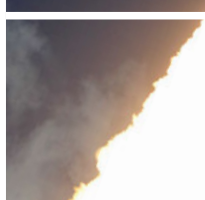
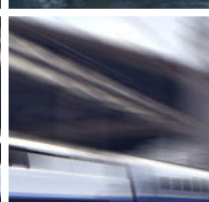
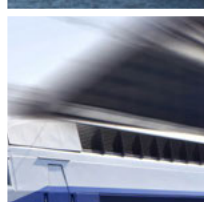
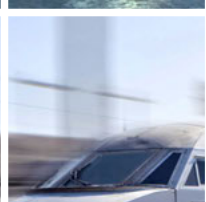
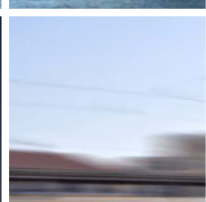
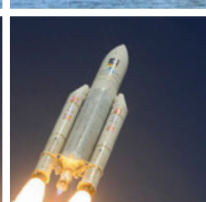
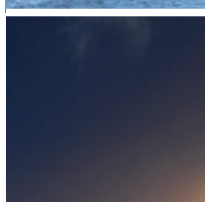
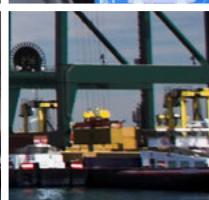
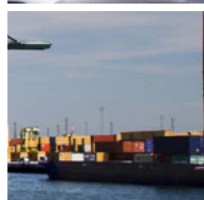
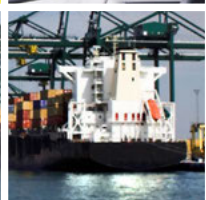
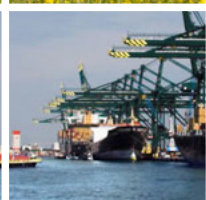
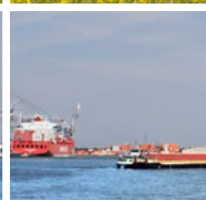
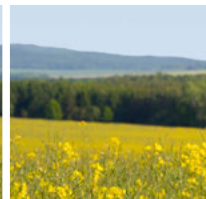
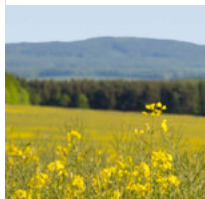


# ANNUAL ACTIVITY REPORT

OF THE EUROPEAN GNSS AGENCY



2017



European  
Global Navigation  
Satellite Systems  
Agency

**LINKING SPACE TO USER NEEDS**



# ANNUAL ACTIVITY REPORT

## OF THE EUROPEAN GNSS AGENCY

### 2017

In pursuance of Financial Regulations 996/2012,  
Framework Financial Regulations No 1271/2013 and  
Regulation (EU) No 912/2010<sup>1</sup>

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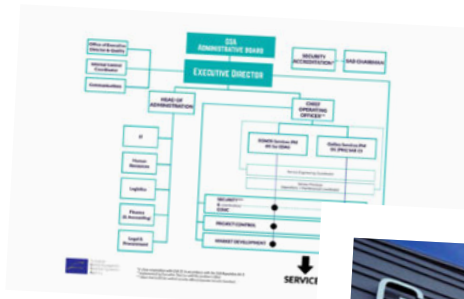
<sup>1</sup> Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union; Regulation (EU) No 1271/2013 of 30 September 2013 on the framework financial regulation for the bodies referred to in Article 208 of Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council and Regulation (EU) No 912/2010 of the European Parliament and of the Council of 22 September 2010 setting up the European GNSS Agency, as amended by Regulation (EU) No 512/2014.

# 2017 GSA HIGHLIGHTS

## MEMORY BOARD



50<sup>th</sup> GSA Administration Board



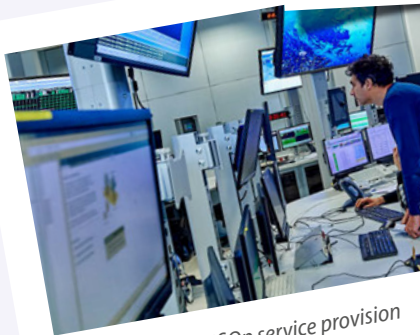
New GSA organisational structure



Continued operations (24/7) of the Galileo Security Monitoring Centre (GSMC)



Galileo ILS Centre official opening



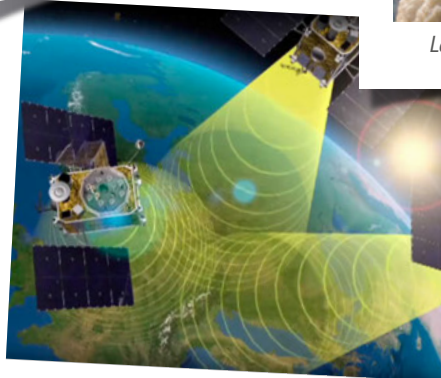
Handover of the GSOp service provision



Launch 9 Early Operations Phase activities undertaken



Public Regulated Service (PRS) Joint Test Activities grants

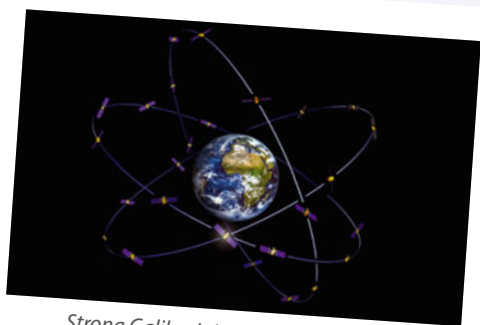


EGNOS GEO3 contract awarded



Galileo Reference Centre (GRC) Key ceremony





*Strong Galileo Initial Service provision throughout 2017*



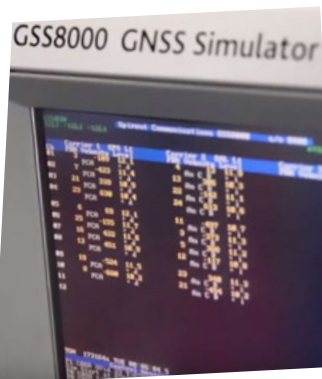
*Strong EGNOS service provision throughout 2017*



*Launch of new Galileo-enabled iPhone and Samsung smartphones*



*EasyJet first customer of EGNOS-enabled Airbus A320*



*4<sup>th</sup> Annual Receiver Workshop in Prague*



*EGNOS V3 procurement procedure finalised*



*First dual-frequency chipset entered the market (Broadcom)*



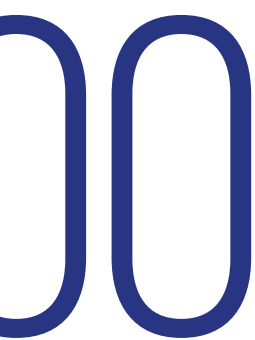
*8<sup>th</sup> EGNOS Annual Workshop, Athens*



*1<sup>st</sup> Galileo User Assembly in Madrid*



*ISO 9001 recertification*



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# MANAGEMENT ANALYSIS AND ASSESSMENT



## Message from the Chair of the Administrative Board

2017 was marked by the 50<sup>th</sup> meeting of GSA's Administrative Board. This admittedly symbolic milestone is a testament above all to the maturity of our agency, which is now in charge since last summer of all Galileo operating activities. To support its extended remit, a new organization has been decided for GSA and 10 new temporary employees are to be recruited as a first step towards boosting staff numbers with a view to giving the agency the additional resources it needs to meet the challenges ahead.

The deployment of Galileo continued at a sustained pace in 2017 with the addition on 12 December of four new satellites to the constellation, taking the number now in orbit to 22. They are already improving performance and initial Galileo services delivered excellent results throughout the year as the system became reality. Apple and Samsung paved the way for its use in their new-generation smartphones, with the rest of the consumer market following suit. GNSS chip manufacturers are now listing Galileo and, by opting for bi-frequency solutions, they are highlighting its key differentiators with respect to other systems.

The first Galileo User Assembly held in Madrid on 28 and 29 November focused on fostering applications, now the priority for GNSS programmes. It also demonstrated the interest that users are showing in the services offered by Europe's GNSS for transport, farming, consumer and many other applications.

Meanwhile, EGNOS reached the landmark of 500 published landing procedures and the airline EasyJet announced its intention to equip its aircraft with EGNOS receivers. These significant advances are the result of GSA's unstinting efforts. Industrial activities to develop the future third-generation EGNOS also got underway. This major upgrade to the system designed to enhance the performance of both GPS and Galileo will bring better-quality services to an increasing number of users.

In the wake of Brexit, an important decision for Galileo was taken to relocate the secondary GSMC from Swanwick to Madrid. At the same time, the agency has been working closely with the French authorities on the upgrade and future extension of the main GSMC in Saint-Germain-en-Laye. It is in this context that the Board welcomed the new GSMC Head of Department and paid tribute to the excellent efforts of his predecessor who worked so hard to advance GSA's actions in the domain of security and the PRS.

Lastly, on 5 December the Council of EU Transport Ministers adopted its conclusions on the mid-term review of European satellite navigation programmes. These conclusions are especially important in the light of preparing the future European regulation for the EGNOS and Galileo programmes, which will come into force in 2021 and must give GSA the means to execute its actions within a governance framework tailored to the challenges that await it.

**Jean-Yves Le Gall**

Chair of the Administrative Board, European GNSS Agency



### **Message from the Chair of the Security Accreditation Board**

I write this report as my mandate as Chair of SAB comes to an end! 2017 began as my last full year as Chair of the EU GNSS has been a challenging year for the Security Accreditation Board (SAB), dominated by the critical milestone of the handover of operating the system to the Galileo Service Operator under the control of the GSA. It also saw the second Galileo Ariane launch. Nevertheless, the SAB has continued to proactively engage with

the EU GNSS Programme management authorities in a demanding dialogue with the aim to continually improve the overall security management processes and to gain concrete improvements in terms of security.

The SAB authorised one further Galileo launch in 2017, a second and highly successfully Ariane 5 launch. My congratulations to ESA and all engaged in the launch. It was also the first time that the GSA had responsibility for the Launch and Early Operations (LEOP) phase. A highly significant achievement. The Flight Key Cell (FKC) ensured full coverage of this launch and successfully oversaw the secure distribution of Galileo flight key material and satellites throughout the launch operations. My personal gratitude to the Members of the FKC led by the GSA Supervisor and representing France, Germany and Italy.

The first of July saw the long awaited handover of Operating the System from ESA to the GSA, signalling the start of a truly civilian operated service. In June the SAB released an authorisation for the Programme to provide initial operation of the GALILEO System and Services up to and including the signal-in-space. The SAB acknowledged the efforts made by the Programme in taking concrete steps to improve the security of the Programme. The Programme assured the SAB of its commitment to sustaining progress in mitigating security risks through incremental improvements and in the further development of Galileo in accordance with Regulation 1285. It was however also recognised that the management of security risks is still evolving.

The process of re-accreditation of Galileo sites continued to be followed by the SAB; the Galileo sites in configuration hold a valid accreditation as a result of the SAB secretariat working in close cooperation with the Member States, and now the GSOp team, in order to maintain and ensure that the site re-accreditation process is smooth and up-to-date.

The SAB issued 19 interim authorisations for bodies to develop and manufacture PRS receivers and security modules in 2017, either as a first authorisation or as a change to previously granted authorisations. By the end of the year 120 European companies covering 15 Member States had valid SAB authorisations. In total the SAB has issued 125 interim authorisations for bodies to develop and manufacture PRS receivers and security modules to date.

The SAB CDA continued to work on the independent assessment of Programme COMSEC activities, including governance, organisation, identification of COMSEC assets, distribution and further accounting of the COMSEC assets within the Programme. The Programme was notably able to evolve the Galileo Initial Services Key Management Plan as the system was upgraded, covering all classified cryptographic keys and COMSEC assets providing services to the Galileo User Segment. The SAB CDA was able to utilise this as an effective

monitoring tool for compliance to Council and Commission security rules. The transfer of COMSEC assets to the GSOP in July 2017 was also monitored and investigated by the SAB CDA to the satisfaction of the SAB. SAB CDA also continued to monitor the evolution of the GSOP and GSMC COMSEC roles and ensure that the imminent upgrades to both areas in 2018 were following a COMSEC-compliant path.

I would like to take this opportunity to express my personal gratitude to all my colleagues in the SAB and acknowledge the significant commitment they have made in holding the programme to account on the serious issue of securing Galileo. Without my colleagues support and trust I could not have fulfilled this critical post for the programme. To all stakeholders who contribute to the success of the EU GNSS programmes, I thank you all for your commitment, your efforts and co-operation whilst at the same time acknowledging that much still remains to be done within the security arena. I particularly wish to thank and publically acknowledge the support, wise counsel and the wonderful friendship of my Deputy Chair Mr Bruno Vermerie. I wish him all the very best of luck as he takes over and steers the SAB on its continuing journey. Thank you Bruno!

And finally to my team in here in the GSA, thank you all. Without your dedication and commitment Accreditation quite simply wouldn't happen! I must recognise and applaud your professional competence and advice offered by you all. It is you who enable the SAB to take informed, yet difficult, decisions ensuring the security of this important EU asset.

Now it is the turn of the GSA. I have served as Chair of the SAB since 2014 and I have watched with interest and pride as the GSA has evolved. It has done so, and continues to do so whilst simultaneously facing significant challenges from a resourcing perspective. My sincere congratulations to Carlo and his management team and my very best wishes for your future.

As I stated at the Launch in Kourou, what I say now I say personally, what we have achieved with Galileo we have achieved by working together, by respecting each other's views and by working collaboratively with mutual respect. As Commissioner Bieńkowska is often heard to say – "No one Member State can achieve Galileo on its own". I will, if I may, go further. No one entity can achieve that which has been achieved jointly thus far. Each entity brings unique competencies and skills. Competencies and skills which when combined with another entity have enabled the historic achievement that is the Galileo we all know today. So a plea to you all as you evolve and as Galileo grows; Use and respect each others' competencies thereby enabling Galileo to grow and become the best GNSS service and the service of choice that Europe deserves it to be.

Good luck and Good bye!

**Jeremy Blyth**

Chair of the Security Accreditation Board of the EU GNSS (2014-2018)



## Message from the Executive Director

Building on the activities of previous years, 2017 was a very successful year – both for the Agency and the European GNSS programme. I think the best way to highlight the Agency's achievements is to provide a snapshot of some of our 2017 operational activities as presented to the Administrative Board in January 2018:

- 50<sup>th</sup> Admin Board
- New GSA organisational structure
- Handover of the GSOp service provision
- Launch 9 Early Operations Phase activities undertaken
- Galileo Reference Centre (GRC) official opening
- Galileo ILS Centre official opening
- Continued operations (24/7) of the Galileo Security Monitoring Centre (GSMC)
- Public Regulated Service (PRS) Joint Test Activities grants
- EGNOS GEO3 contract awarded
- EGNOS V3 procurement procedure finalised
- Launch of new Galileo-enabled iPhone and Samsung smartphones
- First dual-frequency chipset entered the market (Broadcom)
- EasyJet first customer of EGNOS-enabled Airbus A320
- 4<sup>th</sup> Annual Receiver Workshop in Prague
- 1<sup>st</sup> Galileo User Assembly in Madrid
- 8<sup>th</sup> EGNOS Annual Workshop in Athens
- ISO 9001 recertification

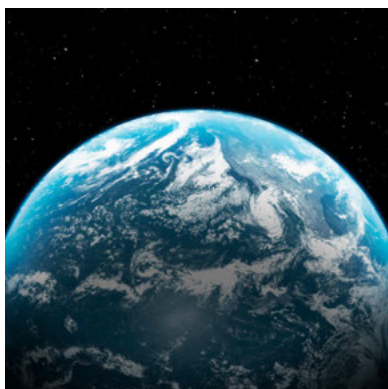
The administration behind these successes is equally impressive. For example, in 2017 the Agency committed over EUR 400 million, made over 400 legal commitments and offered 33 posts to selected candidates. All of this was recognised through the Competitiveness Council conclusions as part of the outcome of the Mid-Term Review exercise. The Agency is keen to see how this will translate into the role and responsibilities of the Agency in the next financial perspective.

Finally, let me continue to recall that the success of the Agency and its activities is not achieved in isolation. It is the result of the way we interact and the partnerships we build – in particular with the public sector (Member States, the Commission and the ESA), and also with the private sector. Furthermore, this success is built on the dedication, competency and professionalism of the GSA staff, which is second to none.

**Carlo des Dorides**

Executive Director, European GNSS Agency (GSA)

# EXECUTIVE SUMMARY



By developing and operating a new generation of Global Navigation Satellite Systems (GNSS), Europe is opening new doors for industry development, job creation and economic growth. With Europe in the driver's seat, Galileo is now a cornerstone of the global radio-navigation positioning system. In support of Galileo and EGNOS, the European GNSS Agency (GSA) was established in 2004 as a European Union Regulatory Agency. During 2017, the Agency was responsible for a range of activities, including:

- Operating the Galileo Security Monitoring Centre (GSMC).
- Fulfilling the terms of two delegation agreements related to the exploitation phases of the Galileo and EGNOS satellite navigation programmes. In particular, the Agency completed the handover of the service provision to the Galileo Service Operator (GSO) for Galileo, successfully undertook the Launch 9 Early Operations Phase activities, and held its first Galileo User Assembly. It also inaugurated the Galileo Reference Centre (GRC) and Galileo Integrated Logistic Centre (GILSC). Regarding the EGNOS programme, the Agency signed the GEO 3 contract and continued the procurement of EGNOS Version 3.
- Accomplishing other tasks entrusted to it by the European Commission, including: managing the European Union (EU) research and development framework programmes for European GNSS applications; promoting satellite navigation applications and services; facilitating a smooth functioning, seamless service provision and high market penetration; and ensuring the certification of all systems' components.
- Fulfilling tasks defined under a delegation agreement related to the management of projects under the Horizon 2020 (H2020) framework programme for research and innovation.



# ACHIEVEMENTS IN 2017



The Agency performs both core tasks under Regulation (EU) No 912/2010 of the European Parliament and of the Council on setting up the European GNSS Agency ("GSA Regulation") and a number of tasks under delegation from the European Commission. The delegated tasks are described in section 1.6.

All activities are mapped in the Agency's Work Breakdown Structure (WBS). Each objective is shown with its allocated WBS number to indicate how the Agency's activities are structured.

This section provides an overview of the Agency's achievements during 2017. It is structured around the five areas of work described in the Single Programming Document (SPD) 2017-2020. The achievements for 2017 are placed within the context of the multiannual goals and are reported on against the annual objectives, performance indicators and expected outputs defined in the SPD.

## 3.1 SECURITY ACCREDITATION ACTIVITIES (WBS 2.04, WBS 2.05, WBS 2.06)

In accordance with point (b) of Article 11(4) of the GSA Regulation, the Security Accreditation Board prepared this section. It is being incorporated into this document, without any change.

### 3.1.1 Tasks until 2020

	Tasks	Objective	Year
1	Approvals to launch	Conduct security assurance activities and administer corresponding accreditation decisions for satellite launches.	2014 - 2020
2	Authorisations to operate the systems in their various configurations and for the various services	Conduct system operations/services security assurance activities and administer corresponding accreditation decisions (currently for Galileo; progressive development until 2020 for EGNOS).	2014 - 2020
3	Authorisations to operate sites	Conduct site security assurance activities and administer corresponding accreditation decisions (currently for Galileo; progressive development until 2020 for EGNOS).	2014 - 2020

	Tasks	Objective	Year
4	Galileo PRS Manufacturers Authorisations	Conduct PRS User Segment security assurance activities and administer corresponding decisions (currently for Galileo research and development only; progressive development to manufacturing).	2014 - 2020
5	SAB Secretariat	Ensure the secretariat of the Security Accreditation Board (SAB); Ensure general support to the SAB Chair and deputy Chair in discharging their regulatory responsibilities.	2014 - 2020
6	SAB Subordinate panel (and related groups of experts)	Elaborate comprehensive Security Accreditation Reports for the SAB. The Panel is divided into a number of expert groups and is, for the interim, chaired by Agency, which also provides secretariat support.	2014 - 2020
7	Communications Security (COMSEC) management – SAB subordinate CDA	The Agency chairs the SAB Crypto Distribution Authority (CDA) and this is managed in order to assess the conduct of European Commission COMSEC policy throughout the EGNOS and Galileo programmes. It shall continue to achieve this through the authoritative assessment of the COMSEC experts from the Member States (NDAs) of evidence supplied to it by the EU GNSS Distribution Authority (DA) regarding COMSEC activities within the EGNOS and Galileo programmes. The SAB CDA shall then provide COMSEC assurance to SAB communicated as a COMSEC risk assessment in order to facilitate successful accreditation.	2014 - 2020
8	COMSEC management – Flight Key Cell (FKC)	To ensure the security of flight keys during EU GNSS programme launch campaigns.  The FKC is an independent sub-cell of the SAB CDA, organised and managed by the Agency but consisting of COMSEC experts from the Member States formed for the duration of launch campaigns. It answers to the EU GNSS DA for its operational role and to SAB CDA in the provision of assurance of flight key COMSEC activities within the Programme.	2014 - 2020
9	New SAB regulatory responsibilities	Implementation of the new responsibilities entrusted to SAB by Regulation (EU) No 512/2014 and laid down in Article 11 thereof, in particular paragraph 3 points (c) to (l) and paragraph 4.	2015 - 2020

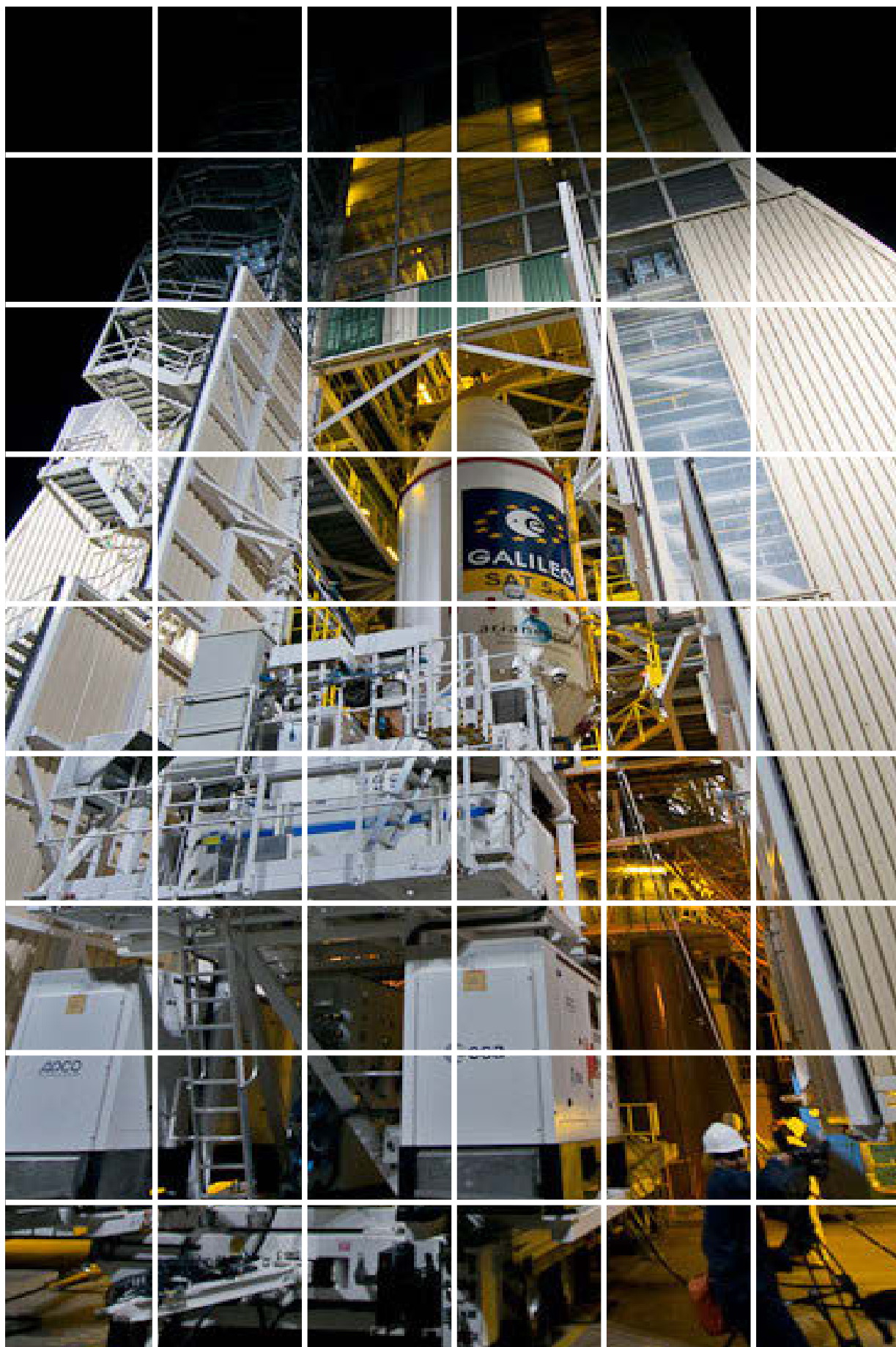
### 3.1.2 Highlights for 2017

The Agency in general and the security accreditation team provided the technical and administrative secretariat support to the SAB, providing the underlying security assurance to prepare proportionate, appropriate and effective security accreditation decisions at the programme milestones.

The main objectives for 2017 were achieved:

- The SAB approved the 9<sup>th</sup> Galileo launch following the recommendations from its subordinate bodies and participation of the accreditation team to launch related reviews; the corresponding Approval to Launch certificate was provided to the Programme Manager. A process to authorise satellites for service provision after in-orbit testing was formalised.

- The SAB issued the statement regarding the authorisation for the programme to provide initial operations of the Galileo system for the provision of Initial Services up to and including the Signal in Space in December 2016. This statement was extended for a brief period in June 2017. The statement was substantially revisited in August 2017 and extended for six months with a number of specific recommendations on the actions to undertake in order to maintain the Initial Services authorisation. In December 2017, on the basis of the status on the Programme actions, the SAB issued a three month authorisation statement for Initial Services.
- In July 2017, the SAB authorised the handover of specific operational responsibilities from ESA to GSA and to the new Galileo operator, GSOp.
- The SAB issued a total of 16 Site Authorisations To Operate, maintaining the validity of the accreditation of the sites.
- The SAB issued 15 new authorisations for bodies to develop and manufacture PRS receivers and security modules, and authorised 7 renewals/extensions. By the end of the year, 120 EU companies had valid SAB authorisations. The SAB secretariat initiated a dialogue with SAB and European Commission to review the authorisation process for further alignment to the Commission Delegated Decision supplementing Decision No1104/2011 of the European Parliament and the Council as regards the Common Minimum Standards to be complied with by the competent PRS authorities.
- The accreditation team of the Agency supported the SAB in conducting an independent security assessment (penetration test) on part of the system to evaluate security robustness. The SAB approved a road map for further security assessments to be conducted and approved a standardised process for tests.
- A road map for increased independence of the SAB and its secretariat within the GSA was drafted.
- The SAB CDA continued to work firmly on COMSEC activities, including governance, organisation, identification of COMSEC assets, distribution and further accounting of the COMSEC assets within the programme. The SAB CDA continued to oversee the implementation of the new programme COMSEC governance established in December 2015 and to provide recommendations to the programme in terms of compliance to European Council and Commission policy on COMSEC matters.
- The SAB CDA continued to monitor and assess the Programme evolution of the Galileo Initial Services key management plan over the year covering all classified cryptographic keys and COMSEC assets providing services to the Galileo User Segment.
- The SAB CDA Flight Key Cell supported one Ariane launch in 2017. Changes to FKC staff, and adaptation of FKC procedures to cope with Ariane launches were implemented successfully. The launch concluded successfully with a full complement of FKC staff (GSA + Member States).



### 3.1.3 Tasks for 2017

Objective 1: Ensure the secretariat for the Security Accreditation Board (WBS 2.04.01)	
Expected results	2017 results
<ul style="list-style-type: none"> <li>• Reports to SAB Chair</li> <li>• Propose SAB meeting plan</li> <li>• Distribution of working papers in due time before each meeting</li> <li>• Establishment of minutes in due time after each meeting</li> <li>• Administer written procedures as necessary</li> <li>• Record and transmit all SAB decisions</li> </ul>	<ul style="list-style-type: none"> <li>• Regular reports to SAB Chairman, in particular after Subordinate Bodies' meeting.</li> <li>• The SAB meeting plan established at the end of 2016 and maintained in 2017 to keep it aligned with the changes in the Programme schedule. Two extra-ordinary SAB meetings were added to the original meeting plan to meet Programme needs.</li> <li>• Relevant documents distributed in advance of each meeting, in particular in support of SAB decisions.</li> <li>• Minutes 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.</li> <li>• Decisions that could not be taken during the meetings e.g. due to lack of quorum were administered via written/silence procedures.</li> <li>• All SAB decisions and actions recorded; SAB decisions were addressed to the European Commission.</li> </ul>

		Targets	2017 results
Indicators	SAB meetings organised	4	6
	Written procedures administered	100%	100%
	SAB decisions administered	100%	100%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Approvals to launch</li> <li>• Authorisations to operate the systems in their different configurations and for the various services, including up to and including the signal in space</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• 1 Approval To Launch (ATL 9)</li> <li>• 5 authorisations to operate the systems (3 for Initial Services, 2 for GSOp)</li> <li>• 16 authorisations to operate the ground stations</li> </ul>



- Authorisation to operate the ground stations
  - Authorisation of bodies to develop and manufacture PRS receivers or PRS security modules
  - Other SAB decisions
- Other outputs:
- Security Accreditation reports
  - Recommendations to the SAB / SAB Chair
- 15 new authorisations to manufacture PRS receivers or PRS security modules; 7 renewals/extensions
- Other outputs:
- 1 Security Accreditation report
  - Recommendations to the SAB/ SAB Chairman as normal work

## Objective 2: Support to SAB Management (WBS 2.04.02)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Draft the SAB Work Programme 2018, taking into account the inputs from the GNSS Security Accreditation Panel (GSAP) and CDA</li> <li>• Draft the SAB Budget 2018, taking into account the inputs from the panel and CDA</li> <li>• Report on the SAB Budget 2017</li> <li>• Draft/update the SAB Staff Establishment Plan</li> </ul>	<ul style="list-style-type: none"> <li>• SAB activities part of the Single Programming Document (SPD) 2018 for security accreditation activities adopted by the SAB in January 2017.</li> <li>• Draft Budget 2018 for SAB activities prepared, taking into account the inputs from the SAB Panel and the SAB CDA, and integrated in the SPD.</li> <li>• Regular reports on the implementation of the SAB Budget 2017 made.</li> <li>• Agency's Staff Establishment Plan 2017 included in the Single Programming Document.</li> </ul>

	Targets	2017 results
Indicators	Work Programme adopted	Yes
	Budget adopted	Yes
	Establishment plan adopted	Yes

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Work Programme adopted</li> <li>• Budget adopted</li> <li>• Establishment plan adopted</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• SPD approved</li> <li>• Budget included in the SPD and approved</li> <li>• Establishment plan included in the SPD and approved</li> </ul>

Other outputs:

- Security Accreditation Reports
- Recommendations to the SAB / SAB Chair

Other outputs:

- Consolidated Annual Activity Report
- Recommendation to the SAB/ SAB Chairman as normal work

### Objectives 3 to 6: Define and Approve Security Accreditation Statements (WBS 2.04.04)

- **Objective 3:** Approvals to Launch
- **Objective 4:** Authorisations to operate the systems in their different configurations and for the various services, including up to and including the signal in space
- **Objective 5:** Authorisations to operate the ground stations
- **Objective 6:** Authorisations of bodies to develop and manufacture PRS receivers or PRS security modules

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Security accreditation statements</li> <li>• Changes to existing security accreditation statements</li> <li>• Re-accreditation statements</li> </ul>	<ul style="list-style-type: none"> <li>• Security Accreditation statements released by the SAB for each accreditation milestone, such as for Approval to Launch, system and service authorisation (Initial Services, GSOp).</li> <li>• Existing statements discussed before expiration date and extended with appropriate update of actions/conditions inside, e.g. Initial Services authorisation.</li> <li>• Re-accreditation statements issued, e.g. for sites, after check of relevant requirements and with continuity of service.</li> </ul>

	Targets	2017 results
Indicators	Approvals to Launch	1
	Authorisations to operate the Galileo system in their different configurations and Galileo services	2
	Authorisation to operate the ground stations	12
		16

Indicators	<b>% of processed requests of authorisation of bodies to develop and manufacture PRS receivers or PRS security modules</b>	
	100%	100%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Approval to Launch</li> <li>• Authorisations to operate the Galileo system in their different configurations and Galileo services</li> <li>• Authorisation to operate the ground stations</li> <li>• Authorisation of bodies to develop and manufacture PRS receivers or PRS security modules</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• 1 Approval To Launch (ATL 9)</li> <li>• 6 authorisations to operate the systems (GSOp and Initial Services)</li> <li>• 16 authorisations to operate the ground stations</li> <li>• 15 new authorisations to manufacture PRS receivers or PRS security modules; 7 renewals/extensions</li> </ul>

#### Objective 7: Ensure the chairmanship of the Panel, its technical and organisational secretariat (WBS 2.05.05)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Propose panel meeting plan</li> <li>• Draft reports in order to prepare panel reviews</li> <li>• Organise 5 panel meetings in the year</li> <li>• Deliver accreditation reports and recommendations to SAB</li> </ul>	<ul style="list-style-type: none"> <li>• SAB meeting plan 2017, including the Panel meetings, approved by SAB and subsequently maintained, notably to take into account the changes in the Programme schedule.</li> <li>• 5 SAB Panel meetings organised in 2017. The Security Accreditation Team ensured the chairmanship and the technical and administrative secretariat of those meetings.</li> <li>• Minutes of the Panel meetings approved during each meeting and provided to the SAB as timely input for decision making containing Panel recommendations for SAB decision. Recommendations of the Panel summarised by the Panel Chairman at each SAB meeting.</li> </ul>

- In addition, a specific Security Accreditation Report was provided by the Panel to the SAB for the the Approval to Launch of Galileo satellites. GSAP recommendation to SAB provided for accreditation milestones, as report to SAB. Accreditation reports provided by the SAB secretariat for site approval to operate (SATO) decisions and the Authorisation of PRS manufacturers.
- The SAB Panel issued recommendations in support of SAB decisions

		Targets	2017 results
Indicators	Panel meetings	5	5
	Security Accreditation reports	10	1
	Panel recommendations	8	18

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Security Accreditation Reports</li> <li>• Recommendations to the SAB and/or the SAB chairman</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• 1 Approval To Launch (ATL 9)</li> <li>• Recommendations to the SAB and/or the SAB chairman in support of all SAB decisions</li> </ul>

#### Objective 8: System level accreditation tasks (WBS 2.05.01)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Review existing strategies to ensure consistency with the regulation/the programme and propose enhancements as appropriate</li> <li>• Carry out independent security assessments and report to panel/SAB accordingly</li> <li>• Participate in security sensitive programme reviews at system level and where necessary ad hoc participation in segment reviews</li> <li>• Under SAB authorisation, carry out independent security vulnerability analysis and system security assessments and report to panel/SAB accordingly</li> </ul>	<ul style="list-style-type: none"> <li>• Review of the Security Accreditation Strategy put on hold. A draft of the site approval to operate (SATO process) drafted and submitted to the Panel.</li> <li>• The Security Accreditation Team (together with its contractors) carried out a number of security accreditation reviews in order to prepare the accreditation of the Galileo launches, the accreditation of system configuration upgrades' connection, and the accreditation of Initial Services. Recommendations to the SAB Panel, SAB CDA and the SAB were made accordingly.</li> </ul>

- Monitor risks, treatment plans and report to panel/SAB accordingly
- Participation in Programme reviews, injecting comments as needed and reporting to SAB/SAB Panel and in related accreditation reports. These Programme Reviews include the Satellite Acceptance Reviews, and the Initial Services Validation Campaign.
- Independent security vulnerability assessment (penetration test) performed on part of the system. Other planned tests from the test campaign for 2017 had to be postponed.
- Risks and treatment plans constantly monitored and discussed at SAB Panel and SAB meetings, and in the accreditation reports.
- Coordination process established between the SAB accreditation team and the Programme to monitor progress on cyber vulnerability remediation and report the status to the SAB Panel and the SAB.
- SAB Accreditation Framework Contract LOT3 SC3 launched to provide administrative support to SAB, SAB Panel and SAB CDA. This also allowed for the Accreditation team to begin to improve the SAB document repository and define options for collaborative workshares to exploit upcoming GSA IT infrastructure improvements.

Targets		2017 results
Indicators	<b>Number of independent reviews carried out</b>	Depend on the milestones planned for the year
		2 + continuous reviews (e.g. linked to all accreditation milestones, cyber tasks)

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: <ul style="list-style-type: none"> <li>• Security Accreditation Reports</li> <li>• Recommendations to the SAB and/or the SAB Chair</li> </ul>	Outputs relating to the multi-annual work programme objectives: <ul style="list-style-type: none"> <li>• 1 Approval To Launch report (ATL 9)</li> <li>• Recommendations to the SAB and/or the SAB Chairman for each SAB decision</li> </ul>



### Objective 9: Ground stations level accreditation tasks (WBS 2.05.02)

Expected results	2017 results
<ul style="list-style-type: none"> <li>Plan activities to verify the GNSS ground stations meet the EU GNSS security requirements.</li> </ul>	<ul style="list-style-type: none"> <li>The security Accreditation Team coordinated with the Programme to ensure the Galileo sites meet the expected security requirements in line with the system accreditation statement.</li> <li>Reports were provided to the GSAP and the SAB accordingly, leading to the issuance of 16 Site Authorisation to Operate.</li> </ul>

	Targets	2017 results
<b>Indicators</b>		
<b>Operational sites accredited or covered by a recommendation to the SAB</b>	100%	100%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>Site Accreditation Report</li> <li>Recommendations to the SAB and/or the SAB Chair</li> <li>Authorisation to operate the ground stations</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>Site Accreditation Report were provided by the SAB secretariat for each SATO decision and endorsed by the SAB Panel.</li> <li>Recommendations to the SAB and the SAB Chairman were provided for each SAB decision.</li> <li>The SAB issued 16 decisions on Site Authorisation to Operate.</li> </ul>

### Objective 10: PRS manufacture authorisation activities (WBS 2.05.04)

Expected results	2017 results
<ul style="list-style-type: none"> <li>Authorisation of bodies to develop and manufacture PRS receivers or PRS security modules</li> </ul>	<ul style="list-style-type: none"> <li>The SAB secretariat provided reports supporting the SAB in its decision making and drafted the SAB decisions. The SAB issued 15 new authorisations to manufacture PRS receivers or PRS security modules, and 7 renewals/extensions.</li> <li>By the end of the year, 120 European companies had valid SAB authorisations.</li> </ul>

- Consultations were carried out to assess the impact of the Commission Delegated Decision on CMS to the SAB, and to develop the proposal for a conversion and update of the SAB interim authorisations of PRS manufacturers to a regime compliant with the CMS.

Targets		2017 results
Indicators	<b>Requests for PRS manufacturer authorisation processed</b>	100%
		100%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Recommendations to the SAB and/or the SAB Chair</li> <li>• Authorisation of bodies to develop and manufacture PRS receivers or PRS security modules.</li> <li>• Maintain the SAB PRS manufacture authorisations</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• 15 new authorisations to manufacture PRS receivers or PRS security modules, and 7 renewals/extensions.</li> <li>• 100% maintenance of SAB PRS manufacture authorisations</li> </ul>

#### Objective 11: COMSEC assurance – SAB subordinate CDA (WBS 2.06.01)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Assess the conduct of EC COMSEC policy throughout the EGNOS &amp; Galileo Programmes. It shall continue to achieve this through the authoritative assessment of the COMSEC experts from the Member States (NDAs) of evidence supplied to it by the European GNSS Distribution Authority regarding COMSEC activities within the EGNOS &amp; Galileo Programmes. The SAB CDA shall then provide COMSEC assurance to SAB communicated as a COMSEC risk assessment in order to facilitate successful accreditation.</li> </ul>	<ul style="list-style-type: none"> <li>• 3 meetings held in 2017 to examine and review Programme COMSEC compliance and FKC launch campaign implementation.</li> <li>• Continued implementation of the new Programme COMSEC governance through scrutiny of the EU GNSS DA compliance to European Council and Commission COMSEC policy.</li> <li>• Reviewed the Programme implementation of a Programme COMSEC Asset Database within ESA GNSS Security Office and the GSA to provide a centralised view of COMSEC accounting and transfers in the Programme.</li> </ul>

- Requested updates to the Galileo Initial Services Key Management Plan (IS KMP) as a pre-requisite for Galileo IS and GSOP authorisations to operate. This was subsequently delivered and reviewed by SAB CDA to give confidence to the SAB that all Galileo IS COMSEC assets were identified and subject to COMSEC management.
- Worked in co-operation with SAB Panel GF#3 to maintain a list of approved Programme Operational COMSEC assets authorised for use in the Programme, and a subset of which was authorised for use with Galileo Initial Services.
- Standardised SAB CDA TF decision making process for accreditations, authorisations and maintenance of these to ensure consistent reporting to the Panel and SAB.
- Oversaw and verified compliance of FKC launch campaign implementation for one Ariane launches in 2017.

Targets		2017 results
Indicators	Task force meetings	5
	Contribute to Panel Security Accreditation reports	3
	SAB CDA recommendations	4
	Depend on the number of milestones for the year	4

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• COMSEC report to SAB.</li> <li>• Recommendations to the SAB and/or the SAB Chair.</li> <li>• Identified COMSEC risks reflected in the System Security Plan.</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• SAB CDA TF#015 COMSEC report and recommendation to SAB#30.</li> <li>• SAB CDA TF#016 COMSEC report and recommendation to SAB#31,31b.</li> <li>• SAB CDA TF#017 COMSEC report and recommendation to SAB#32.</li> </ul>

## Objective 12: COMSEC assurance – Flight Key Cell (FKC) (WBS 2.06.02/ WBS 2.06.04)

Expected results	2017 results
<ul style="list-style-type: none"> <li>To assure the security of flight keys during European GNSS programme launch campaigns through specification of the necessary security procedures to assure launch security and subsequent implementation of those procedures culminating in an assessment of launch compliance that can be used by the SAB to derive assurance that the launch was conducted securely.</li> </ul>	<ul style="list-style-type: none"> <li>Held one FKC meeting (July 2017) to close Galileo Launch campaign 8 and plan Galileo launch campaign 9.</li> <li>Training of new GSA FKC Officer/Supervisor by July 2017 ready to cover closing stages of Launch 8 and Launch 9 in full. No impact on Programme launch continuity experienced.</li> <li>Implemented one launch campaign successfully.</li> <li>Updated FKC Terms of Reference for review by SAB CDA and submission to SAB.</li> <li>Updated FKC operating procedures per launch.</li> <li>Released special GSA administrative rules for FKC operational deployments, covering particular needs for FKC staff relating to mission rules, health &amp; safety, finances &amp; reimbursements to Member States and Training.</li> </ul>

	Targets	2017 results
Indicators	FKC launch campaigns	1
	FKC Launch Key Management Operational Plans	1

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>Contribution to SAB CDA COMSEC Reporting and Risk Identification</li> <li>Recommendations to the SAB / SAB chairman</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>FKC reporting to SAB CDA TF meetings and SAB meetings</li> </ul> <p>Other outputs:</p> <ul style="list-style-type: none"> <li>Specific GSA administrative rules for FKC operational deployments</li> </ul>

### Objective 13: Implement the new SAB regulatory responsibilities (WBS 2.04.03)

Expected results	2017 results
<ul style="list-style-type: none"> <li>Implementation of the new responsibilities entrusted to SAB by Regulation (EU) No 512/2014 and laid down in Article 11 thereof, in particular paragraph 3 points (c) to (l).</li> </ul>	<ul style="list-style-type: none"> <li>Security documentation submitted to SAB in the various accreditation datapacks was examined by the SAB and/or by its subordinate bodies per delegation. The security accreditation files submitted by the Programme were examined and discussed by the subordinate bodies for each milestone.</li> <li>Security risk assessment provided by the Programme was regularly provided to the SAB and to the Accreditation Panel and analysed; conclusions on the risk assessment was provided to the EC for each accreditation milestone.</li> <li>Implementation of security measures regularly checked via inspections at site level, participating to reviews at Programme level, undertaking accreditation reviews, and undertaking security assessment in the network security test campaign. Outcome of these checks were reported to SAB in support of its decisions.</li> <li>List of approved cryptographic products under scrutiny from the SAB Panel and SAB CDA maintained.</li> <li>The SAB informed the Commission of its risk assessment for its accreditation decision and advises on residual risk treatment options for a given security accreditation decision.</li> </ul>

	Targets	2017 results
<b>Indicators</b> <b>All new responsibilities entrusted to SAB are implemented</b>	100%	As required in support of the accreditation milestones

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Revised Security Accreditation Strategy.</li> <li>• Revised Terms of reference for subordinate bodies.</li> <li>• SAB decisions.</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Revision of Security Accreditation Strategy was put on hold by the SAB.</li> <li>• Consequently the Term of Reference for subordinate bodies were not addressed at SAB.</li> <li>• SAB decisions were provided in alignment with Programme needs.</li> </ul>



## 3.2 Public Regulated Service (PRS) Activities (WBS 2.03)

### 3.2.1 Tasks until 2020

	Tasks	Objective	Year
1	PRS management plan	Define the organisational structure and rules for implementing the management of PRS items and PRS information.	2016 - 2020
2	PRS entities database	Ensure that the database of entities authorised by Competent PRS Authorities (CPAs) and by the Security Accreditation Board to carry out PRS activities is constantly updated.	2016 - 2020
3	The Agency's CPA CMS compliance report	Create a document based on the input received by CPAs summarising elements concerning their compliance with the CMS.	2018
4	CMS audit and inspections report	Create an Agency audit and inspection report on CMS compliance (Upon request by the Commission).	2016 - 2020
5	PRS Article 14 implementation report	Create a report summarising all movements, requests and security breaches associated with the PRS items/PRS information under the responsibility of the Agency.	2016 - 2020
6	PRS Article 14 inspections	Perform regular audit or inspection of the Agency's handling of PRS information.	2016 - 2020
7	Risk assessment	Regular and robust risk assessment of the PRS activities to ensure that they do not pose a risk to the security of the system, Member States or the Union.	2016 - 2020

### 3.1.2 Highlights for 2017

The Agency carried out the PRS activities entrusted to it by the arrangement concluded between the Commission and the Agency pursuant Article 14 (c) of Decision No 1104/2011/EU. In particular, the Agency worked on:

- The organisation, preparation and secretariat of the (at least) yearly CPA meeting, in compliance with Article 8.5 of Decision No 1104/2011/EU.
- The implementation of the arrangement concluded between the European Commission and the Agency pursuant to Article 14(c) of Decision 1104/2011/EU. This includes the implementation and maintenance of all tasks (e.g. PRS information and PRS companies' database, risk analysis, internal processes, etc.) the Agency is required to perform to ensure compliance with the PRS framework.

The study for the set-up of the Agency's CPA functionality was initiated. This included an analysis of the required resources and relevant arrangements, the development of relevant processes and tools, and the maintenance of the required infrastructure (e.g. tools) to enable the Agency to perform tasks that can be entrusted to it by virtue of Article 5 of the PRS Decision.



### 3.2.3 Tasks for 2017

#### Objective 1: European Parliament and Council reporting on CPA's CMS compliance (WBS 2.03.01)

Expected results	2017 results
<ul style="list-style-type: none"> <li>Support the organisation of the yearly CPA meeting</li> <li>Review and assess the CPA CMS compliance reports</li> <li>Elaboration of an individual CPA's CMS compliance report</li> <li>Aggregation of an overall report on CPA compliance to CMS</li> <li>Delivery of the report to the Commission</li> </ul>	<ul style="list-style-type: none"> <li>Support the organisation of the yearly CPA meeting</li> <li>The other activities were not requested by the European Commission</li> </ul>

	Targets	2017 results
<b>Indicators</b>		
<b>CPA yearly meeting organisation</b>	1	1
<b>GSA CPA compliance analysis</b>	100%	N/A

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>Input to the three-yearly report to Parliament and Council by the Commission (in 2018)</li> <li>Report on CPA CMS compliance (based on input received from each CPA pursuant to Article 10 of PRS decision)</li> <li>Yearly CPA meeting</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>Yearly meeting organised and held on 23-24 October 2017</li> </ul>

**Objective 2: CMS audit and inspection (WBS 2.03.02)**

Expected results	2017 results
<p>This objective includes activities related to the provision of support to the Commission on the performance of checks to ensure that the CPAs comply with the CMS.</p> <p>Assumption: Details of the activities to be performed and expected results will be agreed with the Commission and the CPA in the course of 2016.</p>	No support to CPA audits were requested by the European Commission

	Targets	2017 results
<b>Indicators</b>		
<b>Audit and inspections implementation</b>	100%	N/A

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"><li>Report on CMS audit and inspection</li></ul>	N/A

**Objective 3: CPA arrangements (WBS 2.03.03)**

Expected results	2017 results
<ul style="list-style-type: none"><li>Analysis of the activities that the Agency may need to perform if requested to perform CPA (own and third parties) tasks and/or provide technical assistance to CPAs to perform their task</li><li>Organisational structure for the Agency to support CPA task implementation</li><li>Impact assessment of the Agency's implementation of CPA tasks</li><li>Cost and financial models</li><li>Preparation of the draft arrangement defining the rules and operations to be performed by the Agency for those cases in which it can be designated a CPA</li><li>Development/acquisition/maintenance of the relevant tools (including those required to perform technical assistance)</li></ul>	Results were as planned except for the draft arrangement for the Agency to act as CPA for third parties. This was not produced as there were no requests from Members States.

Targets		2017 results
Indicators	CPA Organisational Model(s), processes, and tools	1 (preliminary version for an initial implementation phase)
	1	

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>The Agency's CPA organisation and set-up (if required)</li> <li>Draft arrangement for the Agency to act as CPA for third parties</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>Agency's CPA organisation and set-up for the initial phase</li> </ul>

#### Objective 4: The Agency's CPA implementation (WBS 2.03.04)

Expected results	2017 results
<ul style="list-style-type: none"> <li>These are all activities related to the implementation of the Agency's CPA functionalities in case such a need arises. This covers both the Agency's performance acting as a CPA for its own activities (if needed) and its performance acting as a CPA for third parties.</li> <li>Establishment of the agreement to become a PRS participant (if needed)</li> <li>Tailoring of the draft agreement developed under Objective 3 for the entity requesting the Agency to be its CPA</li> <li>Approval of the agreement by the Commission</li> <li>Establishment of the agreement for setting up of the Agency as CPA of the involved entity</li> <li>Start performing the task required by the CMS for that CPA</li> </ul>	<p>No requests were made and therefore the activity was not undertaken.</p>

	Targets	2017 results
<b>Indicators</b>		
<b>Implement- ation of CPA's task to be performed in accordance with the CMS and the agreement</b>	1	N/A

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Agreements between the Agency and third parties to perform CPA tasks (for approval)</li> <li>• Notification to the Commission of the signature of an agreement to act as a CPA and the start of activities</li> </ul>	N/A

#### Objective 5: Technical Assistance to CPAs (WBS 2.03.05)

Expected results	2017 results
<p>This objective includes all activities related to the implementation of Article 5(9) of the PRS decision, according to which a CPA may request technical assistance from the Agency in order to perform its tasks.</p> <ul style="list-style-type: none"> <li>• Drafting a generic template (including administrative and technical details) for the provision of technical assistance to a CPA</li> <li>• Interface with the requesting CPA on the tailoring of the technical assistance arrangement</li> <li>• Ensure the elaboration of a specific arrangement with each CPA requesting assistance for its approval from the Commission</li> <li>• Sign the agreement</li> <li>• Implement the technical assistance task as specified in the agreement</li> </ul>	<p>The Agency received the first request in December 2017 and started an assessment of it.</p>

	Targets	2017 results
Indicators	Draft technical assistance agreement (both admin and technical)	100%
	Implementation of tasks detailed in each agreement	1

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives:	
<ul style="list-style-type: none"> <li>Draft (generic) technical assistance agreement</li> <li>Specific agreement between the Agency and CPA for performance of technical assistance (for approval)</li> </ul>	N/A

#### Objective 6: Article 14 Arrangement Implementation management (WBS 2.03.06)

Expected results	2017 results
<p>This objective includes all activities related to the management of the implementation of the Article 14 arrangement, in particular regarding the different reporting streams, compliance checks, and associated risk assessment. This objective also implements the provisions related to the Agency's access to PRS information.</p> <p>This activity includes:</p> <ul style="list-style-type: none"> <li>Preparation and maintenance of the PRS management plan defining the organisational structure and rules for implementing the management of PRS items and information</li> <li>Review of the Article 14 arrangement (if required)</li> <li>Preparation of the Article 14 quarterly implementation report and its subsequent delivery to the Commission.</li> <li>Carry out regular inspections of the departments within the Agency dealing with PRS items and PRS classified information</li> </ul>	<p>The activities fulfilled included:</p> <ul style="list-style-type: none"> <li>Preparation and maintenance of the PRS management plan</li> <li>Performance of regular risk assessments</li> </ul> <p>The Article 14 implementation reports will be delivered on an annual basis instead of quarterly. Annual report containing information on both Article 14 implementation and PRS items and information movement/requests/incidents to be submitted beginning 2018.</p> <p>The other activities were not performed. It is noted that, in particular, the PRS items and information database activity was complicated by the absence of a definition of the PRS marking, without which PRS items and information cannot be properly identified.</p>

- Perform regular risk assessment
- Maintenance of a PRS items and PRS information database and elaboration of a report summarising all movements, requests and security breaches associated with the PRS items/ information under the responsibility of the Agency

Targets		2017 results
<b>Indicators</b>	<b>PRS management plan</b>	100%
	<b>Risk assessment</b>	100%
	<b>PRS items and information database</b>	0
	<b>Internal Article 14 audit</b>	0

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Article 14 quarterly implementation report sent to the Commission</li> <li>• Quarterly report on PRS items and information movement/requests/incidents</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• N/A</li> </ul>

#### Objective 7: PRS entities database (WBS 2.03.07)

Expected results	2017 results
<p>This includes all activities related to the implementation of Article 6 of the Article 14 arrangement in the management of a database of entities authorised to carry out PRS activities. This database, the structure of which much be approved by the Commission, need to be constantly updated and shall include:</p> <ul style="list-style-type: none"> <li>• A complete list of the PRS entities</li> <li>• The scope of the activities pursued by those entities (unless the Member State objects)</li> </ul>	As planned

- The date of authorisation and the expiry date

It is important to note that this activity is independent from the activities carried out by the SAB of similar nature and is performed on behalf of the Commission.

		Targets	2017 results
Indicators	PRS entities database	100%	100%
	Request from the Commission on PRS entity	100%	100%

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: <ul style="list-style-type: none"> <li>• PRS entities database</li> </ul>	As planned





## 3.3 GSMC Operations and Preparation (WBS 4.06)

### 3.3.1 Tasks until 2020

Tasks	Objective	Year
1 GSF operations reviews	Complete the following reviews: <ul style="list-style-type: none"> <li>• Operations Validation Readiness Review</li> <li>• Operations Readiness Review</li> <li>• Service Readiness Review</li> </ul>	2016
2 Accreditation of GSMC sites	Acceptance of both GSMC sites as suitable for deployment of the GSF equipment.	2016
3 GSF equipment anomaly reporting	The GSA will be responsible for reporting all anomalies on the GSF equipment in line with GSMC operational procedures to ensure that these are patched or corrected in future evolutions.	2016
	The role of the GSA in GSMC operations also includes ensuring the resolution of anomalies reported by Competent PRS Authorities (CPA) regarding their use of the PRS Service.	2016 - 2020
4 GSF operations	As of the GSF Operations Service Readiness Review (OSRR), the GSA will need to ensure the continuous availability of GSMC operations that meet the KPIs applicable to the GSMC.	2016 - 2020

### 3.3.2 Highlights for 2017

The European GNSS Agency ensures the operation of the Galileo Security Monitoring Centre (GSMC). The Agency provides the operational interface between the Galileo Control Centres (GCCs) and the Competent PRS Authorities (CPAs), the Council, and High Representative of the Union for Foreign Affairs and Security Policy. It acts under Council Decision 2014/496/CFSP and must inform the European Commission of any event that may affect the smooth running of the PRS.

With respect to GSMC operations in 2017, the Agency demonstrated its capability to increase the service provision of Galileo Security Monitoring and PRS Access Management. This was based on the Galileo Security Facility Enhanced Minimum Configuration (GSF EMC), operated from the GSMC master site in France and in line with Key Performance Indicators. During this year, the Agency prepared to upgrade the GSMC service capability towards dual site capacity associated with GSF P2.0.1. This, however, was not implemented because SAB authorisation to operate was not approved. After the deployment of the GSF P2.2.1 and Security Operational and Intelligence Facility 1 (SOIF1), and two successful Delta Review Boards Early Access, the Agency performed its familiarisation campaign on the systems.

In addition, the Agency supported the main programme activities, including:

- The successful preparation and performance for the Launch and Early Operations Phase Security Monitoring (LEOP SECMON).
- Providing support to the European Commission in the selection process of a new GSMC backup centre.

### 3.3.3 Tasks for 2017

#### Objective 1: Operations Processes (WBS 4.06.01)

Expected results	2017 results
<p>Operations, expertise and analysis</p> <ul style="list-style-type: none"> <li>Security and system status monitoring: monitor security and health status of the system, react to all security incidents and technological surveillance. <ul style="list-style-type: none"> <li>Galileo system incident management</li> <li>Galileo system vulnerabilities assessment</li> <li>PRS access management: grant access to PRS for authorised stakeholders in compliance with the PRS access rules (including the Common Minimum Standards) within the limitations of the system design. Manage the lifecycle of access to the PRS in order to assure the service continuity, including through service support and secure communication interfaces (POCP).</li> </ul> </li> </ul> <p>Crisis Management</p> <ul style="list-style-type: none"> <li>Specific activities and configuration of the GSMC needed to respond to the needs and requirements of a crisis affecting the Galileo system, including supporting the Council decision (Joint Action) process. This process will be activated only under specific conditions.</li> <li>Preparation and testing of operation processes, including crisis management, in close cooperation with EEAS.</li> </ul>	<p>Operations, expertise and analysis</p> <ul style="list-style-type: none"> <li>The flow of PRS requests and security events showed great variability from one month to the other. However, the Service Level Agreement (SLA) was globally met, demonstrating the resilience of the Agency and dedication of its staff to comply with defined KPIs.</li> <li>KPIs partially met as inputs received late on a regular basis from subcontractors delayed the submission of the final reports.</li> <li>The Agency does not see much possibility for improving the current Service Level Targets and services provided with the current system configuration. PRS operations are manual for GSF EMC configuration.</li> </ul> <p>Crisis management</p> <ul style="list-style-type: none"> <li>The Agency identified areas for improvement in the investigation and reporting of security incidents.</li> </ul>

	Targets	2017 results
Indicators	<p><b>System status and security monitoring:</b></p> <ul style="list-style-type: none"> <li><b>Time to start treating an incident</b></li> <li><b>Time to notify stakeholders</b></li> </ul>	
	<p><b>PRS access management:</b></p> <ul style="list-style-type: none"> <li><b>Time to answer CPA requests</b></li> <li><b>Number of interface activations</b></li> </ul>	
	Service level targets (R-UE/EU-R)	Service level results (R-UE/EU-R)

Indicators	<ul style="list-style-type: none"> <li>• <b>Accuracy and timeline for reporting</b></li> </ul>		
	<b>Crisis management:</b>		
	<ul style="list-style-type: none"> <li>• <b>Time to provide expertise and analysis of the impact of a Council Decision (Joint Action) instruction</b></li> <li>• <b>Time to transmit Council Decision (Joint Action) instruction to the Galileo Control Centre (GCC)</b></li> </ul>	Service level targets (R-UE/EU-R)	Service level results (R-UE/EU-R)

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• System status and security monitoring: incident handling, resolution of security incidents, vulnerabilities assessment and recommendations.</li> <li>• PRS access management: availability of PRS access.</li> <li>• Operations, expertise and analysis: the agreement on associated budget, terms and conditions, and the updated annual work programme.</li> <li>• Crisis management: Escalation to Member States or to Council Decision (Joint Action).</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Security reports</li> <li>• Standard operating procedures for PRS, SECMON and Joint Actions</li> <li>• Report on service levels (R-UE/EU-R)</li> </ul>

## Objective 2: Operations engineering processes (WBS 4.06.02)

Expected results	2017 results
<p>Requirement management:</p> <ul style="list-style-type: none"> <li>• Identification, analysis and flow-down of the requirements that could impact the GSMC and the maintenance of the applicable baseline.</li> <li>• Ensure and report GSMC compliancy with the programme requirements over time.</li> </ul>	<p>Requirements management: the Agency participated in the review of new PRS and Security Operations Scenarios (POS/SOS) that will supersede TN 719 and 720 and will be included in the next GSMC release.</p>

Operations engineering: design the operations; identify activities and all documents necessary for operations, training and maintenance; validate the concept of operations and all operation procedures in order to satisfy operation requirements

Technical engineering:

- Identify and define the processes, methods, tools and logic of the system development activities, including maintenance and support capabilities for the two sites.
- Manage the technical processes lifecycle that leads to the in-production setting of new technical supporting assets and processes.

Operations and technical engineering: as part of the Launch #9 LEOP campaign, the Agency successfully carried out the LEOP SECMON operations for securing the LEOP perimeter. With the Agency taking the lead, the way the LEOP SECOM is performed was enhanced, optimised and standardised. The same approach will be adopted for the next LEOP campaign, which is foreseen for the third quarter of 2018.

The preparation of the GSMC V2 based on the Galileo Security Facility P2.0.1, has enabled the Agency to consolidate its GSMC operations engineering processes based on lessons learned and difficulties faced during previous validation campaigns. This served as the basis for developing its engineering activities regarding the deployment of the GSF P2.2.1 and SOIF V1. This will reinforce the availability and services of GSMC operations.

Targets		2017 results
Indicators	<b>Review milestones on time</b>	
	12 reports	12 monthly reports

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Requirement management: service level management.</li> <li>• Operations engineering: GSMC Operations Engineering Plan, Validation Plan, Validation Report, and support documentation for the process (change analysis, test case, test case results, test schedule, etc.).</li> <li>• Technical engineering: <ul style="list-style-type: none"> <li>- Long-term GSMC technical evolution roadmap and requirements and related technical integration analysis (hosting and IT assets).</li> <li>- Participation and contributions to programme-related milestones, as well as coordination with providers (mostly WP2-WP2X).</li> <li>- Technical projects documentation and contribution to projects portfolio.</li> <li>- Building extensions (short- and long-term).</li> </ul> </li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Reports on service level KPIs.</li> <li>• Long-term GSMC technical evolution roadmap.</li> <li>• Contributions to programme related reviews, in particular Work Package 2 Delta Acceptance Review 2b and Work Package 2X tenders.</li> </ul> <p>Short-term extension procurement was unsuccessful. An alternative solution will be developed.</p>

### Objective 3: Hosting services processes (WBS 4.06.03)

Expected results	2017 results
<p>Local security: ensure and maintain local security operations support, to provide the protection of the EU classified information that is present at the GSMC site and protect its assets.</p> <ul style="list-style-type: none"> <li>• Site and system security accreditations: apply and implement the security requirements to the GSMC, determine the security design and contribute to the security accreditation of the systems.</li> <li>• Registry control management: manage all exchanged and produced EU classified information (documents, items, etc.).</li> <li>• Local security office: ensure the physical security of people, properties, facilities, activities and information and prevent the compromise of classified or crypto information (compromising of staff, malicious acts, etc.).</li> <li>• COMSEC and crypto management and operations: <ul style="list-style-type: none"> <li>- Manage GSMC COMSEC materials and ensure its secure transfer to or from users or other parties through the enforcement of the appropriate procedures and the use of approved channels.</li> <li>- Provide access to authorised users/stakeholders to classified cryptographic devices or keys.</li> <li>- Operate the ongoing configuration of cryptographic equipment in order to enable technical services that rely on such equipment.</li> </ul> </li> </ul> <p>Hosting and configuration management: provide a continuity of hosting services through building maintenance and by managing extra requests related to the evolution of the facilities and IT:</p> <ul style="list-style-type: none"> <li>• Facilities management (hosting services FR and UK)</li> <li>• Supporting IT systems (general technical operations)</li> <li>• GSF equipment support (operational systems first line maintenance): <ul style="list-style-type: none"> <li>- Perform system administration.</li> <li>- Perform first line maintenance of GSMC operational systems, which includes</li> </ul> </li> </ul>	<p>Regarding hosting and security activities, the resources were focused on the preparation of the GSF P2.0.1 and related migration activities. Routine activities were performed as expected, including:</p> <ul style="list-style-type: none"> <li>• Site and system accreditation: existing accreditation certificates were maintained and a growing pipeline of future systems was managed.</li> <li>• Local security management maintained throughout year. Procurement of guarding framework contract FR in progress (award expected in Q1 2018).</li> <li>• EUCI registry management maintained throughout the year, with delegated actions performed by GSMC operators for all actions requiring operational 24/24 reactivity.</li> <li>• COMSEC: key management plan agreed and procedures developed and tested in context of P2.0.1. Further review of P2.2.1 Earl Access was done.</li> </ul> <p>Regarding hosting and configuration management and, in particular, facilities management:</p> <ul style="list-style-type: none"> <li>• GSMC-FR site upgrades were done on cooling to improve resiliency of water cooling generation and to add capacity to support deployment of SOIF.</li> <li>• The Agency contributed to the GSMC backup infrastructure requirement and statement of work for the call of interest launched by the European Commission. The Agency also contributed to the evaluation process.</li> <li>• GSMC-FR site resilience - floods mid-2016: identification of root causes and courses of actions were ongoing until the end of year.</li> </ul> <p>Regarding GSF equipment support, EMC was maintained throughout year. About 100 GSF L1 procedures were reviewed and accepted (implementation in 2018 on P2.2.1).</p>

the planning for and provision of preventive maintenance (initial repairs and escalation to level 2/level 3).

- Ensure (with L2 delivery) availability of spare parts and logistical flow of spare parts; provide configuration management of installed items in the operational systems; monitor operational systems operational status; and perform relevant technical level 1 configurations and status checks to ensure availability of such systems.

Targets		2017 results
Indicators	<b>Site and System Security Accreditation:</b>	
	• Number of accreditation certificates in valid standing.	- 14
	• Number of accreditation requests in progress.	- 8
	• Percentage of data-packs released timely for accreditation requests (new or renewals) against annual plan baseline schedule.	- 100%
Indicators	<b>Overall for GSMC</b>	
	• Number of incidents raised and number of incidents still under investigation.	- 2/2
Indicators	<b>Registry Control Management<sup>2</sup>:</b>	
	• Total Number of EUCI documents under management.	- R-UE/EU-R
	• Number of incoming and/or outgoing data packages released (with related number of files handled).	- 150 incoming/248 outgoing

2 KPI only regarding CONFIDENTIEL UE/EU CONFIDENTIAL or SECRET UE/EU SECRET.

<b>Local Security Office:</b>		
Indicators	• Total number of personnel having permanent badge holder status.	- 76
	• Number of access requests/authorisations handled.	- 1600
<b>COMSEC &amp; crypto account management:</b>		
Indicators	• Number of transportation plans.	- 26
	• Number of crypto procedures run/total.	32/32 R-UE
<b>Hosting</b>		
Indicators	Overall GSF OPE chain availability % composed of	
	<ul style="list-style-type: none"> <li>• [Facilities management]: availability of hosting services OPE chain % (with electrical and cooling).</li> <li>• GSF OPE chain: Availability % (assuming hosting available) (with details on causes of non-availability).</li> </ul>	Service level targets R-UE/EU-R Service level targets R-UE/EU-R

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: <ul style="list-style-type: none"> <li>• Registry control management:               <ul style="list-style-type: none"> <li>- Up-to-date registry<sup>3</sup> (and successful audited) destruction of classified documents when necessary.</li> <li>- Audit Report(s).</li> <li>- Contribution to bi-monthly security report.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Registry control management:               <ul style="list-style-type: none"> <li>- Up-to-date registry and destruction of classified documents when necessary.</li> <li>- Audit reports successfully completed.</li> <li>- Contribution to bi-monthly security reports</li> </ul> </li> <li>• COMSEC and crypto account management:               <ul style="list-style-type: none"> <li>- Up-to-date procedures</li> <li>- GSMC crypto account audit and audit report(s) done for GSMC UK (Dec 2017).</li> </ul> </li> </ul>

<sup>3</sup> Regarding CONFIDENTIEL UE/EU CONFIDENTIAL or SECRET UE/EU SECRET.



- COMSEC and crypto account management:
  - Up-to-date procedures (updated annually), GSMC Crypto Account audit, audit report(s), update procedures (once a year).
  - Release of the audit and incident reports, COMSEC SecOPS, execution of the transportation plan, destruction of crypto material, crypto item delivered/safeguarded.
  - Contribution to bi-monthly security report.
- Site and system security accreditation: authorisation to deploy and operate, SAA accreditation, accreditation strategy, security needs and Business Impact Analysis approved by the SAA; Software Integration Plan and SecOPS approved by the SAA; ATO/ATD/ Accreditation certificate issued by the SAA (contribution to bi-monthly security report).
- Local security office:
  - Access control continuously managed, access control reports summarised (once a year), access control list maintained (contribution to bi-monthly security report).
  - Monthly reports of guarding support services contractors.
- Hosting:
  - Facility maintenance support contract, monthly reports from facilities management providers.
  - Records of GSF maintenance.
- Release of the audit report (4 incidents reported), COMSEC SecOPS, 19 COMSEC authorisations, execution of the transportation plan, destruction of crypto material.
- Contribution to bi-monthly security reports.
- Site accreditation: as planned, with the exception of the Authorisation to Operate for P2.0.1. operations from UK, which was not approved.
- Local security office:
  - Access control continuously managed, access control reports summarised, access control list maintained and contribution to bi-monthly security reports.
  - Monthly reports of guarding support services contractors.
- Hosting:
  - In line with plans.

#### Objective 4: Management processes (WBS 4.06.04)

Expected results	2017 results
<p>Management of the organisation and communication:</p> <ul style="list-style-type: none"> <li>• Define the GSMC strategy and the objective/s to be implemented by the GSMC.</li> <li>• Prepare and implement the GSMC operations by scheduling the milestones and main activities, with the aim of providing a long-term global overview for steering GSMC activities.</li> </ul>	<p>Management of the organisation and communication:</p> <ul style="list-style-type: none"> <li>• Engineering and operation activities were reinforced to ensure the preparation and implementation of the milestones and activities related to the deployment of new GSMC versions. New GSMC Manager and GSMC Operations Manager selected after interim.</li> </ul>

- Coordinate the activities within and between the teams through regular team meetings and follow-up actions.
- Provide an overview of GSMC internal communications (top-down and bottom-up approaches) and how the teams are organised and interact together.
- Ensure the development and ongoing implementation of project management processes, methodologies, tools and reporting.

#### Integrated management system:

- Monitor the integrated management system.
- Ensure that the GSMC meets the standard requirements and the processes are documented, monitored and audited.
- Ensure that the documents are drawn up and managed in accordance with the principles of the integrated management system.

#### Risk and business continuity and disaster management:

- Risk Management: identify potential risks that could impact the proper functioning of the Galileo Programme and undertake the relevant actions in order to mitigate them.
- Business continuity and disaster: Ensure the GSMC services availability and continuity event in a reduced functionality mode, in case of a service breach.

#### Health and safety management:

- Define and describe the GSMC's responsibilities and policies in the matter of health and safety at work.
- Provide and maintain a safe work environment for GSMC staff members, visitors and contractors.

#### Resolution and continuous improvement management:

- System improvement (hosting + GSF): development of GSMC systems in line with the Galileo evolutions and ESA.
- Resolution management: identify and deal with potential events that could impact the proper functioning of the GSMC and undertake the relevant actions in order to correct and/or prevent them through Anomaly Review Boards.
- Service improvement: development of GSMC services in line with the evolution of the service description document and the service implementation plan.

- Project on ISO 9001 renewal was closed with successful outcome.

#### Integrated management system:

- GSMC-FR site, as part of the renewal of the GSA ISO 9001 certificate, confirmed its adherence to the new version of the ISO 9001 standard.

#### Risk, business continuity and disaster management:

- Risk management contributions incorporated into overall GSA managed risks anomaly review process.
- Regular monitoring of risks through risk register and providing of monthly reporting on the activities of the GSMC sites, related escalation and participation in the the Agency's Risk Management Board.
- EMC business continuity set up with training of related staff members and simulation exercise.

#### Health and safety management:

- Implementation of several actions to maintain a safe work environment for the Agency's staff located at GSMC FR and UK sites, visitors and contractors. This includes consolidating training and awareness for staff members, long-time contractors and visitors, and standardising its safety procedures.
- Safety plans updated.

#### Resolution and continuous improvement management:

- Ensured the chairmanship of the related GSF, Ground Mission Segment and Ground Control Segment Anomaly Review Boards (ARB).

		Targets	2017 results
<b>Management of the organisation and communication</b>			
Indicators	• % milestones achievement start	100%	100%
	• Number of tasks opened/completed	-	22 tasks completed 54 tasks proposed for closure 26 new tasks opened the last trimester
	• Number of projects in portfolio, with how many new and how many completed ones in reporting period.	-	5 projects in progress 3 projects on hold 1 project completed
<b>Integrated management system:</b>			
Indicators	• No. of performed audit/planned	100%	100% (4/4)
	• ISO 9001 compliance status	ISO 9001 certified	ISO 9001 certified
<b>Health &amp; Safety Management:</b>			
Indicators	• Update of the DUER (Document Unique d'Évaluations des Risques)	Once during the year	Once during the year
	• % Plan de prevention with key contractors	100%	100%
<b>Risk and business continuity and disaster management:</b>			
Indicators	• Number of risks under management	-	15
	• Average criticality score	-	13.21 on a scale of 1 to 25
	• % completed actions	-	% not measured, will be monitored after GRUEv2 deployment
<b>Resolution and continuous improvement management:</b>			
Indicators	• Time to resolve an incident	-	R-UE/EU-R
	• Response time to incidents and anomalies at GSMC	-	7 days (CAT2 to CAT-4) 2 hours (CAT-1)
	• Average time to close anomalies and evolutions	-	84 days

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Management of the organisation and communication: reporting on the progress of GSMC activities (achievement of milestones), periodically reporting on status of local security operations and engineering processes, action/ task completion and closure.</li> <li>• Integrated management system: ISO 9001 certification.</li> <li>• Health and safety management: Document Unique d'Évaluations des Risques professionnels, Plan de prévention (according to the French regulation).</li> <li>• Risk and business continuity disaster management: <ul style="list-style-type: none"> <li>- Risks are monitored and controlled.</li> <li>- A first overall GSMC Business Continuity Plan and organisation setup in by Q2 2017 (based on GSF P2.0).</li> <li>- Annual audit/review of the Business Continuity Plan.</li> </ul> </li> <li>• Resolution and continuous improvement: resolution of the reported anomaly/ incident, proposal for changes to the GSMC service baseline, evolution roadmap.</li> </ul>	<ul style="list-style-type: none"> <li>• Weekly, monthly and quarterly reports on GSMC activities, local security operations and/or engineering processes status.</li> <li>• Health and safety management: Document Unique d'Évaluations des Risques professionnels, Plan de prévention (according to the French regulation) issued.</li> <li>• Up-to-date risks register on risk and business continuity disaster management: drafted and validated business continuity plans. The plans were not activated due to lack of dual operational site.</li> </ul>

#### Objective 5: Administrative processes (WBS 4.06.05)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Human resources management <ul style="list-style-type: none"> <li>- Core training (GSA)</li> <li>- Standby Officer management</li> <li>- Certification management: ensure the appropriate certification of the staff (PRS Access Officer, Security Incident Handler, etc.) on time.</li> <li>- GSMC specific training: ensure that Agency staff based at the GSMC are well-trained on the specific fields.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Human resources management <ul style="list-style-type: none"> <li>- Standby Officer Management done</li> <li>- Certification management done on time: certification boards were held in April and September 2017</li> <li>- GSMC specific training: cyber training provision delayed</li> </ul> </li> </ul> <p>Financial and cost management, legal management and procurement management done as planned.</p>

- Financial and cost management
- Legal management
- Procurement management

The Agency has a number of administrative processes that support the workings of its GSMC. Most of these are common for the entire Agency, but some are GSMC specific.

Requirements management: the Agency participated in the review of new PRS and Security Operations Scenarios (POS/SOS) that will supersede TN 719 and 720 and will be included in the next GSMC release.

Targets		2017 results
Indicators	<b>Human Resources Management:</b>	
	<b>% success rate of training (certification)</b>	90% 67% (Security Incident Handling: 100%, PRS: 57%)

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Human resources management: operators' certificates.</li> </ul>	<ul style="list-style-type: none"> <li>• Operators' certifications maintained and, for some, expanded (dual PRS/SECMON).</li> <li>• Standby Officer maintained throughout year – interventions 2/3 on hosting, 1/3 on GSF.</li> <li>• Security incident handlers: 6/6 certified - 2/6 Security Incident Handler (SIH) "cross certified" as PRS Access Officer.</li> <li>• PRS access officers: 2/6 certified and "cross certified" as SIH; 4/6 awaiting their personal security clearance.</li> </ul>

## 3.4 Promotion and Marketing of the Services (WBS 5.02, 5.03, 1.03.01)

### 3.4.1 Tasks until 2020

Activity	Objective	Year
1 Market and technology monitoring, including cooperation with receiver manufacturers	Be a recognised source of knowledge in GNSS market trends and technological developments.	2015, 2017, 2019
	Support chipset and receiver manufacturers in implementation of E-GNSS.	2014 - 2020
2 User satisfaction monitoring process and customer assistance	Build user experience and satisfaction, implement user feedback in the evolution of E-GNSS.	2014 - 2020
3 Market development by user segment (Aviation, Road, LBS, Agriculture, Maritime, Rail, Surveying)	Maximise adoption of E-GNSS by value chain and its availability for users.	2014 - 2020
4 Market development supporting Galileo Initial Services: Open Service, Search and Rescue, PRS (in 2016) and Commercial Service (in 2018).	Maximise adoption of E-GNSS by value chain.	2014 - 2020
	For PRS: support the promotion and marketing of the services referred to in Article 2(4) of Regulation 1285.	2017

### 3.4.2 Highlights for 2017

Following the declaration of Galileo Initial Services in December 2016, the Agency continued stimulating the demand for Galileo within the user community and supporting the development of Galileo-ready products. Thanks to the collective efforts of the GSA in the years leading up to Galileo Initial Services, in 2017, crucial achievements were reached in all market segments.

The GSA continued to work closely with chipset and receiver manufacturers, as they are essential to Galileo's success. Broadcom, one of the top two mass market receiver manufacturers, launched the world's first dual frequency GNSS receiver device for smartphones, basing it on E5 and valorising the Galileo signal and its specific differentiators. Apple and Samsung announced new Galileo-capable smartphone models, which added to the growing list of over 30 Galileo-enabled smartphone models currently on the market.

To consolidate the position of EGNOS in aviation, the Agency continued to foster its adoption by implementing the number of published operational procedures on EGNOS-equipped aircrafts. Moreover, Easyjet, in collaboration with Airbus, announced that their A320 will be the fleet's first aircraft to be EGNOS-enabled. The Agency prepared EGNOS adoption in such emerging markets as drones and surveillance, along with focusing on new opportunities offered by Search and Rescue (SAR).

For the Road segment, the Agency prepared guidelines for eCall manufacturers and technical centres. These guidelines aim to facilitate E-GNSS testing and to anticipate the adoption of new car models from the regulation's entry into force in April 2018. The target is to have 13 million cars enabled by 2021.



In Maritime, under the leadership of the GSA, EGNOS was recognised by the International Association of Marine Aids to Navigation and Lighthouse Authorities Council as a means for providing differential corrections. The GSA also progressed in the development of Cospas-Sarsat compliant marine Search and Rescue beacons with Galileo return link capabilities.

In Rail, the Agency performed the first train-run using Galileo and EGNOS to deliver a safety-relevant positioning in Italy. This was done with the participation of the European Union's agency for railways, International Union of Railways, Shift2Rail, the ESA and other rail stakeholders.

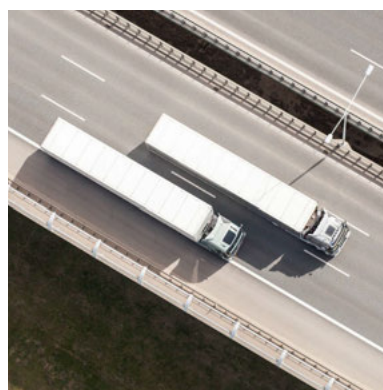
For the Timing & Synchronisation market, the Agency progressed with defining a new E-GNSS market penetration strategy for added-value application offerings based on Galileo services.

At the end of November 2017, at the first Galileo User Assembly, the GSA inaugurated another important milestone for the Galileo programme: the User Consultation Platform (UCP). The Assembly welcomed around 200 people representing all market segments and featured panel discussions on Agriculture, Aviation, LBS, Maritime, Rail, Road, R&D, Surveying and Timing & Synchronisation. The panels provided suggestions and recommendations for the revision of the user requirements. Through this innovative platform, users from a wide range of market segments shared information on needs and market trends and on user requirements – information that will be updated annually.

In 2017, the Agency continued to apply a systematic approach to promote Galileo's differentiators in each vertical and horizontal market segment.

The Agency performed a stakeholder consultation that will play a key role in the Commission Decision for Commercial Service High Accuracy (CS HA) for free or for fee. This decision is expected to be made in the course of 2018.

Another stakeholder consultation among receiver manufacturers confirmed the strategic role of Open Service Navigation Message Authentication (OS-NMA) in a number of heterogeneous fields of application. In line with the overall OS-NMA workplan agreed by the European Commission, ESA and the GSA, the Agency also raised awareness about using OS-NMA to collect feedback and launched a specific task to assess its added value for a regulated road application (i.e. Smart Tachograph). In the area of market communications, the GSA continued to support E-GNSS market uptake and awareness via an active website and web news service, an expanding targeted social media presence, media/press information/relations activities and regular newsletter distribution. The GSA promoted Galileo and EGNOS at a wide range of user segment targeted conferences, exhibitions and workshops across Europe and produced widely distributed, targeted and timely publications, videos and animations designed to support our market development objective





### 3.4.3 Tasks for 2017

Objective 1: E-GNSS market development in Aviation (WBS 5.02.03 and 5.03.03)	
Expected results	2017 results
<ul style="list-style-type: none"> <li>Market monitoring analysis and forecasting.</li> <li>Technology monitoring.</li> <li>Segment user relationship management, including defining and updating user needs.</li> <li>Technical support and feasibility assessment to airports/heliports and Air Navigation Service Providers on LPV/LPV 200 implementation, with priority on those affected by the future performance based navigation implementation in the European Air-Traffic Management Network regulation.</li> <li>Operational framework for introduction of EGNOS-based operations in rotorcraft defined.</li> <li>EGNOS/Galileo added value for surveillance and roadmap for adoption defined.</li> <li>EGNOS/Galileo added value for drones and roadmap for adoption defined.</li> <li>Beacon manufacturers ready to introduce Galileo SAR.</li> <li>EGNOS user satisfaction survey completed.</li> </ul>	<ul style="list-style-type: none"> <li>Update of market data up to 2016 and forecast up to 2025 done and used for publication of Market Report Issue 5 publication (published in May 2017).</li> <li>Database of receiver models updated.</li> <li>User Consultation Platform held in Madrid on 28-29 November. Discussions took place with the user community, resulting in updates to the user requirement documents to be implemented during 2018.</li> <li>Successful demonstrations of remote Emergency Location Transmitter (ELT) activation using Galileo Return Link service; New Eurocae working group on Minimum Aviation System Performance defined and established.</li> <li>Other results as planned.</li> </ul>

Targets		2017 results	
Indicators	Use of Market Report (Aviation)	25,000 downloads	16,000 downloads
	Availability of updated information on penetration of Galileo and EGNOS in receiver models available globally	100%	Annual Report expected in 2018
	User needs consulted with the respective user fora	100%	100%
	EGNOS-based approaches designed	450	503 (392 LPV) procedures published in 271 airports in 19 countries

<b>Indicators</b>	<b>Demonstration of the added value of E-GNSS for Unmanned Aerial Vehicles</b>	50%	50% (analysis of added value of E-GNSS for UAV finalised)
	<b>Entry plan for E-GNSS adoption in surveillance</b>	100%	100%
	<b>Galileo Return Link Service introduced in aviation SAR beacons</b>	20%	20%
	<b>Completion of one annual EGNOS User Satisfaction survey</b>	1	1

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Market Report – Aviation chapter.</li> <li>• Report on Galileo and EGNOS penetration in avionics.</li> <li>• User requirements' update – limited to the report by the User Consultation Platform (UCP).</li> <li>• EGNOS approach procedures.</li> <li>• SAR beacon, including Galileo RLS, partially developed.</li> <li>• Results of User Satisfaction surveys.</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Chapter on Aviation marketing in the GNSS Market Report Issue 5.</li> <li>• Monthly reports on avionics penetration.</li> <li>• Updated user requirements documents.</li> <li>• SAR beacon, including Galileo RLS, partially developed.</li> <li>• Results of User Satisfaction surveys provided.</li> </ul>

## Objective 2: E-GNSS Market development in Road (WBS 5.02.04 and 5.03.04)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Market monitoring analysis and forecasting in the area of road transportation.</li> <li>• Technology monitoring in the area of road transportation.</li> <li>• Segment user relationship management, including defining and updating user needs .</li> <li>• Technical support (including standards and pre-testing) to eCall industry for E-GNSS adoption, in cooperation with the Joint Research Centre.</li> </ul>	<ul style="list-style-type: none"> <li>• Update of market data up to 2016 and forecast up to 2025 done and used for publication of Market Report Issue 5.</li> <li>• Database of receiver models updated in June 2017.</li> <li>• User Consultation Platform held in Madrid on 28-29 November.</li> </ul>

- Initiation of the Commission's Cooperative-Intelligent Transport System (ITS) Master plan, implementing the parts related to E-GNSS.
- Analysis of the standardisation/certification process implementation for E-GNSS in Autonomous Vehicles.
- Initiation of market uptake of E-GNSS in "Mobility as a Service" (MaaS) applications.
- With a focus on E-GNSS adoption in "Mobility as a Service" (MaaS) applications, actions initiated to join strategic industrial initiatives and increase awareness in specialised media targeting mobility operators and public administrations.
- First steps for the harmonisation of Smart Tachograph in UNECE taken by providing support to the European Commission.
- Other results as planned.

		Targets	2017 results
Indicators	Use of Market Report (Road)	25,000 downloads	16,000 downloads in 2017
	Availability of updated information on penetration of Galileo and EGNOS in available receiver models globally	100%	Annual Report expected in 2018
	User needs consulted within the respective user forum	100%	100%
	eCall receiver models tested	4	4 eCall devices (and 3 GNSS chipsets)
	Galileo adoption in Road receivers	55%	40% of models with Galileo capability
	Roadmap for adoption in Cooperative-ITS	100%	50% (European strategy on Cooperative ITS under discussion in the European Parliament)
	Roadmap for E-GNSS standardisation and certification process in Autonomous Vehicles	100%	100% roadmap designed
	Entry plan for E-GNSS adoption in "Mobility as a Service" (MaaS) applications	50%	50%
	Design a test plan for Digital Tachograph	50%	50%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Market report – Road chapter.</li> <li>• Report on Galileo penetration in receivers and chipsets models in Road sector.</li> <li>• Updated user requirements – limited to the report by the User Consultation Platform (UCP).</li> <li>• Analysis of results of the testing campaigns.</li> <li>• Adoption roadmaps.</li> <li>• Entry plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter on road market included in the GNSS Market Report Issue 5.</li> <li>• Penetration information expected in 2018 as part of GNSS User Technology Report Issue 2.</li> <li>• User requirements documents updated.</li> <li>• Other outputs were as planned.</li> </ul>

### Objective 3: E-GNSS market development in Maritime (WBS 5.02.05 and 5.03.05)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Market monitoring analysis and forecasting in the area of Maritime.</li> <li>• Technology monitoring in the area of Maritime.</li> <li>• Segment user relationship management, including defining and updating user needs.</li> <li>• Submission to the International Maritime Organisation of the request for the recognition of EGNOS as part of the Worldwide Radio Navigation System.</li> <li>• Main beacon manufacturers implementing the SAR return link.</li> </ul>	<ul style="list-style-type: none"> <li>• Update of market data up to 2016 and forecast up to 2025 done and used for publication of Market Report Issue 5.</li> <li>• Database of receiver models updated in June 2017.</li> <li>• User Consultation Platform held in Madrid on 28-29 November.</li> <li>• Return link capability successfully tested with two maritime beacon prototypes during Galileo return link operational tests.</li> <li>• With the support of the Agency and the European Commission, the Council of European Union submitted the request to IMO.</li> <li>• Other results as planned.</li> </ul>

	Targets	2017 results
Indicators	<b>Use of Market Report (Maritime)</b> 25,000 downloads	16,000 downloads
	<b>Availability of updated info of penetration of Galileo and EGNOS in available receiver models globally</b> 100%	Annual Report will be available in Q3 2018

Indicators	User needs consulted within User Forum	100%	100%
	Request for agenda item in the International Maritime Organisation biannual plan 2018-2019 for the recognition of EGNOS as part of the Worldwide Radio Navigation System	100%	100%
	Galileo Return Link Service introduced in maritime SAR beacons	30%	30%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Market Report – Maritime chapter.</li> <li>• Report on Galileo and EGNOS penetration in receivers and chipsets in Maritime.</li> <li>• Updated user requirements – limited to the report by the User Consultation Platform (UCP).</li> <li>• Materials from International Maritime Organisation meetings.</li> <li>• Results of receiver/beacon manufacturer manufacture survey.</li> <li>• SAR beacon with Galileo Return Link Service partially developed.</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Chapter on maritime market included in the GNSS Market Report Issue 5.</li> <li>• Updated report on EGNOS and Galileo penetration in Maritime receiver models.</li> <li>• Updated user requirements document.</li> <li>• Support documents for IMO.</li> <li>• Results of the interview with receiver and beacon manufacturers.</li> <li>• First Personal Locator Beacon and EPIRB Emergency Position-Indicating Radio Beacon prototypes developed.</li> </ul>

#### Objective 4: E-GNSS market development in Rail (WBS 5.02.06 and 5.03.06)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Market monitoring analysis and forecasting in the area of Rail.</li> <li>• Technology monitoring in the area of Rail.</li> <li>• Segment user relationship management, including defining and updating user needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Update of market data up to 2016 and forecast up to 2025 done and used for publication of Market Report Issue 5.</li> <li>• Database of receiver models updated in June 2017.</li> </ul>

- Definition of final user requirements for E-GNSS safety relevant applications.
- Implementation of the rail certification roadmap.
- User Consultation Platform held in Madrid on 28-29 November. Discussions took place with the user community, resulting in updates to the user requirement documents that will be implemented during 2018.
- Implementation of rail certification roadmap done with minor delays due to performance testing.

Targets		2017 results	
Indicators	Use of Market Report (Rail chapter)	25,000 downloads	16,000 downloads
	Availability of updated info of penetration of Galileo and EGNOS in available receiver models globally	100%	Annual Report expected in 2018
	User needs consulted within User Forum	100%	100%
	Results of EGNOS performance tests endorsed by majority of European rail signalling supplier community	40%	40% (50% of tests finished and 80% of European signalling suppliers involved/endorsed all phases of the performance tests)
	Implementation of certification roadmap	10%	10% (Rail Notified Bodies aware/involved in the GNSS in rail certification aspects)

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Market Report – Rail chapter.</li> <li>• Report on Galileo and EGNOS penetration in receivers and chipsets in Rail.</li> <li>• Partially implemented roadmap.</li> <li>• Updated user requirements – limited to the report by the User Consultation Platform (UCP).</li> <li>• Performance tests report.</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Rail chapter in Market Report.</li> <li>• Penetration information expected in 2018 as part of GNSS User Technology Report Issue 2.</li> <li>• Rail roadmap implemented.</li> <li>• Updated user requirements document.</li> <li>• Draft GNSS performance test reports.</li> </ul>

**Objective 5: E-GNSS market development in High-Precision Market Agriculture and Surveying (WBS 5.02.01, 5.03.01, 5.02.02 and 5.03.02)**

Expected results	2017 results
<ul style="list-style-type: none"> <li>Market monitoring analysis and forecasting in the area of Agriculture.</li> <li>Technology monitoring in the area of High Precision Market Agriculture/Surveying.</li> <li>High Precision, Agriculture and Surveying market segment relevant actions implementation.</li> <li>Segment user relationship management, including defining and updating user needs.</li> <li>Increased Galileo and EGNOS penetration in Agriculture professional receivers and chipsets.</li> <li>Support E-GNSS adoption through dedicated awards for innovative ways of integrating E-GNSS in High Precision, Agriculture/Surveying applications.</li> <li>Analysis of synergies with Copernicus.</li> <li>Initialise the procedure to implement the Commercial Service provision approach.</li> <li>Define and implement mechanisms to support upgrade of Galileo in private and public reference networks.</li> </ul>	<ul style="list-style-type: none"> <li>Update of market data up to 2016 and forecast up to 2025 done and used for publication of Market Report Issue 5.</li> <li>Database of receiver models updated in June 2017.</li> <li>Actions involving the key stakeholders in high precision market segment implemented as planned.</li> <li>User Consultation Platform held in Madrid on 28-29 November.</li> <li>Young Surveyors Prize awarded for innovative integration of E-GNSS in surveying applications.</li> <li>Completed contributions to the UNOOSA study on E-GNSS-Copernicus synergies.</li> <li>Commercial Service provision approach being finalised.</li> <li>Actions to increase Galileo adoption in private and public reference networks implemented.</li> <li>Other results as planned.</li> </ul>

	Targets	2017 results
Indicators	<b>Use of Market Report (High Precision Agriculture/ Surveying chapter)</b> 25,000 downloads	16,000 downloads
	<b>Availability of updated info of penetration of E-GNSS in number of receiver models available globally</b> 100%	Annual Report expected in 2018
	<b>Conduct regular user fora</b> 100%	100%
	<b>Galileo adoption in High Precision Agriculture/ Surveying professional receivers and chipsets</b> 50%	95%

Indicators	<b>Dedicated awards for E-GNSS adoption by innovative contributions to integration of E-GNSS in High Precision Agriculture/ Surveying applications and/or devices</b>	100%	100%
	<b>Analysis of E-GNSS-Copernicus synergies</b>	100%	50% of models with Galileo capability (study available in January 2018)
	<b>Selection of the CS service provider</b>	30%	30% documentation on-hold waiting for the pricing scheme definition
	<b>Definition and implementation plan to support Galileo upgrade based on private and public reference networks</b>	3	3 network updated

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Market Report (Agriculture and Surveying chapters).</li> <li>• Report on Galileo and EGNOS penetration in receivers and chipsets in Agriculture and Surveying.</li> <li>• Updated user requirements – limited to the report by the User Consultation Platform (UCP).</li> <li>• Adoption roadmap implementation status.</li> <li>• Materials from awarded prizes.</li> <li>• Report analysing the synergies with Copernicus, including recommended actions.</li> <li>• Consolidated roadmap for the service provision approach.</li> <li>• Implementation plan for Galileo update in the reference networks.</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Market Report - Agriculture and Surveying chapters.</li> <li>• EGNOS capabilities of the Geographical Information System receivers for mapping.</li> <li>• Updated user requirements document.</li> <li>• Materials from awarded prizes (press releases, photographs, etc.).</li> <li>• GSA input to UNOOSA on synergies with Copernicus.</li> <li>• Roadmap for service provision on-hold.</li> <li>• Updated roadmap consolidated with stakeholders in Surveying/Agriculture.</li> </ul>



**Objective 6: E-GNSS market development in Location Based Services (LBS), Machine-to-machine (M2M) and other Mass Market segments (WBS 5.02.07 and 5.03.07)**

Expected results	2017 results
<ul style="list-style-type: none"> <li>Market monitoring analysis and forecasting in the area of LBS.</li> <li>Technology monitoring in the area of LBS.</li> <li>Segment user relationship management, including defining and updating user needs.</li> <li>Increased Galileo penetration in mass market chipsets and consumer devices.</li> </ul>	<ul style="list-style-type: none"> <li>Update of market data up to 2016 and forecast up to 2025 done and used for publication of Market Report Issue 5.</li> <li>Database of receiver models updated in June 2017.</li> <li>User Consultation Platform held in Madrid on 28-29 November.</li> <li>Leading smartphone manufacturers that included Galileo in new models launched in 2017: Huawei P10 Plus, Samsung Galaxy S8 and S8+ and iPhone 8, 8plus and X.</li> <li>Galileo chipsets launched in 2017, including Mediatek X30, Broadcom BCM47755 (dual frequency) and Snapdragon 835.</li> </ul>

		Targets	2017 results
Indicators	Use of Market Report (LBS chapter)	25,000 downloads	16,000 downloads
	Availability of updated info about penetration of Galileo and EGNOS in receiver models available globally	100%	Expected in 2018 per macro-segment as part of GNSS User Technology Report Issue 2
	User needs consulted within User Consultation Group	100%	100%
	Galileo adoption in mass market chipsets	50%	Last available report from mid-2017 states 47% of Galileo adoption
	Number of Galileo-ready smartphones	5	6

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Market Report LBS chapter.</li> <li>• Report on Galileo and EGNOS penetration in mass market receivers and chipsets.</li> <li>• Updated user requirements – limited to the report by the User Consultation Platform (UCP).</li> <li>• Adoption roadmap implementation status.</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter on LBS market included in the GNSS Market Report Issue 5.</li> <li>• Penetration information expected in 2018 as part of GNSS User Technology Report Issue 2.</li> <li>• Updated user requirement documents.</li> <li>• Adoption roadmap implementation expected in 2018.</li> </ul>

**Objective 7: E-GNSS market development in Timing and Synchronisation (T&S)  
(WBS 5.02.08 and 5.03.08)**

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Market monitoring analysis and forecasting in the area of Timing and Synchronisation.</li> <li>• Technology monitoring in the area of Timing and Synchronisation.</li> <li>• Segment user relationship management, including defining and updating user needs.</li> <li>• Support the Commission in the regulatory action for Galileo adoption in critical infrastructures.</li> </ul>	<ul style="list-style-type: none"> <li>• Update of market data up to 2016 and forecast up to 2025 done and used for publication of Market Report Issue 5.</li> <li>• Database of receiver models updated in June 2017.</li> <li>• User Consultation Platform held in Madrid on 28-29 November.</li> <li>• Support to the European Commission for a European initiative on the use of Galileo in critical Infrastructures.</li> <li>• Other results as planned.</li> </ul>

	Targets	2017 results
Indicators	<b>Use of Market Report (Timing and Synchronisation chapter)</b> 25,000 downloads	16,000 downloads
	<b>Availability of updated info of penetration of Galileo and EGNOS in number of receiver models available globally</b> 100%	Expected to be available in 2018 per macro-segment as part of GNSS User Technology Report Issue 2
	<b>User needs consulted within User Consultation Group</b> 100%	100%

**Availability of necessary information and dissemination to support the Commission's decision**

50%

50%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Market Report (Timing and Synchronisation chapter).</li> <li>• Report on Galileo and EGNOS penetration in receivers and chipsets in Timing and Synchronisation.</li> <li>• Updated user requirements – limited to the report by the User Consultation Platform (UCP).</li> <li>• Supporting materials delivered to EC in regards to Galileo in Timing and Synchronisation.</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter on T&amp;S market included in the GNSS Market Report Issue 5.</li> <li>• Penetration information expected to be available in 2018 as part of GNSS User Technology Report Issue 2.</li> <li>• Updated user requirement documents.</li> <li>• T&amp;S documentation provided.</li> </ul>

**Objective 8: E-GNSS market development in Governmental use (WBS 5.02.09 and 5.03.09)**

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Market monitoring analysis and forecasting in the area of Governmental use.</li> <li>• Technology monitoring in the area of Governmental use.</li> <li>• Delivery of necessary information to support the Member States' promotion of Galileo PRS Initial Services in their users communities and promotion of Galileo PRS following CPAs consultations.</li> </ul>	<p>As planned</p>

Targets		2017 results
Indicators	Availability of updated info of potential penetration of Galileo PRS	100%
	Conclusion of the consultations and aggregate report communicated to CPAs	100%
	Implemented action from CPAs consultation	10%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>Report on Galileo and EGNOS penetration in receivers and chipsets in Governmental use.</li> <li>Materials from CPA consultations, agreed plan and list of actions.</li> </ul>	<p>As planned, with updated information regarding potential penetration in specific PRS sub-segments.</p>

#### Objective 9: Services, Applications and R&D Communications (WBS 1.03.01)

Expected results	2017 results
<ul style="list-style-type: none"> <li>Communication activities relating to EGNOS and Galileo services and applications and to research and development comprise of the following items:</li> <li>Increased awareness of EGNOS, its high performance and its many benefits.</li> <li>EGNOS positioned as a successful step in the evolution of European GNSS and as a confidence builder for Galileo.</li> <li>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 PNT information.</li> <li>Strengthened communications with user networks and communities.</li> </ul>	<p>As planned.</p>

- Increased awareness amongst innovative enterprises, with a focus on SMEs, who can benefit from leveraging EGNOS and Galileo in their application, product or service, or that can increase the functionality within their existing applications by enabling it with E-GNSS.
- Increased awareness of the Galileo programme, its role within the global multi-constellation satellite navigation system, and the benefits of “Galileo Initial Services” when available.

	Targets	2017 results
<b>Indicators</b>		
<b>Implementation of the Annual Communications Plan</b>	100%	100%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• Website creation, maintenance and management.</li> <li>• Social media campaigns.</li> <li>• Production of publications.</li> <li>• Video production of the final product.</li> <li>• Event planning, participation and management (exhibition creation, advertising, promotion and presentation).</li> <li>• Media, public relations and stakeholder initiatives.</li> <li>• Newsletter production and distribution.</li> <li>• Feedback surveys and studies.</li> </ul>	<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>• <b>Websites:</b> the GSA maintains three active websites, published 133 web stories and translated <a href="http://www.usegalileo.eu">www.usegalileo.eu</a> into all official EU languages.</li> <li>• <b>GSA Social Media expansion in 2017:</b> 57% increase on Twitter, 37% increase of likes on Facebook, 31% increase of followers in LinkedIn, 54% increase of subscribers on YouTube.</li> <li>• <b>Printed Publications:</b> updated segment targeted brochures for 7 “Galileo and EGNOS” user segments; 2017 GSA GNSS Market Report.</li> <li>• <b>Newsletters:</b> 8 issues of GSA Today delivered to over 8 000 subscribers</li> <li>• <b>Video Productions:</b> 56 videos and animations, including, but not limited to: <ul style="list-style-type: none"> <li>- Galileo Initial Services – One Year On (EN, FR)</li> <li>- Galileo Integrated Logistics Support Centre (EN)</li> </ul> </li> </ul>

- First Virtual Reality video: EGNOS aided mountain rescue (EN)
- What is Galileo? (EN, FR, DE)
- **Event creation, participation and management:** 13 events, including, but not limited to: InfoShare/Second Galileo Hackathon, European Navigaton Conference, European Space Week, 2017 European Satellite Navigation Competition Awards Ceremony.
- **Media, public relations and stakeholder initiatives:** 8 initiatives, including, but not limited to:
  - Galileo Commercial Service Implementing Decision enters into force
  - GEO 3 contract marks major milestone in EGNOS development
  - GSA launches 2017 GNSS Market Report

Over 130 print and broadcast pick-ups were generated by GSA-produced articles on a wide range of subjects.
- **Feedback surveys and studies:** EGNOS user survey; Galileo/GSC user survey; Hackathon webinar survey, May 2017; Galileo Hackathon, event feedback, May 2017; Fundamental Elements webinar, March 2017.



## 3.5 Agency Management (WBS 1)

### 3.5.1 Highlights for 2017



This activity supported the Agency's core (and delegated) 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, IT, and logistics. The main 2017 achievements can be described as followed:

- All procurements were awarded on time, thus avoiding service discontinuity.
- The Agency continued to ensure the effective management of the Administrative Board.
- The Agency Enterprise Content Management System, which supports Configuration and Document Management activities, was developed and deployed on the GSA's restricted network.
- The Agency continued to improve its Integrated Management System (IMS). Re-certification, in accordance with the latest release of the ISO 9001 standard, was achieved in December 2017.
- The Agency continued to develop its risk management capability, holding quarterly Corporate Risk Management Boards.
- An external security audit of the Agency was carried out in March 2017, with preliminary feedback being positive.
- The Central Security Office successfully recruited a candidate for the position of a Local Informatics Security Officer (LISO), who is charged with improving the implementation of security features of the Agency's IT systems.
- Security tests were performed on the internal system used for the handling of EUCL.
- The security training plan was approved and first security awareness briefings delivered.
- The Accreditation Panel of Internal Systems (APIS) continued its activity as the main supportive body to the GSA Security Accreditation Authority. Throughout 2017, three official APIS meetings took place, resulting in reaccreditation of nine GSA internal systems/areas. The accreditation process for one new system was also initiated.
- The GSA continued to support the awareness of and appreciation for the Agency's work through a range of corporate communications and stakeholder relations/liaison initiatives.
- The Agency continued to engage and expand its internal communication efforts to help support an informed, motivated and connected GSA team located in multiple locations.

### 3.5.2 Tasks for 2017

#### Objective 1: Legal, procurement, grants and contract management (WBS 1.01.02)

Expected results	2017 results
<ul style="list-style-type: none"> <li>Procurement management: planning, preparation and execution of procurement file up to the signature of legal commitment.</li> <li>Grant management: planning, preparation and execution of grant file up to the signature of legal commitment.</li> <li>Legal commitments management: drafting, negotiation, signature, amendment, assignment and other support throughout the lifetime of a legal commitment.</li> <li>Legal advisory services: identification, verification, assessment and provision of legal opinions.</li> </ul>	<ul style="list-style-type: none"> <li>All tasks were performed according to the timeline.</li> <li>No significant issues or claims in contracts and grants executions, with the exception of the GSOp procurement, in which a court case is pending.</li> <li>Amendments managed according to needs and applicable rules.</li> <li>Legal opinions timely delivered.</li> </ul>

	Targets	2017 results
Indicators	<b>Procurement and contract award: % of contracts in place on time (i.e. avoiding gaps on needs, generating a lack in the continuation of activities)</b>	90% 100%
	<b>Legal advice: internal customer satisfaction</b>	- Improvement actions discussed and agreed
	<b>Contract management: % of exceptions compared to total number of contracts signed in a year</b>	To reach less than 5% 2%

Planned outputs	Actual outputs
<ul style="list-style-type: none"> <li>Legal opinions.</li> <li>Administrative Board related documentation (incl. decisions).</li> <li>Security Accreditation Board documentation (incl. decisions).</li> <li>Executive Director documentation (incl. decisions, letters, guidelines).</li> </ul>	As planned.



- Policies.
- Court case related documents.
- Procurements/call for proposals related documentation.
- Legal commitments (contracts, agreements, confidentiality agreements, IPR licences, memoranda of understanding, etc.).
- Institutional agreements (delegation agreements, working arrangements, regulatory documents).
- Reporting (on procurement, grants, contracts on core and delegated tasks).

## Objective 2: People and talent management (WBS 1.01.03)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Selection, recruitment and on-boarding: selection, recruitment and on-boarding of the most suitable candidate for each vacant post in accordance with applicable requirements and staff regulations.</li> <li>• Welcome/work-life balance features.</li> <li>• Staff administration and services: establishment of individual rights to ensure that each staff member has a complete formal record and receives the correct entitlements due.</li> <li>• Staff performance.</li> <li>• Learning and staff development.</li> <li>• Human resources management.</li> </ul>	As planned

	Targets	2017 results
Indicators	<b>% execution of the Establishment Plan</b>	95%
	<b>Average throughput time of the recruitment process</b>	100%
	<b>% of timely submitted PMO forms</b>	<=5 months
	<b>Staff absenteeism</b>	100%
		4.44%

<b>Indicators</b>	<b>Average rating of quality of training</b>	>8	8.8
	<b>% of appraisal exercises that are timely executed</b>	90%	100%

Planned outputs	Actual outputs
<ul style="list-style-type: none"> <li>• Agency social events.</li> <li>• Proposal and communication of action plans for specific, non-regular exercises.</li> <li>• Provision of quality advice to individual inquiries.</li> </ul>	<ul style="list-style-type: none"> <li>• Resource planning in accordance with operational requirements and establishment plan.</li> <li>• Vacancy notices, recruitment guidelines to Selection Board members and FAQ for candidates.</li> <li>• Induction training, Agency social events.</li> <li>• Record of individual rights and entitlements; monthly payroll.</li> <li>• Annual objectives, annual staff performance appraisal and annual reclassification exercise.</li> <li>• Learning and development strategy, individual training maps, learning activities, feedback/evaluation.</li> <li>• Commission's implementing rule proposals for adoption by the Agency; Executive Director's decisions; draft Agency administrative notes and policies.</li> <li>• Various metric and narrative reports (e.g. organisational charts).</li> <li>• Action plans for specific, non-regular exercises with multiple stakeholders.</li> <li>• Quality advice to individual inquiries.</li> <li>• Action plans for specific, non-regular exercises.</li> </ul>

### Objective 3: Finance and budget management (WBS 1.01.04)

Expected results	2017 results
<ul style="list-style-type: none"> <li>Budgeting and regular financial management: budgeting, monitoring and reporting on budget execution levels to all internal and external clients; daily management of Agency's financial transactions; reporting to the European Commission 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 the VAT exemption for all Agency sites and personal VAT reimbursement for Prague-based staff; general finance and VAT specific training on EU specific financial procedures; management of paperless tool.</li> <li>Grants administration and control: support in call preparation, management of grant agreements, amendments, payments and reporting; detailed ex-ante verification of all grant payments in line with European Court of Auditors' recommendations; management of external experts in relation to evaluation of grant calls and supervision and review of deliverables produced by beneficiaries of EU grants that the Agency manages; drafting of policies on ex-ante and ex-post checks for grants and on expert rules; ex-post controls of grant payments; reporting to the Commission and to internal clients on grants execution and cash flow needs.</li> </ul>	As planned

	Targets	2017 results
Indicators	<b>End-of-year commitment rate</b>	95% - 100%
	<b>Rate of carry-over on Title II</b>	35%
	<b>Payments on time</b>	95%
	<b>Amount of late payment interest</b>	< 25 000 EUR
	<b>Number of transfers &gt; 10%</b>	Max 1
		100%
		42%
		99%
		511.46 EUR
		1

Planned outputs	Actual outputs
<ul style="list-style-type: none"> <li>• Monthly financial reporting.</li> <li>• Draft budget document.</li> <li>• Official budget documents and amendments for publication in the Official Journal.</li> <li>• Annual Budget Implementation Report.</li> <li>• VAT exemption certificates and reimbursement claims.</li> <li>• Quarterly and annual financial reports for delegated budget.</li> </ul>	As planned.

#### Objective 4: Information and Communication Technology (ICT) (WBS 1.01.05)

Expected results	2017 results
<p>The Agency's Information and Communication Technology (ICT) needs are split along three fundamental lines:</p> <ul style="list-style-type: none"> <li>• Systems management, to ensure that all ICT systems operate within optimal parameters, are reliable and available to Agency users as required;</li> <li>• User management, to ensure the appropriate provision of technical assistance and support related to ICT; and</li> <li>• Project management of all internal IT projects according to the Agency's needs.</li> </ul>	<p>In 2017, the Agency's ICT needs were addressed according to the following lines:</p> <ul style="list-style-type: none"> <li>• ICT security</li> <li>• ICT operations for unclassified and classified information systems</li> <li>• ICT user support to ensure the appropriate provision of technical assistance related to ICT</li> <li>• ICT project management for internal ICT projects validated by the ICT Steering Committee</li> </ul>

	Targets	2017 results
<b>Indicators</b>		
<b>Tickets completed under 24h</b>	90%	88.9%
<b>Tickets completed in 1-5 days</b>	10%	4.5%
<b>Tickets completed in &gt; 5 days</b>	0%	6.6%

Planned outputs	Actual outputs
<ul style="list-style-type: none"> <li>• Implementation of requested changes (systems management).</li> <li>• Execution and control of IT projects (following PRINCE2 project management methodology).</li> </ul>	<ul style="list-style-type: none"> <li>• New ICT strategic plan 2018-2021.</li> </ul>

- Agency staff's exit management processed by Helpdesk in Staff Movement List.
- Confirmation of receipt of Agency equipment (after exit of staff).
- Closure of tickets.

#### Objective 5: Facility management and logistics (WBS 1.01.06)

Expected results	2017 results
<p>All activities related to facility management and logistics are on-going year-after-year. The Agency does not foresee any specific activity for 2017.</p> <ul style="list-style-type: none"> <li>• Timely facility management and logistical support to internal customers.</li> <li>• Accurate asset and inventory management.</li> <li>• Timely building management.</li> </ul>	<ul style="list-style-type: none"> <li>• All facility management activities were ongoing in 2017, and support was provided accurately and timely.</li> <li>• Inventory management was improved via the ICT Master Plan database and more strict location tracking in ABAC ASSETS database.</li> </ul>

	Targets	2017 results
<b>Indicators</b>	<p><b>There are no specific indicators for this objective.</b></p> <p>-</p>	-

Planned outputs	Actual outputs
<ul style="list-style-type: none"> <li>• Activity report for building maintenance.</li> <li>• Execution report for supervisor for such services as cleaning.</li> <li>• Specific feedback to the requesting party as part of the escalation procedure for reception services, building management, etc.</li> <li>• Updated records of solutions found or information provided to internal customers, procurement officers or contract managers.</li> <li>• Monthly report based on ticketing tool outputs.</li> <li>• Yearly facility management satisfaction survey.</li> <li>• Monthly cleaning quality report for supplier's internal control.</li> <li>• Updated inventory system based upon movement and inventory checks.</li> </ul>	<ul style="list-style-type: none"> <li>• Monthly reports provided as main support documents for management and invoicing, together with monthly operational reports and time sheets.</li> <li>• Ticketing tool records in electronic version.</li> <li>• Facility management satisfaction survey was not requested in 2017 because general satisfaction was above average and possible staff requests were tackled in a timely fashion.</li> <li>• Inventory check report.</li> </ul>

**Objective 6: Administrative Board management (WBS 1.01.07)**

Expected results		2017 results
In line with the Agency's regulation and the Rules of Procedure for the Administrative Board, the Agency intends to hold a minimum of two scheduled meetings for its Administrative Board in 2017. The Agency will also provide the necessary secretariat to the Board over the course of the year.		As planned.

		Targets	2017 results
Indicators	Organised Board meetings	2	4
	Completed written procedures	-	0

Planned outputs	Actual outputs
<ul style="list-style-type: none"><li>Agenda and minutes of each meeting.</li><li>Board decisions, including written procedures.</li></ul>	As planned.

**Objective 7: Configuration and document management (WBS 1.01.08)**

Expected results		2017 results
Continued smooth implementation of an Enterprise Content Management system that supports the Agency, particularly in the field of configuration management related to engineering functions.		The Enterprise Content Management System was developed and deployed on the GSA restricted network. However, its full implementation (roll-out) on the GSA administrative network did not start in 2017 due to the lack of resources.

		Targets	2017 results
Indicators	Enterprise Content Management System	95%	50% (roll-out to be undertaken)
	Policies, processes and procedures	100%	80%

Planned outputs	Actual outputs
<ul style="list-style-type: none"> <li>Enterprise Content Management System.</li> <li>Relevant policies, processes and procedures.</li> <li>Training materials.</li> </ul>	<ul style="list-style-type: none"> <li>Enterprise Content Management System on GSA restricted network.</li> <li>Training materials.</li> <li>Policies, processes and procedures, except for the records retention schedule, which will be developed in parallel with the roll out.</li> </ul>

#### Objective 8: Strategic planning (WBS 1.02.01)

Expected results	2017 results
<p>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 focuses on:</p> <ul style="list-style-type: none"> <li>The management of delegation agreements and working arrangements between the Agency and the Commission or the European Space Agency respectively.</li> <li>Implementing its Administrative Board's decisions.</li> <li>Preparing the relevant programming documents and their corresponding reporting.</li> <li>Ensuring that the appropriate resources are provided to the SAB.</li> <li>Implementing the relevant internal controls to protect the Union's financial interests.</li> </ul>	As planned.

	Targets	2017 results
Indicators	Management of delegation agreements and working arrangements	Ongoing
	Implementation of Board decisions	Ongoing

Planned outputs	Actual outputs
<ul style="list-style-type: none"> <li>Administrative Board decisions.</li> <li>Single Programming Document.</li> <li>Annual Activity Report.</li> <li>Internal Audit Report.</li> </ul>	<ul style="list-style-type: none"> <li>Single Programming Document 2017-2020 (adopted in March 2017).</li> <li>Provisional Single Programming Document 2018-2020 (adopted in January 2017).</li> <li>Annual Activity Report 2016 (adopted in June 2017).</li> </ul>

#### Objective 9: Quality and IMS (WBS 1.02.02)

Expected results	2017 results
<ul style="list-style-type: none"> <li>Appropriate Quality Management and the related ISO 9001 certification of the Agency.</li> <li>Development of an Integrated Management System (IMS) for other standards that the Agency intends to be certified against in future.</li> <li>Development of Product Assurance and Quality Assurance Reliability, Availability, Maintainability and Safety (RAMS) activities within the Galileo Operations.</li> </ul>	As planned.

	Targets	2017 results
Indicators	<b>Progress of Quality Audit implementation</b>	90%
	<b>Closure rate of actions in the Continuous Improvement database</b>	70%
		100% Quality Audits Plan implementation ISO 9001 recertification achieved
		84%

Planned outputs	Actual outputs
<p>Outputs relating to the multi-annual work programme objectives:</p> <ul style="list-style-type: none"> <li>Annual Quality Audit Plan and Quality Audit Reports.</li> <li>Quality Management Review.</li> <li>Continuous Improvement Database, including suggestions for improvements and non-conformances.</li> <li>Quality Indicator Reports and training materials.</li> </ul>	<ul style="list-style-type: none"> <li>27 Internal Quality Audits and 16 External Quality Audits.</li> <li>72 open/pending items under follow-up, 360 items closed.</li> <li>Quarterly tracking of quality indicators, training materials updated.</li> <li>IMS online library maintained (including standards, action items, reports).</li> <li>PA requirements defined, PA plan in preparation.</li> </ul>



- IMS document libraries (including policies, processes, procedures and work instructions).
  - Product Assurance and Quality Assurance RAMS requirements and follow-up.
- Other outputs:
- Best-practice approaches (WBS, WPD, Business Process Management).
  - Staff training sessions related to Quality and IMS.
  - Work Breakdown Structure Version 2.0 released, 151 Work Package Descriptions under configuration control.
  - 6 training activities and 3 quality management awareness events carried out, all newly joined staff received quality management induction training.

#### Objective 10: Internal Control and Risk Management (WBS 1.04.02)

Expected results	2017 results
<p>The Agency's internal control coordination activities and its risk management activities are on-going tasks that help fulfil its statutory obligations. These include:</p> <ul style="list-style-type: none"> <li>• Liaising with, and reporting to, the Internal Audit Service and with internal and external stakeholders on internal control issues.</li> <li>• Evaluating the compliance and effectiveness of the internal control strategy and related systems of the organisation by assessing the implementation of the 16 internal control standards.</li> <li>• Issuing an annual report for the Administrative Board on the follow up of all open recommendations and action plans (from the Internal Audit Service, the Court of Auditors and the Parliament's discharge).</li> <li>• Coordinating the Agency's internal audit capability for preparing, executing, reporting and monitoring related to audit activities.</li> <li>• Managing and reporting on all actions related to the gifts and hospitality policy, including the gifts registry.</li> <li>• Managing all actions in relation to the Agency's anti-fraud strategy.</li> <li>• Assessing the requirements for the development and implementing of a Conflict of Interest Policy.</li> <li>• Execute a business continuity gap analysis.</li> <li>• Proposing and developing a complementary risk management function at the corporate level.</li> </ul>	<ul style="list-style-type: none"> <li>• Correct management of audit activities, including an unforeseen audit by DG GROW on 2016 Delegation Agreement activities.</li> <li>• Internal Audit Service's (IAS) Strategic Internal Audit Plan for the GSA distributed to Administrative Board. Full set of IAS recommendations were worked on.</li> <li>• The GSA corporate risk management policy and procedure were implemented through quarterly corporate risk boards and the corporate risk register.</li> </ul>

		Targets	2017 results
Indicators	Conflict of interest cases timely handled, documented and monitored.	100%	100%
	Key elements of the anti-fraud strategy defined and implemented.	75%	75%
	Risk management framework defined and implemented.	100%	100%

Planned outputs	Actual outputs
<p>Other outputs:</p> <ul style="list-style-type: none"> <li>Internal Audit Capability audit report.</li> <li>Internal Audit Service audit report.</li> <li>Declarations of Assurance.</li> <li>Internal Control Standards compliance report.</li> <li>Gifts and Conflict of Interest Registries.</li> <li>Risk Management policy and registry.</li> <li>Business Continuity Plan.</li> </ul>	<ul style="list-style-type: none"> <li>IAC: Audit Report Grant Management processed. Change Audit Plan 2017 implemented. Audit Plan 2018 processed.</li> <li>GSA Internal Control Standards (ICS) reviewed. Draft ICS Management Survey template prepared.</li> <li>IAS: GSA Strategic Internal Audit Plan (SIAP) 2018-2020 delivered to Admin Board.</li> <li>European Court Auditors: audit prepared on accounts and internal controls.</li> <li>Business impact analysis completed and submitted for approval.</li> <li>GSA Corporate Risk Management Policy, Procedure and Corporate Risk Registers (quarterly basis).</li> </ul>

#### Objective 11: Corporate communications (WBS 1.03.02)

Expected results	2017 results
<ul style="list-style-type: none"> <li>Strengthened and recognised 'corporate' identity for the Agency.</li> <li>Enhanced awareness of the Agency and understanding of its mission, vision and values.</li> <li>Increased awareness of the Agency Work Programme and achievements.</li> </ul>	As planned.

- Consolidated and strengthened relationships with key European and international players in the space sector in general and key GNSS user communities in particular.
- Strategic partnerships built/strengthened.
- Increased awareness and appreciation for the Agency's work within Member States.

	Targets	2017 results
<b>Indicators</b>		
<b>Implementation of Annual Communications Plan</b>	100%	100%

Planned outputs	Actual outputs
<p>Other outputs</p> <ul style="list-style-type: none"> <li>• Website creation, maintenance and management.</li> <li>• Social media campaigns.</li> <li>• Production and dissemination of publications.</li> <li>• Production and dissemination of videos.</li> <li>• Event organisation, participation and management (exhibition creation, advertising, promotion and presentation).</li> <li>• Media, public and stakeholder relation initiatives.</li> <li>• Newsletter production and distribution.</li> <li>• Feedback surveys and studies.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>GSA Social Media expansion in 2017:</b> 57% increase on Twitter, 37% increase of likes on Facebook, 31% increase of followers on LinkedIn, 54% increase of subscribers on YouTube.</li> <li>• <b>Websites:</b> a total of 19,066 hours on GSA website, 166,391 unique visitors with 672,832 page views.</li> <li>• <b>Event organisation, participation and management:</b> Munich Satellite Navigation Summit, 33<sup>rd</sup> Space Symposium, 7<sup>th</sup> Space Generation Fusion Forum, EU 60 &amp; Space.</li> <li>• <b>Publications:</b> new GSA corporate brochure.</li> <li>• <b>Video production:</b> Europe for Space, Space for Europe (EN); GSA profile video for launch video transmission.</li> <li>• <b>Media, publication and stakeholder initiatives:</b> 3<sup>rd</sup> GSA Open Days.</li> </ul>

#### Objective 12: Internal communications (WBS 1.03.03)

Expected results	2017 results
<p>The Agency uses internal communications to empower its staff and to ensure that everyone can stay 'on message'. This objective is meant to:</p> <ul style="list-style-type: none"> <li>• Foster a culture of positive team spirit and customer service.</li> </ul>	As planned.

- Promote better staff understanding and awareness of the Agency's mission, team and objectives.
- Enable the staff to project a correct and consistent message to the outside world and promote awareness of the Agency's key messages.
- Enable staff to serve as "Communication Ambassadors".
- Improve the working environment by increasing communication flow across departments and by enhancing information sharing.

Targets		2017 results
Indicators	<b>Implementation of Annual Communications Plan</b>	100%
		100%

Planned outputs	Actual outputs
Other outputs:	• 45 issues of <i>CONNECT</i> , the GSA's internal newsletter, delivered to staff.
• Event organisation, participation and management.	• Staff participation in 3 <sup>rd</sup> GSA Open Days.
• Newsletter production and distribution.	• Support of internal communication of quality control and ISO certification.
• Feedback surveys and studies.	

### Objective 13: Stakeholder liaison and communications (WBS 1.03.04)

Expected results	2017 results
The Agency dedicates resources to maintaining and improving stakeholder liaison and communications. In 2017, it will:	As planned.
• Increase dialogue and strategic partnerships that fulfil the goals it shares with these key stakeholders.	
• Enhance positive and open working relationships, information exchange, communications and liaison.	
• Increase its visibility and increase appreciation for its work and its role in the European GNSS programmes.	

- Build trust and engage stakeholders as partners who can multiply and promote key information, participating actively in the work and success of the Agency.
- Better awareness the Agency's vision, mission and what it needs to fully accomplish its aims amongst key stakeholders.
- Increase understanding and appreciation for the work and needs of the Agency, especially amongst the European Commission, DG GROW colleagues, members of the Administrative Board and relevant members of Parliament.

Targets		2017 results
Indicators	<b>Implementation of Annual Communications Plan</b>	100%
		100%

Planned outputs	Actual outputs
<p>Outputs</p> <ul style="list-style-type: none"> <li>• Website creation, maintenance and management.</li> <li>• Social media campaigns.</li> <li>• Production and dissemination of publications.</li> <li>• Production and dissemination of videos.</li> <li>• Event organisation, participation and management (exhibition creation, advertising, promotion and presentation).</li> <li>• Media and public relations initiatives.</li> <li>• Newsletter production and distribution.</li> <li>• Feedback surveys and studies.</li> </ul>	<ul style="list-style-type: none"> <li>• Printed publications: Annual Report Summary.</li> <li>• Newsletter: 4 issues of AB CONNECT were delivered to GSA Administrative Board members.</li> <li>• Ongoing meetings with key EU stakeholders (Parliament, Commission, Council and relevant EU agencies).</li> </ul>

## Objective 14: Agency transversal security (WBS 2.02.01)

Expected results	2017 results
<ul style="list-style-type: none"> <li>• Management of authorisations to access EU Classified Information (EUCI).</li> <li>• Management and maintenance of COMSEC accounts held by the Agency.</li> <li>• Issuing security incident reports</li> <li>• Maintenance of records of entries/exits to secured areas.</li> <li>• Issuing of security intervention reports.</li> <li>• Delivery of EUCI data pack.</li> <li>• Accreditation statements for internal systems to be signed by the Security Accreditation Authority (SAA).</li> </ul>	<ul style="list-style-type: none"> <li>• Authorisations managed on a regular basis.</li> <li>• COMSEC accounts managed and checked on a regular basis and according to the established policy.</li> <li>• Reports were issued when needed and a new Security Incidents Register was introduced.</li> <li>• Records of entries/exits to secured areas were regularly managed.</li> <li>• Even with an exponential rise in the number of EUCI deliveries, all deliveries were managed on daily bases.</li> <li>• 9 re-accreditation statements were signed by the SAA.</li> </ul>

	Targets	2017 results
<b>Indicators</b>		
<b>Compliance to Commission Decisions 2015/444 and 2015/443</b>	100%	100%

Planned outputs	Actual outputs
<p>Outputs:</p> <ul style="list-style-type: none"> <li>• Authorisations to access EUCI.</li> <li>• Security incident reports.</li> <li>• Records of entries/exits to secured areas.</li> <li>• Security intervention reports.</li> <li>• Delivery of EUCI data pack.</li> <li>• COMSEC transfers and transportations.</li> <li>• Policy governance and authorisation of GSMC operational COMSEC activities as defined in GSMC Operations and Preparation Objective 3.</li> <li>• Internal system accreditation statements to be signed by the System Accreditation Authority.</li> </ul>	<ul style="list-style-type: none"> <li>• Authorisations to access EUCI regularly issued.</li> <li>• 8 security incident reports.</li> <li>• Records of entries/exits up-to-date.</li> <li>• No intervention reports issued (actions following security events are indicated in security incidents reports).</li> <li>• EUCI data pack delivery: 355 incoming (3078 files) and 154 outgoing (1080 files).</li> <li>• 3 incoming COMSEC deliveries at GSA HQ.</li> <li>• COMSEC accounts up-to-date.</li> <li>• 9 accreditation statements signed by the GSA SAA.</li> </ul>

## Objective 15: Accreditation Panel of Internal Systems (WBS 2.05.06)

Expected results	2017 results
To organise the accreditation review of internal Agency systems/areas and report to the Agency's Security Accreditation Authority (SAA) accordingly.	As planned.

	Targets	2017 results
<b>Indicators</b>		
<b>Number of internal accreditation reviews</b>	8	<ul style="list-style-type: none"> <li>6 reviews performed (4 leading to an accreditation statement of the GSA SAA, 2 ongoing).</li> <li>5 additional accreditation requests received at the end of 2017 that will be processed through an administrative accreditation extension to 2018.</li> </ul>

Planned outputs	Actual outputs
Outputs relating to the multi-annual work programme objectives: <ul style="list-style-type: none"> <li>Security Accreditation Report.</li> <li>Recommendations to the SAA.</li> <li>SAA decision/authorisation to operate Agency areas/systems.</li> </ul>	<ul style="list-style-type: none"> <li>4 SARs issued.</li> <li>8 recommendations.</li> <li>9 SAA accreditation decisions issued.</li> </ul>

## 3.6 Delegated Tasks



There were various delegation agreements in place during the reporting period to cater towards specific activities. The list below shows which delegation agreements were in force:

- FP-7 delegation agreement, signed in 2011.
- PRS delegation agreement, signed in 2011.
- EGNOS Exploitation Delegation Agreement signed in 2014.
- Galileo Exploitation Delegation Agreement signed in 2014.
- Horizon 2020 delegation agreement, signed in 2014.

### 3.6.1 Delegation Agreement for the Seventh Framework Programme for Research and Development of the European Union (FP7)

Successfully completing the 2007-2013 period, the European Union's 7<sup>th</sup> Framework Programme for Research and Innovation paved the way for its successor, the Horizon 2020 programme. The European Commission delegated the responsibility of managing projects regarding GNSS applications and the FP7 grants allocated to this domain to the Agency. GSA managed within FP7 three calls 86 grants and also procurements for a total amount of € 100 million.

Overall, 18 projects were funded in the first call, 29 in the second, and 39 in the third. The projects covered all key market segments, including Aviation, Maritime, LBS, Rail, Road, Agriculture, Mapping and Surveying, PRS, Education and International Cooperation.

All FP7 proposals strongly supported the adoption of E-GNSS and brought tangible results:

- 45 commercial products
- 80 working prototypes
- 13 patents/trademarks registered
- 115 trials/demos

In order to close all final activities, the FP7 Delegation Agreements were still on-going in 2017.

### 3.6.2 Delegation Agreement for Public Regulated Service (2011)

The Agency managed the European Commission PRS Pilot Project 2 (P3RS-2) that started in December 2013. This included the procurement of 20 PRS pre-operational receivers in two batches of 10 units each, with each batch equipped with a different security module. The qualification and acceptance of the initial 20 PRS pre-operational (accredited) receivers should take place at a later stage. The P3RS-2 procurement activities were marked in 2017 by the successful qualification of the P3RS2 receivers in compliance with the PRS Delegation Agreement Technical Annex A and by the release of the first security certificate (with respect to the double evaluation process).



### 3.6.3 Delegation Agreement for EGNOS Exploitation

The Delegation Agreement for EGNOS Exploitation was signed on 16 April 2014. The agreement includes the provision of the Open Service, Safety of Life Service and the EGNOS Data Access Service to users through 2021. In 2016, this Delegation Agreement was amended, increasing the total delegated budget by €102 million to €1.552 billion.

Key Agency activities undertaken in 2017 in the main areas of the programme include:

- The provision of EGNOS services.
- Signing of the EGNOS GEO3 contract.
- The submission of the Open Service Service Definition Document (SDD) v2.3 to the European Commission. This document enlarges the EGNOS service area to the whole EU-28 territory, except for the Azores islands.
- The development of several EGNOS v2.4.2 system releases and deployment through the ESSP contract. There were discussions with ESA about releases that will handle coverage extension and RIMS obsolescence.
- The continuation of EGNOS v3 procurement, including negotiations with bidders.
- Survey of current EGNOS v2 sites and confirmation that they can be used for EGNOS v3. The Agency started procuring the v3 RIMS.
- Procurement activities related to the implementation of a new GEO transponder service, which is expected to be launched in 2018.
- Implementation of 503 EGNOS based procedures at 274 airports or helipads in 23 countries. There are 391 LPV/LPV200/PinS procedures at 225 airports or helipads and 112 Approach Procedure with Vertical Guidance Baro procedures.
- Management of operational activities to foster EGNOS adoption in civil aviation: several approach procedures were published, especially in Austria, Slovakia, Sweden, UK, Norway and Italy. This includes the rotorcraft procedures. More than 30 aircraft/rotorcrafts were upgraded to use EGNOS. Also, the publication of the third call for proposals was prepared, together with the updated EGNOS Exploitation Annual Grant Plan 2017, with an increased budget from €6M to €10M. These are planned to be published in 2018.
- Supervision of EGNOS Service Provision (ESP) operations, including on security aspects.
- Supervision of ESP EGNOS Data Access System (EDAS) and EURONOTAM release deployment, including on security aspects.
- Maintenance of the EGNOS V2 security file.
- Preparation of the first set of EGNOS V3 security mission documentation (Security Classification Guide, High Level Security Statement, System-specific Security Requirements Statement). These were endorsed by the EC GNSS Security Board in March 2017.
- Preparation of the EGNOS security Roadmap 2017-2021 integrating ESP, EDAS and EURONOTAM aspects.
- Initiation of the EGNOS V3 accreditation preparatory work.

### 3.6.4 Delegation Agreement for Galileo Exploitation

The European Commission and the GSA signed the Delegation Agreement for Galileo Exploitation on 2 October 2014. The agreement provides a framework and budget for the development of services and operations through 2021. The Delegation Agreement was amended in December 2016 to €2.4 billion to cover further procurement and grant activities, including the GSA-ESA Galileo Working Arrangement.

Key Agency activities undertaken in 2017 in the main areas of the programme included:

- Provision of Galileo Initial Services and operation of the Galileo Service from 1 July onwards.
- Launch 9 Early Operations Phase activities.
- Conclusion of infrastructure and operations handover review with ESA and the European Commission, leading to the handover of the responsibility for operating the Galileo operational system and other assets which were under ESA/WP6 control at different Galileo sites.
- Full execution of the Galileo Service Operator (GSOp) specific contract 1, to prepare the handover of the Galileo service operations to GSOp under contract with the GSA.
- Start of the GSOp specific contract 2 on 1 July 2017, with the GSOp contractor taking full control of the service operations under GSA responsibility. Supervised the GSOp operations from July 2017 onwards, including on security aspects.
- Amendment of the GSA-ESA Working Arrangement specific contracts to include the activities on the Ground Mission Segment (WP2) and Ground Control Segment (WP3) from 1 July onwards. Initiated the ESA support activities under the GSA-ESA Working Arrangement specific contract 2.
- Inauguration of the GRC, the GILSC, and handed-over the GSC to GSOp for operations.
- Preparation of the transition of the Galileo SAR service provision responsibility, to be handed over from the European Commission to the GSA on 1 January 2018.
- Development of PRS activities, including the start of FRAME.
- Execution of Early Operation Phase of the four satellites of Launch 9, including security monitoring by GSA/GSMC, following a successful launch in December 2017.
- Launch of the Enhanced Services Consolidation Review in December 2017.
- Provision of technical support to the EC in establishing the EC's cyber requirements, adopted in Q1 2017.
- Adoption in Q4 of the GSA cyber implementation plan, ensuring implementation of the EC cyber requirements that were adopted in Q1.
- Ensured the re-accreditation of 14 Galileo ground sites in 2017, including both GCCs, one GSMC, two Telemetry Tracking and Control stations, five Galileo Sensors Stations, and four external entities.
- Extended Galileo Initial Services accreditation in December 2017.
- Received authorisation from the Security Accreditation Board for the GSA Galileo Exploitation and the Galileo Service Operator to operate the Galileo services in June 2017.
- Provision of support to the EC for the organisation of the GNSS Security Board and its working groups.
- Awarded the tender for the Galileo Robust Operational Network.

### 3.6.5 Fundamental Elements

Fundamental Elements is a EU R&D 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 2017, the Fundamental Elements projects related to all the E-GNSS services (excluding PRS) focused on the main market segments and, in particular:

- Agriculture and Surveying with FANTASTIC project kicked-off.
- Aviation with ARAIM call for proposals published in Q1 2017 and the evaluation completed.
- Aviation and Maritime with MEOSAR call for proposals published in Q1 2017 and the evaluation completed.
- Maritime with the Satellite Based Augmentation System (SBAS) shipborne receiver call for proposals published in Q1 2017 and the evaluations completed.
- Road with ESCAPE project running and on-track and OS-NMA ITT published and evaluations completed.
- Timing & Synchronisation with the Galileo timing receiver for critical infrastructures call published in Q4 2017.

### 3.6.6 Delegation Agreement for Horizon 2020

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

In 2017, the Agency managed 40 projects from Horizon 2020's first and second calls. By the end of 2017, 13 grant agreements from Horizon 2020's third call were signed and another five grant agreements were initiated and are expected to be concluded in Q1 2018. The Agency was involved in preparing the calls foreseen for 2019-2020. The following is the list of projects managed by the Agency in 2017:

Acronym	Title
<b>1<sup>st</sup> call</b>	
SAT406M	An E-GNSS application providing an end-to-end solution based on the SAR/Galileo service and particularly using the Return-Link-Message (RLM), to improve the mobility and safety of citizens
GMCA	GNSS Monitoring for Critical Applications
mapKITE	EGNOS-GPS/GALILEO-based high-resolution terrestrial-aerial sensing system
PARADISE	Precise and Robust Navigation enabling Applications in Disturbed Signal Environments
G MOTIT	Galileo-Enhanced MOTIT: an electric scooter sharing service for sustainable urban mobility
MISTRAL	Monitoring of Soil moisture and water-flooded Areas for agriculture and Environment
MAGNIFIC	Multiplying In Africa European Global Navigation Initiatives Fostering Interlaced Cooperation

COREGAL	Combined Positioning-Reflectometry Galileo Code Receiver for Forest Management
LARA	LBS Augmented Reality Assistive System for Utilities Infrastructure Management through Galileo & EGNOS
ERSAT EAV	European Rail Traffic Management System on SATELLITE – Enabling Application Validation
GALENA	Galileo-based solutions for urban freight transport
DEMETRA	Demonstrator of E-GNSS Services based on Time Reference Architecture
FOSTER ITS	First Operational, Secured and Trusted galileo Receiver for ITS
ELAASTIC	European Location As A Service Targeting International Commerce
e-Airport	Increase airport capacity, safety and security using European GNSS
UKRAINE	UKraine Replication, Awareness and INnovation based on E-GNSS
GHOST	Galileo EnHancement as BoOster of the Smart CiTies
GEO VISION	GNSS driven EO and Verifiable Image and Sensor Integration for mission-critical Operational Networks
spyglass	GALILEO-BASED PASSIVE RADAR SYSTEM FOR MARITIME SURVEILLANCE
E-KnoT	E-GNSS Knowledge Triangle
JUPITER	Joint EUropean Project for International ITS/E-GNSS awareness Raising
GNSS.asia2	Industrial cooperation across continents
BEYOND	Building E-GNSS capacity On EU Neighbouring multimodal Domains.
POSITION	POLish Support to Innovation and Technology IncubatiON
CaBiAvi	Capacity building for aviation stakeholders, inside and outside the EU
BELS	Building European Links toward South East Asia in the field of GNSS
5LIVES	Search, Challenge, Fight, Care, Rescue for Lives

## 2<sup>nd</sup> call

GRICAS	Galileo MEOSAR RLS Improvement for Better Civil Aviation Security
HELIOS	Second Generation Beacon for GALILEO/EGNOS EGNSS Search And Rescue applications
EASY Pv	EGNSS high Accuracy SYstem improving PhotoVoltaic plants maintenance
MOBNET	MOBile NETwork for people's location in natural and man-made disasters
INLANE	Low Cost GNSS and Computer Vision Fusion for Accurate Lane Level Navigation and Enhanced Automatic Map Generation
STRIKE3	Standardisation of GNSS Threat reporting and Receiver testing through International Knowledge Exchange, Experimentation and Exploitation
LOGIMATIC	Tight integration of EGNSS and on-board sensors for port vehicle automation
STARS	Satellite Technology for Advanced Railway Signalling
RHINOS	RHINOS - Railway High Integrity Navigation Overlay System will define a GNSS-based system to support the localisation of trains respecting the challenging requirements of the railway safety standards.

SKYOPENER	SKYOPENER - establishing new foundations for the use of Remotely-Piloted Aircraft Systems for civilian applications.
BLUEGNSS	Promoting EGNSS Operational Adoption in BLUEMED FAB
InDrive	Automotive EGNSS Receiver for High Integrity Applications on the Drive
AUDITOR	Advanced Multi-Constellation EGNSS Augmentation and Monitoring Network and its Application in Precision Agriculture

### 3<sup>rd</sup> call

GRIMASSE	General aviation Rescue capacity IMprovement for the worldwide Adoption of a Safe Solution based on European GNSS
GAUSS*	Galileo-EGNOS as an Asset for UTM Safety and Security
PRoPART	Precise and Robust Positioning for Automated Road Transports
TransSec*	Autonomous emergency manoeuvring and movement monitoring for road transport security
H2H	EGNSS Hull-to-Hull
ERSAT GGC	European Rail Traffic Management System on SATELLITE Galileo Game Changer
FLAMINGO	Fulfilling enhanced Location Accuracy in the Mass-market through Initial Galileo services
GALILEO4 Mobility	Fostering the adoption of GALILEO for Mobility as a Service
GOEASY	Galileo-based trustEd Applications for health and Sustainability
SINSIN	Enhanced Personal Locator Beacon, EGNSS receiver, and MEOLUT, according but beyond the standard, significantly improving the localization in difficult conditions, paving the way to a mass market SAR/Galileo service
ENSPACE	Enhanced Navigation in Space
GREEN-PATROL	Galileo Enhanced Solution for Pest Detection and Control in Greenhouse Fields with Autonomous Service Robots
GIMS	Geodetic Integrated Monitoring System
SARA*	Search And Rescue Aid and Surveillance using High EGNSS Accuracy
AIOSAT	Autonomous Indoor Outdoor SafetyTracking system
GNSS.asia3	LEVERAGING GNSS CAPACITY IN ASIA
BELS-PLUS*	Continuing Building European Links toward South East Asia in the field of GNSS - PLUS
SIA*	System for vehicle- infrastructure Interaction Assets health status monitoring

\* Grant agreements were initiated but not signed in 2017.

### 3.6.6.1 PRS Procurement under H2020

In addition to the above-mentioned tasks, the Agency endorsed the launch and management of PRS user segment-related procurements organised into two items.

All the projects planned under H2020 PRS were successfully procured. In total, five procurements (one under H2020 PRS Item 1, four under H2020 PRS item 2) were contracted in 2016 and managed throughout 2017.

The following is a list of PRS user segment projects managed in 2017:

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





## 4.1 Management Board

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

### 4.1.1 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.

#### 4.1.1.1 Composition

<b>Voting Members</b>	EU Member States (28 representatives) and European Commission (4 representatives). A detailed list of Board Members is available on the <a href="#">Agency website</a> .
<b>Non-Voting Members</b>	European Parliament (2 representatives), Norway
<b>Observers</b>	Chair of the Security Accreditation Board High Representative for Foreign Affairs and the Security Policy (1 representative) European Space Agency (1 representative)
<b>Chair</b>	Mr Jean-Yves Le Gall
<b>Deputy Chair</b>	Mr Mark Bacon

#### 4.1.1.2 List of Administrative Board Decisions

The Administrative Board met four times in 2017: January, March, June and November. These meetings, numbered 47 through 50, decided upon the following items:

Mtg	Date	Decision no:	Title
47	27/01/2017	GSA-AB-47-17-01-02	Minutes of the AB-46 Meeting
		GSA-AB-47-17-01-03	Endorsement of the provisional Single Programming Document 2018-2020
		GSA-AB-47-17-01-04	Budget 2016: Carry-over of appropriations from 2016 to 2017
		GSA-AB-47-17-01-05	Decision on the first amendment of 2017 budget
		GSA-AB-47-17-01-06	Decision on the draft budget 2018
		GSA-AB-47-17-01-07	Decision on the IAC annual work plan 2017
48	28/03/2017	GSA-AB-48-17-03-02	Minutes of the AB-47 Meeting
		N/A (see GSA-AB-49-17-06-02)	Decision on GSA re-organisation
		N/A (see GSA-AB-49-17-06-02)	Appointment of reporting officers for appraisal of the Executive Director
		GSA-AB-48-17-03-03	Adoption of the Single Programming Document 2017-2020
		GSA-AB-48-17-03-04	Implementing rules of the Staff Regulations
49	27/06/2017	GSA-AB-49-17-06-02	Minutes of the AB-48 Meeting
		GSA-AB-49-17-06-03	Adoption of the Annual Activity Report 2016
		GSA-AB-49-17-06-04	Adoption of the Annual Accounts for 2016
50	14/11/2017	GSA-AB-50-17-10-02	Minutes of the AB-50 meeting
		GSA-AB-50-17-10-03	Decision on budget transfer

The Administrative Board did not make any decision based on written procedures in 2017.

#### 4.1.2 The Security Accreditation Board

The Security Accreditation Board (SAB) is the European GNSS Security Accreditation Authority. It is established within the Agency as an autonomous body pursuant to Article 3 of the GSA Regulation and takes its decisions independently and objectively, including with regard to the Commission and other bodies responsible for the implementation of the programmes and for service provision, as well as with regard to the Executive Director and the Administrative Board of the Agency. All the security accreditation decisions related to the GNSS systems are of its sole competence.

The SAB is responsible for the security accreditation of the European GNSS systems, i.e. to verify that they comply with the applicable security rules and regulations as established by the Council and the European Commission. Security accreditation decisions adopted by the SAB entail inter alia the following:



- the approval of satellite launches;
- the authorisation to operate the systems in their different configurations and for the various services up to and including the signal in space;
- the authorisation to operate the ground stations;
- the authorisation of bodies to develop and manufacture PRS receivers or PRS security modules, taking into account the advice provided by national entities competent in security matters and the overall security risks.

#### 4.1.2.1 Composition

The SAB brings together representatives of the Member States, the European Commission, the High Representative for Foreign Affairs and the Security Policy, the European Space Agency and Norway

<b>Members</b>	EU Member States (28 representatives) European Commission (1 representative) High Representative for Foreign Affairs and the Security Policy (1 representative)
<b>Non-voting Members</b>	Norway (1 representative)
<b>Observers</b>	European Space Agency (1 representative)
<b>Chair</b>	Mr Jeremy Blyth
<b>Deputy Chair</b>	Mr Bruno Vermeire

The decisions taken by the SAB are classified.

#### 4.1.2.2 Support provided by the Agency

According to Article 11(10) of the Regulation, the Agency provides the appropriate human and material resources required to the SAB to enable it and its sub-ordinate bodies to perform their tasks independently.

In particular, the Agency conducts security accreditation activities defined in chapter III of the Regulation, ensuring the technical and administrative secretariat to the SAB, providing the underlying security assurance to enable the SAB to take proportionate, appropriate and cost effective security accreditation decisions at the Programme milestones.

## 4.2 Major Developments

Over the reporting period, several programmatic and administrative developments took place in the Agency. These are described throughout this document, but a few of them are highlighted below:

- Handover of service provision to the Galileo Service Operator.
- Launch 9 Early Operations Phase activities undertaken.
- Galileo Reference Centre (GRC) key ceremony held.
- Galileo ILS Centre inauguration held.
- PRS Joint Test Activities grants distributed.
- EGNOS GEO3 contract signed.
- EGNOS V3 procurement procedure finalised.
- 1<sup>st</sup> Galileo User Assembly in Madrid held.
- 8<sup>th</sup> EGNOS Annual Workshop in Athens held.
- ISO 9001 recertification obtained.

## 4.3 Budgetary and financial management

The Agency's own executed budget in 2017 was €28 467 648, which represents a 100% budget execution in terms of commitments. In addition to its core budget, the GSA continued to manage a large amount of delegated budget following the signature of the EGNOS and Galileo Delegation Agreement amendments. The Galileo Exploitation Delegation Agreement amendment was signed in December 2016. It assigned a further €1.61 billion to the GSA, bringing the total delegated amount under the Galileo Delegation Agreement to €2.4 billion. In 2016, the EGNOS Exploitation Delegation Agreement budget was increased by €102 million to a total of €1.552 billion. A total of €416 million from the delegated budget was committed in 2017 and €638 million made in payments.

In terms of core budget breakdown, the total expenditure on staff costs was €17 355 489.89, other administrative costs amounted to €5 207 444.25 and expenditure on operational costs was €5 904 713.86.

Furthermore, during 2017:

- Budget execution was 100% in commitment appropriations and 100% in 2017 payment appropriations. 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 prior year.
- The GSA Administration Board approved one budget amendment on 27 January 2017. The amendment included the revised European Free Trade Association (EFTA) contribution of €620 648, reducing the 2017 initially approved budget by €1 14 513 and bringing it to the final amount of €28 467 648.
- The Agency continued to manage a large amount of delegated budget, in particular under the EGNOS Exploitation, Galileo Exploitation, and Horizon 2020 Delegation Agreements as mentioned above.
- In quantitative terms, the GSA carried out the following transactions during 2017: 504 commitments, de-commitments and modification of commitments; 4 400 payment requests; 1 533 mission orders, 82 recovery orders and eight internal transfers. All in all, the GSA processed 6 527 financial transactions.
- Payment appropriations totaling €2 806 212.48 were carried over on Title 2 (automatic carry-over) from 2016 to 2017, representing 45.5 % of the total 2016 Title 2 budget. Furthermore, €2 198 628.46 was carried over from 2017 to 2018, representing 42% of 2017 Title 2.
- Payment appropriations for an amount of €1 523 713.19 on Title 3 were carried over (non-automatic carry over) from 2016 to 2017 to maintain the Agency's payment capacity on existing legal obligations. Payment appropriations for an amount €1 142 816.9 were carried over on Title 3 (non-automatic carry over) from 2017 to 2018 for the same reason.
- The GSA improved its payment time statistics with 99% of all payments done within the time limit of 30 days, 60 days or 90 days for grants and with an average payment time of 14.5 days.
- The Agency paid €511.46 in late interest to suppliers - an 88% decrease in comparison to 2016.
- Cancellations of unused appropriations were related to those carried over from 2016 for a total amount of €270,960.57, representing 1% of the total 2016 budget, which is leading to a budget outturn of €230,624.46 in 2017.

For further details on the budget implementation for the reporting period, please see the [Report on Budgetary and Financial Management in 2017](#) 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.

## 4.4 Human Resources Management

At the beginning of 2017, the Agency employed 113 (including 13 offers) Temporary Agents (TA), 48 Contract Agents (CA) and four Seconded National Experts (SNE), for a total of 165 employees. At the end of 2017, the Agency employed 116 (including 10 offers) TAs, 56 (including one offer) CAs and five SNEs, bringing the total number of staff up to 177.

In line with the Commission communication to establish a programming of human and financial resources for decentralised agencies 2014-2020 (COM(2013)519 of 10 July 2013), the Agency was allocated three posts within the 2017 establishment plan. During the year, six TAs resigned, resulting in a total of nine TA positions to fill. Some of these were filled by staff already employed by the Agency, thus creating new vacancies elsewhere. To accommodate this, the Agency further streamlined its recruitment procedures, strengthened the timely forward planning and designed vacancies with a broader scope to cover multiple profiles at the same time. Consequently, the GSA managed to fill all vacancies, hence the execution of the 2017 establishment plan was 100%.

Regarding CAs, in 2017, the Agency received two resignations and the workforce grew by eight. The number of SNEs remained stable.

Overall, the Agency launched 20 recruitment procedures, processed over 820 applications, conducted 105 interviews and sent 34 job offers, out of which seven were declined (21%). In comparison to previous years, the number of declined offers increased, while the number of resignations remained stable. In addition, the Agency hired 12 trainees for traineeships lasting up to one year.

To maintain the quality and effectiveness of its selection procedures, the Agency made use of competency-based interviews, work-related personality questionnaires and assessment centres for managerial positions. The GSA analysed the job and workforce allocation to ensure a balanced distribution of tasks and resources relevant to the activities carried out by each department and on the basis of its Work Breakdown Structure. The Agency allocated the new posts planned for 2017 according to the results of this analysis.

In 2017, the Agency continued managing the contract for the provision of temporary agency workers, harmonising and regulating the use of interim agents across all departments. These interim agents supported the Agency during peak activity periods or for specific projects/events requiring targeted skills or temporary assistance, as well as replaced temporarily absent staff.

The Agency accommodated the growing number of staff via comprehensive induction trainings, payroll, performance management, leave administration and other core HR functions. Tailored relocation services for newcomers and expats were provided to staff and their families, in line with the requirements stemming from agreements with hosting countries. In particular, the Agency successfully relocated designated staff members to Noordwijk (NL). Moreover, two new agreements with international and European schools were concluded.

During 2017, the Agency adopted and implemented two additional implementing rules to the Staff Regulations/Conditions of Employment of Other Servants of the European Union.

The Agency contributed to a high-performing workforce equipped with the competencies to deliver results as requested by stakeholders. During the year, the Agency marked an increase in the quality of training provided and the number of staff trained. 75 (40 GSA staff and 35 external staff) were provided with a comprehensive induction programme and 106 staff members participated in individual and group training events in various job related topics. Group training events organised in-house focused on developing competencies in project management, ITIL, Excel, effective meeting management and writing skills. 15 staff members completed the Management Academy, a programme aimed at developing the competencies of middle managers. Around 130 staff members participated in the GSA team building event. The Agency also saw a significant increase in language learning activities.

To enhance collaboration, internal communication and knowledge sharing among staff, the Agency continued to organise quarterly lunch time presentations on topics pertinent to the Agency's work and delivered by its own staff members. Continued attention was also paid to organising social and well-being activities focused on staff member networking, inter-departmental communication, Agency culture, and health/physical wellbeing.

With regards to work-life balance, a range of measures were put in place. These measures focused on teleworking, supporting multicultural tuition, a policy to protect the dignity of the person and to prevent psychological and sexual harassment, and initiatives related to well-being at work. The possibility of using flexi-time was also introduced.

Following the adoption of social measures by the Administrative Board, the Agency completed the implementation of the full set of the envisaged social measures (complementary health insurance) as of September 2017. These measures aim to re-enforce the retention of GSA human resources and to recover, in part, the GSA's attractiveness in a very competitive technical labour market. These measures are temporary in nature.

## 4.5 Assessment by Management

Article 30.2 of the GSA Financial Regulation 2014 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 have kept expanding due to the consolidation of its operational role, in particular with Galileo. The Agency maintained its internal control capabilities through the Internal Audit Capability (IAC).

In 2017, the Agency further enhanced its compliance with the Commission's Internal Control Standards (ICS). Also in 2017, the GSA executed a preliminary review of its ICS with a view of adapting the EC Internal Control Framework.

### 4.5.1 Register of Exceptions

The Agency has a procedure in place for registering exceptions. Its overall objective is to establish appropriate arrangements to explain, register and report any exceptional circumstance of overriding controls or deviations from the established regulatory framework in accordance with the principle of transparency. Before any action is taken, an exception must be documented, justified and approved at the appropriate level.

There were eight exceptions registered in 2017, none of which affected in a material way the overall sound financial management of the Agency. The Agency has shared the Register of Exceptions with external auditors and with the IAS.

#### **4.5.2 Implementation of grants**

Subject to one exception, the GSA complied with the time limits laid down in Article 128 of the Financial Regulation.

Concerning the award of the “Support for the Galileo Reference Centre” grant (GSA/GRANT/04/2016), the time limits for the evaluation and for the signature of the grant agreements were not respected due to exceptional circumstances attributable mainly to the applicants (number of rounds of requests for clarifications to applicants, large number of co-partners in a consortium that delayed the submission of mandates, and the liability concerns raised by one beneficiary).

### **4.6 Budget implementation tasks entrusted to other services and entities**

Not applicable.

### **4.7 Assessment of audit results during the reporting year**

#### **4.7.1 Internal Audit Service (IAS) and the Agency’s Internal Audit Capability (IAC)**

In January 2017, the Internal Audit Service (IAS) executed a follow-up audit on outstanding recommendations from previous years. The IAS performed an on-the-spot follow-up audit for seven important recommendations. The IAS issued a note in March 2017 concluding that six of the seven recommendations were adequately and effectively implemented. One additional recommendation coming from a previous audit on Human Resources (HR) Management concerning job descriptions was further implemented by the Agency.

Also in 2017, the IAS executed its Strategic Internal Audit Plan 2018-2020 for the GSA (GSA SIAP 2018-20).

In 2017, the GSA Internal Audit Capability (IAC) focused on staff mission requests and reimbursements, complemented by consultancy services related to the implementation of the upcoming EC Internal Control Framework.

#### **4.7.2 European Court of Auditors**

The 2017 European Court of Auditors (ECA) report on 2016 activity provided a clean opinion with only comments, one of them relating to delegated funds. The ECA noted that one of the tenderers involved in the procurement for the Framework Contract on the exploitation of the Galileo satellite system had launched legal proceedings against the Agency at the European Court of Justice, challenging the outcome of the procurement procedure. The ECA commented also that no Agency-wide annual risk assessment exercise was conducted in 2016 and the Agency’s significant risks were not included in its planning documents or activity reports. However, the GSA finalised a corporate risk management framework in Q4 2016 that incorporated the corresponding risk information in the endorsed preliminary Single Programming Document 2018-2020.

Further, the ECA noted:

- IAS’s observation that the GSA’s performance measurement system was not consistent, although the corrective action plan agreed to was already being implemented and under IAS review; referred to validation of the accounting systems (planned to be undertaken); and noted the lack of a corporate Business Continuity Plan, although GSA has taken significant steps to develop it in 2017.

- The limited level of detail of the budgetary implementation report is a general comment that the ECA addressed to all Agencies, although the GSA's report included a satisfactory level of detail. As a result, the EC issued guidelines for EU bodies on Reports for Budgetary and Financial Management, which the GSA implemented fully in its 2017 report. Changes related more to structural elements than level of detail, as the GSA's reports had always contained full disclosure of all financial information.
- The high level of carry-overs for committed appropriations, though the GSA indicated that (i) the level of cancellations of carry-overs was very low and the GSA considered this a far better indication of budget management than the level of carry-overs itself, and (ii) the level of unplanned carry-overs, which shall be the focus in the new approach, is also far lower and in an acceptable range.
- The late adoption of key planning documents (Annual Work Programme and Multi Annual Work Programme), although the GSA was aware of the matter and has taken actions with the EC to resolve it.

## 4.8 Follow up of recommendations and action plans for audits

Overall, the reports by internal and external auditors provided a positive assessment and perception of the Agency and have provided valuable feedback on the areas to be improved. For a brief overview of the Agency's audit activity for the year, see section 2.7.

In relation to the recommendations made as a result of the 2014 audit by the Internal Audit Capability of DG ENTR (now DG GROW), the GSA completed all but one: the development of a corporate Business Continuity Plan. Throughout 2017, the GSA completed its Business Impact Analysis and is planning to complete its corporate Business Continuity Plan in 2018.

In 2016, the IAS undertook an audit of the GSA's planning, monitoring and reporting process. The audit reported no critical findings. At the end of 2017, the Agency had already implemented all five recommendations, which will be reviewed by the IAS in 2018.

In 2017, the Agency selected Ernst & Young to perform the three external audits on the 2016 activities under the EGNOS Exploitation, Galileo Exploitation and H2020 Applications Delegation Agreements. The audits concluded that the funds delegated by the EC had been properly managed, although it again recommended the development of a tool to better facilitate controlling and reporting on EGNOS and Galileo procurement and grants. The GSA is developing a software tool to meet the recommendation.

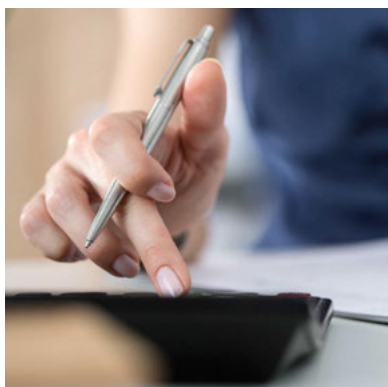
## 4.9 Follow up of recommendations from the discharge authority

The Agency replied to all requests for action/clarification by the discharge authority on the 2015 discharge. The final decision on giving discharge to the GSA on the 2016 budget implementation is expected to be adopted by the discharge authority in the first quarter of 2018. The discharge authority made no recommendations.

## 4.10 External Evaluations

No external evaluations were carried out by the Agency on its own operations.

# ASSESSMENT OF THE EFFECTIVENESS OF THE INTERNAL CONTROL SYSTEMS



## 5.1 Risk management

In 2017 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 European Commission for information and/or further consolidation and reporting at the respective programme level.

In 2017, the top 10 corporate risks at the GSA, in Work Breakdown Structure order rather than severity, were:

Risk	Title
RSK1	GSA Headquarter in the labour market
RSK2	GSA resourcing level and apportionment
RSK3	GSA readiness for post 2020 governance arrangements
RSK4	Continuity of Initial Services
RSK5	Achievement of Enhanced Services Milestone
RSK6	Achievement of Full Services Milestone
RSK7	Galileo handover including transition to GSOp takes place with unclear baseline, in particular concerning validation chain
RSK8	Distribution of PRS information implementing Article 14
RSK9	Effective market penetration (Adoption High Accuracy)
RSK10	Brexit

Each risk has an identified and adopted mitigation action plan. Corporate Risk Management Boards take place on a quarterly basis. The above-summarised risk management process was audited positively in 2016.

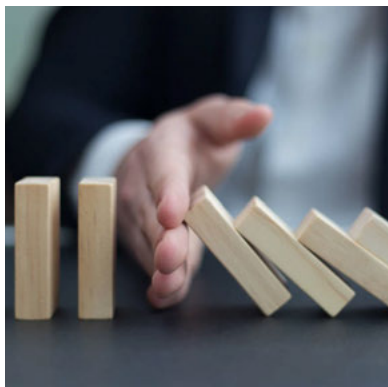
## 5.2 Compliance and effectiveness of Internal Control Standards

The last 2017 assessment on compliance with the ICS will be finalised in Q1 2018, showing that the Agency is compliant with all Internal Control Standards except for Business Continuity. Throughout 2017, the GSA worked to steadily improve its ICS level of compliance. Improvements were implemented in relation to the following standards:

- ICS 2, *Ethical and Organisational Values*: the GSA is developing more informative actions around Antifraud Strategy and Conflict of Interest building on the informative library made available to all staff and contractors. The GSA Code of Conduct is under development.
- ICS 3, *Staff Allocation and Mobility*: difficulties were identified towards hiring and retaining technical staff in Prague. Correction coefficient level for Prague continues to be viewed as problematic. At times, application periods for recruitment processes had to be prolonged due to lack of adequate applicants. Facing these difficulties, the GSA completed the implementation of a set of “social measures” approved by its Administrative Board.
- ICS 10, *Business Continuity*: the GSA developed a corporate Business Impact Analysis as a first step in the preparation of the corporate Business Continuity Plan.
- ICS 11, *Document Management*: the GSA developed its GSA Document Management System (DMS) tool that was installed and configured on GRUE II. The GSA also developed the corresponding procedures and tutorials, and initiated the revision of the GSA Documents and Records Management Policy and related process.
- ICS 12, *Information and Communication*: filling in ICT security documentation gaps progressed with the preparation of a new ICT Strategy Plan for the 2018-2021 period, along with a number of ICT security policies. A priority for 2017 was ICT staffing.



# MANAGEMENT ASSURANCE



## 6.1 Review of the elements supporting assurance

### 4.1.1 Follow-up of reservations from previous years

The declaration of assurance of the Authorising Officer in the Annual Activity Report 2016 did not contain any reservations.

## 6.2 Reservations

There are no reservations regarding 2017.

## 6.3 Overall conclusions on assurance

The Agency provided assurance in 2017 to the European Commission's DG GROW on the use of the budget delegated to it by the European Commission (DG GROW). This provided reasonable assurance concerning the legality and regularity of the financial operations and included the sound financial management of delegated funds. No critical shortfalls or weaknesses were identified. It was, however, noted that the award decision concerning the tender for the selection of the Galileo services operator has been challenged before the Court of Justice by one of the tenderers and that the relevant proceedings will continue in 2018.

The Agency continued to manage a large number of delegated appropriations by the European Commission during 2017. The GSA monitored the evolution of these operations, in close cooperation with the European Commission, and reported on all advances as required by the respective Delegation Agreements. Financial resources were properly managed and key financial indicators were shared and reported to the EC. Auditors made no observations in this respect.

The degree of implementation and effectiveness of the Internal Control Standards will continue to be assessed.

The Parliament granted the discharge to the Executive Director (as per the draft Discharge report 2015). The Council was also in favour of granting this discharge.

The European Court of Auditors report 2017 (on 2016 activity) provided a clean opinion.

# DECLARATION OF ASSURANCE

I, the undersigned, Carlo des Dorides,  
Executive Director of the European GNSS Agency,

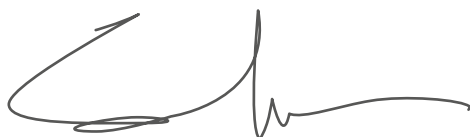
In my capacity as Authorising Officer,

- Declare that the information contained in this report gives a true and fair view<sup>4</sup>.
- 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, 18 June 2018



Carlo des Dorides

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<sup>4</sup> True and fair in this context means a reliable, complete and correct view on the state of affairs in the service.

## Annex I – Core business statistics

The measurement of core business activities and the related Key Performance Indicators (KPIs) are listed in section 1.

The Agency wishes to note that section 1.8 refers to tasks that are delegated by the Commission. These tasks are clearly defined together with their KPIs in the relative delegation agreement.

## Annex II – Statistics on financial management

### II.1 – Rate and type of implementation of appropriations

Budget line	Heading	Commitment Appropriations Budgeted 2017
<b>Title 1 - Staff expenditure</b>		
1100	Staff expenditure	13 915 869.44
1200	Recruitment costs	82 260.00
1210	Medical services	35 600.00
1300	Missions and travel	1 295 740.00
1400	Training expenditure	110 000.00
1600	Interims & Trainees	266 500.00
1700	Representation expenditure	295 000.00
1800	Tuition fees	1 144.76
<b>TOTAL FOR TITLE 1</b>		<b>17 355 489.89</b>
<b>Title 2 - Administrative expenditure</b>		
2000	Rental of buildings	2 453 499.80
2100	Data processing	1 162 124.00
2200	Movable property	998.92
2300	Current administrative costs	889 460.53
2400	Postage and telecommunication costs	254 361.00
2500	Meetings	52 000.00
<b>TOTAL FOR TITLE 2</b>		<b>395 000.00</b>
<b>TOTAL FOR TITLES 1 AND 2</b>		<b>22 562 934.14</b>
<b>Title 3 - Operational expenditure</b>		
3100	Expenditure on studies	5 208 776.11
3300	SAB operational expenditure	695 937.75
<b>TOTAL FOR TITLE 3</b>		<b>5 904 713.86</b>
<b>TOTAL T1+T2+T3</b>		<b>28 467 648.00</b>



Commitment Appropriations			
Executed in 2017	%	Uncommitted	%
13 915 869.44	100%	0.00	0%
82 260.00	100%	0.00	0%
35 600.00	100%	0.00	0%
1 295 740.00	100%	0.00	0%
110 000.00	100%	0.00	0%
266 500.00	100%	0.00	0%
295 000.00	100%	0.00	0%
1 144.76	100%	0.00	0%
<b>17 355 489.89</b>	<b>100%</b>	<b>0.00</b>	<b>0%</b>
2 453 499.80	100%	0.00	0%
1 162 124.00	100%	0.00	0%
998.92	100%	0.00	0%
889 460.53	100%	0.00	0%
254 361.00	100%	0.00	0%
52 000.00	100%	0.00	0%
<b>395 000.00</b>	<b>100%</b>	<b>0.00</b>	<b>0%</b>
<b>22 562 934.14</b>	<b>100%</b>	<b>0.00</b>	<b>0%</b>
5 208 776.11	100%	0.00	0%
695 937.75	100%	0.00	0%
<b>5 904 713.86</b>	<b>100%</b>	<b>0.00</b>	<b>0%</b>
<b>28 467 648.00</b>	<b>100%</b>	<b>0.00</b>	<b>0%</b>

Budget line	Heading	Payment Appropriations Budgeted 2017
<b>Title 1 - Staff expenditure</b>		
1100	Staff expenditure	13 915 869.44
1200	Recruitment costs	82 260.00
1210	Medical services	35 600.00
1300	Missions and travel	1 295 740.00
1400	Training expenditure	110 000.00
1600	Social measures	266 500.00
1600	Interims & Trainees	295 000.00
1700	Representation expenditure	1 144.76
1800	Tuition fees	1 353 375.69
<b>TOTAL FOR TITLE 1</b>		<b>17 355 489.89</b>
<b>Title 2 - Administrative expenditure</b>		
2000	Rental of buildings	2 453 499.80
2100	Data processing	1 162 124.00
2200	Movable property	998.92
2300	Current administrative costs	889 460.53
2400	Postage and telecommunication costs	254 361.00
2500	Meetings	52 000.00
2600	SAB administrative expenditure	395 000.00
<b>TOTAL FOR TITLE 2</b>		<b>5 207 444.25</b>
<b>TOTAL FOR TITLES 1 AND 2</b>		<b>22 562 934.14</b>
<b>Title 3 - Operational expenditure</b>		
3100	Expenditure on studies	5 355 674.61
3300	SAB operational expenditure	549 039.25
<b>TOTAL FOR TITLE 3</b>		<b>5 904 713.86</b>
<b>TOTAL T1+T2+T3</b>		<b>28 467 648.00</b>

Payment Appropriations					
Paid in 2017	%	Carried Forward	%	Total Executed	%
13 915 869.44	100%	0.00	0%	13 915 869.44	100%
61 518.40	75%	20 741.60	25%	82 260.00	100%
12 037.99	34%	23 562.01	66%	35 600.00	100%
1 101 197.92	85%	194 542.08	15%	1 295 740.00	100%
67 229.16	61%	42 770.84	39%	110 000.00	100%
202 027.06	76%	64 472.94	24%	266 500.00	100%
181 073.72	61%	113 926.28	39%	295 000.00	100%
1 144.76	100%	0.00	0%	1 144.76	100%
1 226 910.20	91%	126 465.49	9%	1 353 375.69	100%
<b>16 769 008.65</b>	<b>97%</b>	<b>586 481.24</b>	<b>3%</b>	<b>17 355 489.89</b>	<b>100%</b>
1 695 893.81	69%	757 605.99	31%	2 453 499.80	100%
431 682.17	37%	730 441.83	63%	1 162 124.00	100%
998.92	100%	0	0%	998.92	100%
465 391.99	52%	424 068.54	48%	889 460.53	100%
100 226.48	39%	154 134.52	61%	254 361.00	100%
45 948.39	88%	6 051.61	12%	52 000.00	100%
268 674.03	68%	126 325.97	32%	395 000.00	100%
<b>3 008 815.79</b>	<b>58%</b>	<b>2 198 628.46</b>	<b>42%</b>	<b>5 207 444.25</b>	<b>100%</b>
<b>19 777 824.44</b>	<b>88%</b>	<b>2 785 109.70</b>	<b>12%</b>	<b>22 562 934.14</b>	<b>100%</b>
4 219 015.04	79%	1 136 659.57	21%	5 355 674.61	100%
542 881.92	99%	6 157.33	1%	549 039.25	100%
<b>4 761 896.96</b>	<b>81%</b>	<b>1 142 816.90</b>	<b>19%</b>	<b>5 904 713.86</b>	<b>100%</b>
<b>24 539 721.40</b>	<b>86%</b>	<b>3 927 926.60</b>	<b>14%</b>	<b>28 467 648.00</b>	<b>100%</b>

## **II.2 – Information on transfers and amending budgets**

One amending budget was approved during the reporting period that took into account the final EFTA contribution, which decreased the budget by €114 513 as approved by the Administrative Board at the meeting on 27 January 2017.

The Agency published both the 2017 initial budget and an amending budget no 1 in the Official Journal of the EU on 17 March 2017.

Eight internal transfers were processed in 2017, seven of them authorised by the Executive Director as they concerned transfers of amounts either within Titles or below 10% between Titles, with one authorised by the Administrative Board on 14 November 2017.

## **II.3 – Information on interest charged through late payments**

Interest on late payment totalling €511.46 was paid in 2017, a decrease of 88% from 2016 (€4 133.47).

## **II.4 – Summary information on budgetary operations**

The Agency began the reporting period with an initial budget of €28 582 161. There was one amendment to the budget within the course of the year, which reduced the budget by €114 513, therefore bringing the total budget to €28 467 648.

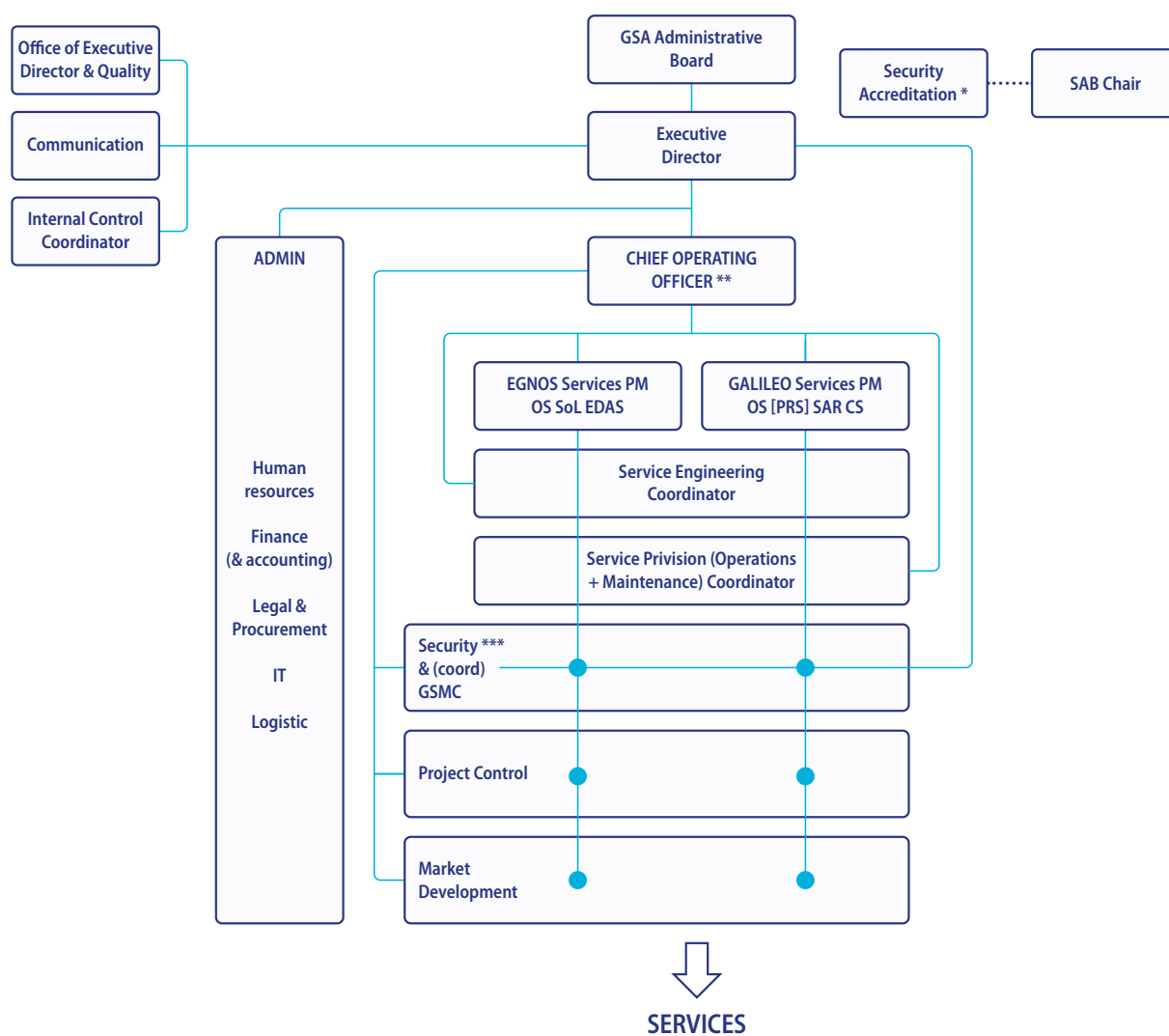
Budget execution for the year was 100% in commitment appropriations and 100% in 2017 payment appropriations when taking into account the non-automatic carry-forward needed to maintain the Agency's payment capacity on existing legal obligations.

Average payment time was 14.5 days, well below the 30 day Commission benchmark and 20 day target. The Agency processed 6 527 financial transactions, representing a 24% increase over 2016.

The Agency continued to manage a large amount of delegated budget in 2017, following the signature of three new Delegation Agreements in the course of 2014 for EGNOS Exploitation, Galileo Exploitation and Horizon 2020. An amendment to the Galileo Exploitation Delegation Agreement was signed in December 2015, assigning a further €300 million to the Agency. The Agency committed €415 880 562.84 of the delegated budget in 2017 and made €638 214 665.71 in payments.

## Annex III – Organisation Chart

The GSA re-organisation, presented below, was decided on in March 2017.



\* in close cooperation with GSA ED in accordance with the GSA Regulation Art 8

\*\* post to be recruited in Q1 2018 subject to establishment plan revision

\*\*\* direct link to ED for central security office (corporate security function)



## Annex IV – Establishment Plan

The Agency's Establishment Plan for 2017 was as follows:

Category and grade	Establishment plan in EU Budget 2017		Modifications in 2017 in application of flexibility rule <sup>5</sup>	
	Officials	TA	Officials	TA
Administrator (AD) 16				
AD 15				
AD 14		1		1
AD 13		2		1
AD 12		5		2
AD 11		6		5
AD 10		13		8
AD 9		12		15
AD 8		30		29
AD 7		34		38
AD 6		8		8
AD 5		0		4
<b>Total AD</b>		<b>111</b>		<b>111</b>
Assistant (AST) 11				
AST 10				
AST 9				
AST 8				
AST 7				
AST 6		2		
AST 5		1		2
AST 4		1		1
AST 3				1
AST 2		1		
AST 1				1
<b>Total AST</b>		<b>5</b>		<b>5</b>
AST/SC 6				
AST/SC5				
AST/SC4				

<sup>5</sup> In line with Article 32 (1) of the framework Financial Regulation, 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 2017		Modifications in 2017 in application of flexibility rule <sup>5</sup>	
	Officials	TA	Officials	TA
AST/SC3				
AST/SC2				
AST/SC1				
<b>Total AST/SC</b>				
<b>TOTAL</b>		<b>116</b>		<b>116</b>

### Information on entry level grades for posts

The Agency has a grading policy based on the European Commission Decision on types of post and post titles (European Commission Decision of 16 December 2013 on types of post and post titles C(2013) 8979 final). The table below refers to Temporary Agents (TAs):

Type of post	Function group / Grade	Post title
Director	AD 14	Executive Director
Adviser or equivalent	AD 13 – AD 14	Adviser, Senior Expert
Head of Unit or equivalent	AD 9 – AD 14	Head of Department, Head of Task Force
Administrator	AD 5 – AD 12	Principal Administrator, Administrator
Senior Assistant	AST 10 – AST 11	Senior Assistant
Assistant	AST 1 – AST 9	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
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 2017 distribution of staff was as follows, split by areas of activity:

		Allocated on 31 Dec 2017 <sup>6</sup>	
		TA	CA, SNE
Core tasks	Security accreditation	10	1
	Security and PRS tasks	5	5
	GSMC operations	22	14
	Promotion and marketing of the services	6	4
	Agency management	7	7
	General administration	9	13
Delegated tasks	EGNOS Exploitation	15	4
	Galileo Exploitation	38	8
	Research & Development (H2020)	4	5
Total		116	61

<sup>6</sup> Including 10 accepted offers for TA positions and 1 accepted offer for CA positions.

The financial resources, split by area of activity are:

		Amount (EUR)
Core tasks	Security accreditation	695 937.75
	Security and PRS tasks	0.00
	GSMC operations	2 991 502.00
	Promotion and marketing of the services	2 217 274.11
	General Administration and Agency Management	22 562 934.14
Delegated tasks	EGNOS Exploitation	838 896 846.48
	Galileo Exploitation	1 385 436 721.73
	Research & Development (H2020)	37 911 035.08
Total		2 290 712 251.29

## Annex VI – Specific Annexes related to part 2

### VI.1 – GSA Legal Framework (as of 31 December 2017)

Document	Ref.	Issue - Date
Council Decision 2014/496/CFSP of 22 July 2014 on aspects of the deployment, operation and use of the European Global Navigation Satellite System affecting the security of the European Union and repealing Joint Action 2004/552/CFSP	2014/496	22 July 2014
Regulation (EC) No 1285/2013 of the European Parliament and of the Council of 11 December 2013 on the implementation and exploitation of European satellite navigation systems and repealing Council Regulation (EC) No 876/2002 and Regulation (EC) No 683/2008 of the European Parliament and of the Council	1285/2013	11 December 2013
Regulation (EU) 912/2010 of the European Parliament and of the Council of 22 September 2010 setting up the European GNSS Agency, repealing Council Regulation (EC) No 1321/2004 on the establishment of structures for the management of the European satellite radio-navigation programmes and amending Regulation (EC) No 683/2008 of the European Parliament and of the Council, as amended by Regulation 512/2014 of the European Parliament and of the Council of 16 April 2014	912/2010, 512/2014	22 Sep 2010, 16 Apr 2014
Commission Decision (EU, Euratom) 2015/444 of 13 March 2015 on the security rules for protecting EU classified information	2015/444	13 March 2015

Document	Ref.	Issue - Date
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) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union and repealing Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 as subsequently amended	966/2012	25 Oct 2012
Commission Delegated Regulation (EU) No 1268/2012 of 29 October 2012 on the rules of application of Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council on the financial rules applicable to the general budget of the Union as subsequently amended	1268/2012	29 Oct 2012
Decision of the Administrative Board adopting the GSA Financial Regulation Implementing Rules 2014 of 25 April 2014	WP33	25 April 2014
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 VII – Specific annexes related to part 3

There are no annexes to part 3 for the reporting period.

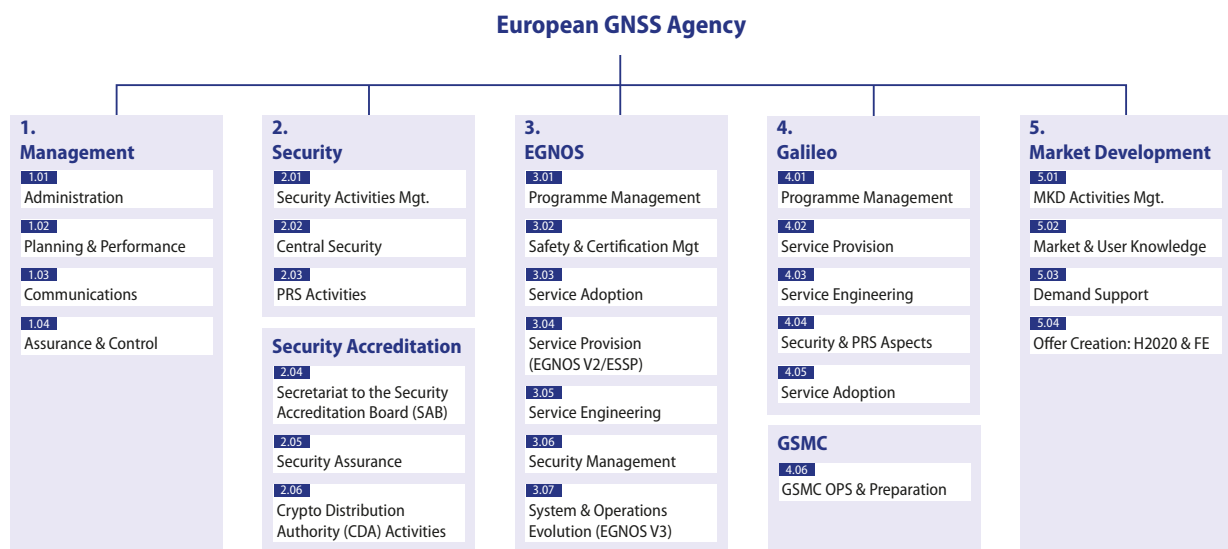
## Annex VIII – Draft Annual Accounts and Financial Reports

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 April 2018, the Court of Auditors will audit these Accounts. After their final remarks, the Agency will submit the 2017 Final Annual Accounts to its Administrative Board for adoption. Once approved by the Administrative Board, the Agency will annex these to this report for reference.

## Annex IX – The work breakdown structure

The work breakdown structure used as a reference for the Single Programming 2017-2020 and therefore the Consolidated Annual Activity Report 2017 is shown below. The structure was updated in the course of the year to take into account its further development and changes in the Agency's activities that will be reflected in the following programming documents.



## Annex X – List of acronyms

Abbreviation	Definition
AD	Administrator
APV	Approach Procedure with Vertical Guidance
ARB	Anomaly Review Board
AST	Assistant
CA	Contract Agent
CDA	Crypto-Distribution Authority
CFSP	Common Foreign and Security Policy
CMS	Common Minimum Standards
COMSEC	Communication Security
CPA	Competent PRS Authority
CS	Commercial Service
DG GROW	Directorate General Growth
EC	European Commission
ECA	European Court of Auditors
EDAS	EGNOS Data Access System

Abbreviation	Definition
<b>EFTA</b>	European Free Trade Association
<b>EGNOS</b>	European Geostationary Navigation Overlay Service
<b>EGNSS</b>	European Global Navigation Satellite System
<b>ELT</b>	Emergency Location Transmitter
<b>EMC</b>	Enhanced Minimum Configuration
<b>ESA</b>	European Space Agency
<b>ESP</b>	EGNOS Service Provision
<b>ESSP</b>	European Satellite Services Provider
<b>EU</b>	European Union
<b>EUCI</b>	EU Classified Information
<b>EURATOM</b>	The European Atomic Energy Community
<b>FKC</b>	Flight Key Cell
<b>FP7</b>	Seventh Framework Programme for Research and Technological Development of the European Union
<b>GCC</b>	Galileo Control Centre
<b>GCS</b>	Galileo Control Segment
<b>GEO</b>	Global Earth Observation
<b>GMS</b>	Ground Mission Segment
<b>GNSS</b>	Global Navigation Satellite System
<b>GPS</b>	Global Positioning System (USA)
<b>GRC</b>	Galileo Research Centre
<b>GRUE</b>	GSA EU Restricted Network
<b>GSA</b>	European GNSS Agency
<b>GSAP</b>	GNSS Security Accreditation Panel
<b>GSOp</b>	Galileo Service Operator
<b>GRC</b>	Galileo Reference Centre
<b>GSC</b>	GNSS Service Centre
<b>GSF</b>	Galileo Security Facility
<b>GSMC</b>	Galileo Security Monitoring Centre
<b>GSOp</b>	Galileo Service Operator
<b>H2020</b>	Horizon 2020
<b>HA</b>	High Accuracy
<b>HR</b>	Human Resources
<b>IAC</b>	Internal Audit Capability
<b>IAS</b>	Internal Audit Service
<b>ICS</b>	Internal Control Standards
<b>ILS</b>	Integrated Logistic Centre
<b>IMO</b>	International Maritime Organization
<b>IMS</b>	Integrated Management System
<b>ISO</b>	International Standards Organisation

Abbreviation	Definition
<b>IT</b>	Information Technology
<b>ITS</b>	Intelligent Transport Systems
<b>KPI</b>	Key Performance Indicator
<b>LBS</b>	Location-Based Services
<b>LEOP</b>	Launch and Early Operation Phase
<b>LPV</b>	Localiser Performance with Vertical Guidance
<b>OS-NMA</b>	Open Service Message Authentication
<b>OSRR</b>	Operations Service Readiness Review
<b>PRS</b>	Public Regulated Service
<b>P3RS2</b>	PRS Pilot Project 2
<b>RLS</b>	Return Link Service
<b>PRS4PMR</b>	Public Regulated Service for Personal Mobile Radio
<b>RUE</b>	EU Restricted
<b>SECMON</b>	Security Monitoring
<b>SAA</b>	Security Accreditation Authority
<b>SAB</b>	Security Accreditation Board
<b>SAR</b>	Search And Rescue
<b>SATO</b>	Site Approval To Operate
<b>SBAS</b>	Satellite Based Augmentation System
<b>SDD</b>	Service Definition Document
<b>SIAP</b>	Strategic Internal Audit Plan
<b>SIH</b>	Security Incident Handler
<b>SLA</b>	Service Level Agreement
<b>SNE</b>	Seconded National Expert
<b>SOIF</b>	Security Operational and Intelligence Facility
<b>SPD</b>	Single Programming Document
<b>TA</b>	Temporary Agent
<b>UCP</b>	User Consultation Platform
<b>UE</b>	European Union
<b>UK</b>	United Kingdom
<b>US</b>	United States (of America)
<b>WBS</b>	Work Breakdown Structure
<b>WG</b>	Working Group





European  
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