reporting period, several programme and administration developments took place in the Agency, both for core and entrusted tasks. These are described throughout this document, but a few of them are highlighted below:

- Signature of the Next EGNOS Service Provision contract and the new Galileo SAR service contract. EUSPA has contracted EGNOS V2 maintenance and launched the EGNOS GEO4 payload, an essential element in the evolution of the European SBAS.
- Delivery of safe and secure Galileo services with outstanding performances despite the COVID-19 pandemic.
- The entry into service of two new Galileo satellites and the first operational implementation of Council Decision 2021/698 highlight the role of the GSMC in security monitoring. This led to a continuous interest from users with 3.5 billion Galileo-enabled devices sold worldwide since the declaration of the Galileo services.
- Delivery of safe and secure Galileo services with outstanding performances despite the continuous COVID-19 pandemic. The entry into service of two new Galileo satellites and the first operational implementation of Council Decision 2021/698 highlight the role of the GSMC in security monitoring. This led to a continuous interest from users with 3.5 billion Galileo-enabled devices sold worldwide since the declaration of the Galileo services.
- Creation of a network of 1000 start-ups and 28 investors and organized the 1st CASSINI Space Entrepreneurship day. EUSPA published its first market report covering both EO and GNSS, which has been downloaded more than 100000 times.
- Together with the Czech Presidency of the Council and the European Commission, organisation of the EU Space Week. It attracted 3000 participants, of which 1100 were on-site, including the User Consultation Platforms that place the users at the centre of the EU Space programme.
- Two new buildings in Saint Germain en Laye (GSMC France) and La Marañosa (GSMC Spain).
- Preparation of the transfer of the SST front desk to EUSPA that will take place in July 2023.
- Update of EUSPA's anti-fraud strategy.
- Deployment and implementation of the new organisation established to ensure that we can deliver on our enlarged responsibilities and the FFPA agreement, started at the end of 2021.

2.3 Budgetary and financial management

The Agency's own executed budget in 2022 in terms of commitment appropriations was 70 032 491,77 EUR, which represents 100% budget execution. In addition to its core budget, the Agency continued to manage a large amount of delegated budget. A total of 574,5 million EUR was committed under delegated budget in 2022 and 1,26 billion EUR made in payments.

In terms of core budget breakdown, the total expenditure on Title 1 Staff expenditure was 32 565 951,48 EUR, other administrative costs amounted to 19 521 344,85 EUR and expenditure on operational costs was 17 945 195,44 EUR.

Furthermore, during 2022:

• Budget execution was 100% in commitment appropriations and 100% in payment appropriations in 2022. This takes into account the non-automatic carry-forward, which helps the Agency maintain its payment capacity on legal obligations still existing for commitments made in the prior year.

• The Agency's Administrative Board approved three budget amendments. The Agency's Administrative Board approved 2022 amending budget number 1 on 27 January 2022 increasing the overall appropriations by 1 687 363,77 EUR bringing the budget to the amount of 70 032 491,77 EUR.

• In the second budget amendment the Agency's Administrative Board approved reallocation of overall amount of 2 659 300 EUR mostly from the operational budget to the Data processing line. The budget became available due to the fact that one operational contract has been signed for shorter period than initially planned. Budget was reallocated to the area of business continuity to improve redundancy and resilience and the support of classified systems in line with the approved Digital transformation. This amendment has not changed overall commitment and payment appropriations.

• Finally, the amending budget no. 3 decreased payment appropriations by 4 640 000 EUR, bringing the overall amount of payment appropriations to the 65 392 491,77 EUR.

• The Agency continued to manage a large amount of delegated budget under the Financial Framework Partnership Agreement (FFPA) and the various Contribution Agreements associated with it. The Agency ensured the management of the EGNSS Exploitation Programmes for EGNOS and Galileo, downstream activities under Space Programme related to Copernicus, GOVSATCOM Preparatory Action contribution agreement and contribution agreement for the GOVSATCOM and SSA components. The Agency also managed ongoing projects under Horizon calls.

• In quantitative terms, the Agency carried out 6 049 financial transactions, which corresponds to the increase of 49% in comparison to the previous year.

• Payment appropriations totalling 7 402 986,04 EUR were carried over on Title 2 (automatic carry-over) from 2021 to 2022, representing 68 % of the total 2021 Title 2 budget. Furthermore, 15 010 780,84 EUR was carried over from 2022 to 2023, representing 77 % of 2022 Title 2.

• Payment appropriations in the amount of EUR 1 971 882,97 were carried over on Title 3 (non-automatic carry over) from 2022 to 2023. Payment appropriations totalling EUR 2 313 328,29 were carried over on Title 3 (non-automatic carry over) from 2021 to 2022 to maintain the Agency's payment capacity on existing legal obligations.

• According to payment time statistics 98,13 % of all payments were done within the applicable time limit of 30 days, 60 days or 90 days and with an average payment time of 20,3 days.

• The Agency paid 3 922,62 EUR in late interest to suppliers.

• The cancellation rate of payment appropriations carried over from 2021 to 2022 was 4% (482 627,81 EUR) of the amount carried over.

• Budget outturn resulted in 156 820,10 EUR in 2022. For further details on the budget implementation for the reporting period, please see the Report on Budgetary and Financial Management 2022 on the Agency's website. Statistical information is also available in Annex II of this document. The entire Agency revenue for the reporting period comes from the EU budget and EFTA contribution. No other sources of funding were available.

2.4 Delegation and sub-delegation of the powers of budget implementation to agency's Staff

In 2022, only eight (8) delegations have been granted by the Executive Director to three (3) staff members for a clearly defined limited period.

Delegations indicate in detail the activities that can be exercised upon and exclude the Appointing Authority powers.

Process of granting authorisation is under supervision of the Local Authorisation Manager (LAM).

No particular weaknesses were identified, requiring remedial actions.

2.5 Assessment by Management

The Agency continued its effort to attract and recruit highly competent staff through an integrated talent acquisition approach. This was supported through processes of strategic workforce planning, including external and inter-agencies recruitment and internal staff deployment promoting career development. Recruitment continued to utilise extensive and targeted advertising of the vacancy notices through the Agency e-recruitment tool, specialised job boards as well as social media combined with initiatives to increase its visibility and employer branding. Video interviewing suite and online interviews further streamlined the selection procedures and contributed to the retention of the best qualified candidates.

The Agency concluded the year 2022 with full execution of its establishment plan (100%). It is worth remarking explicitly that the Agency achieved the fulfilment of the establishment plan and filled the allocated 40 new posts. To maintain the quality and effectiveness of its selection procedures, the Agency makes use of competency-based interviews, and assessment centres for managerial positions.

At the end of 2022, all 231 TA posts were occupied (including 20 offers). In addition, 46 posts were allocated to CA type of posts. The Agency had 9 seconded national experts (SNE) in 2022 bringing the total number of staff to 286.

The Agency was allocated 40 additional TA posts for its 2022 establishment plan. The new posts were allocated to priority areas. In 2022, 14 TAs left the Agency resulting in a total of 54 vacant TA positions. To accommodate this in an efficient manner, the Agency further streamlined its recruitment procedures and designed vacancies with a broader scope to cover more posts with similar profiles, from one selection procedure. Consequently, the EUSPA managed to fill all vacancies, hence the execution of the 2022 establishment plan was 100%. The Agency continued efforts in gradual alignment of contract agent posts numbers in line with the financial statement. At the end of 2022 had 46 CAs in place.

Overall, the Agency published 61 selection procedures, processed over 4500 applications and conducted more than 400 interviews. The rate of resignations has remained stable compared to the previous year. The Agency engaged 27 new trainees for traineeships lasting up to one year, bringing a total number of trainees at EUSPA to 37 (6 more compared to 2021).

The Agency successfully accommodated the growing number of staff via comprehensive induction trainings, and streamlined HR services.

Four new direct agreements with schools providing multilingual education were concluded in Prague (Czech Republic).

In 2021 the Agency continued with its Cyber Security Awareness programme aiming to approach the cyber security cross-functionally. Four briefing sessions helped to raise awareness about the importance of cyber security and one annual large-scale event for all staff, with simulations of the cyber security challenges.

Particular attention was paid to the well-being of staff during the COVID-19 pandemic. The Agency continuously and regularly communicated to all staff on the situation and local measures in all our locations, including mandatory antigen testing prior to entry to all sites, and the provision of the COVID-19 and influenza vaccines. A particular effort was also dedicated to the mental aspects of the staff wellbeing, including initiatives for informal online gathering, tips & tricks on how to telework, health related support etc.

2.6 Strategy for efficiency gains

The Agency deployed in the best efficient way all the available resources to fulfil its assigned areas of competence in order to achieve optimisation by relying on a pro-active, modern and forward looking, efficient set of HR policies, planning and monitoring tools and related processes driven by balancing risk, and assuring compliance with its regulations. Significant effort was dedicated to further streamline and automate the human resources management processes to achieve efficiency gains. In this context, the Agency continued on the deployment of various Sysper modules (e.g. TIM, FLEX, TELEWORK), and interconnecting them with the existing in-house supporting applications (eg. Intranet-based working time recording tool). The HR department has introduced an e-ticketing system to streamline processing of various requests from its staff.

The Agency strengthened significantly its efforts to provide learning and development support to staff. Strategic Learning and Development priorities were identified and followed up by a comprehensive training offer to staff. Trainings were performed mainly online and the average number of training days per staff member was 6.5.

The Agency made a stronger use of the corporate Commission learning management system and channels which further strengthened the cost-efficient approach in relation to developmental activities.

The Agency organised team events, language courses, awareness sessions targeting the promotion of a respectful workplace environment and protection of workforce dignity, ethics, etc.

2.7 Assessment of audit and ex-post evaluation results during the reporting year

2.7.1 Internal Audit Service (IAS) and the Agency's Internal Audit Capability (IAC)

In relation to this and the following sections, EUSPA enhanced the level of disclosure this year to counterbalance the agreement reached with DG DEFIS on the simplification of the Assurance Report 2022. This year we provide detailed technical content on the basis for the audits. In the future, EUSPA will include more condensed overview sections as we enhance our internal audit follow-up and reporting functionality.

Internal Audit Services of EC did not execute any audit at EUSPA in 2022 due to their own resource and planning constraints. However, over the period 2023-24, they are planning to initiated two audits, starting in Q4 2023.

2022 IAC Audit on EUSPA External Communication process

The audit work plan 2022 of the Internal Audit Capability[14] included an audit on "one of the major EUSPA processes". The specific topic for the audit on the EUSPA External Communication process was agreed in September 2022 with the Executive Director. The main reason for choosing this audit topic was twofold, on one side External Communication is an important process, and secondly no recent internal audits (neither IAS nor IAC) have been conducted or planned. External Communication plays a crucial role when aiming at

[14] Decision approving the annual work plan of the Internal Audit Capability for 2022-23 (EUSPA-ICC-IAC-PL-A14568).

re-positioning the corporate identity of both the Agency's (re-)vamped activities and its new brand image as the EU Agency for the Space Programme in the mind of its stakeholders.

The main objective of this audit was to assess and provide reasonable assurance on the regularity and the quality of the internal control systems applied to the External Communication process with a specific focus on to assess the process in terms of effectiveness, efficiency and timeliness; to check compliance with applicable rules and regulations; to review the reliability of operational information; and to make recommendations (and Suggestions for Improvement, if any) for improvements where required.

Based on the results of the audit the auditor believes that the internal control system in place provides reasonable assurance regarding the achievement of the business objectives set up for the process of External Communication except for the very important and important findings explained below:

Recommendation	Grading[15]
1. Establishment of Multiannual Communications Strategy (MCS)	VImp
2. Targeting the right audience	Imp
3. Prioritisation of communication activities in MCS implementation	Imp
4. Cooperation with Member States	Imp
5. Upgrade of the "Communication" process documentation	Imp
6. Revamp of EUSPA website	Imp
7. ECA recommendations for Galileo and Copernicus	D
8. EUSPA social media strategy	D

IAC review on the Efficiency of the Procurement award process audit

The objective of the IAC review on Efficiency of the Procurement award process[16] audit was to assess progress made in implementing the recommendations that resulted from the internal audit issued on 7.3.2019. Based on the result, the auditor assessed that recommendations that resulted from the internal audit report have been adequately and effectively implemented except for the two recommendations which are currently being implemented:

Recommendation	Status[17]
1. Investigate the options and implement simplification and acceleration of the procurement process.	I
2. Ensure that good practices of the procurement process are selected and taken into account in the new Procurement Manual.	I

[15] The acronyms used in column "Grading" of this table mean the following: Very Important (VImp), Important (Imp) and Desirable or Suggestions for Improvement (D)

[16] This follow-up audit did not result in an assessment of the adequacy of controls as a whole but focused on the specific recommendations in the original audit. When making the assessment on the implementation of recommendations, the auditor took into consideration their implementation status as reported by the auditees in October 2022. The final check of the on-going open actions was conducted in February 2023.

[17] The acronyms used in for "Status" mean the following: Implemented (I) and Partialy Implemented (PI)

3. Develop user-friendly tools to manage procurement process. Investigate possibilities to link procurement to operational (technical) project management in an IT tool.	PI
4. Develop further KPIs to facilitate learning and systematic improvement of the procurement process performance.	PI
5. Aim to a timely approval of the SPD and establish a multiannual IT Master plan to support planning of the procurement and operational activities	I
6. Organise practical (workshop-type when possible) procurement training to the staff	I

IAC follow-up review report of the Capacity Building of EUSPA's staff audit

The objective of the follow-up review report of the Capacity Building of EUSPA's staff[18] audit was to assess progress made in implementing the recommendations that resulted from the internal audit report issued by the IAC on 28.4.2020. Based on the results, the auditor assessed that recommendations have been adequately and effectively implemented except for one recommendation which is currently being implemented:

Recommendation	Status[19]
1. Establish a HR strategy. To ensure achievement of Agency's overall mission/ objectives, define Agency-level "top-down" Learning and Development objectives to fill-in competency gaps.	I
2. Finalise the competency framework as a user-friendly tool for the assessment of the available and missing competencies to ensure suitably skilled staff to facilitate achievement of the Agency's overall strategic objectives now and in the future	I
3. Enhance transparency of L&D activities by finalising relevant process descriptions as well as developing further the HR intranet and raising awareness of HR intranet site.	PI
4. Simplify training application workflows where possible; automatize planning and reporting excels; and refocus the tasks of the HR team to provide more added value to the L&D process.	I
5. Improve the process of training evaluation & long-term follow up.	I
6. Enhance collaboration and knowledge sharing across the Agency	I

[18] This follow-up audit review did not result in an assessment of the adequacy of controls as a whole but focused on the specific recommendations in the original audit report. When making the assessment on the implementation of recommendations, the auditor took into consideration their implementation status as reported by the auditees in July 2022. The final check of the on-going open actions was conducted in December 2022.

[19] The acronyms used in for "Status" mean the following: Implemented (I) and Partialy Implemented (PI)

2.7.2 European Court of Auditors (ECA)

In 2022, the European Court of Auditors released their report on the audit of EUSPA for 2021. This report stated that in the opinion of the Court, the accounts for the year ending 31 December 2021 fairly presented the financial position as at that date that the revenue underlying the accounts was legal and regular in all material respects and that the payments underlying the accounts were legal and regular in all material respects.

The Court identified minor procedural deficiencies in two audited recruitment procedures, to which the Agency replied that it planned to introduce a number of small modifications to its recruitment procedures in order to address the observations and this has since been completed.

The Court also raised an observation regarding EUSPA not providing justification for the restrictions it imposed on his decision to approve the new position of a former EUSPA staff member. In its reply to the Court (published within the report), the Agency clarified its reasoning behind not justifying its reasons in the decision itself. Following mission one of the Court's audit of 2022 which took place in October 2022, the Court reported that it did not have any preliminary findings.

2.7.3 Ex-post audits of grants

The ex-post audits for H2020 projects managed by EUSPA are governed by and carried out in line with the H2020 Ex-post Audit strategy for which the Common Support Service (CAS) of DG RTD acts as a single entity for implementation.

This strategy defines the legal basis for control and audits of H2020 expenditure, specifies the principles of the audit strategy, selection of beneficiaries and sets target participations, i.e. number of Beneficiaries' participations in the projects to be audited for each year.

The annually audited participations for the individual JUs and EUSPA cover both randomly selected participations feeding into a representative error rate for the individual JUs and EUSPA as well as risk-based audits following a bottom-up approach (i.e. participations identified by the individual JUs and EUSPA as particularly at risk with respect to compliance issues). The annual randomly selected participations to be audited allow the individual JUs and EUSPA to build a representative sample over time.

In 2022, ex-post audits of 7 beneficiaries in 9 H2020 projects were finalised (out of those audits for 2 beneficiaries were launched in 2019, for 3 beneficiaries audits were launched in 2020 and for 2 beneficiaries in 2021) with the total accepted contribution of 2,375,188.43 EUR. There were negative findings revealed in 7 cases of the total value of the rejected costs of 389,216.07 EUR, in 1 case there were positive findings of 3,060.43 EUR and there were 2 cases with zero findings. The negative findings of the ex-post audits were implemented either through payments in the next reporting period (for non-closed projects) or through recovery orders (for closed projects).

In 2022, ex-post audits for 7 beneficiaries in 3 H2020 projects were launched with a target to be finalised by the end of 2023.

Where non-Horizon projects were concerned in 2022, 12 ex post audits were finalised for 9 beneficiaries in 9 projects launched in 2021.

There were 2 cases with zero impact, 6 audits with positive findings for a value 47.082,05 EUR.

The Agency received negative findings in 4 cases for a total value of 68,316.57 out of which one negative finding of 63,459.13 EUR was implemented in the next reporting period (for non- closed project).

In 2022, ex-post audits for 10 beneficiaries in 14 projects with a target to be finalised by the end of 2023.

2.7.4 External Auditors audit results on the use of delegated / entrusted funds

Financial audits

Ernst & Young audited the financial information included in chapter 2 of the Galileo Annual Implementation Report (Part 2), chapter 2 of the EGNOS Annual Implementation Report (Part 2), and in the Horizon 2020 Annual Implementation Report and Horizon Europe Annual Implementation Report (Part 2) as at 31 December 2021. The scopes of the audits are set out in Article 24 of the Delegation Agreements on exploitation of the Galileo and of the EGNOS programme, Article 17 of Delegation Agreement on the implementation of the Horizon 2020 and Article 104 of the Financial Framework Partnership Agreement. The scopes include obtaining evidence for the amounts and disclosures presented in the accounts sufficient to give assurance on the reliability of the financial figures as at 31 December 2021 that the accounts give a true and fair view.

The auditors took into account all the available evidence presented to them during their fieldwork which they finalised on 31 July 2022, including the subsequent comments and information received from EUSPA up to the date of the Final Audit Report.[20] The auditors have encountered no limitation to the scope of the audit.

The accounts have been prepared by EUSPA based on the following DG DEFIS – EUSPA DA/CA Agreements ("EC-EUSPA Agreements"):

- Delegation Agreement on the exploitation phase of the Galileo[21] programme signed on 6 October 2014, Amendment no. 1 signed on 15 December 2015, Amendment no. 2 signed on 7 December 2016 and Amendment no. 3 signed on 5 July 2018 between the European Union represented by the European Commission (DG ENTR) and the European GNSS Agency,
- Delegation Agreement on the exploitation of the EGNOS programme signed on 16 April 2014, Amendment no. 2 signed on 27 September 2016, Amendment no. 3 signed on 19 December 2019 and Amendment no. 4 signed 26 November 2020 between the European Union represented by the European Commission (DG DEFIS) and the European GNSS Agency,
- Delegation Agreement on the implementation of the Horizon 2020 – Framework programme for research and innovation signed on 11 April 2014, Amendment 1 signed on 12 November 2014 and Amendment 2 signed on 14 April 2016, Amendment 3 signed on 31 August 2015, Amendment 4 signed on 13 June 2016, between the European Union represented by the European Commission (DG GROW),
- Contribution Agreement between the European Commission (DG DEFIS) and the European Union Agency for the Space Programme on the implementation of the Union space programme and Horizon Europe under the Financial Framework Partnership Agreement signed on 22 June 2021,
- Financial Framework Partnership Agreement (hereinafter also "FFPA") between the European Commission and the European Union Agency for the Space Programme and the European Space

[20] The audit reports were issued on 21 October 2022.

[21] The audit on Galileo DA is still ongoing.

Agency on the implementation of the Union Space Programme and Horizon Europe signed on 22 June 2021.

E&Y audited the accounts and reported their findings to EUSPA in accordance with the Tender Specifications for the audit engagement.

Systems or control audits

E&Y audited the Management Control System set up and operated by EUSPA for the implementation of the EC-EUSPA Agreements.

The objective of these audits was to provide reasonable assurance that the controls put in place by the EUSPA in the implementation of the abovementioned agreements for the period from 1 January 2021 to 31 December 2021, give the necessary guarantees concerning the legality and regularity of the underlying transactions.

The scopes of the audits are set out in Article 24 of the Delegation Agreements on Galileo and EGNOS programme exploitation, Article 17 of the Delegation Agreement of the Horizon 2020 implementation and 104.6. of the Financial Framework Partnership Agreement. The audits were designed to gather sufficient audit evidence to establish whether EUSPA has implemented a functioning control system that guarantees the legality and regularity of transactions undertaken for the implementation of Galileo, EGNOS, Horizon 2020 and Horizon Europe. The auditors have taken into account all the available evidence presented to them during their fieldwork which they finalised on 31 July 2022, including the subsequent comments and information received from the EUSPA up to the date of this report. The auditors encountered no limitation to the scope of the audit.

Based on the procedures performed and the evidence obtained, in the auditors' opinion:

the control systems put in place function correctly,

the underlying transactions are legal and regular,

the audit work does not put in doubt the assertions made in the management declaration.

2.7.5 DG DEFIS Internal Auditor’s audit results on the use of delegated / entrusted funds

DG DEFIS audited the costs of the exploitation Phase of the Galileo programme and for the exploitation of the EGNOS programme presented in the Annual Implementation Reports (AIRs) on the

- Delegation Agreement between the European Union, represented by the European Commission, and the European GNSS Agency on the Exploitation Phase of the Galileo programme and on the exploitation of the EGNOS programme
- Contribution Agreement between the European Commission, representing the European Union and the European Union Agency for the Space Programme on the implementation of the Union Space Programme and Horizon Europe (Pillar II, Cluster ‘Digital, Industry and Space’, Space section) under the Financial Framework Partnership Agreement (FFPA)

The auditors audited the costs presented under the AIRs for the period from 1 January 2021 to 31 December 2021, to ascertain that the costs declared were properly incurred and are eligible, as defined under both the DA and CA.[22]

The overall objectives of this audit were to:

- Obtain reasonable assurance that the costs reported in the Annual Implementation Reports 2021 for the audited Agreements are free of misstatements;
- Examine the financial reports and carry out audit tests of the supporting documentation and accounting records of the Contractor as considered necessary;
- Ensure that the appropriate financial adjustments (as defined by previous audit reports) are being implemented and reported when needed;
- Check whether the previous audit recommendations have been implemented and are adequate;
- Obtain reasonable assurance on the internal control system and accountancy of the Contractor to evaluate the risks of misstatements involved.

The Auditors had adjustments, on the DA for EGNOS & Galileo and on the CA for Galileo. None of these findings were considered systematic.

In the auditors' opinion, except for the matters related to the audit findings, the audited Agreements properly reflect the eligible costs, receipts and interests, which:

- are actual;
- have been incurred by EUSPA during the duration of the Agreements and in the financial period audited;
- have been determined in accordance with the usual accounting and management principles and practices of the Contractor;
- have been used for the sole purpose of achieving the objectives of the Agreements and its expected results, in a manner consistent with the principles of economy, efficiency and effectiveness;
- have been recorded in the accounts of the Contractor, which have been audited on-the spot.

The auditors concluded that the financial management was carried out in an acceptable manner and in compliance with the requirements of the Agreements.

Based on their findings, the auditors had the following recommendations:

[22] The audit report relates only to the AIRs submitted by the EUSPA to the European Commission in connection with the above-mentioned DA and CA and does not extend to the Financial Statements of EUSPA taken as a whole.

Nr.	Recommendation
1	The Agency should add in the AIR (narrative part) a summary table with the total amount of the costs incurred over the given year, per agreement and components, with a reference to the Excel sheets reporting these costs. This would allow auditors to get assurance on the correctness of the total amounts reported in the attached files.
2	The Auditors recommend the Auditee to draft the future amendments (as well as any future contract) in an unambiguous way, defining: – the basic index to use; – the yearly index to use; – the anniversary date that will mark the start of the indexation (signature date of the prime contract or of the amendment); – the grace period (there is a need to clarify if this is only applicable to the prime contract or also to the amendments) – any other elements deemed necessary to allow an unmistakable calculation. Moreover, the Auditee should develop guidelines for the project, legal and financial officers on how the indexation clause should be drafted and how it should be applied, for new prime contracts and any amendments.

2.8 Follow up of recommendations and action plans for audits

Year	Court's observations	Status
2017	E-procurement: The Agency is not yet using any of the e-procurement IT tools developed by the European Commission.	Completed
2019	There is no comprehensive ex-ante or ex-post strategy in place to confirm the accuracy of the stated incurred costs by the ESA in relation to the implementation of the EGNOS and Galileo programmes. This poses a risk that the Agency's payments to the ESA may be calculated on the basis of inaccurate costs, with an impact on the Agency's accounts.	Completed

IAS audits on EGNOS and Galileo

In relation to the Galileo audit, IAS confirmed the correct implementation of all recommendations[23] while the corresponding deliverables and complementary explanations had not been uploaded by EUSPA to the

[23] IAS letter Ares(2023)3658704-FU-B2-EUSPA-Galileo dated 26/05/2023.

IAS Issue Track database by the cut-off date (31/01/2023), those have been uploaded since then and their review by IAS is pending. Nevertheless, we include below the IAS risk assessment and corresponding official status.

Year	IAS's observations	Risk / Status
2020	EGNOS Recommendation 4: Map EGNOS resources and formalise back up arrangements	*"Risk of loss of accumulated knowledge of the processes due departure of the contractors given the current levels of outsourcing to external contractors and risk of inadequate business continuity in case of departure, holiday or sick leave of staff members due to the absence of formal back-up arrangements."* Status: EUSPA accepted the risk related to this pending action (#4.2) knowing that IAS will be somehow covering the mapping of resources at Agency level in their upcoming audit for 2023. Missing back-up arrangements have been established.
2021	Galileo Recommendation 1: Review of processes to achieve full operational capability	Completed by EUSPA. Confirmed by IAS review.
	Recommendation 2: Improve timeliness of reporting	Completed by EUSPA. Confirmed by IAS review.
	Recommendation 3: Capacity planning and resource allocation for Galileo activities	Completed by EUSPA. Confirmed by IAS review.
	Recommendation 4: Improve the documentation of Galileo policies and procedures	Completed by EUSPA. Confirmed by IAS review.

Ernst & Young audit recommendations

In their past audit reports on the exploitation of the Galileo and the EGNOS programmes the auditors presented the following observations on implementation of the recommendations raised by auditor in previous audit reports:

Audited Year	E&Y observations	Status and Further Comments
2018, 2019, 2020	Agency should revise the report templates to include all information requested by the DA and its annexes.	**Implemented** Since Q3/2021, the reports are structured according to the CA/FFPA. The Agency follows new structure which is different to DA report structure.

Audited Year	E&Y observations	Status and Further Comments
2016	The Agency should put in place formalized internal guidelines relating to management of the Grant Award Procedure.	**Implemented** The Agency put in place an internal grants award guideline relating to managing the grant award procedures (Galileo and EGNOS grants award - Process documentation) describing how the grants should be handled internally.
2016	The Agency should develop an IT tool for reporting and controlling of procurement, grants and financial figures that would produce aggregate tables and track the changes	**Partially Implemented** The IT tool is not operational yet. The Agency explained that the technical aspects of the solution are still being discussed internally.

In their audit report on the implementation of HORIZON 2020 the auditors presented the following observations on implementation of the recommendations raised by the Auditor in previous audit reports:

Audited Year	E&Y observations	Status and Further comments
2020	The Agency should revise the report templates and its annexes to include all information requested by the DA.	**Implemented** The amounts paid and the balance due to be paid to the beneficiaries, as well as the total amount for the contracts awarded, the total amount paid and the balance to be paid to the contractors were reported as requested in the Annual Implementation Report (requested by the DA). Moreover, the financial annex includes the amount of costs relating to 2021 based on the accrual approach (yearly) and the overall amounts reflecting the H2020 costs of all calls and other costs in 2020 incurred by the Agency were presented in the report.
2020	The Agency should unify the methodologies[24] to identify the costs to be accrued at year-end for H2020, and EGNOS and Galileo	**Implemented**

[24] The methodology applied to identify the costs for Horizon 2020 to be accrued at year-end differs from the methodology used for EGNOS and Galileo programmes

DG DEFIS audit recommendations

Year and Audit Recom. Code	DG DEFIS observations	Status
2020-1	Recalculate the pro rata cost for the months elapsed until the end of the reporting year and report correction in AIR.	**Implemented**[25] EUSPA applies the methodology as proposed by the auditors. The grant methodology has been updated, but not yet approved. [26]
2020-2	Develop a written methodology to perform better grant management.	**Implemented**[27] Methodology has been updated but has not been approved yet. [28]
2019-3	Implement a written methodology to verify and follow-up ESA's calculations, and make the necessary adjustments in AIR.	**Implemented** Methodology has been updated to calculate and follow-up on the difference between the planned and the actual rate under point 8.
2018-01	Make the necessary verification on the costs reported by ESA under the Working Arrangements and have the formal EUSPA's management acceptance of the ESA costs.	**Implemented** EUSPA Control Strategy (EUSPA-ICC-ICRPT-A14158 - Issue/version: 1.0 approved on the 14 March 2022) foresees in point 8.1.2. an annual audit on both the ESA WA as the EUSPA-ESA CA.
2018-07	Issue a specific procedure for the recording of costs at year end regarding the ESA WAs. Project managers should use the share drive to send their answers on the status of the milestones.	**Implemented** The cost recognition and capitalisation methodology has been updated and approved on the 19 May 2021. Also, during the ESA WA audit, the MACs/MoMs are provided and checked.
2017-08	Develop a written methodology to establish the correct amount to be accrued for every contract at year- end.	**Implemented** Galileo cost recognition & capitalisation' methodology has been updated and approved on 19 May 2021 to be in line with the EUSPA Control Strategy under point 2.2.
2017-09	EUSPA should insist with the Beneficiaries of the grant to provide by the 30 November annually the overview of incurred costs.	**Closed**[29] The new CAs do not have this clause anymore on the information of the cumulative expenditure incurred under Article I.4.4.
2017-10	Solve the issues with the software developer and give priority to the implementation of the Online Budget Management.	**Implemented**[30] Specific Contract on CATAPLAN has been signed by both parties. The development of the tool is imminent.

[25] Approved methodology to be provided

[26] The last draft version has been provided by EUSPA on the 20 July 2022.

[27] Approved methodology to be provided

[28] Last draft version provided on the 20 July 2022

[29] Recommendation is closed since it is no longer applicable.

[30] The development of the tool is imminent. Therefore the auditors considered the recommenation as implemented

Year and Audit Recom. Code	DG DEFIS observations	Status
2017-11	Ensure that the obligatory annexes are sent by ESA on due time and attached to the AIR when sending out the report within the deadline foreseen in the DA	**Closed**[31]

2.9 Follow up of recommendations from the discharge authority

We will apply below the following colouring to those recommendations included in the report from the Discharge Authority:

	Area
	Performance
	Staff policy
	Procurement
	Internal controls
	Other comments

Nr.	Observation of the Discharge Authority	Status
3	/.../ Further notes that the Agency has implemented most of the long-term recommendations, but it is expected to apply the remaining observations by the end of the year 2021, in particular those concerning the execution of the 3rd Orbital Synchronisation Processing Facility and the maintenance of the validation and operational chain handover; **calls on the Agency to report to the discharge authority on the developments in that regard**;	The Agency confirms that the third OSPFs were deployed and is operational at both Control Centre since second semester 2022.
5	Recalls that, according to the Court's Special Report 22/2020 on the Future of the Agencies (the 'Court's Special Report'), the Agency has very limited autonomy in practice regarding its main task is to exploit the Galileo global satellite navigation system under a delegation	The Galileo and EGNOS Management Plan ruling the change mechanism between the EC, EUSPA and ESA was recently signed and came in effect. This formalised the new process depicted in the FFPA/Contribution Agreements.

[31] The WAs with ESA ended on the 31/12/2021, so the auditors considered this recommendation closed.

Nr.	Observation of the Discharge Authority	Status
	agreement with the Commission; calls on the Commission to review the autonomy of the Agency particularly regarding its competencies on implementing the delegation agreement through a number of complex contracts with industrial partners and public sector entities; **calls on the Agency to report back on the developments in this regard to the discharge authority;**	
7	Notes that, according to the Court's Special Report, the Agency significantly needs to improve its cooperation with Member States, other agencies and internationally; **calls on the Agency to build up better cooperation and knowledge sharing with all Member States; calls on the Agency to report back on the developments in this regard to the discharge authority**	The office of the Executive Director was re-oriented to reinforce EU institutional relations and cooperation with Member States. During the Croatian Presidency EUSPA's role on inclusiveness of all Member States moved forward with the setting up of thematic working groups with Member States to understand and identify Member States' market needs and public demand. With the support of EUSPA's different departments - briefings and direct specialists participation, several workshops with Member States were conceived and organised (e.g. Bulgaria, Estonia, Finland, Hungary, Romania, Austria, Slovakia) with the scope of sharing with Member States strategic tools for solutions in critical infrastructure and industrial sectors. o Themes covered: PRS - Manufacture PRS products Made in EU, Joined Test Activities) and GOVSATCOM (ENTRUSTED, GOVSATCOM Hub, integrating the Connectivity Initiative), Access to finance Furthermore, in 2020 over 10 Member States were assisted in in identifying their national priorities and market profiles (upstream and downstream) o Primary scope: assistance to emerging space Member States, targeting inclusiveness of broader range of SMEs benefiting from EGNSS and Copernicus in transversal markets. In particular Member States with no traditional activities in the space sector were assisted in identifying: o EU financing tools for investing in space innovation via Regional and Cohesion funds, InvestEU, Recovery and Resilience Facility and (blending), EIB (access to risk finance, innovation partnerships) Briefings were provided on a one-to-one basis for EU / national institutional and private stakeholders on information related to: o Horizon 2020: 5th Call Projects (Calls published in July 2020 and signed end of 2020)

Nr.	Observation of the Discharge Authority	Status
		o Fundamental Elements: end of June 2020, 3 projects were concluded – 19 projects ongoing, 73 entities involved from 13 EU countries o Horizon Europe briefings to Member States on budget agreement of November 2020 between the European Parliament and the Council -EUSPA involved in Pillar 2: Global Challenges and Industrial Competitiveness, Cluster Digital, Industry and space. Moreover, EUSPA started to engage in collaborative projects with the newly established EU Agencies Network Brussels Liaison Office. Several webinars in cooperation with EU Agencies such as ERA and EMSA but also with National Space Agencies or National Space Offices were organised to provide in depth explanations on solutions EUSPA provided for e.g. ETRMS, eVignette, eToll, Galileo Green Lane, etc.
9	Notes with concern the gender balance within the Agency's senior management, with three out of three (100 %) men and within the Agency's administrative board, with 24 out of 28 (85,7 %) men; further, notes with concern the lack of gender balance among the Agency's overall staff, with 135 out of 202 (66,8 %) men; appreciates the efforts of the Agency to improve gender balance from 7 % in 2017 to 33 % in 2020 of female representatives in senior management positions; reiterates its call to the Agency to take additional measures as soon as possible with a view to ensure better gender balance within its senior management; asks the Commission and the Member States to take into account the importance of ensuring gender balance when nominating their members to the Agency's administrative board; **reminds the Agency that in the selection of candidates, skills, knowledge and experience are important, as well as the geographical and gender balance among staff**	The Agency is paying the highest attention to gender equality. The Agency wishes to stress that the governing principle for appointing a manager is based on transparent and standardised selection procedures examining the competencies and merit. Whenever there is an equal merit and competencies, priority is given to the underrepresented gender, or nationality. The Agency has launched works on a Diversity & Inclusion Strategy with an action plan. The subject of the gender balance will be also covered.
10	Regrets, regarding the follow-up from the 2019 discharge observations, the persisting geographical imbalances in the composition of the Agency's staff, especially at middle and senior management levels; **calls on the Agency to establish a proper representation of nationals from all Member States, while at the same time respecting the competencies and merits of the candidates** as indicated in the Article 27 of the Staff Regulations of Officials;	The Agency is paying the highest attention to diversity, including geographical balance. The Agency wishes to stress that the governing principle for appointing a staff is based on transparent and standardised selection procedures examining the competencies and merit. Whenever there is an equal merit and competencies, priority is given to the underrepresented gender, or nationality. The Selection Boards are provided with guidelines to consider diversity aspects in the assessment of applications. Thanks to an additional element in the selection processes, i.e. video pre-recorded interviews, the

Nr.	Observation of the Discharge Authority	Status
		Agency is able to enlarge the volume of shortlisted candidates for the next stage of assessment.
11	Is concerned that the Agency struggles to recruit staff with the necessary technical expertise and in order to compensate for a shortage of posts or national experts, the Agency increasingly outsources core tasks to private contractors, on whom it may then become dependent; calls on the Commission to examine the situation carefully and to provide the Agency with the necessary means to recruit the necessary staff; calls on the Commission to report back to the discharge authority on this matter	The number of staff is defined by the legislative financial statement of the Space Programme Regulation that was validated by the Budgetary Authority. 101 additional TA posts have been granted and frontloaded in EUSPA's establishment plan since the new Space Programme Regulation adoption in 2021. These additional posts came along with an agreement for a gradual and progressive alignment of the Agency's Contractual Agents number with the legislative financial statement. The outsourcing package as it stands now has been proposed by the Agency and approved by the EC.
12	Is concerned about the **large size of the Agency's management board** which **makes decision making difficult and generates considerable administrative costs**	EUSPA has no control on the size of its Administrative Board that represents MS and other key institutional stakeholders.
13	Regrets that all **CVs of the administrative board members are still not published** in the Agency's website; **calls on the Agency to report to the discharge authority on the actions taken in that regard;**	We have experienced a recent improvement on the level of responsiveness in the provision of Declarations of Interests and short CVs by AB Members and Alternates.
14	Notes that, following the negotiations in 2020 leading to the adoption of Regulation (EU) 2021/696 of the European Parliament and of the Council (2), the Agency has been transformed into the EUSPA in May 2021 with an increased set of core and delegated tasks and a new associated EUSPA legislative financial statement; notes that this transformation includes a relocation of 251 temporary agents and 34 contract staff by 2023; notes that the changes could hamper decision making and generate considerable administrative costs; **calls on the Agency to report to the discharge authority on the risks for the Agency's operations and the mitigating measures taken by the Agency;**	The Agency has agreed with the Commission a gradual and progressive reduction in the number of Contract Agents employed by the Agency to be aligned with 34 CAs, as stated in the legislative financial statement attached to the EU Space Programme, by not later than the end of 2027. The Agency has highlighted to its Administrative Board that the reduction in the number of CAs necessitates that a set of activities are undertaken in a different manner, requiring in particular further reliance on external support, which is both significantly more expensive and does not generate important know-how in the Agency
17	Notes, regarding the follow-up of previous year's findings of the Court, that the Agency has taken steps to implement e-procurement and e-submission modules as procurement tools in the management of its activities, with particular reference to administrative procurement which can be implemented through open tenders; notes that the Agency has provided dedicated trainings and administrative fulfilments have been completed for its use; **calls on the Agency to report to the discharge authority on the developments in this regard;**	The Agency continues implementing e-procurement and e-submission modules as procurement tools in the management of its activities. In 2022 four open procurement procedures, some of which were divided into lots, were launched by using e-tendering and e-submission tools. Dedicated training has been provided. The Agency maintains an inventory of the procurement procedures launched through the aforementioned tools.
19	**Notes** from the follow-up and Court's report that **there is a risk that the Agency's payments to the European Space Agency** (ESA) in relation to the **implementation**	An ESA Control Strategy including ex-post audits was released by EUSPA.

Nr.	Observation of the Discharge Authority	Status
	of the EGNOS and GALILEO programmes may be calculated on the basis of inaccurate costs due to the absence of a comprehensive ex-ante or ex post strategy; notes from the Agency's reply regarding ex ante controls that the Agency has provided the Court with an updated cost reporting methodology and also demonstrated that it uses ESA's milestone achievement certificates to reconcile the costs claimed from the ESA; **notes from the Agency's reply that in relation to the ex post control strategy the Agency and the Commission's Directorate-General for Defence Industry and Space are auditing ESA's activity in 2020; calls on the Agency to report the results of this audit and to incorporate its lessons learned in a future ex post strategy;**	The Agency's payments to ESA have been audited for the last three consecutive years. DG DEFIS executed the first audit and a joint team with EUSPA the following two. EUSPA plans to audit ESA yearly. These audits had no findings.
21	Notes that the Commission's internal audit service (IAS) delivered an audit report on EGNOS Exploitation in November 2019, with five important recommendations and one issue identified for consideration; notes from the Agency's reply that the recommendations are awaiting IAS review; **calls on the Agency to report to the discharge authority on the progress made in that regard;**	IAS recognised that all recommendations had been implemented but an action (**#4.2**) under REC #4: "*Map EGNOS resources and formalise back up arrangements*". EUSPA accepted the risk related to this pending action knowing that IAS will be somehow covering the mapping of resources at Agency level in their upcoming audit for 2023. Missing back-up arrangements have been established.
22	Notes, with regard to the Agency's actions to follow-up on the discharge authority's 2019 discharge, that the internal audit capability performed an audit of the '**Capacity Building of Agency's staff' in 2019** and that, although the report was not finalised in 2019, it was planned to include one very important and four important recommendations; **calls on the Agency to report to the discharge authority on the progress made in the implementation of those recommendations;**	The audit report was released. An audit follow up review was executed: out of the 6 recommendations 5 are implemented and 1 partially implemented.
24	**Recalls the importance to increase the digitalisation of the agency** in terms of internal operation and management but also in order to speed up the digitalisation of procedures; stresses the need for the agency to continue to be proactive in this regard in order to avoid a digital gap between the agencies at all costs;	This concern is shared by the agency management and several ongoing ICT initiatives are addressing it. The process of Digital Transformation started in 2020 and is ongoing and a number of modernisation projects are in progress, e.g. new version of paperless workflows is being deployed, a brand-new tool for budget and procurement management is being deployed, we are introducing Power BI and M365 which brings new automation and collaboration tools.

2.10 Environment Management

EUSPA started the work to achieve the Eco-Audit and Management System (EMAS).

As a first step, an environmental policy was adopted and published on 16 December 2022 (https://www.euspa.europa.eu/sites/default/files/euspa_environmental_policy.pdf)

The Agency also actively collaborated with the Commission on green ambitions applied to space.

2.11 Assessment by Management

Article 30.2 of the Agency Financial Regulation 2019 defines Internal Control as a process applicable at all levels of management and designed to provide reasonable assurance of achieving the following objectives:

- Effectiveness, efficiency and economy of operations;
- Reliability of reporting;
- Safeguarding of assets and information;
- Prevention, detection, correction and follow-up of fraud and irregularities;
- Adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of the programmes, as well as the nature of the payments concerned.

The Agency's responsibilities has significantly expanded in 2022 now due to the consolidation of its operational role with much broader responsibilities in the administration of Space programs. Preparatory activities advance for GOVSATCOM, and with the transformation of the Agency into EUSPA, other new activities are under consideration. Accordingly, the Agency is upgrading its internal controls, and will continue to be regularly audited by the Agency's Internal Audit Capability (IAC), the Commission's Internal Audit Service (IAS), DG DEFIS and the European Court of Auditors. Enhanced coordination is ongoing with DG DEFIS in this field.

Latest additions to agency controls are:

- In 2021, the Agency Administrative Board approved new control standards under the Agency Internal Control Framework.
- In 2022, the Integrated Management System was revamped.

Several joint-audits with DG DEFIS have been executed by the Agency Internal Audit Capability on delegated funds to ESA for 2020 expenditure for both EGNOS and Galileo with the positive result of no findings. From 2023 EUSPA staff will carry out the audit independently, in coordination and supported, only when required, by DG DEFIS audit team.

3 ASSESSMENT OF THE EFFECTIVENESS OF THE INTERNAL CONTROL SYSTEMS

3.1 Risk Management

The Agency provides below an overview of the conclusions of the last assessment of the Internal Control Framework carried out, explaining the methodological origin and circumstances, and covering the 17 Principles. Weaknesses are identified and key actions are also mentioned.

In relation to Anti-Fraud activity, EUSPA has released an updated Anti-Fraud Strategy[32] (AFS) that will start to implement in 2023. In the AFS, in our fraud risk assessment, EUSPA evolved from the prior approach pursued in the 2015 AFS to implement state-of-the-art practices in this domain. As mentioned, EUSPA followed the OLAF AFS Methodology in our analysis, which was supported by a background check on the requirements (EU Space Programme Regulation and the Internal Control Framework or ICF), the review of implementation of 2015 AFS (2021), and a limited but extensive review of audit and management reports over the last three years with an anti-fraud focus. So the AFS anti-fraud objectives is solidly grounded.

3.2 Compliance and effectiveness of Internal Control Framework (ICF)

The Agency provides below an overview on the performance of the EUSPA in 2021-22, in the first year of application of the Principles set out in the Internal Control Framework.[33]

Though EUSPA will still have to develop its ICF Indicators, the comprehensive review offered by the IAS Risk Assessment in Q4 2021[34] provided EUSPA management with an opportunity to perform the current Management Survey on the basis of the broad and in-dept review carried out by IAS, and following IAS analysis framework, but complementing it by managerial judgement as well. The corresponding report was issued[35] and an overview is offered below.

[32] EUSPA Anti-Fraud Strategy, EUSPA-OED-SPR-RPT-A22539, V1.0, 10/10/2122.

[33] Agency Internal Control Framework "GSA-ICC-IC-POL-A08411" Issue/version: 0.2, 28 January 2021.

[34] 2022 – 2024 IAS Strategic Internal Audit Plan for the European Union Agency for the Space Programme (IAS SIAP 2021) – Final, 31 January 2021.

[35] EUSPA Management Survey. Report of compliance with the Internal Control Framework. EUSPA-ICC-IC-RPT-A15461 Issue/version: 1.0. January 2023.

Legend:

Compliant – The Agency is fully compliant with the Principle;

Mostly compliant – The Agency is compliant for most of the Principle;

Work in progress – The Agency is implementing actions to comply with the Principle;

To be implemented – The Agency is planning to implement actions to comply with the Principle.

Building block	Principle	Description	Status in 2021	Critical issues and EUSPA's reaction Comments
Control Environment	1	EUSPA demonstrates commitment to integrity and ethical values	Compliant	New Ethics Code approved in 2021. Related training rolled-out.
	2	The Administrative Board (AB) demonstrates independence from management and exercises oversight of the development and performance of internal control	Compliant	EUSPA Internal Control Framework approved in 2021. IAS SIAP 2022-24 completed in 2021.
	3	Management establishes structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives	Mostly Compliant	Administrative Board approved in 2021 the new organization proposed by EUSPA whose changes have to be implemented in 2022.
	4	EUSPA demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives	Mostly compliant	Strategic trade-off between new tasks and available human resources. Restrictions in the use of CA poses challenges.
	5	Individuals are accountable for their internal control responsibilities in the pursuit of objectives	Compliant	
Risk Assessment	6	EUSPA specifies objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives	Mostly Compliant	Adaptation effort required by the necessary re-structuring and consequent re-drafting of procedures. Simplification of the IMS ongoing.
	7	EUSPA identifies risks to the achievement of its objectives across the organisation and analyses risks as a basis for determining how the risks should be managed	Compliant	Risks are continuously identified, analysed quarterly at the Risk Management Board meeting and documented in a Risk Register.

Building block	Principle	Description	Status in 2021	Critical issues and EUSPA's reaction Comments
	8	EUSPA considers the potential for fraud in assessing risks to the achievement of objectives	Compliant	EUSPA has released an updated Anti-Fraud Strategy, that will start to implement in 2023.
	9	EUSPA identifies and assesses changes that could significantly impact the internal control system	Mostly Compliant	Foreseeable rapid growth and the ongoing re-restructuring are fostering change culture and adaptation at EUSPA. The Russian invasion of Ukraine is translating in to an increased awareness and scrutiny on readiness.
Control Activities	10	EUSPA selects and develops control activities that contribute to the mitigation of risks (which threaten achievement of objectives) to acceptable levels	Work in progress	EUSPA efforts on Business Continuity are "work in progress", both at operational and infrastructure levels (ICT). However EUSPA's resilience was proven in 2020-21 and is being monitored. GSMC active on BC trial tests.
	11	EUSPA selects and develops general control activities on ICT to support the achievement of objectives	Mostly Compliant	Governance established via ICT Steering Committee – prioritization of projects and assurance of synergies and coherence across the Agency, adoption of ICT Strategy. Security governance established via Information Security Steering Board (ISSB), adoption of ICT Security Strategies and policies.
	12	EUSPA deploys control activities through corporate policies that establish what is expected and procedures that define the control activities in detail	Mostly Compliant	EUSPA is ISO 9001 certified. However EUSPA IMS is currently going through an in-depth review. ICF Indicators will be defined considering all these current corporate changes.
Information and communicati	13	EUSPA obtains or generates and uses relevant quality information to support the functioning of internal control	Mostly Compliant	Effort ongoing to understand and manage corporate information.

Building block	Principle	Description	Status in 2021	Critical issues and EUSPA's reaction Comments
	14	EUSPA internally communicates information, including objectives and responsibilities for internal control	Compliant	
	15	EUSPA communicates with external parties, including objectives and responsibilities for internal control	Compliant	
Monitoring Activities	16	EUSPA selects, develops, and performs ongoing and/or separate assessments to ascertain whether the components of internal control are present and functioning	Mostly Compliant	The implementation of changes to the organisation and procedures is still ongoing.
	17	EUSPA assesses and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the Administrative Board as appropriate.	Compliant	EUSPA corporate continuous improvement database is active. A comprehensive corporate library for Audit and Control reports was set in 2021 and will be operationalised.

The Agency implements and continually improves its Integrated Management System (IMS) that is documented and applied. The IMS is established in order to enable EUSPA to achieve its Quality Objectives related to the organisation and efficiency of processes and services. In 2022 all activities oriented towards the maintenance of the ISO 9001 certificate were successfully performed. The IMS continued its development and its adaptation to the changing Agency. The Quality Objectives are closely aligned with the EUSPA mission statement and its corporate values. All activities and all current locations are covered under ISO standards.

All management and quality related services were delivered in 2022 in line with the commitments (see objective 4 in chapter 1.3.3 and objective 10 in chapter 1.6.2 of this report for more information).

3.3 Risk management

In 2022 the Agency undertook risk assessment and monitoring activities at the corporate, operational and support department levels. The outcomes of operational risk assessments are shared with management and reported directly to the EC for information and/or further consolidation and reporting at the respective programme level.

The top corporate risks identified at the end of 2022 at EUSPA were

:

Risk ID	Risk Title
RSK#028	Insufficient funds due to high inflation
RSK#006	Non-achievement of Full Services in accordance with Contribution Agreement objectives
RSK#022	Non-alignment of CA numbers with LFS and ensuring the performance of sensitive/security related tasks in-house (by staff – CA).
RSK#016	Business continuity compromised due to insufficient robustness and resilience in the EUSPA corporate ICT systems
RSK#014	Access to EUCI
RSK#021	Agency Sites and Facilities
RSK#027	SST Front Desk business continuity during switchover from SATCEN to EUSPA
RSK#029	Business continuity degradation due to physical attack on premises
RSK#030	Lack of an operational Budget Management Tool (BMT)
RSK#017	COVID 19 disruption to continuity of business-critical activities

Each risk has an identified and adopted mitigation action plan. Corporate Risk Management Boards take place on a quarterly basis.

3.4 Statements of the Managers in charge of risk management and internal control

The responsibility for the completeness and reliability of management reporting and control is split at EUSPA, therefore separate declarations are made accordingly:

On behalf of the manager in charge of internal control, the EUSPA ICC states the following:

'I declare that in accordance with the Agency's communication on the internal control framework, I have reported my advice and recommendations on the overall state of internal control in the Agency to the Executive Director.

I hereby certify that the information provided in the corresponding Section of the present Annual Activity Report and in its annexes is, to the best of my knowledge, accurate, reliable and complete.'

[Signed]

Fernando Navarro Torne,

Internal Control Coordinator

Prague, 14 June 2023

For the manager taking responsibility for risk management:

'I hereby certify that the information provided in the corresponding Section of the present Annual Activity Report and in its annexes is, to the best of my knowledge, accurate, reliable and complete.'

[Signed]

Omar I. Valdés Solórzano,

Corporate Quality and Risks & Opportunities Officer

Prague, 14 June 2023

4 MANAGEMENT ASSURANCE

4.1 Review of the elements supporting assurance

4.1.1 Follow-up of reservations from previous years

We follow by close the events causing Reservations last year. An update is provided below (#4.2).

The drivers to both events are outside of the direct control perimeter of the Agency, but the Agency is nevertheless responsibly working with key stakeholders to minimise its negative impact.

4.2 Reservations[36]

Disclosures relating to the war in Ukraine

- Interruption in the use of Soyuz launchers for Galileo satellites:

Launches of Galileo satellites have historically relied on the use of the Russian Soyuz launcher for a significant number of launches. Following the invasion of Ukraine and the unilateral withdrawal of the Russian Soyuz launcher team by ROSCOSMOS, the future use of the Soyuz platform has been put on hold. EUSPA, ESA and the Commission are actively investigating alternatives to maintain the launch schedule established for the programme without reliance on the Russian launcher.

Galileo nevertheless remains as operational and as functional as previously and there is no impact on services, recalling that future launches, financed through funds delegated by the Commission, are planned in particular for enhancing redundancy and progressive improvements of the system, as part of a standard lifecycle.

Accordingly, EUSPA does not envisage any direct, immediate impact on the financial performance of the Agency, but recognises that intensive work is required to minimize delays in the launch of new satellites, which could then lead to delays in expense recognition and the clearing of receivable assets paid in the form of pre-financing. This amount cannot be reliably estimated at this point.

- Disruption of work carried out in Ukraine in setting-up EGNOS RIMS ground stations in Kyiv and Kharkiv:

As part of the investments in the ground infrastructure for the EGNOS system, EUSPA has financed, through funds delegated by the Commission, stations in Kyiv Sikorsky International Airport and Kharkiv International Airport, with the aim of increasing the robustness of the EGNOS system. In particular the financing has been used for equipment set-up on the grounds of the Kyiv International Airport and the assessment and planning for a second location on the grounds of Kharkiv International Airport.

[36] Provisional annual accounts of the European Union Agency for the Space Programme 2022, Ares(2023)1465873, 28/02/2023

From the start of the Russian invasion of Ukraine, all work on these locations has been halted until further notice. The Agency has taken all the steps that it could to protect the equipment already installed as far as possible, but its exact condition is not currently known. Note that there is a force majeure raised by the Hosting Entity and that, as soon as removed, the contract in place is expected to be re-activated.

The issues expressed do not have any impact on the functioning of the EGNOS system and its services today and therefore there is no major direct, immediate or long-term impact on the Agency's financial statements.

- Measures for monitoring possible direct or indirect ties with Russian and Belarusian institutions as well as other institutions funded by Russia or Belarus are in place within EUSPA; and
- Changes in the overall market conditions caused by the sanctions imposed on Russia have not had and are not foreseen to have, a direct material effect on the EUSPA.

In conclusion, no extraordinary movements in the accounts have occurred or are foreseen arising from this event relating to force majeure, conflict of interest, fines, law suits, late payments or other direct operational circumstances, on the side of the EUSPA or its contractors. Any effects on the accounts will occur within the regular accounting and budgetary exercise as the Agency will adapt its overall approach to continue to meet its goals fully without interruption and at the required level of quality for its stakeholders and customers

5 DECLARATION OF ASSURANCE[37]

I, the undersigned, Rodrigo da Costa

Executive Director of the European Union Agency for the Space Programme,

In my capacity as Authorising Officer,

- Declare that the information contained in this report gives a true and fair view.[38]
- State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.
- This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, ex-post controls, the work of the Internal Audit Capability, the observations of the Internal Audit Service and the lessons learnt from the reports of the Court of Auditors for years prior to the year of this declaration.
- Confirm that I am not aware of anything not reported here which could harm the interests of the Agency.

Prague, 14 June 2023

[Signed]

[37] As defined in GSA Internal Control Framework, January 2021.

[38] True and fair in this context means a reliable, complete and correct view on the state of affairs in the service.

ANNEXES

Annex I Core business statistics

The measurement of core business activities and the related KPIs are listed in section 1.

The Agency wishes to note that section 1.7 refers to tasks that are entrusted by the European Commission. These tasks are clearly defined together with their KPIs in the relative contribution agreement.

Annex II Statistics on financial management

II.1 - Rate and type of implementation of appropriations

Budget line	Heading	Commitment Appropriations Budgeted 2022	Commitment Appropriations			
			Executed in 2022	%	Uncommitted	%
Title 1 - Staff expenditure						
1100	Staff expenditure	27 219 173,88	27 219 173,88	100%	0	0%
1200	Recruitment costs	79 327,00	79 327,00	100%	0	0%
1210	Medical services	50 314,85	50 314,85	100%	0	0%
1300	Missions and travel	1 228 036,37	1 228 036,37	100%	0	0%
1400	Training expenditure	628 000,00	628 000,00	100%	0	0%
1500	Social measures	417 979,44	417 979,44	100%	0	0%
1600	Interims & Trainees	578 320,31	578 320,31	100%	0	0%
1700	Representation expenditure	233,56	233,56	100%	0	0%
1800	Tuition fees	2 364 566,07	2 364 566,07	100%	0	0%
	Total for title 1	**32 565 951,48**	**32 565 951,48**	**100%**	**0**	**0%**

Budget line	Heading	Commitment Appropriations Budgeted 2022	Commitment Appropriations			
			Executed in 2022	%	Uncommitted	%
Title 2 - Administrative expenditure						
2000	Rental of buildings	2 838 053,48	2 838 053,48	100%	0	0%
2100	Data processing	13 084 801,10	13 084 801,10	100%	0	0%
2200	Movable property	178 352,30	178 352,30	100%	0	0%
2300	Current administrative costs	3 101 895,38	3 101 895,38	100%	0	0%
2400	Postage and telecommunication costs	146 610,00	146 610,00	100%	0	0%
2500	Meetings	37 304,00	37 304,00	100%	0	0%
2600	SAB administrative expenditure	134 328,59	134 328,59	100%	0	0%
	Total for title 2	**19 521 344,85**	**19 521 344,85**	**100%**	**0**	**0%**
	Total for titles 1 and 2	**52 087 296,33**	**52 087 296,33**	**100%**	**0**	**0%**
Title 3 - Operational expenditure						
3100	Expenditure on studies	16 946 198,89	16 946 198,89	100%	0	0%
3300	SAB operational expenditure	998 996,55	998 996,55	100%	0	0%
	Total for title 3	**17 945 195,44**	**17 945 195,44**	**100%**	**0**	**0%**
	TOTAL Title 1+Title 2+Title 3	**70 032 491,77**	**70 032 491,77**	**100%**	**0**	**0%**

Budget line	Heading	Payment Appropriations Budgeted 2022	Payment Appropriations					
			Paid in 2022	%	Carried Forward	%	Total Executed	%
Title 1 - Staff expenditure								
1100	Staff expenditure	27 219 173,88	27 219 173,88	100%	0,00	0%	27 219 173,88	100%
1200	Recruitment costs	79 327,00	38 597,00	49%	40 730,00	51%	79 327,00	100%
1210	Medical services	50 314,85	22 602,59	45%	27 712,26	55%	50 314,85	100%
1300	Missions and travel	1 228 036,37	1 000 185,22	81%	227 851,15	19%	1 228 036,37	100%
1400	Training expenditure	628 000,00	472 774,64	75%	155 225,36	25%	628 000,00	100%
1500	Social measures	417 979,44	209 860,73	50%	208 118,71	50%	417 979,44	100%
1600	Interims & Trainees	578 320,31	561 717,10	97%	16 603,21	3%	578 320,31	100%
1700	Representation expenditure	233,56	233,56	100%	0,00	0%	233,56	100%
1800	Tuition fees	2 364 566,07	2 279 086,34	96%	85 479,73	4%	2 364 566,07	100%
	Total for title 1	**32 565 951,48**	**31 804 231,06**	**98%**	**761 720,42**	**2%**	**32 565 951,48**	**100%**
Title 2 - Administrative expenditure								
2000	Rental of buildings	2 838 053,48	1 444 855,67	51%	1 393 197,81	49%	2 838 053,48	100%
2100	Data processing	13 084 801,10	1 897 791,56	15%	11 187 009,54	85%	13 084 801,10	100%
2200	Movable property	178 352,30	25 677,72	14%	152 674,58	86%	178 352,30	**100%**

Budget line	Heading	Payment Appropriations Budgeted 2022	Payment Appropriations					
			Paid in 2022	%	Carried Forward	%	Total Executed	%
2300	Current administrative costs	3 101 895,38	923 532,25	30%	2 178 363,13	70%	3 101 895,38	
2400	Postage and telecommunication costs	146 610,00	68 950,38	47%	77 659,62	53%	146 610,00	100%
2500	Meetings	37 304,00	32 795,66	88%	4 508,34	12%	37 304,00	100%
2600	SAB administrative expenditure	134 328,59	116 960,77	87%	17 367,82	13%	134 328,59	100%
	Total for title 2	**19 521 344,85**	**4 510 564,01**	**23%**	**15 010 780,84**	**77%**	**19 521 344,85**	**100%**
	Total for titles 1 and 2	**52 087 296,33**	**36 314 795,07**	**70%**	**15 772 501,26**	**30%**	**52 087 296,33**	**100%**
Title 3 - Operational expenditure								
3100	Expenditure on studies	12 212 874,71	10 515 991,74	86%	1 696 882,97	14%	12 212 874,71	100%
3300	SAB operational expenditure	1 092 320,73	817 320,73	75%	275 000,00	25%	1 092 320,73	100%
	Total for title 3	**13 305 195,44**	**11 333 312,47**	**85%**	**1 971 882,97**	**15%**	**13 305 195,44**	**100%**
	TOTAL Title 1+Title 2+Title 3	**65 392 491,77**	**47 648 107,54**	**73%**	**17 744 384,23**	**27%**	**65 392 491,77**	**100%**

II.2 – Information on transfers and amended budgets

The Agency's draft budget 2022 was approved by the Administrative board on 28 January 2021 for a total amount of 68 345 128 EUR and became the initial 2022 budget upon adoption of 2022 EU budget by the Council and European Parliament. The Agency's Administrative Board approved 2022 amending budget number 1 on 27 January 2022 increased the overall appropriations by 1 687 363,77 EUR bringing the overall commitment and payment appropriations to the amount of 70 032 491,77 EUR in order to align with the final budget allocated to the Agency by the budgetary authority and final EFTA contribution. The amending budget no. 2 approved on 20 June 2022 consisted of a reallocation of overall amount of 2 659 300 EUR mostly from the operational budget. The budget became available due to the fact that one contract has been signed for shorter period than initially planned. Budget was reallocated to the Data processing line in the area of business continuity to improve redundancy and resilience and the support of classified systems in line with the approved Digital transformation. This amendment has not changed overall commitment and payment appropriations.

The Agency's Administrative Board approved the amending budget no. 3 on 27 September 2022 reduced payment appropriations by 4 640 000 EUR in order to align with the payment appropriations needed under Title 3. The overall commitment appropriations after the amendment remained unchanged at 70 032 491,77 EUR and the overall payment appropriations were reduced to the amount of 65 392 491,77 EUR.

Eight internal transfers were processed in 2022, all of them authorised by the Executive Director as they concerned transfers of amounts either within Titles or below 10% between Titles.

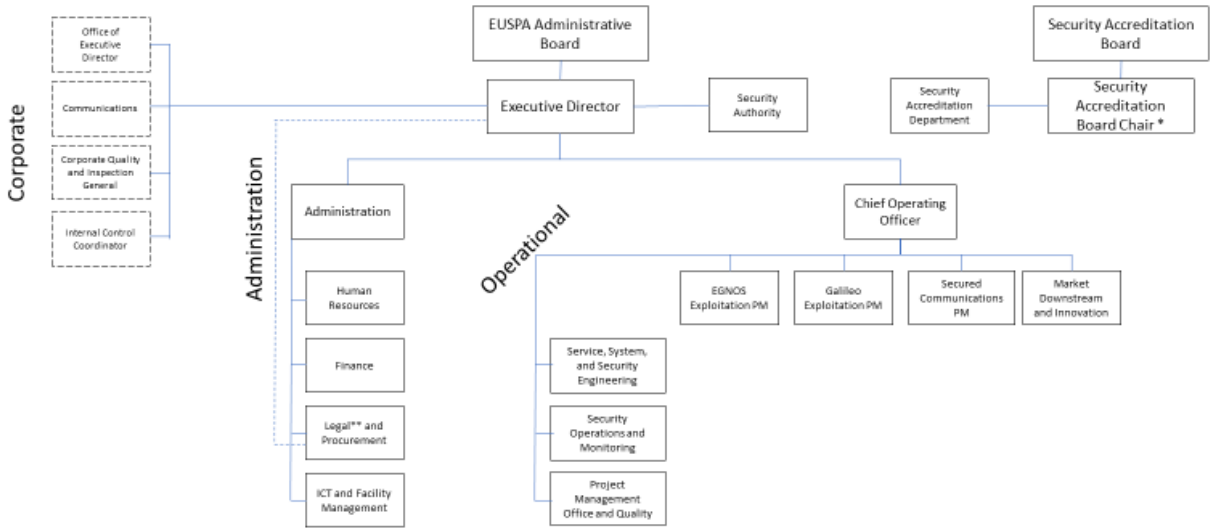
II.3 – Information on interest charged through late payments

Interest on late payment totalling 3 922,62 was paid in 2022 (22 684,94 EUR in 2021)

II.4 – Summary information on budgetary operations

Budget execution for the year was 100% in commitment appropriations and 100% in payment appropriations in 2022 when taking into account the non-automatic carry-forward needed to maintain the Agency's payment capacity on existing legal obligations. Average payment time was 20,3 days, well below the 30-day EC benchmark and 20-day target (18,1 days in 2021). It should be noted that, due to the nature of the Agency's activities, many of the Agency's contracts and grants have payment deadlines of 60 and 90 days and that the average payment time also includes these payments. The Agency processed 6 049 financial transactions (4 067 transactions in 2021), which represents an increase of 49%. The Agency continued to manage a large amount of delegated budget in 2022. A total of 574,5 million EUR was committed under delegated budget in 2022 and 1,26 billion EUR made in payments.

Annex III – EUSPA Organisation Chart



* In close cooperation with EUSPA ED in accordance with the Space Regulation Art 79
** Legal advise to the ED

Annex IV – Establishment Plan

The Agency's Establishment Plan for 2022 was as follows:

Category and grade	Establishment plan in EU Budget 2022		Modifications in 2022 in application of flexibility rule[39]	
	Officials	TA	Officials	TA
Administrator (AD) 16				
AD 15				
AD 14		1		
AD 13		6		
AD 12		10		
AD 11		17		
AD 10		26		
AD 9		45		
AD 8		62		
AD 7		44		
AD 6		10		
AD 5		8		
Total AD		229		
Assistant (AST) 11				
AST 10				
AST 9				
AST 8				
AST 7		1		
AST 6		1		
AST 5				

[39] In line with Article 38 (1) of the Commission Delegated Regulation 2019/715, the management board may modify, under certain conditions, the establishment plan by in principle up to 10% of posts authorised, unless the financial rules of the body concerned allows for a different percentage rate.

Category and grade	Establishment plan in EU Budget 2022		Modifications in 2022 in application of flexibility rule[39]	
	Officials	TA	Officials	TA
AST 4				
AST 3				
AST 2				
AST 1				
Total AST		2		
AST/SC 6				
AST/SC5				
AST/SC4				
AST/SC3				
AST/SC2				
AST/SC1				
Total AST/SC				
TOTAL				
Total AST				
AST/SC 6				
AST/SC5				
AST/SC4				
AST/SC3				
AST/SC2				
AST/SC1				
Total AST/SC				
TOTAL		**231**		

Information on entry level grades for posts

The established recruitment grades for all selection procedures (external, inter-agency and/or internal) for the key functions of temporary agents are listed in the table below, which is based on the decision of 28 June 2019 on types of post and post titles in the European GNSS Agency GSA-AB-56-19-06-06:

Type of post	Function group / Grade	Post title
Head of Unit or equivalent	AD 9 – AD 11 (exceptionally AD 12)	Head of Unit Head of Department Head of Task Force
Administrator	AD 5 – AD 8	Post titles established in the Agency to perform administrator functions: e.g. Engineer, Senior Engineer, Officer
Assistant	AST 1 – AST 4	Assistant, Project Assistant
Secretary/Clerk **(not foreseen at the moment)**	SC 1 – SC 6	Secretary/Clerk

The below chart shows the grading information for contract agents:

Type of Post	Minimum Entry Recruitment Grade	Highest grade possible	Post Title
Administrator, Advisor and equivalent Technical Officer	CA FG IV/16	CA FG IV/18	Senior Technical Officer* Senior Administrator Senior Project Officer Team Leader
Administrator, Advisor and equivalent Technical Officer	CA FG IV/14	CA FG IV/18	Technical Officer* Administrator Project Officer Team Leader
Administrator, Advisor and equivalent Technical Officer	CA FG IV/13	CA FG IV/18	Junior Technical Officer* Junior Administrator*
Executive and Technical Support	CA FG III/8	CA FG III/12	Executive Assistant Project Support Officer Technical Expert
Clerical and Secretarial Support	CA FG II/4	CA FG II/7	Secretary / Clerk

Type of Post	Minimum Entry Recruitment Grade	Highest grade possible	Post Title
Basic Support	CA FG I/1	CA FG I/3	Manual and Administrative Support Service Clerk

Annex V – Human and financial resources by activity

The 2022 distribution of staff was as follows, split by areas of activity:

	Allocated on 31 Dec 2022	
	TA	CA, SNE
Security accreditation tasks	14.2	9.9
PRS core activities	1.7	0.4
GSMC operations and preparation	28.8	22.7
Communication, promotion and marketing of the services	19.1	3.8
Agency management	38.2	16.6
EGNSS Exploitation	92.4	6.5
EGNSS core operational security	14.2	0.5
GOVSATCOM	8.5	1.2
Research & Development activities	13.9	2.4
Total	231	64

The financial resources, split by area of activity are:

		Commitments in 2022 (EUR)
Core tasks	**Security accreditation**	998 996,55
	Security and PRS tasks	9 730 140,79
	GSMC operations	2 751 026
	Promotion and marketing of the services	4 465 032,10
	General Administration and Agency Management	52 087 296,33
Delegated tasks	**EGNOS Exploitation**	284 442 378,72
	Galileo Exploitation	250 507 462,75

	Research & Development (H2020)	34 830 444,88
	GOVSATCOM	3 605 840,00
	Copernicus	421 868,00
	SSA	670 723,87
	Total	644 511 209,99

Annex VI – Contribution, grant and service level agreements. Financial Framework Partnership Agreements

Actual state of play of implementation

	General information					Financial and HR impact			
	Date of signature	Total amount	Duration	Counterpart	Short description		2021	2022	
Grant agreements									
1. GOVSATCOM ENTRUSTED	21/08/2020	2 999 940 €	30 months	Agency as coordinator of the consortium	Creation of a coordination relationship scheme between potential governmental secure SatCom users	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							2 999 940	2 109 330	890 610	281 244
						Number of CA				
						Number of SNEs				
Total grant agreements						Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							2 999 940	2 109 330.00	890 610	281 244
						Number of CA				

						Number of SNEs				
Delegation/Contribution agreements										
1. 7th framework programme - 3rd call	01/04/2011	31 200 000 €	84 months	European Commission	Implementation of the FP7, sub-theme Galileo by the Agency – 3rd call	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							1 419 030,18	0	1 419 030,18	0
						Number of CA				
						Number of SNEs				
2. PRS	09/09/2011	11 600 000 €	Until 31/12/2021 (originally 60 months)	European Commission	Delegation Agreement between the European Union and the European GNSS Agency on the development of a standalone first generation PRS receiver within the frame of the PRS pilot project and the implementation of the preparatory activities related to the setting up of the Galileo Security Monitoring Centre	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							790 667,88	686 180,50	669 492,88	565 005,50
						Number of CA				
						Number of SNEs				
3. EGNOS DA	16/04/2014	1 514 000 000 €	Until 31/12/2022	European Commission	Delegation Agreement between the European Union and the European GNSS	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							674 347 368,97	415 852 565,22	561 269 067,38	381 428 868,63

					Agency on the exploitation of the EGNOS Programme	Number of CA				
						Number of SNEs				
4. EGNOS CA	22/06/2021	1 400 000 000 €	Until 31/12/2027	European Commission	Contribution Agreement between the European Commission, representing the European Union, and the EUSPA on the implementation of the Union Space Programme and Horizon Europe (pillar ii, cluster 'digital, industry and space', space section) under the Financial Framework Partnership Agreement (FFPA)	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							1 400 000 000	246 000 000	1 327 000 000,00	173 000 000,00
						Number of CA				
						Number of SNEs				
5. GALILEO DA	02/10/2014	2 940 000 000 €	Until 31/12/2021	European Commission	Delegation Agreement between the European Union and the European GNSS Agency on the exploitation of the Galileo Programme	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							921 220 992,38	783 893 616,75	491 451 849,28	354 124 473,65
						Number of CA				
						Number of SNEs				
6. GALILEO CA	02/06/2021	7 100 000 000 €	Until 31/12/2027	European Commission	Contribution Agreement between the European Commission, representing the European Union, and the EUSPA on the	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							7 100 000 000	1 118 000 000	6 153 344 515,06	1 171 882 213,78

					implementation of the Union Space Programme and Horizon Europe (pillar ii, cluster 'digital, industry and space', space section) under the Financial Framework Partnership Agreement (FFPA)	Number of CA				
						Number of SNEs				
7. H2020	11/04/2014	173 250 000 €	120 months	European Commission	The implementation of calls of Horizon 2020 - framework programme for research and innovation	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							34 634 440,05	19 025 770,52	25 006 388,19	17 449 467,26
						Number of CA				
						Number of SNEs				
8. Horizon Europe	22/06/2021	304 900 000 €	Until 31/12/2027	European Commission	Contribution Agreement between the European Commission, representing the European Union, and the EUSPA on the implementation of the Union Space Programme and Horizon Europe (pillar ii, cluster 'digital, industry and space', space section) under the Financial Framework Partnership Agreement (FFPA)	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							304 900 000	23 000 000	304 900 000,00	23 307 898,00
						Number of CA				
						Number of SNEs				
9. Copernicus					Contribution Agreement between the European	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA

	22/06/2021	30 000 000 €	Until 31/12/2027	European Commission	Commission, representing the European Union, and the EUSPA on the implementation of the Union Space Programme and Horizon Europe (pillar ii, cluster 'digital, industry and space', space section) under the Financial Framework Partnership Agreement (FFPA)		30 000 000	4 000 000	30 000 000,00	4 000 000,00
						Number of CA				
						Number of SNEs				
10. Contribution agreement on GOVSATCOM preparatory action	07/04/2020	4 500 000 €	33 months	European Commission	Actions for the preparation of GOVSATCOM	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							4 471 774	1 466 774,00	4 114 145,80	2 474 144,80
						Number of CA				
						Number of SNEs				
11. GOVSATCOM	22/06/2021	165 000 000 €	Until 31/12/2027	European Commission	Contribution Agreement between the European Commission, representing the European Union, and the EUSPA on the implementation of the Union Space Programme and Horizon Europe (pillar ii, cluster 'digital, industry and space', space section) under the Financial Framework Partnership Agreement (FFPA)	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							165 000 000	1 500 000	165 000 000	2 574 462,00
						Number of CA				
						Number of SNEs				

12. SSA	22/06/2021	1 600 000 €	Until 31/12/2027	European Commission	Contribution Agreement between the European Commission, representing the European Union, and the EUSPA on the implementation of the Union Space Programme and Horizon Europe (pillar ii, cluster 'digital, industry and space', space section) under the Financial Framework Partnership Agreement (FFPA)	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							1 600 000	0	1 600 000,00	700 000,00
						Number of CA				
						Number of SNEs				
13. Galileo Application	21/12/2021	500 000 €	24 months from 15/10/2021	European Commission	EUROPEAN UNION European Union Contribution Agreement - EUSPA MOVE/DDG2.C/SUB/2021-543/SI2.864105	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							500 000	0	500 000,00	400 000,00
						Number of CA				
						Number of SNEs				
Total delegation/contribution agreements						Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
							10 638 884 273.46	2 613 424 906.99	9 066 274 488,77	2 131 906 533,62
						Number of CA				
						Number of SNEs				

TOTAL	Amount	Cumulative CA	Cumulative PA	Cumulative CA	Cumulative PA
		10 641 884 213,46	2 615 534 236,99	9 067 165 098.77	2 132 187 777,62
	Number of CA				
	Number of SNEs				

Annex VII – Environment management

The mission of the European Union Agency for the Space Programme (EUSPA), defined by the EU Space Programme Regulation, is to be the user-oriented operational Agency of the EU Space Programme, contributing to sustainable growth, security and safety of the European Union.

In the light of its mission and vision, and as part of the Financial Framework Partnership Agreement (FFPA) EUSPA is obliged to collaborate with EC and ESA to jointly define modalities to reach European climate neutrality goal by 2050, and cooperating on activities contributing to this target.

Under Art 30 FFPA, EUSPA is obliged to implement an environmental policy by the end of 2023, referring to the Eco-Management and Audit Scheme (EMAS).

Accordingly, EUSPA has decided to **commit to the process of reducing its environmental impacts, optimising resource consumption and decreasing its carbon footprint.** This will be carried out in the perspective of continuous improvement of EUSPA's environmental performance and will be supported via the gradual implementation of EMAS.

As a first step, EUSPA adopted and published its environmental policy on 16 December 2022 (https://www.euspa.europa.eu/sites/default/files/euspa_environmental_policy.pdf).

In that document, EUSPA commits itself to the implementation of this policy with a particular focus on continuous improvement, in line with its quality standards and Integrated Management System (IMS), hence via an accurate monitoring of the Agency's current performance, the relevant Key Performance Indicators (KPIs) and the consolidation an awareness-raising campaign involving all staff and users of EUSPA sites and will work towards the following outcomes:

- Increased awareness of EUSPA staff and users of EUSPA sites with regards to sustainability and environmental footprint of our operations;
- Optimal use and allocation of EUSPA's resources;
- Improved practices to achieve the EU Green Deal targets.

Finally, EUSPA also actively collaborated with the Commission on green ambitions applied to space, to ensure not only a specific focus on the environmental impact of its core business but also to set the grounds for a long-term commitment from the perspective of continuous improvement

Annex VIII - Draft Annual Accounts and Financial Reports

The Provisional Annual Accounts for the reporting period were prepared and sent to the European Commission and the discharge authorities in accordance with the provisions of the Financial Regulation.

In Q1 2023, the Court of Auditors will audit these Accounts. After their final remarks, the Agency will submit the 2022 Final Annual Accounts to its Administrative Board for adoption in June 2023. Once approved by the Administrative Board, the Agency will annex these to this report for reference.

Annex IX – Specific Annexes related to part 2

IX.1 EUSPA Legal Framework (as of 31 December 2022)

Document	Ref.	Issue - Date
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.	2021/696	28 April 2021
Commission Decision (EU, Euratom) 2015/444 of 13 March 2015 on the security rules for protecting EU classified information	2015/444	13 March 2015
Decision No 1104/2011/EU of the European Parliament and of the Council of 25 October 2011 on the rules for access to the Public Regulated Service provided by the Global Navigation Satellite System established under the Galileo programme	1104/2011 (enforced on 5/11/2011)	25 Oct 2011
Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012	2018/1046	18 July 2018
Decision of the Administrative Board adopting the Agency Financial Regulation	WP 69	16 August 2019
Regulation No 31 (EEC), 11 (EAEC), laying down the Staff Regulations of Officials and the Conditions of Employment of Other Servants of the European Economic Community and the European Atomic Energy Community as subsequently amended	Staff Regulations	14 June 1962

Annex X List of Acronyms

Abbreviation	Definition
AD	Administrator
ANSP	Air Navigation Service Providers
APV	Approach Procedure with Vertical Guidance
ARB	Anomaly Review Board
AST	Assistant
ATO	pre-Approval To Operate
BC	Business Continuity
CA	Contract Agent
CCB	Change Control Board
CDA	Crypto-Distribution Authority
CFSP	Common Foreign and Security Policy
CLGE	Council of European Geodetic Surveyors
CMS	Common Minimum Standards
COMSEC	Communication Security
CPA	Competent PRS Authority
CS	Commercial Service
DG DEFIS	Directorate-General for Defence, Industry and Space
DG GROW	Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs
EASA	European Aviation Safety Agency
EC	European Commission
ECA	European Court of Auditors
ECM	Enterprise Content Management
EEAS	European External Action Service
EFTA	European Free Trade Association

Abbreviation	Definition
EGNOS	European Geostationary Navigation Overlay Service
EGNSS	European Global Navigation Satellite System
ELT	Emergency Location Transmitter
EMC	Enhanced Minimum Configuration
ESA	European Space Agency
ESTEC	European Space Research and Technology Centre
EU	European Union
EUCI	EU Classified Information
EUPOS	European Position Determination System
EURATOM	The European Atomic Energy Community
EUSPA	European Union Agency for the Space Programme
FE	Fundamental Elements
FFPA	Financial Framework Partnership Agreement
FKC	Flight Key Cell
FLAG	Five Lives Advisory Group
FOC	Full Operational Capability
GAL	Galileo
GCC	Galileo Control Centre
GCC-D	Galileo Control Centre - Germany
GCC-I	Galileo Control Centre - Italy
GCS	Galileo Control Segment
GDDN	Galileo Data Dissemination Network
GEO	Global Earth Observation
GMS	Ground Mission Segment
GNSS	Global Navigation Satellite System
GPS	Global Positioning System (USA)
GRC	Galileo Reference Centre

Abbreviation	Definition
GRON	Galileo Robust Operational Network
GRUE	GSA EU Restricted Network
GSA	European GNSS Agency
GSAP	GNSS Security Accreditation Panel
GSC	GNSS Service Centre
GSF	Galileo Security Facility
GSMC	Galileo Security Monitoring Centre
GSMC-ES	Galileo Security Monitoring Centre - Spain
GSMC-FR	Galileo Security Monitoring Centre - France
GSOp	Galileo Service Operator
GSS	Galileo Sensor Station
H2020	Horizon 2020
HAS	High Accuracy Service
HE	Horizon Europe
HR	Human Resources
IAC	Internal Audit Capability
IALA	International Association of Lighthouses Authorities
IAS	Internal Audit Service
IATO	Approval to Operate
ICS	Internal Control Standards
ICT	Information and Communications Technology
JRC	Joint Research Centre
IMS	Integrated Management System
ISO	International Standards Organisation
IT	Information Technology
ITS	Intelligent Transport Systems
KMP	Key Management Plan

Abbreviation	Definition
KPI	Key Performance Indicator
LBS	Location-Based Services
LEOP	Launch and Early Operation Phase
L-SMC	LEOP Security Monitoring Cell
LPV	Localiser Performance with Vertical Guidance
M2M	Machine-to-machine
MGF/ULS	Message Generation Facility / Uplink Station
OS	Open Service
OS-NMA	Open Service Message Authentication
PA	Product Assurance
PLB	Personal Locator Beacon
PRS	Public Regulated Service
P3RS-2	PRS Pilot Project 2
QA	Quality Assurance
RIMS	Ranging and Integrity Monitoring Station
RLS	Return Link Service
RLSP	Return Link Service Provider
RAMS	Reliability, Availability, Maintainability and Safety
R-UE / UE-R	EU Restricted
SECMON	Security Monitoring
SecOps	Security Operating Procedures
SAA	Security Accreditation Authority
SAB	Security Accreditation Board
SAR	Search And Rescue
SATO	Site Approval To Operate
SB	System Build
SBAS	Satellite Based Augmentation System

Abbreviation	Definition
SIH	Security Incident Handler
SINA	Secure Inter-Network Architecture
SLA	Service Level Agreement
SNE	Seconded National Expert
SOIF	Security Operational and Intelligence Facility
SPD	Single Programming Document
SSA	Space Situational Awareness
SST	Space Surveillance and Tracking
TA	Temporary Agent
TF	Task Force
UCP	User Consultation Platform
WBS	Work Breakdown Structure
WG	Working Group
WP	Work Package

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