



European  
Global Navigation  
Satellite Systems  
Agency

## **European GNSS Agency**

### **44th meeting of the Administrative Board**

**Prague, 10 March 2016**

**Annual Work Programme 2016**

**ADMINISTRATIVE BOARD DECISION  
of 10 March 2016**

**concerning the adoption of the 2016 Work Programme, serving as a financing decision**

Ref: GSA-AB-44-16-03-06

THE EUROPEAN GNSS AGENCY,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to 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 (hereinafter referred to as the "GSA Regulation")<sup>1</sup>, and in particular to Article 6(2)(b) thereof,

Having regard to 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 (hereinafter referred to as the "GNSS Regulation"), and in particular to Article 14 thereof,

Having regard to Commission Delegated 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

Having regard to the GSA Financial Regulation 2014 (GSA-AB-38-14-03-20-04) and in particular Article 68 thereof;

Having regard to Regulation No 966/2012 of the European Parliament and of the Council of the 25 October 2012 on the financial rules applicable to the general budget of the Union (hereinafter referred to as the "Financial Regulation") and in particular Article 84 thereof,

Having regard to 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 (hereinafter referred to as the "Implementing Rules") and in particular Article 94 thereof,

---

<sup>1</sup> OJ L 150, 20.5.2014

Whereas:

- This decision should authorise the award of procurement contracts for the reasons and amounts set out in the Work Programme for the Agency's core tasks.
- This decision should authorise the payment of interest due for late payment.
- For the application of this decision, it is appropriate to define the term 'substantial change' within the meaning of the Implementing Rules
- Under Article 6(2)(b) of the GSA Regulation, the Agency's work programme shall incorporate, without any change, the section drafted by the Security Accreditation Board (hereinafter the "SAB") related to the activities described under Chapter III of the GSA Regulation.
- The SAB has adopted the section of the 2016 Work Programme and this section has been thus incorporated into the present work programme.

HAS DECIDED AS FOLLOWS:

#### *Article 1*

The 2016 Work Programme for the implementation of the GNSS Regulation and GSA Regulation as set out in the Annex (hereinafter "Work Programme"), is adopted.

For the Agency's core tasks, the Work Programme constitutes a financing decision in the meaning of Article 68 of the GSA Financial Regulation.

#### *Article 2*

The indicative contribution for the core tasks under the Work Programme is set at 9,037,606 EUR. The implementation of tasks delegated by the Commission shall be financed by additional funds delegated to the Agency under various delegation agreements.

These appropriations shall cover interest due for late payment.

The implementation of this Decision is subject to the availability of the appropriations provided for in the draft budget for 2016 after the adoption of the budget by the budgetary authority or provided for in the provisional twelfths.

### *Article 3*

Procurement contracts and grant agreements, as foreseen in the Annex, may be awarded in accordance with the conditions and for the amounts set out in the Annex.

Done in Prague, on 10 March 2016

For the Agency's Administrative Board

Ms Sabine Dannelke

Chair of the Administrative Board

## **Annual Work Programme 2016**

## TABLE OF CONTENTS

Annual Work Programme 2016 .....	5
Table of Contents.....	6
01 - Introduction .....	8
01.01    Legal references for the Work Programme .....	14
01.02    Main Assumptions .....	14
02 - Budget.....	16
02.01    Grants.....	16
03 – Activities .....	17
03.01    Agency Management .....	17
03.02    Security Related Activities.....	18
03.03    Security Accreditation Activities .....	22
03.03.01 Security Accreditation Tasks.....	26
03.04    GSMC Operations.....	29
03.04.01 GSMC Tasks.....	30
03.05    Market Development.....	33
03.05.01 Tasks .....	36
03.06    Communications .....	40
03.07    Support Services.....	44
Appendix I – Foreseen Procurement .....	49
I.01    Agency Management .....	49
I.02    Security Activities.....	50
I.03    Security Accreditation.....	50
I.04    GSMC Operations.....	51
I.05    Market Development.....	51
I.06    Communications .....	52

Appendix II – Delegated Tasks .....	53
II.1 Delegation Agreement for the Seventh Framework Programme for Research and Development of the European Union (FP7) .....	53
II.2 Delegation Agreement for Public Regulated Service (2011) .....	54
II.3 Delegation Agreement for the EGNOS Exploitation .....	56
II.4 Delegation Agreement for Galileo Exploitation .....	59
II.5 Delegation Agreement for Horizon 2020 .....	65
Appendix III – Draft Budget 2016 and Establishment Plan 2016 .....	68
III.1 Draft Budget 2016 .....	68
III.2 Human Resources 2016 .....	69
Appendix IV – Definitions & Acronyms .....	72

## 01 - Introduction

The 2016 Annual Work Programme represents the Agency's activity plan for 2016 financed from operational appropriations. In addition it presents for information purposes the tasks entrusted to the Agency by the Commission (Article 8 of the GSA Financial Regulation). A short description of support activities complements this information.

The main activities required to be implemented under the Agency's operational budget (title III) in 2016 are listed in the following sub-sections. However, it should be understood that whilst all core tasks listed below are legally binding requirements on the Agency, the Agency shall prioritise the implementation of these tasks under the direction of the Executive Director based upon a consideration of Agency resources (i.e., time, budget and staff). Tasks that the Agency may not implement without additional resources are clearly identified in Section 3 of this document.

In addition to the Agency's operational core budget, the Agency shall continue managing a significant volume of tasks delegated by the Commission; in particular such delegated activities are to be achieved through the placement of procurements and the award of grants. So as to provide the reader with a complete picture of the Agency's planned activity in 2016 these tasks are described in Appendix II.

### 1. Tasks related to the Public Regulated Service (PRS) Decision No 1104/2011/EU

In relation to the PRS decision (1104/2011/EU) and in particular in order to implement the duties adopted by the GSA under the EC-GSA specific Arrangement pursuant to Article 14(c) of Decision No 1104/2011/EU C(2014)7879 and GSA/206671, the tasks of the Agency in 2016 will include:

- Assistance and co-ordination with the Commission in the preparation of the processes for the reporting on compliance with the Common Minimum Standards in accordance with articles 5(10) and 5(11) of the PRS decision;
- Creation and maintenance of a Competent PRS Authority (CPA) technical assistance catalogue in support of the implementation of article 5(9) of the PRS decision;



- Upon the Commission's instruction and prioritisation, support to the Commission and the CPAs through the organisation of regular CPA workshops under the direction of the Commission in accordance with article 8(5) of the PRS Decision;
- Assistance to the Commission (in a scope and manner to be specified by the Commission) in the preparation of processes for the ensuring of CPA compliance to CMS and in particular including the scope, processes and implementation of any supporting audits and inspections in accordance with article 8(6) of the PRS decision;
- Ensuring the implementation and demonstration of compliance to the Commission regarding the specific arrangement pursuant to Article 14(c) of Decision No 1104/2011/EU C(2014)7879 and GSA/206671.

## **2. Security Accreditation**

As far as Galileo Security Accreditation activities are concerned, out of a total budget request of EUR 1.4 million, approximately EUR 350,000 is foreseen to support Member States via reimbursements of missions and meetings related to Security Accreditation, Flight Key Cell and Crypto Distribution Authority actions. The remaining budget will be used for accreditation support contracts to perform technical activities linked to the security accreditation process and, in particular, to the on-going preparation of the upcoming Galileo system accreditation milestones, e.g. Authorisations to Launch.

This includes:

- Review of technical security documentation
- Analysis of system security risks and risk treatment plans
- Analysis of the compliance to system security requirements
- Contribution to the drafting of accreditation documents and reports
- Development of independent security test plans and procedures
- Performance of independent IT security tests on the European GNSS infrastructure
- Support for site accreditation
- Access to independent experts for in-depth technical reviews

- Support to the setting of new tasks of the Security Accreditation Board (SAB) associated with the modification of the GSA regulation
- Monitoring of the security perception and performance of the European GNSS in the public domain and user communities

These support activities are essential in order to provide the expected level of support to the Security Accreditation Board, as stipulated by the GSA Regulation. The operational costs of the security accreditation activities will overall remain stable.

### **3. Galileo Security Monitoring Centre Operations**

For the Galileo Security Monitoring Centres (GSMCs), operational support contracts will be required in 2016 for an estimated amount of 3.6 MEUR. These support contracts will be crucial in ensuring operational, technical and security activities supporting GSMC services in 2016 from both GSMC sites (France & the United Kingdom).

In more specific terms, the contracts will be necessary to cover the following essential actions:

- GSMC external operational support services (e.g. operational engineering of procedures);
- Service Level Agreement with the EU Computer Emergency Response Team;
- Cyber Security Support to the Operations of the GSMC for covering 24/7 activities related to security monitoring;
- GSMC external technical and security support services (e.g. maintenance and guarding of the buildings).

### **4. Preparation for the commercialisation and awareness of the European GNSS**

The above requires intense market development in order to continue and enhance the involvement of user communities and actors in the value chain, such as chipset, receiver manufacturers and application developers. This will strengthen the market position of EGNOS and will enable Galileo market entry. The Agency will leverage the Galileo Initial Service value proposition to engage the value chain and to prepare for Galileo adoption in consumer, transport, professional and governmental segments. Effective communication will be key to support these actions. Market and technology monitoring, cost benefit analysis, and the update of the value proposition based on actual

performance will be fundamental aspects of these activities. This will contribute to making informed choices towards the adoption of Galileo Initial Services. The user satisfaction survey, already in place for EGNOS, will enable a continuous improvement process of the user service experience.

These items of operational expenditure (market development, standardisation, contribution to the commercialisation and awareness of Galileo and EGNOS, and communication activities) require continuing substantial investment

## **5. Support Activities**

Support activities in 2016 will include:

### **5.1. Procurement and Contract Management.**

The Agency will manage more than 250 new procurements and contracts in 2016. The most challenging activities will be linked to delegated tasks laid out in Appendices I and II.

### **5.2. Legal services:**

In 2016 specific guidance on legal matters will be provided as required to support the Agency's operations.

### **5.3. Project control:**

In 2016 the Agency will further develop project control activities, in particular concerning planning (budget, schedule) and risk management activities for EGNOS exploitation and Galileo exploitation. New project control tools will be developed and introduced progressively, and the Document Management System will be embedded throughout the Agency.

### **5.4. Information and Communications Technology**

In general, after a few years of intensive work on the infrastructure and applications (2012 - relocation and basic setup, 2013 - addition of GSMC and improvements of infrastructure, 2014 - development of applications, 2015 – major work on ICT security) 2016 is expected to be a year of consolidation with a focus on information security and rationalisation of processes, primarily through the establishment of regular security auditing and the continued introduction of IT security standards (e.g. ISO27001 Security Management series), policies and processes to help identify and direct the implementation of improvements to the security of the existing systems. The Agency will further

continue to invest in data processing for all sites during the course of 2016, and other take further IT projects to meet GSA needs.

The Agency will also contribute to the plans to build and equip the GNSS Reference Centre in the Netherlands<sup>2</sup>.

## **5.5. Facility Management and Logistics**

In 2015, the Agency took over the entire building in Prague, which it had previously shared with the Czech Ministry of Finance; the available office area increased by approximately 30%. Facility management and logistics services adjusted their processes and working procedures to the new situation and put in place new facility management and security maintenance contracts.

The situation is going to change further in 2017 when the Agency will start to pay 25% of commercial rent established by the report from an independent certified expert, according to article V of the Lease Agreement between the Agency and the Czech Republic - The Ministry of Finance.

In 2016, the Agency does not expect major changes in Prague and will concentrate on the stabilisation and rationalisation of all processes and improvements leading to higher cost and effort efficiency.

The Agency will also contribute to the plans to build and equip the GNSS Reference Centre in the Netherlands<sup>3</sup>.

## **5.6. Communications**

In 2016, the Agency's Communication activities will fall into three main categories:

- E-GNSS service, applications, and research and development (R&D) Communications

Activities related to the promotion of GNSS R&D activities and achievements and other E-GNSS service and application-related communications. This area encompasses a range of information provision and promotional actions that focus on building greater awareness of and confidence in E-GNSS, leading to increased uptake of EGNOS amongst users in target user segments and better understanding and appreciation of the benefits that Galileo (including Initial Services) will bring.

---

<sup>2</sup> As of time of writing, i.e., Q1/2015, these plans are still being formulated.

<sup>3</sup> idem

- Corporate Communications

These activities include communicating about the Agency: its image, activities, facilities, milestones and staff. In particular a set of actions to position and strengthen the image of the Agency amongst key internal and external stakeholders will be undertaken.

- Internal Communication

The Agency will communicate and establish a strengthened dialogue with staff regarding the Agency and its activities.

## **5.7. Quality**

In 2016, the Agency will continue to embed the benefits promised by establishing an Integrated Management System (IMS). The ISO 9001 certification will be maintained and the related activities (audits, indicators, etc.) will be used to generate continuous improvements and to propagate best practice examples. Certification efforts in additional areas (e.g. Information Delivery & Information Security) will be supported. The ISO 9001 certification scope for the GSMC is expected to change from preparation to operation of activities. In 2016 the ISO 9001 standard will be revised, leading to activities to align the Agency with the new requirements.

## **5.8. Internal Control Coordination & Audit**

In 2016, the Agency will strengthen the Internal Control Coordination in terms of capacity and independence. Moreover, the Agency will seek added audit assurance by performing internal audits with the support the shared Internal Audit Capability established with the European Chemicals Agency.

## **5.9. Human Resources**

The main emphasis will be to retain the Agency's main assets – people. The Agency will have approximately 150 staff members in 2016 located in different sites. It estimates that it will run 30 selection procedures in 2016 (This will cover all categories of staff members, including trainees and seconded national experts). During 2016, the administrative workflow will increase once more due to growth and turnover. However, the Agency will continue streamlining its processes and strive to automate every suitable task and function. The Agency will continue to implement career development policies, foster corporate spirit and introduce sustainable workplace policies.

Nevertheless, it should be stressed that these are rough estimates. The high turnover rates in 2014 and 2015, which may be a consequence of the low correction coefficient applied to EU salaries in other places of service than Brussels and Luxembourg, are expected to continue in coming years. Any efficient planning is compromised by these external factors which the Agency is not currently in a position to remedy.

## **5.10. Central Security**

The Agency's central security office offers services to the entire Agency in all its locations and also handles the Agency's central EU Classified Information registry.

### **01.01 Legal references for the Work Programme**

According to Article 6(2)(b) of the GSA Regulation, the Administrative Board shall adopt the Agency's Work Programme 2016 by 15 November 2015, after having incorporated, without any change, the section drafted by the SAB, in accordance with point (b) of Article 11(4), and after having received the Commission's opinion. The SAB shall adopt the section of this document that details the security accreditation activities before the Administrative Board adopts the complete document.

This work programme reflects the tasks that are entrusted to the Agency in light of the GNSS Regulation<sup>4</sup>, the GSA Regulation<sup>5</sup> and the PRS Decision<sup>6</sup>.

### **01.02 Main Assumptions**

The Agency has drafted this work programme based on the following assumptions, which are correct as of time of writing:

---

<sup>4</sup> OJ L 347/1 of 20.12.2013

<sup>5</sup> Regulation (EU) No 512/2014 of the European Parliament and of the Council of 16 April 2014 amending Regulation (EU) No 912/2010 setting up the European GNSS Agency

<sup>6</sup> 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

- The Commission will have adopted the delegated act referred to in Article 8(2) of the PRS Decision<sup>6</sup> and this act will have entered into force.
- The Agency will work on the implementation and demonstration of compliance to the Commission regarding the specific arrangement pursuant to Article 14(c) of Decision No 1104/2011/EU C(2014)7879. However, limited resources have been allocated to the other PRS Tasks described in task 1 in the introduction for 2016. Should these resources be required in the course of 2016 the GSA shall consider a re-prioritisation of its' activities.
- The Agency shall not implement a CPA in 2016 as per Article 5(1)(b) and (c) of the PRS Decision.
- The Agency assumes that the deployment of the space segment will continue at an accelerated rate with at least the first Ariane launch with four Galileo satellites and one further launch with Soyuz (tbc) in 2016.
- Galileo Initial Services will be declared in the second-half of 2016.
- The necessary coverage of support services from Work Packages 2 (Ground Mission Segment) and 6 (Operations) to the GSMC shall be addressed in negotiations on the Working Arrangement between ESA and the Agency.
- The Agency will support the Commission in the definition and implementation of the security requirements in line with the Galileo and EGNOS Exploitation Delegation Agreements and the GSA-ESA Working Arrangement, based on the available resources.
- A System-specific Security Requirements Statement (SSRS) for EGNOS has been realised with ESA support. At programme level, the SSRS is authorised by the MSEB and a phased implementation of the security requirements has been introduced into the EGNOS Programme.
- Delivery of the initial 20 P3RS2 PRS pre-operational receivers is achieved in 2016 (30 months from kick-off), allowing first PRS tests using live signal with such new pre-operational receivers.
- The Galileo Service Operations contract (for post-2016 activities) will be awarded in Q3-2016.
- The Commission will delegate the organisation of a Space Week/European Space Solutions Conference to the Agency. The Conference is expected to take place during the Dutch Council Presidency (Spring 2016) in the Netherlands.

## 02 - Budget

This section highlights the budget split between the various areas of activities. For more precise details on procurement, please see Appendix I – Foreseen Procurement.

N°	Title of the action	Type of Action	Budget line	Indicative amount €	Variance (2015/2016)
1.	Security Accreditation	Procurement/Agreement	03.3300	1 050 000	0%
2.	GSMC	Procurement	03.3100	3 647 626	26%
3.	Market Development	Procurement	03.3100	2 559 980	22.49%
4.	Quality management	Procurement	03.3100	330 000	10%
5.	Communications	Procurement	03.3100	1 100 000	29.41%
<b>TOTAL</b>				<b>8 357 936</b>	

The total amount allocated under Title 3 reflects an increase of 1 052 606 EUR (or 13%) on that allocated for 2015. The allocations for security accreditation and quality management remain stable for 2016 in comparison to 2015 with increases being implemented in the other three activity areas.

### 02.01 Grants

There is no Basic Act authorising the Agency to launch its own Grant Scheme. Therefore, no grants are planned in 2016 to be financed from the Agency's core budget.

The Agency plans to implement new grants in 2016, under the Horizon 2020 Delegation Agreement, the EGNOS Exploitation Delegation Agreement, and the Galileo Exploitation Delegation Agreement. The relevant grant plans are annexed to this document for reference.

The Agency will continue to manage the existing grant agreements signed in 2014 and 2015.



## 03 – Activities

The tasks that the Agency will undertake in 2016 are listed in this section. As per article 8a (2) of Regulation 512/2014, each task is marked as C (Changed), N (New) or O (On-going) as compared to the 2015 Annual Work Programme.

### 03.01 Agency Management

- The implementation of the Agency's Integrated Management System and the implementation of the Internal Audit Capability

Task	State	Name	KPI/Deliverable	Timing
1.	O	Continuous Improvement of the GSA Integrated Management System (IMS) and maintenance of ISO 9001 certification	<ul style="list-style-type: none"> <li>Internal Quality Audits implemented, Management Review conducted, Non-conformances and Audit Recommendations followed up and closed.</li> <li>GSA Quality Officers active at department level and in working groups, Quality Management Board meetings implemented. Quality Officer &amp; Board actions agreed, executed and documented</li> </ul>	Periodically throughout the year
2.	N	Adaptation of IMS to higher staff numbers and multi-site operations	<ul style="list-style-type: none"> <li>Quality management capabilities strengthened</li> <li>Scope of ISO 9001 certification for GSMC extended</li> <li>Appropriate awareness and training materials developed</li> </ul>	Q1-2
3.	N	Extension of IMS scope according to Agency's requirements	<ul style="list-style-type: none"> <li>Additional certification activities (Information Delivery &amp; Security) supported</li> <li>Scope of ISO 9001 certification extended</li> <li>IMS documentation upgraded and made available</li> </ul>	Q2-3
4.	N	Alignment to standard ISO 9001:2015 revision	<ul style="list-style-type: none"> <li>Implementation of revised requirements in ISO 9001:2015 standard</li> <li>Best Practice examples propagated</li> </ul>	Q1-2

### **03.02 Security Related Activities**

The Agency's security related activities, outside those falling under chapter III of the GSA Regulation, can be grouped under the following two headings:

- Central Security Office
- Tasks related to the PRS Decision No 1104/2011/EU

#### **03.02.01 Central Security Office**

In 2016, the Agency will implement measures resulting from the ISO27001 activities and consolidate the set of security policies, implementing rules, processes and procedures within the Agency.

This office also assumes the functions of the Agency's Central EUCI Registry, and will continue its role of supporting the Security Accreditation Authority in maintaining the accreditation of the internal Agency infrastructure and IT assets.

#### **03.02.02 Tasks related to the Decision No 1104/2011/EU (PRS Decision)**

The Agency is entrusted with the implementation of core tasks mandated under the PRS Decision. As the Common Minimum Standards (CMS) have been adopted in December 2015, it is likely that the Commission will wish to engage with the Agency in 2016 to work on the following areas in implementing the requirements of the PRS Decision dependent upon the CMS and in monitoring the GSA's implementation of the specific arrangement pursuant to Article 14(c) of Decision No 1104/2011/EU C(2014)7879 and GSA/206671.

- The preparation of the processes concerning gathering assurance of and reporting on CPA compliance to CMS to be implemented in accordance with Articles 5(10), 5(11), 8(6) of the PRS Decision;
- Supporting the Commission in providing aid to CPAs in accordance with Articles 5(9) and 8(5) of the PRS decision;

- Ensuring the implementation and demonstration of compliance to the Commission regarding the specific arrangement pursuant to Article 14(c) of Decision No 1104/2011/EU C(2014)7879 and GSA/206671

The tables on the next page show the related deliverables and KPIs for all Central Security Office and PRS Decision related activities.

### 03.02.03 Tasks: Central Security Office

Task	State	Name	KPI/Deliverables	Timing
1.	O	Develop/amend policies and procedures for the corporate security of the Agency, including for a classified Document Management System, in line with EU rules and the quality project	Number of policies/procedures established/amended	Q1-Q4
2.	O	Ensure the physical security of the headquarters in liaison with the National Security Authority (including electromagnetic and electronic security protection)	<ul style="list-style-type: none"> <li>100% of facilities accredited/reaccredited</li> <li>100% of reported incidents investigated and treated</li> </ul>	Q1-Q4
3.	O	Administer the Personal Security Clearances and authorisations of the Agency's staff.	<ul style="list-style-type: none"> <li>100% of Personal Security Clearances administrated in liaison with the Member States' National Security Authorities</li> <li>100% of the authorisations administered.</li> </ul>	Q1-Q4
4.	O	Administer the Agency Central EU Classified Information Register and checking decentralised registers	Achieve and maintain compliance with 2015/444/EC for the central and decentralised registers	Q1-Q4
5.	O	Implement the security training plan for Agency personnel and ensure the implementation at Agency facilities	Checking the implementation at Agency headquarters, GSMC and GSC	Check by Q4
6.	O	Administration of keys for the various groups (GNSS Security Board, SAB, GSAP, etc.)	Timely generation, distributing and administration of keys for all groups	Month prior to key expiration
7.	O	Maintain the Agency secured networks accreditation by the Security Accreditation Authority and prepare for new networks accreditation	Decision by the Security Accreditation Authority to accredit the Agency secured network RUEs	3 months after new request for new systems; no discontinuity for existing systems
8.	O	Implement the Critical National Infrastructure agreement with the Czech authorities for the Agency's Prague facilities	Implementation of the security related aspects of the Critical National Infrastructure agreement in coordination with the relevant services of the Agency and of the Czech authorities	Q1-Q4
9.	O	Ensure industrial security in line with EU rules	Advising and preparing on security aspects of Agency industrial contracts. Guarantee 100% compliance with 2006/548/EC	Q1-Q4
10.	O	Monitor security oversight procedures and ensure the implementation at Agency facilities in compliance with 2015/444/EC	<ul style="list-style-type: none"> <li>Checking the implementation at the GSA sites as necessary.</li> <li>Achieve and maintain compliance with 2015/444/EC</li> </ul>	Check by Q4

Task	State	Name	KPI/Deliverables	Timing
11.	O	Implement in line with ISO27001 in cooperation with the HR department and in coordination with DG HR and HR policies with security related content.	Implementation plan	Q2

#### 03.02.04 Tasks related to the PRS Decision No 1104/2011/EU

Task	State <sup>7</sup>	Name	KPI/Deliverables	Timing
1.	N	Assistance to the Commission with the development of processes for establishing and reporting assurance of Competent PRS Authority compliance to the Common Minimum Standards as described in Articles 5(10), 5(11) and 8(6) of the PRS decision	Common Minimum Standards audit/inspection implementation plan (TBD)	Q4
2.	N	Submission to the Commission of a quarterly report regarding the implementation of the specific Arrangement pursuant to Article 14(c) of the PRS decision	PRS Agreement Quarterly report	Q1-Q4
3.	O	Organise up to 2 Competent PRS Authority workshops	Agenda and decisions/actions lists	Q1-Q4
4.	O	Finalise and maintain the guide for the establishment of the Competent PRS Authorities.	Competent PRS Authority guide	Q1-Q4
5.	O	Continue the development of the framework for the provision of technical assistance to Competent PRS Authorities	Template for generic arrangement for GSA provision of technical assistance to CPA	Q4
6.	O	Support the Commission on the definition and implementation of a Commission PRS information dissemination and awareness policy	PRS information dissemination and awareness policy implementation plan for the Commission	Q1-Q4
7.	N	Provision of a GSA PRS Communications policy and process developed in co-operation with the GSA Communication Department and approved by the Commission in accordance with the EC-GSA PRS Article 14(c) arrangement.	GSA PRS Communications policy (to support Market Development and Communications PRS activities in particular).	Q1

<sup>7</sup> As per Regulation 512/2014, Article 8a (2), each task is marked as C (Changed), N (New) or O (On-Going) compared to last year's Annual Work Programme.

### 03.03 Security Accreditation Activities

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

The Security Accreditation Board (SAB), established within the Agency as an autonomous body pursuant to Article 3 of Regulation (EU) No 912/2010 as modified by Regulation (EU) 512/2014, is the European GNSS Security Accreditation Authority. All the security accreditation decisions related to the GNSS systems are of its sole competence.

Security accreditation decisions entail in particular:

1. the approval of satellite launches
2. the authorisation to operate the systems in their different configurations and for the various services up to and including the signal in space
3. the authorisation to operate the ground stations
4. 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.

According to Article 11(11), the SAB has set up special subordinate bodies, acting on its instructions, to deal with specific issues. These are:

- A panel to conduct security analysis reviews and tests to produce the relevant risk reports in order to assist it in preparing its decisions. It acts as a technical body to assist the European GNSS Security Accreditation Authority in all aspects related to the accreditation of the Galileo system.
- A Crypto Distribution Authority (CDA) to manage European GNSS cryptographic material and assist the Security Accreditation Board on COMSEC issues; particularly for questions related to PRS keys and flight keys – flight key cell (FKC). The SAB created the CDA in 2011 with a refined mandate in 2013 and was implemented in 2014. The mandate of the CDA was fully confirmed and implemented in 2015 to ensure the independence of its Programme role (for the Commission, i.e. the European GNSS Distribution Authority) and assurance role (for SAB, i.e. the SAB CDA Task Force). The European GNSS Distribution Authority was set the target of declaring

Initial Operating Capability and full integration into the Programme by the declaration of Galileo Initial Services; this includes the supervision of the management of PRS cryptographic material. Full CDA capability will be achieved in 2016 and ready by the hand over to the exploitation phase.

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 order to support the SAB, the Panel and the CDA, the Security Department established the necessary structure under the SAB Chair. The Security Department provides secretariat support for the SAB, chairs subordinate bodies, and provides technical expertise at all stages of the accreditation process. These support tasks include:

- SAB secretariat: including secretariat, coordination and preparation of the relevant files for accreditation decisions. SAB meetings should be planned in order to allow a timely decision for each programme milestone, after due consultation of the relevant expert groups (GSAP/CDA). Specific documents should be prepared and submitted to the SAB to support the decision-making.
- Support to SAB management: including drafting the work programme, the budget, the staff establishment plan, day-to-day management of the Security Accreditation resources (staff and resources).
- Panel management: including chairmanship, secretariat, coordination and preparation of the relevant files for accreditation endorsement. The primary mission of the GSAP Panel is to elaborate comprehensive Galileo Security Accreditation Reports (SARs) to be submitted for examination and assessment before accreditation statements are issued and approved by the SAB. These reports are drafted on the basis of the outcomes of the specific Security Accreditation Tasks described hereafter, taking into account any specific demand of the Security Accreditation Authority and the result of the relevant security analysis.
- CDA management: including chairmanship of the CDA Task Force (group of Member States COMSEC experts who provide oversight and governance of CDA activities), secretariat, and

organisation of Flight Key Cell (FKC) activities for each launch campaign, as well as standardisation, regulatory and reporting COMSEC activities.

- The Flight Key Cell activities: represent a vital part of the set of activities performed by a dedicated formation of the CDA responsible for the security of COMSEC items during satellite launch campaigns.
- System level activities: system design reviews and system audits to verify that the Galileo System-specific Security Requirements (SSRS) and other applicable security requirements are met. The GNSS Accreditation process is strongly linked to the GNSS design, development and deployment process. For each specific Galileo or EGNOS technical milestone, the Agency's Accreditation team is required to examine the security features of the system (according to the predefined scopes of each milestone) in order to verify the compliance to the security requirements and whether the system is sufficiently secure to allow EU Classified Information to be processed by it. This includes the performance of independent security tests.
- Ground station level activities: audits and on-site inspections to ensure that local security requirements, national security rules and regulations, as well as the Galileo Programme Security Instructions, are being met by the sites hosting Galileo stations. Each Galileo ground station is subject to a specific security accreditation process. The LSAA (Local Security Accreditation Authority) is the centre of the Local Security Accreditation Process as it will perform the liaison at security level between GSA/ESA and the Hosting Entity. For the case of European Sites, the LSAA will be the relevant National Security Authority (NSA), or any other representative authority officially appointed by the NSA, for the country where the Site is located.
- Components level activities: security requirements reviews (security targets) of system components implementing security functions and monitoring of the component evaluation and certification process. Components implementing security functions in the Galileo system are subject to specific evaluation and certification processes (Crypto evaluation, TEMPEST evaluation, Common Criteria Evaluation and Certification). Although this type of activity is performed by specific and accredited national authorities, the Agency has an important role to ensure that the process is consistently followed.



- PRS User Segment level activities: propose evolutions of the Galileo PRS manufacturer accreditation process to the SAB, and implement its related responsibilities, assuming that the Common Minimum Standards are finalised and adopted.

The table on the next page shows the related deliverables and KPIs for all security related activities.

### 03.03.01 SECURITY ACCREDITATION TASKS

Task	State	Name	KPI/Deliverable	Timing
1.	O	SAB Secretariat	<ul style="list-style-type: none"> <li>• Reports to SAB chairman</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>• Administrate written procedures as necessary</li> <li>• Record update and transmit all SAB decisions</li> </ul>	As required to ensure 5 SAB meetings in the year
2.	O	Support to SAB Management	<ul style="list-style-type: none"> <li>• Draft the SAB Work Programme 2017, taking into account the inputs from the GSAP and CDA</li> <li>• Draft the SAB Budget 2017, taking into account the inputs from the panel and CDA</li> <li>• Report on the SAB Budget 2016</li> <li>• Draft the SAB Staff Establishment Plan</li> </ul>	Q1/2016
3.	O <sup>8</sup>	Approvals to Launch	Accreditation Statement for: <ul style="list-style-type: none"> <li>• Galileo Launch 7</li> </ul>	T0 + 4 months <sup>9</sup>
4.	O	Authorisations to operate the systems in their different configurations and for the various services, including up to and including the signal in space.	Accreditation Statements for: <ul style="list-style-type: none"> <li>• Initial Authorisation to Operate-BC</li> <li>• Initial services</li> </ul>	T0 + 4 months <sup>10</sup>
5.	O	Authorisation to operate the ground stations	Ground Station Authorisation To Operate: <ul style="list-style-type: none"> <li>• Changes/re-accreditation of the existing 32 sites</li> </ul>	T0 + 2 months
6.	O	Authorisation of bodies to develop and manufacture PRS receivers or PRS security modules	PRS Manufacturer Authorisations <ul style="list-style-type: none"> <li>• Changes to the existing 60 authorisations</li> <li>• New authorisations depending on requests</li> </ul>	T0 + 2 months
7.	O	Ensure the panel chairmanship, technical secretariat and organisational secretariat	<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>	As required to ensure SAB decision making

<sup>8</sup> Task 3 from the Annual Work Programme 2015 was split into Task 3 and Task 4. This is why they are marked as 'Ongoing'

<sup>9</sup> T0 being the date of the accreditation request including all relevant information

<sup>10</sup> ibid

Task	State	Name	KPI/Deliverable	Timing
8.	C	System level accreditation tasks	<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 system audits/reviews 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>Carry out independent security vulnerability analysis and system security tests and report to panel/SAB accordingly</li> <li>Monitor risks, treatment plans and report to panel/SAB accordingly</li> <li>Monitor 100% of security accreditation maintenance actions, focusing on priority actions</li> </ul>	As required to ensure panel/SAB decision making
9.	O	Ground stations level accreditation tasks	Plan activities to ensure the ground stations meet the security requirements expected for the launches and services; carry out 15-20 activities on-site and report to the panel/SAB accordingly.	As required to ensure panel/SAB decision making
10.	O	Component level accreditation tasks	Monitoring of component first/second evaluation and report to the panel/SAB accordingly	As required to ensure panel/SAB decision making
11.	O	User segment accreditation tasks	100% of requests for PRS manufacturer authorisation administrated and recommendations made to panel/SAB accordingly	As required to ensure panel/SAB decision making
12.	C	COMSEC management – SAB subordinate CDA	Assess the conduct of EC COMSEC policy throughout the EGNOS & 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 & Galileo Programmes. The SAB CDA shall then provide COMSEC assurance to SAB communicated as a COMSEC risk assessment in order to facilitate successful accreditation.	As required to ensure CDA/SAB decision making
13.	C	COMSEC management – Flight Key Cell (FKC)	To ensure the security of flight keys during European GNSS programme launch campaigns.	As required to ensure FKC/CDA decision making
14.	N	New SAB regulatory responsibilities	Implementation of the new responsibilities entrusted to SAB by Regulation (EU) No 912/2014 and laid down in Article 11 thereof, in particular paragraph 3 points (c) to (l): c) examining and, except as regards documents which the Commission is to adopt under Article 13 of Regulation (EU) No 1285/2013 and Article 8 of Decision No 1104/2011/EU, approving all documentation relating to	Q2 2016

Task	State	Name	KPI/Deliverable	Timing
			<p>security accreditation;</p> <p>d) advising, within its field of competence, the Commission in the elaboration of draft texts for acts referred to in Article 13 of Regulation (EU) No 1285/2013 and Article 8 of Decision No 1104/2011/EU, including for the establishment of security operating procedures (SecOps), and providing a statement with its concluding position;</p> <p>e) examining and approving the security risk assessment developed in accordance with the monitoring process referred to in Article 10(h), taking into account compliance with the documents referred to in point (c) of this paragraph and those developed in accordance with Article 13 of Regulation (EU) No 1285/2013 and Article 8 of Decision No 1104/2011/EU; cooperating with the Commission to define risk mitigation measures;</p> <p>f) endorsing the selection of approved products and measures which protect against electronic eavesdropping (TEMPEST) and of approved cryptographic products used to provide security for the European GNSS systems;</p> <p>g) approving or, where relevant, participating in the joint approval of, together with the relevant entity competent in security matters, the interconnection of the European GNSS systems with other systems;</p> <p style="padding-left: 20px;">a. agreeing with the relevant Member State the template for access control referred to in Article 12(c);</p> <p>h) on the basis of the risk reports referred to in paragraph 11 of this Article, informing the Commission of its risk assessment and providing advice to the Commission on residual risk treatment options for a given security accreditation decision;</p> <p>i) assisting, in close liaison with the Commission, the Council in the implementation of Joint Action 2004/552/CFSP upon a specific request of the Council;</p> <p>j) carrying out the consultations which are necessary to perform its tasks.</p>	

### 03.04 GSMC Operations

The GSMC Operations team has the current broad mission to prepare to become capable of delivering all the GSMC operations missions. Four types of activities contribute to that:

- **GSMC Operations:** since 2011 a GSMC Nucleus has offered early security monitoring and reaction capabilities. This shall continue until GSMC operations v1.0 based on the P2.0 Galileo Security Facility (GSF) or the GSF Enhanced Minimum Configuration equipment is deployed at the GSMC in France before the declaration of Galileo Initial Services. This will offer an interim GSMC capability without inter-site redundancy, but providing 24/7 GSMC services as of 2016.
- **GSMC Organisational Design:** ramp-up, including organisation, processes, and operational validation and accreditation for GSMC Operations V1.1 based on the new GSF Version 2.1, which will be released in 2016 and operated in 2017.
- **Contribution to Operational Equipment Development:** as future operator of Galileo operational equipment, the GSMC operations team will contribute to design specifications and reviews in order to ensure that the GSMC equipment (and the information it can get from or modify into the rest of the Galileo system) is appropriate for long term missions.
- **Hosting Infrastructure Agreement:** Manage the operation and security of the two GSMC Sites and ensure the building infrastructure provided by France and the United Kingdom is appropriate for long term missions, in line with the hosting agreement established by the Commission with the GSMC hosting states (France and the United Kingdom) in 2013.. This will include optimising the use of the two GSMC sites after the start of GSMC operations in 2016. This optimisation can only be performed in accordance with the possibilities provided by the procured equipment.

The table on the next page shows the related deliverables and KPIs for all GSMC operations activities.

### 03.04.01 GSMC TASKS

Task	State	Name	KPI/Deliverable	Timing
1.	N	GSF Operations V1.0 (GSF P2.0 or GSMC Enhanced Minimum Configuration) Operational Readiness Review <sup>11</sup>	<ul style="list-style-type: none"> <li>Acceptance by the programme of the GSMC evidence that the GSMC is able to operate the GSF equipment from the GSMC in France (single site capability only) to meet the operational requirements of the GSMC</li> <li>Start of GSMC Operations on corresponding GSF configuration</li> <li>Establishment of an associated KPIs regime</li> </ul>	GSMC v1.0 Operations Readiness Review successfully passed in line with the Programme Schedule
2.	N	GSF Operations V1.0 (GSF P2.0 or GSMC Enhanced Minimum Configuration) Service Readiness Review (OSRR)	<ul style="list-style-type: none"> <li>Validation of KPIs applicable to the GSMC operations from the GSMC in France (single site capability only)</li> <li>Declaration by the programme that the GSMC is fully operational</li> <li>Start of GSMC Service Provision on corresponding GSF configuration</li> </ul>	GSMC v1.0 Operational Service Readiness Review successfully passed in line with the Programme Schedule
3.	N	GSF Operations V1.1 (GSF P2.1 or GSMC P2.0) Validation Readiness Review (OVRR) <sup>12</sup>	<ul style="list-style-type: none"> <li>Decision from the programme to start GSMC operations validation both from the GSMC in France (master site) and from the GSMC in the UK (warm backup site).</li> <li>Updated version of all GSF Key Point 2 documentation</li> <li>Full list of detailed procedures</li> <li>Detailed Validation Plan (including test cases)</li> <li>Traceability between Validation Plan and Operational Review Document</li> <li>Statement of Compliance for the Operations Validation Readiness Review</li> </ul>	GSMC v1.1 Operations Validation Readiness Review successfully passed in line with the Programme Schedule

<sup>11</sup> This review occurs after the validation of GSMC operations and marks the start of the Service Validation Campaign.

<sup>12</sup> This formal programme review marks the start of the GSF Operations Validation Campaign and represents the acceptance by the programme of the design of GSMC operations.

Task	State	Name	KPI/Deliverable	Timing
4.	N	Site Accreditation Milestone/Site Approval To Operate for GSMC sites <sup>13</sup>	<ul style="list-style-type: none"> <li>This review ends with a formal authorisation of the accreditors and the programme to connect the GSMC France site to the Galileo Operations Chain with single site redundancy</li> </ul>	GSMC France Site Accreditation Milestone/Site Authorisation To Operate successfully passed in line with the Programme Schedule
5.	O	GSF Equipment Anomaly Reporting	<ul style="list-style-type: none"> <li>Establishment of a GSMC Anomaly Reporting process</li> <li>Report of all anomalies on GSF equipment to the programme to ensure they are patched or corrected in future evolutions</li> <li>Ensuring the resolution of anomalies reported by Competent PRS Authorities regarding their use of the PRS Service, in compliance with the ESA Technical Note on PRS &amp; Security Operational Scenarios and Interfaces as updated for Initial Services</li> </ul>	GSMC v1.0 Operations Readiness Review successfully passed in line with the Programme Schedule
6.	O	GSMC Administration and Classified Systems Deployment and Maintenance <sup>14</sup>	<ul style="list-style-type: none"> <li>Procurement and configuration of the necessary IT infrastructure so GSMC sites can connect to the Agency's administrative IT networks</li> <li>Contribution to accreditation and maintenance of GRUE and GSUE systems for processing EU Classified Information</li> <li>Establishment of an associated KPIs Regime</li> <li>Continuous availability of administrative and Classified Systems that meet KPIs applicable to the GSMC</li> </ul>	GSMC v1.0 Operations Readiness Review successfully passed in line with the Programme Schedule
7.	O	GSMC Staff Training and Certification	<ul style="list-style-type: none"> <li>Operations Training Needs Analysis document</li> <li>Operations Training Plan</li> <li>Set up and maintain a Training Management System</li> <li>From GSF Operational Service Readiness Review all GSMC Operators are certified within 4 months of arrival</li> <li>From GSF Operational Service Readiness Review All GSMC Operators are re-certified annually</li> </ul>	GSMC v1.0 Operational Service Readiness Review successfully passed in line with the Programme Schedule

<sup>13</sup> This review process will cover the suitability of the GSMC France site infrastructure, local security operations, local hosting operations and site maintenance to allow long-term GSMC operations from this site.

<sup>14</sup> This work covers the administrative work necessary to setup two centres of the GSMC, a master and a backup

Task	State	Name	KPI/Deliverable	Timing
8.	O/N	GSMC Operations	<ul style="list-style-type: none"> <li>Perform agreed Nucleus operations from Saint-Germain-en-Laye, until GSMC operations V1.0 Operational Service Readiness Review achieved</li> <li>Perform agreed GSMC V1.0 operations from Saint-Germain-en-Laye, after GSMC V1.0 Operational Service Readiness Review achieved</li> </ul>	GSMC V1.0 Operational Service Readiness Review successfully passed in line with the Programme Schedule



### **03.05 Market Development**

The impact of the launch anomaly of 2014 on the adoption of Galileo as compared to other GNSS systems can still be observed in the market, delaying some of the roadmaps for adoption and launches on the market of Galileo ready products. Thanks to the work performed by the Agency all along the value chain, and specifically on receiver manufacturers and user communities, this effect has been less severe than expected, and some leading mass market receiver manufacturers decided not to delay their plans for the introduction of Galileo chipset and receivers.

Users are expected to benefit from Galileo capabilities for the first time in 2016; this essential milestone requires an intensification of the Agency's efforts to stimulate the demand for Galileo in the user community and to support the offer of Galileo ready products. This is crucial to ensure the success of the programme and to partially compensate for the effect of delays which could significantly weaken the competitiveness and usefulness of Galileo in the multi-GNSS scenario. In this respect, the Agency will continue to engage the entire value chain (e.g. chipset and receiver manufacturers, service providers, etc.) and the main user communities (e.g. mobile operators for consumer, automotive industry for road, etc.), keeping them committed to roadmaps towards Galileo adoption, recognising the benefit of the European GNSS programmes. The Agency will leverage in particular Galileo differentiators, such as intrinsic features of the Galileo signal, high precision and authentication services, etc.

Some emerging market segments, such as maritime and rail, will require a specific effort especially due to milestones expected to be reached in 2016-2018, e.g. the recognition of Galileo by the International Maritime Organisation and the inclusion of EGNOS and Galileo in the European Rail Traffic Management System.

In 2016 the Agency intends to support Member States' Competent PRS Authorities in preparing their authorised users for the adoption of the Galileo Public Regulated Service as soon as the first service will be available. In doing so, the Agency shall implement a PRS Communication policy, which it will develop in 2016 and which will be approved by the Commission in compliance with the EC-GSA PRS Article 14(c) Arrangement.

In addition, to consolidate the position of EGNOS in aviation, in 2016 the Agency will be involved in implementing the new generation of EGNOS services, for example in maritime, paving the way for their adoption. This will require an increased effort to prepare the adoption of such services, involving the public and the private sectors.

As for the high precision markets, agriculture and mapping/surveying, EGNOS has achieved recognition as an entry technology providing benefits at low costs. This position needs to be consolidated. With Galileo, there is untapped potential regarding the dual frequency capacity of E1/E5 as well as regarding the usage of E6 by the Commercial Service. Galileo added value in this market segment is recognised by the industry but some efforts need to be made to better describe the future Commercial Service, which will greatly impact these segments. To this end, a commercialisation scheme will be designed.

In 2016, the Agency will focus its market development activities on the differentiators of Galileo. This systematic approach will continue along the following lines:

- In every vertical market segment (i.e. aviation, road, rail, maritime, etc.):
  1. Engage with users and decision makers, including the development and implementation of E-GNSS adoption roadmaps.
  2. Engage with key actors in the value chain such as E-GNSS application developers and service providers.
  3. Support, directly and with technical and market expertise, the Commission on the on-going and upcoming E-GNSS initiatives.
  4. Maintain and improve the support provided to stakeholders and users in priority markets to ensure continuous growth of EGNOS adoption.
- Horizontally:
  1. Update the E-GNSS value proposition, capitalising on knowledge of the market and of the performance at user level, and use this as the basis for communication-related activities about E-GNSS.

2. Continue to translate user needs into requirements and inputs for Galileo and EGNOS service development with careful monitoring of the user communities and emerging trends in complementary and substitute technologies.
3. Continue to provide market and technology monitoring, using socio-economic benefits and cost benefit analysis as main tools to drive strategic decisions.
4. Support the integration of Galileo in receivers in key market segments; the focus of 2016 will be to ensure an optimised use of Galileo, and ensure it is valorised inside receivers.
5. Conduct a user satisfaction survey for EGNOS and implement a similar process for Galileo, enabling the improvement of the user service experience.
6. Leverage the GNSS Service Centre (GSC), which is being developed and managed under delegation, as a key user interface and Galileo differentiator.
7. Contribute to the design of the commercialisation scenarios of Galileo Commercial Service via the Commercial Service Demonstrator.

The table on the next page shows related deliverables and KPIs for all Market Development activities.

### 03.05.01 TASKS

Task	State	Name	KPI/Deliverable	Timing
1.	O	E-GNSS user segment and market development in aviation	<ul style="list-style-type: none"> <li>Cooperation with national Air Navigation Service Providers, Civil Aviation Authorities and other stakeholders to design technical guidelines and support the development of regulatory context fostering adoption in the targeted sub-segments (Business aviation, rotorcraft, regional and general aviation)</li> <li>Build the enablers for adoption of E-GNSS based PVT in emerging markets aligned with new regulatory requirements (e.g. advanced Position Based Navigation operations, Automatic Dependant Surveillance - Broadcast communication, ground based operations)</li> <li>Design key enablers for Galileo SAR uptake</li> </ul>	Q4
2.	O	E-GNSS user segment and market development in Road	<ul style="list-style-type: none"> <li>Analysis of Galileo compatibility testing results and preparation of technical specifications for E-GNSS in road-related applications (in particular Digital Tachograph, eCall and other new ITS applications)</li> <li>Advise on E-GNSS benefits to new GNSS tolling schemes, maintaining the systematic approach developed; and analysing the introduction of GNSS-based congestion charging in Europe.</li> <li>Roadmap for the adoption of E-GNSS in emerging market of autonomous/driverless vehicles, via support to vehicle manufacturers in testing (Galileo Signal in Space at Initial Services) and defining needed standards and certification processes</li> <li>Support to the introduction of E-GNSS differentiators in the automotive sector, focusing on E1/E5, AltBOC modulation</li> </ul>	Q4
3.	O	E-GNSS user segment and market development in Maritime	<ul style="list-style-type: none"> <li>Support to EC in the recognition process of Galileo at the International Maritime Organisation, including the design of the subsequent user segment for adoption</li> <li>Definition of the key enablers for Galileo SAR uptake</li> <li>Development of the user segment for the adoption of a new navigation service based on EGNOS v2</li> </ul>	Q4
4.	O	E-GNSS user segment and market development in Rail	<ul style="list-style-type: none"> <li>Coordination of a measurement campaign and testing activities for development of E-GNSS user requirements for railway signalling applications, in view of its introduction in the ERTMS</li> <li>Preparation of the preliminary certification roadmap as key enabler for the adoption of E-GNSS enabled train positioning systems for railway signalling applications.</li> </ul>	Q4
5.	O	E-GNSS user segment and market development in Agriculture	<ul style="list-style-type: none"> <li>Showcase the benefits of the Galileo Open Service together with EGNOS by key application</li> <li>Showcase the specific benefits of Galileo Commercial Service for the high precision Agriculture via the demonstrator</li> </ul>	Q4

Task	State	Name	KPI/Deliverable	Timing
			<ul style="list-style-type: none"> <li>Launch of the new edition of the Farming by Satellite Prize</li> <li>Explore the possibilities to provide a follow-up to findings concerning the usage of GNSS-based journey logs from the Commission's report on the impact of Council Regulation (EC) No 1/2005 on the protection of animals during transport</li> <li>Consolidate EGNOS position in Agriculture</li> </ul>	
6.	O	E-GNSS user segment and market development in Surveying and Mapping	<ul style="list-style-type: none"> <li>Showcase the benefits of Galileo dual frequency (E1/E5) and Commercial Service (E1/E6) signal in space for Mapping and Surveying segment</li> <li>Showcase specific benefits leveraged by the Galileo Commercial Service Demonstrator for Surveying segment</li> <li>Promote the upgrade to Galileo of private and public reference networks</li> <li>Consolidate EGNOS positioning in Mapping</li> </ul>	Q4
7.	O	E-GNSS user segment and market development in LBS, and other mass market segments	<ul style="list-style-type: none"> <li>Co-marketing actions with industry (e.g. chipset manufacturers and telecom operators) to promote champions in the E-GNSS-enabled consumer devices</li> <li>Support to the introduction of E-GNSS in LBS applications; e.g. establishing an annual award for the best mobile application using Galileo features</li> </ul>	Q4
8.	O	E-GNSS user segment and market development for Timing and Synchronisation of infrastructures	<ul style="list-style-type: none"> <li>Support and promotion of the timing service of Galileo, in view of the initial operational services</li> <li>Support to EC on the design of regulatory activities and users requirements for the introduction of a synchronisation service of Galileo</li> </ul>	Q4
9.	O	E-GNSS user segment and market development for governmental users and timing synchronisation	<ul style="list-style-type: none"> <li>Under supervision of the Commission, Agency support will be provided to Member States' Competent PRS Authorities for the adoption of Galileo PRS in their user communities</li> <li>Market analysis updated in Defence, Public Safety and Security, Critical infrastructures; introduction of a new potential segment in the study</li> </ul>	Q4
10.	O	Authentication and high precision business development	<ul style="list-style-type: none"> <li>Showcase specific benefits for private and public users of the high precision services and authentication of Galileo, by facilitating the access to test and assess the Galileo Commercial Service Demonstrator</li> <li>Support to the business development of high precision services and authentication of Galileo</li> </ul>	Q4
11.	O	Market monitoring and forecasting process	<ul style="list-style-type: none"> <li>Annual update of Market Monitoring and Forecasting process</li> <li>Publication of Market Report issue 5</li> </ul>	Q2 Q2

Task	State	Name	KPI/Deliverable	Timing
			<ul style="list-style-type: none"> <li>Support to EC and Member States in calculation of public benefits and socio-economic return of Galileo programme, including support to the impact assessment of policies</li> </ul>	Q4
12.	O	Technology monitoring and forecasting process	<ul style="list-style-type: none"> <li>Annual update of Technology Monitoring and Forecasting process</li> <li>Monitor and benchmark use of E-GNSS based solutions vis-à-vis other constellations and competing technologies</li> <li>Cooperating and providing support to Receivers and Chipset manufacturers to support E-GNSS integration</li> </ul>	Q4
13.	O	Cost benefit analysis for E-GNSS mission evolution	<ul style="list-style-type: none"> <li>Analyse and quantify market benefits, trends and evolutions (including cost benefit analysis) in order to provide recommendations and to support the E-GNSS Mission Evolution. (It is to be noted that the PRS is excluded from this task)</li> </ul>	Q2
14.	O	E-GNSS user satisfaction independent monitoring process	<ul style="list-style-type: none"> <li>Annual independent EGNOS Users Satisfaction Survey (preparation, implementation, analysis of results, recommendation for improving services)</li> <li>Annual independent GSC Users Satisfaction Survey (preparation, implementation, analysis of results, recommendation for improving services)</li> </ul>	Q4
15.	O	User relationship management, including user needs & requirements definition	<ul style="list-style-type: none"> <li>Design the user relationship management framework, including the definition and update of user needs/requirements by market segment (for 3 selected segments), including analysis of technology drivers</li> <li>Update and implementation of roadmap to collect and understand user requirements by market segment</li> </ul>	Q4
16.	N	E-GNSS user oriented strategy update taking into account local needs	<ul style="list-style-type: none"> <li>Updated E-GNSS user orientated strategy</li> <li>Analysis of administrative, legal, regulatory or standardisation barriers that are limiting market uptake for each priority market, as well as support to the Commission in analysing proposed actions to remove such barriers</li> </ul>	Q3

Furthermore, should there be any budget available due to unpredictable efficiencies during the course of the year, the following projects will be considered:

Task	State	Name	KPI/Deliverable	Timing
1.	O	Market monitoring and forecasting process	<ul style="list-style-type: none"> <li>• Upgrade and maintenance of the E-GNSS Cost-Benefit Analysis of EGNOS and Galileo Programmes</li> <li>• Annual update of the GNSS Industry Share Analysis with the focus on the European share</li> <li>• Annual update of the GNSS industry data base on GSA website</li> </ul>	Q3
2.	N	Technology monitoring	Publication of the GNSS Technology Report (This will not include reporting on the PRS)	Q3
3.	N	Implementation of holistic user relationship management	E-GNSS User Relationship Management Approach per market	Q4
4.	O	E-GNSS user segment and market development in road	Assessment of usability of Commercial Service Precise Point Positioning in automotive sector	Q4
5.	N	E-GNSS user segment and market development in maritime	Prepare the user segment for the EGNOS v3	Q4
6.	N	E-GNSS user segment and market development in rail	Develop the key enablers for the adoption of E-GNSS in non-safety critical applications, e.g. supporting pilot projects	Q3
7.	O	Authentication and high precision business development	Consolidate the market studies for authentication (Commercial Service and the Open Service) and high precision service of Galileo for professional and mass market users and design roadmap for service delivery	Q4
8.	N	E-GNSS user segment and market development in agriculture	Assess adoption status for Common Agricultural Policy activities and update market entry plan with the experience gathered	Q4

### 03.06 Communications

In 2016 the Agency Communications will achieve the following main objectives:

#### **E-GNSS service, applications, and R&D Communications**

General objectives – supporting the achievement of the E-GNSS Programmes’ overall objectives as defined in the Commission Regulation on the implementation and exploitation of European satellite navigation systems adopted in 2014:

- Raise the overall positive awareness of the existence and high performance of EGNOS and its benefits as a confidence-building measure for European GNSS in general; position EGNOS as the first successful step in the evolution of European GNSS with Galileo poised to add another dimension of increased service for users.
- Increase the awareness and understanding of EGNOS and Galileo, as a useful feature/enabling technology for application developers requiring more precise and reliable PNT information.
- Promote participation in Horizon 2020 research and raise awareness of the results of EU GNSS Framework Programme Research and how the programme and the projects it funds support the growth of GNSS-powered business in Europe in general, and target industry segments in particular.
- Raise awareness of the European GNSS Service Centre (GSC) and the key role it plays in supporting the needs of E-GNSS users.
- Support the European Commission in raising awareness and confidence in Galileo Initial Services.

Provide a PRS Communication policy for approval by the Commission in compliance with the EC-GSA PRS Article 14(c) Arrangement which will allow in particular to determine when and how to stimulate interest and enhance knowledge of the PRS and how potential users, as well as related industries, should prepare now for PRS. Segment-specific objectives—supporting the Agency’s Market Development Strategies:

- **Aviation:** To increase the awareness, credibility, support and acceptance of the benefits that EGNOS has for aviation in Europe, encouraging its further uptake by the community.



- Road: Increase awareness of and interest in what EGNOS brings today, and what Galileo will soon bring, to road applications to support adoption in the sector (focus on Road User Charging, eCall, Advanced Driver Assistance Services, Pay per Use Insurance).
- High Precision: Increase awareness and encourage adoption of EGNOS (and the EGNOS Data Access System) and Galileo by organisations relying on high precision information (focus on precision agriculture, mapping, and surveying).
- Maritime: Continue to raise awareness of how EGNOS and Galileo can benefit the sector. Focus on the benefits it can offer to specific segments of the market (focus on commercial and leisure coastal and inland waterway navigation).
- Rail: Continue to raise awareness of how EGNOS and Galileo can benefit the sector.
- LBS/Consumer applications: Continue to raise awareness of how EGNOS and Galileo can benefit location-based services.

### **Corporate Communications**

- Define and clarify the evolving role and responsibilities of the European GNSS Agency
- Raise positive awareness of the Agency, its activities, achievements and key staff

### **Internal Communications**

- Increase and improve internal communications within the Agency.

### 03.06.01 Tasks: Communications

Task	State	Name	KPI/Deliverable	Timing
<b>E-GNSS service, applications and R&amp;D Communications</b>				
1.	O	Continue to support and expand EGNOS branding and identity	<ul style="list-style-type: none"> <li>Branding used on all GSA materials (including harmonisation with partners, projects and stakeholders)</li> <li>2 revisions of existing leaflets &amp; necessary reprints</li> <li>5 target specific advert insertions in trade magazines.</li> <li>1 new EGNOS sector video (long &amp; short version)</li> <li>4-6 new news stories per month published on Agency managed web sites.</li> <li>4 – 8 social media updates per month</li> <li>5-6 targeted press releases</li> <li>Support of 10-12 EGNOS and Galileo sector-specific events</li> </ul>	Q1-Q4
2.	O	Update existing EGNOS-Galileo segment- specific videos as needed	1 update	Q4
3.	N	Leverage ‘video-friendly’ E-GNSS milestones, such as flight trials and new application demonstrations, etc. by producing and distributing video material of the achievements to relevant target user sectors and the media	Film 3-4 new video-friendly demos	Q4
4.	N	Add, update and refine new relevant information, tools and helpful features on the GSA websites	8-10 updates per month	Q4
5.	O	Publish regular electronic targeted newsletters based on content from the GSA websites	Quarterly newsletters	Q4
6.	N	Leverage mailing lists to send targeted communications on E-GNSS and Horizon 2020	Quarterly targeted mailings	Q4
7.	O	Leverage event participation to negotiate positive coverage of E-GNSS in associated sector-focused media channels	<ul style="list-style-type: none"> <li>On-going leverage of EGNOS Portal news stories</li> <li>Related event coverage in 4-5 event media channels</li> </ul>	Q4
8.	N	Build and maintain comprehensive user segment-specific and relevant national, Europe-wide and international media lists in order to deliver timely well-directed messages to key media information multipliers	Full, updated media contact list by sector accessible via email database	Q2
9.	N	Leveraging the lists above, deliver segment and market-related news on a regular basis on EGNOS and Galileo to the relevant media channels	8 press releases and 2 video news releases delivered	Q4

Task	State	Name	KPI/Deliverable	Timing
10.	O	Continue support of the European Satellite Navigation Competition (ESNC), leveraging this communications and networking tool and continue awarding the annual GSA ESNC Special Topic Prize	Agency sponsorship of 2016 contest and the awarding of an annual GSA Special Topic Prize	Q4
11.	O	Continue to support the European Space Expo, in cooperation with the Commission, leveraging its communications potential for E-GNSS	Update existing and create 1 new application kiosk as well as support the successful placement of the Expo at key locations across Europe	Q1-Q4
12.	N	Update promotional and communications materials for the European GNSS Service Centre (GSC)	<ul style="list-style-type: none"> <li>• Revision of GSC leaflet</li> <li>• 6-8 web site updates per month</li> </ul>	Q1 Q4
13.	N	Raise awareness of, and communicate, Galileo Initial Services.	<ul style="list-style-type: none"> <li>• On-going references from articles and content on other Agency websites.</li> <li>• Creation and distribution of 2-3 informational mailing lists.</li> <li>• Communicate Galileo Initial Services at 15-20 events during the year.</li> <li>• 1 Galileo Initial Services Video (long and short video)</li> <li>• Galileo Initial Services branding used on all relevant materials.</li> </ul>	Q1-Q4 Q4 Q4
14.	N	Production of promotional material (print and audio-visual) on the PRS, to be approved by the Commission in accordance with the GSA PRS Communication policy.	<ul style="list-style-type: none"> <li>• Revise and reprint brochure</li> <li>• Production of 5-7 minutes EN video</li> <li>• Creation and distribution of a first PRS newsletter for CPAs</li> <li>• Promote the PRS at 1-2 events during the year.</li> </ul>	Q1-Q4
<b>GSA Corporate Communications</b>				
15.	O	Publicise the Agency with key institutional stakeholders, institutional partners and the general public.	<ul style="list-style-type: none"> <li>• Refined, consistent, evolved look for the Agency</li> <li>• Refinement and distribution of GSA fact file</li> <li>• 1 GSA-related news story, and 4 – 6 info updates per month on Agency web sites.</li> <li>• 3-5 social media updates per month</li> <li>• 3-4 GSA related press releases</li> <li>• Text, layout and distribution of 3 newsletters</li> <li>• Agency promotion at GSA-managed communication events</li> </ul>	Q1-Q4
<b>GSA Internal Communications</b>				
16.	N	Implement Agency Internal Communications Plan	GSA staff communications actions as defined in 2016 plan	Q4

### 03.07 Support Services

Note that the support services are financed out of Title 1 or Title 2 of the Agency's budget and therefore do not need a separate financing decision as they are covered by administrative autonomy. The Agency's Administrative Board is not being asked to approve this section; it is provided for information only.

#### 03.07.01 Information and Communications Technology

In 2016 the Agency will accelerate its efforts on information security, particularly in view of the results of recent network audits. It also intends to focus on improvement of systems, new features and projects supporting the business.

- Task 1 shall deliver a new communication system allowing classified communication between the headquarters and the GSMC sites.

Task	State	Name	KPI/Deliverable	Timing
1.	N	Improvements in IT Security and information security management	Readiness for ISO 27001 certification	Q4

#### 03.07.02 Facility Management and Logistics

Following the takeover of the whole building of the Agency's headquarters from the Czech Ministry of Finance in 2015 the newly established Facility Management and Logistics team will focus on stabilisation and improvement of the business processes and procedures with a focus on reduction of costs and manpower required for this activity.

Task	State	Name	KPI/Deliverable	Timing
1.	N	Stabilise the operational procedures in Facility Management and Logistics	Activity / cost plan for 2017-2020	Q4

### 03.07.03 Human Resources

The Agency's Human Resources department contributes to the achievement of the Agency's goals and challenges by providing services that promote a work environment characterized by fair treatment, solid moral attitude, effectiveness, flexibility, transparency, trust and mutual respect in the context of principles and rules of the European Union.

The main priorities for 2016 are to contribute to a corporate spirit, increase retention of the workforce and to increase the attractiveness of the Agency as an employer, provide good administration and care for staff, ensure an efficient allocation of resources and promote staff and organisational development

Task	State	Name	KPI/Deliverable	Timing
1.	O	Staff and organisational development.	<ul style="list-style-type: none"> <li>• Learning and Development Framework 2016 drafted and implemented</li> <li>• Agency and department development activities as well as personal learning and development maps implemented effectively and efficiently</li> <li>• Career path policy and staff development strategy</li> <li>• Career development advisor services</li> <li>• Management Academy</li> <li>• Performance management</li> <li>• Promote GSA spirit and one team approach</li> </ul>	Q1-Q4
2.	N	Efficient organisation	<ul style="list-style-type: none"> <li>• Assessment of efficient and effective usage of available resources in line with Agency priorities</li> <li>• Continuous alignment of the GSA HR Strategy with GSA quality management</li> <li>• Streamline HR processes (HR software)</li> <li>• Tailored reporting for stakeholders</li> </ul>	Q1-Q4
3.	O	Recruiting the best candidates	<ul style="list-style-type: none"> <li>• Implement online recruitment tool</li> <li>• Clear, simple and transparent communication on employment opportunities and conditions</li> <li>• Behavioural testing of candidates</li> </ul>	Q1-Q4

Task	State	Name	KPI/Deliverable	Timing
4.	O	Good administration and care for staff	<ul style="list-style-type: none"> <li>Complying with the regulatory framework.</li> <li>Practical support to employees</li> <li>Support programmes for family members (job search support, language courses, networking, etc.)</li> <li>Supporting work-life balance</li> <li>Prevention and support in managing difficult situations at the workplace</li> <li>Prevention programmes of occupational diseases</li> </ul>	Q1-Q4
5.	O	Contract management	<ul style="list-style-type: none"> <li>Medical advisor in Prague</li> <li>Provision of interim services in Prague</li> <li>HR consultancy services</li> <li>All contracts drafted, amended, signed and processed accurately in a timely manner</li> </ul>	Q1- Q4

#### 03.07.04 Legal and Procurement

The Agency's Legal and Procurement Department is responsible for providing legal, procurement, grants and contract management services for the Agency, for both its core and delegated tasks.

Task	State	Name	KPI/Deliverable	Timing
1.	O	Provide legal advice and support for all Agency tasks	Ensure overall legal coverage	Q1-Q4
2.	O	Provide legal support to the Administrative Board	Effective running of Administrative Board	Q1-Q4
3.	O	Substantially contribute to inter-institutional relations (Commission-ESA...)	Effective cooperation with other institutions	Q1-Q4
4.	N	Stabilise the Agency's grant management function.	Effective agency-wide structure and support achieved	Q1-Q4
5.	O	Achieve planned procurements and grants with flexibility for additions	Contracts or agreements signature and budget execution	Q4

### 03.07.05 Project Control

The Agency's Project Control department, alongside its main EGNOS Exploitation and Galileo Exploitation tasks, is responsible for ensuring corporate level document management and the effective management of the Administrative Board and associated programming documents, in particular the Annual Work Programme and Annual Activity Report, in cooperation with the Legal Department.

Task	State	Name	KPI/Deliverable	Timing
1.	O	Prepare Administrative Board and associated programming documents in cooperation with the Legal department	Effective running of Administrative Board	Q1-Q4
2.	O	Embed new Agency-wide document management procedure and document management system in cooperation with the ICT department	Effective document management put in place	Q1-Q4

### 03.07.06 Finance

The Agency's Finance department is responsible for all financial management, budgeting and reporting.

Task	State	Name	KPI/Deliverable	Timing
1.	O	Managing & processing more than 4500 transactions in 2016 (commitments, payments, recovery orders, transfers, reimbursements, cash requests, etc.)	All transactions documented properly and processed within the appropriate operational and legal deadlines	Q1-Q4
2.	O	Budgetary and statutory external and internal reporting	All reports delivered on time	Q1-Q4
3.	O	Management of all administrative, financial and contractual provisions for all grants Horizon 2020, FP-7, Fundamental Elements and other EGNOS and Galileo grant schemes	Grant processes handled on time and with a high degree of quality. No observations from the European Court of Auditors or the Internal Audit Service in relation to grant management	Q1-Q4
4.	O	Grant ex-post audits launched and concluded on time in order to provide assurance to the Agency's external auditors	All audit reports finalised before the Agency's financial statements are closed. Grants error rate to remain below the Commission average	Q2

### 03.07.07 Internal Control

The Internal Control Coordinator is responsible for ensuring that all appropriate internal control mechanisms are defined and operated.

Task	State	Name	KPI/Deliverable	Timing
1.	O	Management of all internal control functions, including relations with the Internal Audit Service	No critical observations raised by the Internal Audit Service	Q1-Q4



## Appendix I – Foreseen Procurement

The overall budgetary allocation reserved for operational procurements and subsequent contracts in 2016 amounts to 9 037 606 EUR, including EFTA contribution under the Agency's own budget. The overall budgetary allocation reserved for administrative expenditure for 2016 amounts to 20 123 204 EUR.

Please note that the budgetary figures listed in the following tables are all indicative, as are the launch dates for the procurements.

### I.01 Agency Management

Task	Name	Legal Basis	Procurement Launch Date (Indicative)	Budget (Indicative)	Type of contract	Number of contracts
1-4	Continuous Improvement of the GSA Integrated Management System (IMS) and maintenance of ISO 9001 certification, Adaptation of IMS to higher staff numbers and multi-site operations, Extension of IMS scope according to Agency's requirements	GSA Regulation	Q1	330,000	Specific Contract	4-6

Furthermore, should there be any budget available due to unpredictable efficiencies during the course of the year, the following projects will be considered:

Task	State	Name	KPI/Deliverable	Timing	Indicative Amounts	Type of contract
1.	N	Business Process Modelling	Develop a consistent high-level modelling of processes across all departments	Q1	30,000	Specific Contract

Task	State	Name	KPI/Deliverable	Timing	Indicative Amounts	Type of contract
2.	O	IMS Refresher Training	IMS and ISO 9001 related training made available and delivered Refresher training on ISO 27001 and Safety Management System	Q4	20,000	Specific Contract
3.	N	Best Practice Propagation	Best Practice examples at GSA identified, adapted to other department's needs and propagated Benchmarking with appropriate Best Practices at stakeholder institutions	Q2	40,000	Specific Contract
4.	N	Centralised tracking of audit recommendations	Implement the centralised tracking of audit recommendations and their follow-up across all sites and audit types.	Q3	20,000	Specific Contract

## I.02 Security Activities

The Agency does not plan to spend any core budget from title 3 for Security activities in 2016; nevertheless, should the Commission require the tasks related to the PRS Decision to be implemented, then an update of the Work Programme would be required.

## I.03 Security Accreditation

Task	Name	Legal Basis	Procurement Launch Date (Indicative)	Budget (Indicative)	Type of contract	Number of contracts
3,4,5,8	Support services to independent reviews of security accreditation documentation (LOT 1)	GSA Regulation	Q2; Q4	250 000	Specific Contract(s)	1-3
8, 9	Support services to independent network security testing (LOT 2)	GSA Regulation	Q2; Q4	250 000	Specific Contract(s) or new procurement	1-3
14, 12, 13	Support services to new tasks of the SAB (LOT 3)	GSA Regulation	Q2	250 000	Specific Contract(s) or new procurement	1-3

Task	Name	Legal Basis	Procurement Launch Date (Indicative)	Budget (Indicative)	Type of contract	Number of contracts
All tasks	Independent experts services	GSA Regulation	Q2	100 000	Specific Contract(s) or new procurement	1-5
All tasks	Security assessment and outreach services	GSA Regulation	Q2	200 000	New procurement	1
	<b>Total</b>			1 050 000		

## I.04 GSMC Operations

Task	Name	Legal Basis	Procurement Launch Date (Indicative)	Budget (Indicative)	Type of contract	Number of contracts
1 to 3	EU-CERT-2016	GSA Regulation	Q1	65 000	Agreement GSA-EU CERT	1
1 to 3	SECTRA Network Acquisition and Maintenance	GSA Regulation	Q2	30 000	Specific contract	1
1 to 7	Quality Management Support	GSA Regulation	Q1	180 000	Specific contract	1
1, 2, 3, 7	Engineering support to GSMC Operations	GSA Regulation	Q2-Q4	1 686 313	Specific contract	2
4 to 7	Engineering support to GSMC Hosting Services	GSA Regulation	Q2-Q4	1 486 313	Specific contract	2
1 to 3	Security Monitoring Advanced Expertise	GSA Regulation	Q2-Q4	200 000	Specific contract	1-2
	<b>Total</b>			3 647 626		

## I.05 Market Development

Task	Name	Legal Basis	Procurement Launch Date (Indicative)	Budget (Indicative)	Type of contract	Number of contracts
1, 2, 3, 4.	E-GNSS user segment and market development in Transport (Aviation, Road, Rail, Maritime)	GSA Regulation	Q1-Q4	649 980	Specific contract	4-7
5, 6, 10.	E-GNSS user segment and market development in high precision and authentication	GSA Regulation	Q2-Q4	330 000	Specific contract	3-5
7.	E-GNSS user segment and market development in mass market segments	GSA Regulation	Q1-Q3	200 000	Specific contract	2-4
8, 9.	E-GNSS user segment and market development for governmental users and timing synchronization	GSA Regulation	Q3-Q4	190 000	Specific contract	2-5

Task	Name	Legal Basis	Procurement Launch Date (Indicative)	Budget (Indicative)	Type of contract	Number of contracts
11, 12, 13, 14	Market monitoring, including cost benefit analysis on mission evolution and technology monitoring in all market segments	GSA Regulation	Q2-Q3	640 000	Specific contract	3-5
16	Update of user oriented strategy.	GSA Regulation	Q4	250 000	Specific contract	2-4
14, 15	User relationship management, including user needs and requirements definition	GSA Regulation	Q4	300 000	Specific contract	2-5
	<b>Total</b>			2 559 980		

## I.06 Communications

Task	Name	Legal Basis	Procurement Launch Date (Indicative)	Budget (Indicative)	Type of contract	Number of contracts
1-12, 14,15, 20-27, 29-35, 37	All work related to web development and maintenance and content development. All work related to the production and design of publications, video and promotional materials. Work related to media relations, newsletters and other communications content support.	GSA Regulation	Q1-Q2	500,000	Framework Contract, Specific Contracts	2-5
1, 12, 13, 16, 18, 20, 21, 28, 29, 36	All work related to the development, production, management, logistics of GSA, EGNOS and Galileo presence and exhibitions and conferences and other promotional events	GSA Regulation	Q1	500,000	Framework Contract, Specific Contracts	5-12
17	Support of the European Satellite Navigation Competition (ESNC), leveraging this communications and networking tool and continue awarding the annual GSA ESNC Special Topic Prize	GSA Regulation	Q1	100,000	Purchase Order	1
	<b>Total</b>			1 100 000		

## Appendix II – Delegated Tasks

The Delegation Agreements between the Commission and the Agency which will be in force during 2016 are:

- Delegation Agreement for the Seventh Framework Programme for Research and Development of the European Union (FP7) (signed in 2011);
- Delegation Agreement for Public Regulated Service (PRS) (signed in September 2011)
- Delegation Agreement for EGNOS Exploitation;
- Delegation Agreement for Galileo Exploitation;
- Delegation agreement for the management of Horizon 2020 projects.

The execution phase of the Delegation Agreement for Implementation of tasks related to the preparation of the Exploitation Phase of the European GNSS Programmes and the Support to the Commission Application Plan (signed in May 2012) is planned to end by 31 December 2015. Therefore, in 2016, the Agency will only finalise reporting obligations and will not undertake further activities.

### II.1 Delegation Agreement for the Seventh Framework Programme for Research and Development of the European Union (FP7)

Applications development and related research & development (R&D) activities are indispensable for the success of European GNSS programmes. While the core Market Development activities described in the previous section are concentrated on generating a demand of EGNOS and Galileo from the different user communities, delegated activities in the R&D field are devoted to create an EGNOS and Galileo offer in terms of applications and other technological components of the user segment.

Furthermore, GNSS market development related research & development is key to maximise Galileo competitiveness vs. GPS, GLONASS and Compass, and to increase the share of the EU industry in the global market. To ensure Galileo take-up, facing these competitive systems' pressure, it is necessary to prepare users and the value chain. Therefore, primary focus should be on road transport and intelligent transport systems, high precision, location-based services, maritime, rail, and aviation.

After successfully completing the period 2007-2013 with impressive achievements in all areas, the European Union's 7th Framework Programme for Research and Innovation paved the way for its successor, Horizon 2020 Programme.

The FP7 Delegation Agreements will be still on-going in 2016 to close the final activities.

## **II.2 Delegation Agreement for Public Regulated Service (2011)**

The Agency provides management of the European Commission PRS Pilot Project 2 (P3RS-2) that started in December 2013. This includes the procurement of 20 PRS pre-operational receivers into two batches of 10 units, each equipped with a different Security Module. Delivery of the initial 20 PRS pre-operational (accredited) receivers to those Member States' CPAs requesting their use for the implementation of PRS Pilot Projects is not foreseen before Q2 2016.

This procurement is ongoing and the Agency does not plan any new procurement in 2016.

## II.2.01 Tasks

Task	State	Name	KPI/Deliverable	Timing
1.	O	Follow up design implementation as defined in the Qualification Review	<ul style="list-style-type: none"> <li>Design and justification files</li> </ul>	Q1-Q2
2.	O	Following equipment evaluation and accreditation	<ul style="list-style-type: none"> <li>Accreditation Statement (first party evaluation)</li> <li>Progress report on second party evaluation activities</li> </ul>	Q1-Q4
3.	N	Performance of P3RS2 receiver qualification programme at PRS Lab as part of the final acceptance of the receivers	<ul style="list-style-type: none"> <li>Acceptance test report</li> </ul>	Q2
4.	N	Implementation of additional P3RS2 activities in support to MS PRS pilot Project Implementation	<ul style="list-style-type: none"> <li>Preparation and Delivery of P3RS2 units to MS according to PRS pilot Project plan as required</li> <li>Technical deliverables associated to the specific tasks (e.g. Maintenance/updates)</li> </ul>	Q1-Q4

### **II.3 Delegation Agreement for the EGNOS Exploitation**

The EC-GSA EGNOS Exploitation delegation agreement was signed on 16 April 2014, delegating 1,450M EUR to the Agency to undertake EGNOS Exploitation tasks over the period 2014-2020. These include the provision of the Open Service, the Safety of Life Service and the EGNOS Data Access Service to users. This agreement defines the EC-GSA link for EGNOS Exploitation as foreseen in the GNSS Regulation. Subsequently, a GSA-ESA Working Arrangement (WA) was signed in July 2015 as also foreseen in the GNSS Regulation. The working arrangement in particular addresses future system upgrades coming after the EGNOS V2.4.1N and V2.4.2 phase B activities that are being completed under the existing EC-ESA EGNOS Delegation Agreement, and the V3 activities.

In addition to the detailed tasks contained in Article 4 of the Delegation Agreement, following the approval of the 2016 EGNOS Exploitation budget, the Agency intends to carry out the following key actions in 2016:

- the signature of EGNOS V2.4.2 phase C/D specific contract between GSA and ESA
- the procurement preparation activities for the EGNOS V3 phase C/D
- the signature of the GEO-3 navigation payload service contract
- Signature of the second set of specific grants for Service Provision Member State Support (SPMS), EUROCONTROL activities and for acceleration of EGNOS adoption in the field of civil aviation (for details, please see reference as Appendix: EGNOS Exploitation Grant Plan 2016)
- As soon as the outcomes derived from the EDAS penetration test are available, the Agency will start the implementation of such recommendations.
- Technical support to the Commission for EGNOS extension beyond the 28 EU Member States (pending Commission approval of related action in the 2016 EGNOS acquisition plan).
- Prepare for and work on accreditation of EGNOS based on results from risk analyses and impact assessment.
- Security activities (including those related to EDAS and the preparation for EGNOS accreditation on the basis of risk analysis and impact assessment results)



The next two sections provide information regarding the grants and procurements the Agency expects to award during 2016. The overall financial envelope for 2016 under this delegation agreement is for 462 million EUR.

The 2016 EGNOS Exploitation grants activities are annexed to this document (Ref: 212562). The most up to date version is available on the Agency's web site at <http://www.gsa.europa.eu/gsa/grants>.

### II.3.01 EGNOS Exploitation Procurement

The following is a list of all procurement currently planned under the terms of the EGNOS Exploitation delegation agreement.

Activity	Title/Description	Type/subject of contracts envisaged (Studies, technical assistance, industrial contracts, etc.)	Type of instrument: procurement/grant	Existing/new contract/agreement	Indicative no of contracts, etc.	Indicative timetable	Funds (000 EUR)
EGNOS service provision customer provision (excluding GEO3)	Enhancement of the ESSP asset management activities	Enabling the management of the assets also for those not operated directly by the current service provider.	Procurement	Existing and new contract amendments/ exercising of options	1	Q4-2016	6 000
	4 Additional RIMS: Kuusamo, Kiev, Oran, Ma'an (survey, works, hosting and maintenance)	Provision for identified changes to the ESSP contract (foreseen options, changes due to new major and minor releases, new RIMS, Agency changes on NOTAM, EDAS, EWA upgrades, etc.). ESP BAFO Option #9 - 3 additional RIMS and hosting and maintenance assuming for 6 years from 1 January 2016 for 3 new sites through change request to the GSA-ESSP contract (2.69 million EUR).	Procurement	Existing and new contract amendments/ exercising of options	1	Q2-2016	
ESP GEO-3 (3F2/3F5/New)	Procurement of GEO3	According to the GEO roadmap approved at S3-CCB on 18 September 2014, a new GEO transponder service shall be available in 2018-2019 to support 3F2/4F2 replenishment and EGNOS v2/v3 testing	Procurement	New	1	Q4-2016	TBC
EGNOS V3 Bridging Phase	GSA-ESA V3 site survey	Survey and study EGNOS v2 sites re-use for EGNOS v3.	Procurement	New	2	Q2-2016	TBC
Activities to be undertaken through GSA-ESA Working Arrangement	GSA-ESA V3 Phase C/D	Through the GSA-ESA Working Arrangement.	Procurement	New	TBC	Q2-2016	TBC
EGNOS Programme engineering support	New support for the Agency Specific Contract: support to be provided for EGNOS related tasks	Lot 1, 2 and 3: engineering support for the Agency's Project Control and Legal departments, security service operations, operations evolutions, EGNOS user segment/support to mission, site engineering and international activities.	Procurement	New	3	Q2-2016	3,000
EGNOS Service Provision enablers (MMAP projects, Standardisation studies, Safety & certification studies)	AIS stations upgrade to retransmit EGNOS corrections received via EDAS	Enabling regulated vessels to receive EGNOS corrections via AIS receivers is the simplest option to provide differential corrections as a complement to DGNSS infrastructure, since regulated vessels are already equipped with AIS receivers. AIS stations will receive EGNOS corrections via EGNOS/EDAS without additional infrastructure and will retransmit them via VHF using message 17. This project will upgrade selected inland and coastal AIS stations in Europe, assess the added value of EGNOS and EDAS for maritime users obliged to use AIS receiver in their operation and demonstrate the benefits to pioneer users.	Procurement	New	1	Q4-2016	1 000
	Support to EGNOS adoption in aviation 2016	Priorities, objectives pursued and expected results: The operational implementation of EGNOS in aviation is a strategic goal to ensure the programme's success. In this context, this activity's objective is to foster EGNOS adoption in European aviation, enabling users to equip their aircraft/rotorcraft fleet with GPS/SBAS enabled avionics, and enabling Air Navigation Service Providers and airports to publish APV SBAS procedures (LPV) in Europe. The priority of the activity will be implementation in regional, business (corporate) aviation, general aviation (training, emergency services) and rotorcraft, considered the main aviation market segments for EGNOS and those maximising public benefits. The result of this activity will be a wide scale operational implementation of the EGNOS based approach throughout European airports and airspace users.	Grant	New	TBC	Q4-2016	6 000
Fundamental elements	EGNOS and SoL Activities - V2 Rx Maritime Receiver Development, Test and Validation compliant with IMO Resolution A.1046	Development of EGNOS v2 Rx compliant with IMO Resolution A.1046.	Grant	New	TBC	Q4-2016	1 000

## II.4 Delegation Agreement for Galileo Exploitation

The GALILEO Exploitation Delegation Agreement between the Commission and the Agency was signed on 2 October 2014. The agreement provides a framework and budget for the development of services and operations through 2021 and serves as an initial step towards the full Galileo Exploitation Phase. Specifically, the Agency's responsibilities include:

- Provision and marketing of the services;
- Management, maintenance, continuous improvement, evolution and protection of the space and ground infrastructure;
- Research and development of receiver platforms with innovative features in different application domains;
- Development of future generations of the system;
- Cooperation with other GNSS;
- Security activities, including supporting the Commission in the definition of activities related to maintaining the security accreditation of Galileo during its exploitation phase, and contributing to the preparation of the security accreditation files for Operational Activities.
- All other required activities to ensure the development and smooth running of the system.

The European Commission remains responsible for the overall programme supervision, while the European Space Agency (ESA) is entrusted with the deployment phase. It is planned to complement this delegation agreement by the GSA-ESA Working Arrangement which is planned to be concluded in the first half of 2016. The GSA-ESA Working Arrangement will in particular address future system upgrades and the remuneration of the ESA Galileo team. The completion of the constellation is covered by the EC-ESA Delegation Agreement.

The Galileo exploitation phase was progressively rolled out in the period 2014 – 2016, with full operability scheduled for 2020. The implementation period of the Agreement runs until 2021, with a comprehensive review of its functioning before the end of 2016. The current EU contribution amounts to EUR 490 million delegated in 2014. It is planned that during 2015 the Delegation Agreement is amended to cover procurement and grant activities, including the GSA-ESA working arrangements and a programme management reserve, along with related research and development activities. The

financing of the full exploitation phase will be confirmed during a mid-term review before the end of 2016.

The 2016 Galileo Exploitation grants activities are annexed to this document (Ref: 216871). The most up to date version is available on the Agency's web site at: <http://www.gsa.europa.eu/gsa/grants>.

#### II.4.01 Galileo Exploitation Procurement

Activity	Title/Description	Type/subject of contracts envisaged (Studies, technical assistance, industrial contracts, etc.)	Type of instrument: procurement / grant	Existing or new	Indicative number of contracts/ grants	Indicative timetable for publication or launch	Funds (000 EUR)
Working Arrangement, system support, ground segment	Galileo GSA-ESA Working Arrangement	GSA-ESA Galileo Working Arrangement Framework	Procurement	New	1	Q3-2016	TBC
	System Support WP1X Framework Contract	Framework Contract for the system part of WP1X	Procurement	New	1	Q1-2016	
	Service support WP1X Framework Contract	Framework Contract for the service part of WP1X	Procurement	New	1	Q1-2016	
	System Support WP1X Work Order 1	Specific Contract for the system part of WP1X to mid-2021	Procurement	New	1	Q1-2016	
	Service support WP1X Work Order 2	Specific Contract for the service part of WP1X to mid-2021	Procurement	New	1	Q1-2016	
	Major release developments WP2X – GMS	Specific Contract under GSA-ESA Working Arrangement: GMS/GSF development (SB 1.6 & 2.0, P2.3 / 3.0) + L2/L3 Maintenance until 2019; also including GSMC Operations Keyboard Video & Mouse (KVM) Switch Deployment and Maintenance; TBC	Procurement	New	1	Q1-2016	
	Major release developments WP3X – GCS	Specific Arrangements under GSA-ESA Working Arrangement Procurement of the future WP3X ground segment (System Build 1.6 & 2.0) and L2/L3 maintenance included until 2019; TBC	Procurement	New	1	Q1-2016	
GSC	GSC V2 Infrastructure SC2	New Specific Contract for GSC V2 Infrastructure Development	Contract Management	Existing	1	Q3-2016	9 000
	GSC SC3 Nucleus	New Specific Contract for GSC nucleus operations and user management from Q3 2016 to hand over to GSC v1 Operations (SC4)	Contract Management	New	1	Q2-2016	
	GSC SC4	New Specific Contract for GSC V1 Operations and V2 Operations preparation, for 18 months	Contract Management	New	1	Q3-2016	
	GSC SC5	New Specific Contract for GSC V1 Hosting and V2 Hosting Service Provision preparation, for 18 months	Contract Management	New	1	Q3-2016	
	GSC CCN to GSC SC1	Contract Change Notice to align Operations with Infrastructure Contract Change Notice + Commercial Service operations	Contract Management	New	1	Q1-2016	
	GSC CCN to GSC SC2	Contract Change Notice to align Hosting Service Provision with Infrastructure Contract Change Notice	Contract Management	New	1	Q1-2016	
GSMC sites	GSMC New Building Definition Study	Objective to stabilise in the long term (post 2017) the capability to host new racks, the recovery of full compliance to GSMC infrastructure requirement baseline (IRD), to host GSMC equipment as specified by ESA as well as for GSMC security requirement baseline (SSRS 3.9)	Procurement	Existing	1	Q2-2016	1 000
	GSMC/FR Electrical systems resiliency	GSMC mission (according SSRS 3.9) requires resiliency of the infrastructure in order to ensure the availability of GSMC operations. In order to achieve such requirement, there is a need to upgrade GSMC (France) Electrical and security systems resiliency	Contract Management	New	1	Q1-2016	
	GSMC Interim Modular Construction	Interim solution to meet GSMC operations needs based on deployment of portacabins in order to mitigate efficiently and at relatively low cost major risks related to limited capabilities of current building to at least 2019.	Procurement	New	1	Q1-2016	
	GSMC/FR security systems resiliency	GSMC mission (according SSRS 3.9) requires resiliency of the infrastructure in order to ensure the availability of GSMC operations. In order to achieve such requirement, there is a need to upgrade GSMC (France) Electrical and security systems resiliency	Contract Management	New	1	Q1-2016	
PRS	Up-to SECRET-UE Communication Networks	Framework contract with a ceiling of 5 million EUR to ensure establishment, continuation and maintenance of up-to SECRET UE GSA networks to interconnect the Agency centres which require such connection and the Commission (with data, voice and video) and potential extension to other stakeholders (e.g. contractors, MS, EEAS) in full support of Service Exploitation	Procurement	New	1	Q2-2016	9 000
	Up-to SECRET-UE Communication Networks	Specific Contract lasting 18 months including initial deployment and accreditation of up to 14 links with GSMC (9 CPAs, 2 GSMC sites, 2 EEAS sites, 1 for possible extension), based on (including spares) 15 SINAs, 15 terminals, 14 switches, 5 servers. This includes the coverage of service provision of this network for 12 months after deployment, based on subscription of 14 private links (all duplicated), training, maintenance and global project maintenance	Contract Management	New	1	Q2-2016	
	Procedures for GSMC Manual release of PRS Keys	Specific Contract to address the issues of POCP unavailability and POCP training preliminary definition	Contract Management	Existing	1	Q1-2016	
	MS Pilot Project implementation support (phase I)	Support to the organisation of Member State pilot projects (material, logistic, engineering support) as per implementation plan to be endorsed by the Commission and based on Member State assets. The final number of grants and budget will be clarified by the Commission launch scrutiny	Grant	New	1	Q1-2016	
	GSMC Security Monitoring of PRS SIS and Navigation Message	This action will not address the monitoring of PRS SIS or navigation performances. Instead it is intended to address the following SSRS requirements on GSMC: <ul style="list-style-type: none"> <li>PRS monitoring (GSC-OURD-543b): requiring the GSMC to have an independent capability to collect and analyse the PRS Signal-in-Space to detect attacks and non-compliance of other GNSS signals in the same bands as PRS</li> <li>PRS GNAV monitoring (GSC-OURD-546 &amp; GSC-OURD-505): validation by the GSMC of GNAV in particular to ensure end to end that GSMC instructions have been properly integrated in PRS GNAV.</li> <li>A TUR-P or similar receiver is envisaged to give such information on security part of the navigation messages</li> </ul>	Procurement	Existing	1	Q3-2016	

Activity	Title/Description	Type/subject of contracts envisaged (Studies, technical assistance, industrial contracts, etc.)	Type of instrument: procurement / grant	Existing or new	Indicative number of contracts/ grants	Indicative timetable for publication or launch	Funds (000 EUR)
	PRS Engineering Support SC6	New PRS engineering Specific Contract for development of PRS user segment documentation (e.g. training and dissemination material), implementation and maintenance of the PRS DMS, development of PRS related quality processes and documentation).	Contract Management	New	1	Q2-2016	
	New Agency support Specific Contract: support to be provided for Galileo related tasks (security lot only)	Lot 2: support for security engineering for PRS SSRS related activities, PRS technical and standardisation activities, PRS and security documentation and configuration control, Crypto Distribution operations engineering and development and exploitation of a PRS Security Monitoring capability	Contract Management	New	1	Q2-2016	
Search And Rescue	SAR RLSP option	To be agreed between the Agency and the Commission in line with EC-CNES Agreement	Contract Management	New	1	TBC	TBC
	SAR SGDSP	To be agreed between the Agency and the Commission in line with EC-CNES Agreement	Contract Management	New	1	TBC	
GRC	GRC Support from MS	Framework Partnership to fund Member State contributions to the GRC including provision of data, products or campaign-based analyses	Grant	New	1	Q1-2016	19 000
	GRC Support from MS	Specific Grant 1 to fund Member States contributing to the GRC including provision of data, products or campaign-based analyses.	Grant	New	1	Q3-2016	
	MS PRS monitoring	Framework Partnership to fund contribution of Member States to GRC PRS navigation monitoring including provision of data, products or campaign-based analyses.	Grant	New	1	Q2-2016	
	MS PRS monitoring	Specific Grant 1 to fund Member State contributions to the GRC on PRS navigation monitoring including expected contributions of provision of data, products or campaign-based analyses	Grant	New	1	Q2-2016	
	GRC equipment, operations, Hosting Services & maintenance Framework Contract	Framework Contract to procure GRC equipment, operations support, Hosting Services, and maintenance	Procurement	New	1	Q1-2016	
	SC1 Hosting Services	Specific Contract to procure Hosting Services for the GRC from mid-2016 to mid-2020	Contract Management	New	1	Q1-2016	
	SC2 Equipment Development	Specific Contract 2 for the development of GRC equipment as the Agency's independent means of evaluating the performance of the Galileo Service Operator (GSOOp) and quality of the signals in space, from mid-2016 to Q3 2017	Contract Management	New	1	Q1-2016	
	TGVF Duplication	TGVF Duplication (GRC v0) to ensure start of GRC operation as soon as possible a duplicate of the TGVF will be made available to the GRC operator	Procurement	New	1	Q2-2016	
	GRC PRS study	GRC PRS study to support the definition of a suitable approach for independent navigation PRS monitoring	Procurement	New	1	Q3-2016	
Exploitation and standardisation support	PRS JRC activities Administrative Arrangement	Administrative Arrangement for JRC Activities in line with GSA-JRC Technical annex. Activities and may include (but not be limited to): • Support to PRS and security delegated activities, Exploitation activities, Service Definition, Service Validation, GRC, GSC • Fundamental Elements Definition and Follow-up, Testing Campaigns and Interaction with receiver manufacturers	Procurement	New	1	Q2-2016	8 000
	New Agency support Specific Contract: support to be provided for Galileo related tasks (excluding security lot)	Lot 1 and 3: support for engineering activities including initial services, GSOOp operations, GDDN telecommunications, ground segment operations, service facilities operations, infrastructure evolution, system and ground segment development, standardisation support, receiver engineering support, technical tasks for non-PRS Galileo User Segment, schedule and risk management, cost contract engineering, configuration & document management, assets management and legal support	Contract Management	Existing	3	Q2-2016	
Fundamental elements	Integration	FE Integration / State of the art: objective is to maximise impact of FE on EGNSS user adoption, creating synergies among all projects and granting proper optimisation of products and technologies developed. The project will analyse technical developments, identify synergies, perform cross fertilisation and recommend, via independent assessment, potential improvements to inject in projects. It will support verification and validation of the products in order to broader applicability of results. This task will also include the management of IPRs. Specifically, the state-of-the-art analysis is dedicated for the project preparations, in order to maximise the output of the projects by ensuring in-depth understanding of the state of the arts in terms of products on the market and available technology. A preliminary study on Commercial Service operational guidelines for receiver development	Contract Management	New and Existing	2	Q1-2016	26,000
		Specific Contract 1 under Framework Contract Integration	Contract Management	New	1	Q3-2016	
		FE Integration / Methodology: objective is to maximise the impact of FE on EGNSS user adoption, creating synergies among projects and granting proper optimisation of products and technologies developed. Project will analyse the technical developments, identify synergies, perform cross fertilisation and recommend, via independent assessment, potential improvements to inject in projects. It will support products verification and validation to broader applicability of results. This task will also include IPRs Management. Specifically, these activities will define approach to technical updates, periodic reviews in order to maximise cross fertilisation; Integrated system to organise and compare relevant deliverables, experts, dedicated working groups to assess and formulate recommendations of potential improvements and proper optimisation of projects' activities; Strategy of commercialisation of projects' results, including outreach activities, stakeholders' engagement, business plan, etc. Also, analyse needs and propose a document sharing platform that enables efficient and user-friendly assessment of projects deliverables and outcomes, shared between the Agency, Fundamental Elements' projects consortia and the Integration project's beneficiaries, with the applicable level of confidentiality	Contract Management	New	1	Q1-2016	



Activity	Title/Description	Type/subject of contracts envisaged (Studies, technical assistance, industrial contracts, etc.)	Type of instrument: procurement / grant	Existing or new	Indicative number of contracts/ grants	Indicative timetable for publication or launch	Funds (000 EUR)
		FE Integration /Communication activities: objective is to maximise impact of FE developed on EGNSS user adoption, creating synergies among all projects and granting proper optimization of products and technologies. Project will analyse technical developments, identify synergies, perform cross fertilisation and recommend, via independent assessment, potential improvements to inject in projects. It will support verification and validation of products in order to broader applicability of results. This task will also include management of IPRs. Specifically, purpose of FE information activities and awareness activities (March 2016) is to support FE general communication, as well as specific dedicated to open calls, support and enhance networking among possible partners to ensure high-quality proposals, etc.	Contract Management	New	1	Q1-2016	
		New Framework Contract covering all the remaining Integration activities and years. The objective is to maximise impact of fundamental elements developed in the program on EGNSS user adoption, creating synergies among all projects and granting proper optimisation of products and technologies. The project will analyse technical developments, identify synergies, perform cross fertilisation and recommend, via independent assessment, potential improvements to inject in projects. It will support verification and validation of products in order to broader applicability of the results. This task will also include the management of IPRs.	Procurement	New	1	Q2-2016	
	Safety-of-Life Advanced RAIM Multiconstellation Receiver	This project is complementary to a H2020 project and linked to a later one to be kicked-off in Q4 2016. Advanced (A) RAIM (Receiver Autonomous Integrity Monitoring) is a concept to which much effort is being devoted to provide a global integrity service based on multiple satellite constellations. The project will: <ul style="list-style-type: none"> <li>Develop an Advanced RAIM prototype, following the lines defined by ARAIM TSG. The developed prototype may be used in a demonstration campaign.</li> <li>Analyse a possibility to achieve less stringent performance to support Horizontal navigation only</li> <li>Assess ARAIM in aviation domain: enabling global Horizontal Navigation as well as Vertical (LPV-200) operations including threat allocation and mitigation and second.</li> <li>Assess ARAIM in maritime Domain: enabling marine global general navigation providing integrity, especially when receiver is outside coverage of IALA Beacon Differential GNSS transmissions.</li> <li>Test the performance in a number of test scenarios for safety critical applications (aeronautical, maritime, rail and road).</li> </ul>	Grant	New	1	Q3-2016	
	Others: Open Service Authentication User Terminals	Design, development and test of receiver integrating OS Authentication capability. Terminals qualification in targeted scenarios: regulated applications (e.g. digital tacograph), non-regulated app. (e.g. commercial sensitive LBS). Performance tests to be carried out to evaluate/validate OS Authentication added value by conducting spoofing and meaconing attack tests. Three sub-projects are identified: <ul style="list-style-type: none"> <li>Specifications of interfaces and APIs for silicon-embedded chipsets, firmware based equipment and devices operating systems to enable a wide market take off of OS Authentication</li> <li>Development and test of OS Authentication capability in receivers and devices for regulated applications (e.g. digital tacograph) and consumer applications (e.g. commercially sensitive LBS)</li> <li>Development of end-to-end validation facility in order to generate navigation scenarios (with OS Authentication data), feed receiver with RF signal (with OS Authentication), and conduct spoofing and meaconing attacks to validate the receiver in selected target applications.</li> <li>Include central authentication management software development to enable end-to-end user solutions.</li> </ul> This project has a dependency on ICD service definition for Open Service authentication to follow as inputs from a Commission project. However, as a mitigation it is planned to leverage results from a related study on OS receiver guidelines.	Procurement	New	1	Q4-2016	
	Timing receiver for critical infrastructure	Development and Test of Galileo timing receivers. The objective is to have a low cost Galileo receiver able to determine the timing with high accuracy in bias and drift. The output to be provided are 1pps and 10MHz signals. An interface through NTP and IRIGB shall be implemented. The project will also include a demonstration campaign with real data. Publication postponed from Q2 to Q4 2016 due to Agency resource constraints. This project has a critical dependency on the service concept definition to follow as inputs from Commission project “Robust EGNSS timing services”, planned to be available in Q1 2017.	Procurement	New	1	Q4-2016	
	Safety-of-Life MEOSAR Beacon prototyping	Development and testing of a Galileo based MEOSAR beacon with at least the following capabilities: <ul style="list-style-type: none"> <li>independent location accuracy</li> <li>cancellation function</li> <li>better encoded location</li> <li>improved location accuracy, availability and TTF</li> <li>Return Link Service (RLS)</li> <li>additional data encoded in beacon message</li> <li>automatic ELT activation on indication of emergency</li> </ul>	Grant	New	1	Q4-2016	
	PRS Activities: FRAME - SC2	The second Specific Contract of Frame will cover activities linked to the outcome of the first Specific Contract and the renewal of the FRAME Framework Contract if additional activities are deemed necessary	Contract Management	New	1	Q3-2016	

Activity	Title/Description	Type/subject of contracts envisaged (Studies, technical assistance, industrial contracts, etc.)	Type of instrument: procurement / grant	Existing or new	Indicative number of contracts/ grants	Indicative timetable for publication or launch	Funds (000 EUR)
	CS User Terminals	<p>One single Call for Proposal for 2 projects: Development, testing commercial-grade, miniaturised receivers/terminals and demonstration for target domains as, for example (but not limited to): Surveying, Automated steering in Agriculture, civil protection and emergency services. Such receivers should be able to use the added-value services part of the CS, specifically being capable of exploiting High Accuracy corrections delivered through the E6 channel and to use the Authentication service to avoid spoofing. Concerning High Accuracy, the receivers shall include flexible Navigation Message decoding function in order to cope with potential different High Precision service provider formats. For Authentication, the devices need to have cryptographic capabilities in order to process the keys that will be delivered by the Authentication Service Provider via the E6 channel and will need to be certified. Innovative receivers capable of combining both services to produce “Authenticated High Precision” should be developed.</p> <p>A list of input key documentation, such as the ICD service definition, that should serve as inputs for the project definition is under preparation to be shared and discussed with EC. The project will start after the mature CS design is available.</p>	Grant	New	1	Q3-2016	



## II.5 Delegation Agreement for Horizon 2020

The European Commission delegated to the European GNSS Agency the implementation of Horizon 2020 - Framework programme for research and innovation, based on the Delegation Agreement signed in April 2014. The maximum amount of the Union contributions to the Agency for the duration of the Agreement shall be EUR 168 million based on the Transfer of Funds Agreements (and an amendment) signed in 2014 and in 2015.

According to the general provisions of Delegation Agreement, the Commission entrusts the Agency with the implementation of tasks under the following part of the 2014-2015 Work Programme implementing the Horizon 2020 Specific Programme: Galileo-related activities within the activity "Space" of the specific objective "Leadership in Enabling and Industrial Technologies" of Part II "Industrial leadership".

The Agency's main tasks include the management of grant award procedures for the call for proposals, as well as the grants' awarded management without a call for proposals covered by a transfer of funds agreements such as the publication of the call<sup>15</sup>. Moreover, the Agency shall manage all of the stages in the lifetime of actions supported by grants awarded under a transfer of funds agreement, using the IT tools developed for the purpose of managing Horizon 2020.

The Agency shall be responsible for monitoring the projects, making the necessary checks and recovery procedures, and for performing budget implementation tasks covering revenue and expenditure within the meaning of the Financial Regulations. The Agency shall also conclude public procurement procedures and manage the ensuing contracts - including the operations required to launch public procurement procedures and shall also provide support to the Commission in implementation of the Galileo-related activities.

In 2016 the Agency will manage 27 projects from Horizon 2020's first and second calls. The former were kicked off in the first quarter of 2015, while the latter will be kicked off at the beginning of 2016). The Agency will not launch any calls in 2016, but is already involved in the preparation of calls foreseen for the biennium 2017-2018.

---

<sup>15</sup> See reference to calls: <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-galileo-2014-1.html#tab2>

The list of projects that the Agency shall manage in 2016 is shown below

Acronym	Title
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	ERTMS 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

As part of the H2020 Delegation, the Agency will organise events and other opportunities to promote the participation in and results of the programme. This will include the organisation of the forth ‘European Space Solutions’ conference and exhibition, as part of a broader ‘European Space Week’ event, to be held during the 2016 Dutch Council Presidency in The Hague.

## II.5.01 PRS Procurement under H2020

In addition to the above mentioned tasks, the Agency has also endorsed the launch and management of PRS user segment related procurements organized into two Items.

In 2016, all the procurement under H2020 PRS will start (or will have started by Q4 2015) and the Agency will have to ensure the project and technical management of all the procurement actions. In total 5 procurements (1 under H2020 PRS Item 1, and 4 under H2020 PRS item 2) will be running.

The list of PRS User segment procurement that the Agency shall manage in 2016 is shown below:



Acronym	Title	Comments
DISPATCH	Development of Innovative PRS server based TeCHnologies to support future applications	H2020- PRS Item 1. 1 contract
PRISMA	Development of low end operational PRS receivers including security modules architectures	H2020-PRS Item 2 4 contracts

## Appendix III – Draft Budget 2016 and Establishment Plan 2016

### III.1 Draft Budget 2016<sup>16</sup>

EXPENDITURE	Commitment appropriations				
	Executed Budget 2014	Budget 2015	Draft Budget 2016		VAR 2016/ 2015 (%)
			Agency request	Budget forecast	
<b>Title 1 - Staff expenditure</b>	11,223,341	13,860,115	14,952,000	14,952,000	7.88%
Salaries & allowances	9,646,842	11,438,115	12,500,000	12,500,000	9.28%
- Of which establishment plan posts			9,963,027	9,963,027	
- Of which external personnel			2,536,973	2,536,973	
Expenditure relating to Staff recruitment	110,400	120,000	130,000	130,000	8.33%
Mission expenses	1,143,340	1,440,000	1440000	1440000	0%
Socio-medical infrastructure		60,000	60,000	60,000	0%
Training	322,499	200,000	220,000	220,000	10%
External Services		600,000	600,000	600,000	0%
Receptions, events and representation	260	2,000	2,000	2,000	0%
Social welfare					
Other Staff related expenditure					
<b>Title 2 - Infrastructure and operating expenditure</b>	6,364,293	5,760,000	5,171,204	5,171,204	-10.22%
Rental of buildings and associated costs	2,187,627	3,100,000	3,040,000	3,040,000	-1.94%
Information, communication technology and data processing	2,776,134	1,200,000	916,204	916,204	-23.65%
Movable property and associated costs	245,417	220,000	100,000	100,000	-54.55%
Current administrative expenditure	856,493	900,000	800,000	800,000	-11.11%
Postage / Telecommunications	242,122	275,000	250,000	250,000	-9.09%
Meeting expenses	56,500	65,000	65,000	65,000	0%
Running costs in connection with operational activities					
Information and publishing					
Studies					
Other infrastructure and operating expenditure					
<b>Title 3 - Operational expenditure</b>	7,781,424	7,986,300	9.037.606	9.037.606	13.16%
<b>TOTAL</b>	25,369,058	27,606,415	29,160.810	29,160.810	5.63%

'Title 3' expenditure is further detailed in section 02 - Budget.

<sup>16</sup> Draft budget as adopted by the Agency's Administrative Board in March 2015 (Ref: GSA-AB-41-15-03-05-04)

## III.2 Human Resources 2016

The breakdown of the Agency staff, as per the published Multi-Annual Staff Policy Plan is as follows:

Staff population		Staff population in 2016
Officials	Administrator Assistant	
Temporary Agents	Administrator Assistant	108 5
<b>Total Temporary Agents</b>		<b>113</b>
Contract Agents GF IV		31
Contract Agents GF III		6
Contract Agents GF II		3
Contract Agents GF I		
<b>Total Contract Agents</b>		<b>40</b>
Seconded National Experts		4
Structural service providers <sup>17</sup>		35
<b>TOTAL</b>		<b>192</b>

The Agency is facing multiple resources constraints. Firstly, it suffered from double cuts in planned resources while more tasks were delegated to it. Secondly the staff complement was negatively affected by the applicable correction coefficient. These two factors affect the workforce in different ways. Operational departments have found a partial solution by contracting external experts and consultants to make up for the lack of temporary agents and to mitigate the difficulties with recruiting specific competencies. In order to develop and maintain efficient and professional business support, the administration seeks to counterbalance the lack of staff by hiring a higher number of contractual agents. Notably, a number of newly recruited contractual agents such legal and grants officers are directly working on operational activities. Although these are part of the administrative workforce, substantively they are working for operational activities.

The Agency is aware of its commitments towards the budgetary constraints with regard to contractual agents and strives to limit the numbers within the budgetary boundaries,

---

<sup>17</sup> Service providers are contracted by a private company and carry out specialised outsourced tasks of horizontal/support nature, for instance in the area of information technology. The following general criteria should be fulfilled: 1) no individual contract with the Agency; 2) work on the Agency's premises, usually with a PC and desk; 3) administratively followed by the Agency (badge, etc.) and 4) contributing to the value added of the Agency.

Additionally, an internal re-deployment of temporary agents and contractual agents is applied through an independent annual assessment of immediate needs. This assessment is carried out by an independent external consultancy whose recommendations are used by the Agency to decide on the best allocation of staff to the various activities and possible internal re-deployment to identified peak activities.

Overall, most of the staff employed is in operational activities, namely 82% of the total employees.

The Agency has refined the approach used to determine the split of resourcing between operational and general administrative tasks to give a more accurate representation of the Agency. In particular it developed a model based on an examination of the main operational tasks of the Agency, and an appropriate allocation of staff resourcing in the Director's Office, Legal and Procurement, ICT, Human Resources and Finance teams to these operational tasks and to general administration.

The following charts show the staff distribution according to key operational and administration support functions forecast to be achieved by end 2016. It is to be noted that the split of resourcing between operational and administrative activities is done using an activity-based model that allocates resourcing to the various activities by taking the day-to-day workload into consideration.

Area of activity		2014	2015	2016
Delegated tasks	<b>EGNOS Exploitation</b>			
	Temporary Agents	15	15	15
	Contract Agents, Seconded National Experts	2	2	1
	Total	17	17	16
	<b>Galileo Exploitation</b>			
	Temporary Agents	29	30	41
	Contract Agents, Seconded National Experts	0	1	2
	Total	29	31	43
	<b>Research &amp; Development (H2020)</b>			
	Temporary Agents	5	6	6
	Contract Agents, Seconded National Experts	5	5	5
	Total	10	11	11
Core Tasks	<b>Security accreditation</b>			
	Temporary Agents	10	10	10
	Contract Agents, Seconded National Experts	1	1	4
	Total	11	11	11
	<b>Security tasks</b>			
	Temporary Agents	3	4	4
	Contract Agents, Seconded National Experts	2	2	5
	Total	5	6	9
	<b>GSMC operations</b>			
	Temporary Agents	18	18	18



Contract Agents, Seconded National Experts	8	8	8
Total	26	26	26
<b>Market Development</b>			
Temporary Agents	5	7	7
Contract Agents, Seconded National Experts	3	4	4
Total	8	11	11
<b>Communication</b>			
Temporary Agents	1	1	1
Contract Agents, Seconded National Experts	0	0	0
Total	1	1	1
<b>General Administration</b>			
Temporary Agents	10	11	11
Contract Agents, Seconded National Experts	14	14	18
Total	24	25	29
<b>Total Temporary Agents</b>	<b>96</b>	<b>102</b>	<b>113</b>
<b>Total Contract Agents, Seconded National Experts</b>	<b>35</b>	<b>37</b>	<b>44</b>
<b>Total</b>	<b>131</b>	<b>139</b>	<b>157</b>

\*The estimated figures for Contract Agents and Seconded National Experts are currently under internal review and are subject to possible changes, with the objective to align available resources with new tasks delegated to the Agency in the on-going transition phase.



## Appendix IV – Definitions & Acronyms

Acronym	Definition
CDA	Crypto Distribution Authority
COMSEC	Communications Security
CPA	Competent PRS Authority
DG	Directorate General
DG-HR	DG-Human Resources
EC	European Commission
EFTA	European Free Trade Associations
EGNOS	European Geostationary Navigation Overlay Service
E-GNSS	European GNSS
ERTMS	European Rail Traffic Management System
ESA	European Space Agency
ESNC	European Satellite Navigation Competition
ESSP	European Satellite Services Provider
EU	European Union
FKC	Flight Key Cell
FP7	Seventh Framework Programme for Research and Development of the European Union
GLONASS	The Russian Global Navigation Satellite System
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GRUE	GSA EU Restricted Network
GSA	European GNSS Agency
GSAP	Galileo Security Accreditation Panel
GSC	GNSS Security Centre
GSF	Galileo Security Facility
GSMC	Galileo Security Monitoring Centre
GSUE	GSA EU Secret Network
HR	Human Resources
ICT	Information & Communication Technology
IMS	Integrated Management System
ISO	International Standards Organisation
IT	Information Technology
ITS	Intelligent Transport Systems
KPI	Key Performance Indicator
LBS	Locations Based Service
LSAA	Local Security Accreditation Authority
NSA	National Security Authority
ORR	Operations Readiness Review
OSRR	Operational Service Readiness Review
OVRR	Operations Validation Readiness Review
PNT	Positioning, Navigation, Timing
PPP	Public-Private Partnership
PRS	Public Regulated Service
PVT	Position, Velocity, Time
P3RS2	PRs receivers with EMbedded hardware Intrinsic Security Enhancements
RIMS	
RUE	EU Restricted
R&D	Research and development
SAB	Security Accreditation Board
SAR	Security Accreditation Reports
SSRS	System specific Security Requirements Statements
SUE	EU Secret



