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CORRIGENDUM.

Annule et remplace le document COM(2013) 312 final du 29/05/2013
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Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010

(Text with EEA relevance)

{SWD(2013) 190 final}

{SWD(2013) 191 final}

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

Copernicus is the new name of the European Earth Observation Programme, GMES (Global Monitoring for Environment and Security). Copernicus or rather its predecessor was established as an EU programme by the GMES Regulation (EU) No 911/2010. It covers all the activities for ensuring an uninterrupted provision of accurate and reliable data and information on environmental issues and security matters to users in charge of policy making, implementation and monitoring, in the EU and its Member States. Copernicus aims at providing Europe with a continuous, independent and reliable access to observation data and information. The EU investment aims at filling the observation gaps, providing access to existing assets and developing operational services.

Copernicus is structured in six Services: Marine, Atmosphere, Land and Climate change monitoring as well as support to Emergency and Security. Copernicus uses data from satellites and in-situ sensors such as buoys, balloons or air sensors to provide timely and reliable added-value information and forecasting to support for example, agriculture and fisheries, land use and urban planning, the fight against forest fires, disaster response, maritime transport or air pollution monitoring.

Copernicus also contributes to economic stability and growth by boosting commercial applications (the so-called downstream services) in many different sectors through a full and open access to Copernicus observation data and information products. It is one of the programmes to be delivered under the Europe 2020 strategy for smart, sustainable and inclusive growth and it was included in the industrial policy initiative of Europe 2020, given its benefits to a wide range of Union policies.

Responsibility for funding the exploitation and the renewal of space infrastructure developed with EU and intergovernmental funds cannot be optimally achieved by individual Member States because of the costs incurred. In the field of space-based observation for operational meteorology, European States have pooled their resources to develop and exploit meteorological satellites in the framework of the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT). European States also developed demonstrators of environmental satellites either through the European Space Agency (ESA) or through national space agencies. They could not, however, find a way to co-operate with regard to the funding of sustained operational programmes in the field of environmental monitoring. The need for continuing such observations is becoming critical, considering the increasing political pressure on public authorities to take informed decisions in the field of environment, security and climate change and the need to respect international agreements.

For the services with a pan-European and a global coverage, Member States cannot sufficiently achieve the objectives of the proposed action, as the inputs from different Member States have to be aggregated at European level. The provision of other services (e.g. emergency maps or thematic land monitoring maps of a more limited geographical scope) can be better achieved at EU level for two reasons. First, a more coherent and centralised management of input data, from space based or in-situ sensors will allow for economies of scale.

Secondly, a coordinated provision of Earth monitoring services at Member State level helps to avoid duplications and enhances the monitoring of the implementation of EU environmental legislation on the basis of transparent and objective criteria. Only comparable information produced at Member State level will make it possible to ascertain an effective implementation of environmental legislation which in many cases addresses truly borderless and therefore international problems.

Moreover, action at European level will create economies of scale leading to a better value for public money. Action at EU level thus leads to a clear added value.

Since the beginning the overall funding allocated to its development by the EU and ESA has reached over €3.2 billion. A large part of the GMES budget was dedicated to the development of observation satellites: the Sentinels. This was done through a contribution from the Commission of € 738 Mio to the ESA's GMES Space Component programme (GSC).

Until the end of 2013, Copernicus is funded by the FP7 Space theme and the GMES and its Initial Operations programme. As Copernicus will be ready to enter in its operational phase, a new Regulation is required from 2014 onwards. In line with the objectives of the Communication "A Simplification Agenda for the MFF 2014-2020"¹, this new Regulation will better define the governance of the programme, in particular the role of the Commission, the objectives of the programme and indicators which will allow an effective monitoring of its implementation and ensure a smooth transition from the current activities. The proposed Regulation includes as well provisions for the establishment of proportionate financial procedures in particular for the large part of the programme to be implemented indirectly. In the context of simplification and "smart regulation", it should be noted that Copernicus aims at enhancing the quality of legislation by providing evidence-based monitoring tools.

In its Communication entitled "A Budget for Europe 2020", (COM (2011) 500 final of 29.06.2011) the Commission indicated that given the limits of the EU budget, it was proposed to fund GMES outside the multi-annual financial framework in the period from 2014 to 2020. This proposal was rejected by the Parliament in its resolution P7_TA(2012)0062 of 16 February 2012. The European Council conclusions of 7-8 February 2013 on the Multi-annual Financial Framework (MFF) foresee that the programme should be financed under sub-heading 1a of the financial framework, with a maximum level of commitments of EUR 3,786 million (2011 prices) to be laid down in the MFF Regulation.

2. RESULTS OF CONSULTATIONS WITH THE INTERESTED PARTIES AND IMPACT ASSESSMENTS

Since the creation of the European Commission's GMES Bureau in 2006 a rolling process of stakeholders' consultation has been in place on GMES. This consultation process, launched with the Communication entitled "GMES: from concept to reality"², led firstly to the adoption of the 2008 Communication entitled "GMES: we care for a safer Planet"³. Further consultation was carried out in order to prepare the Commission proposal for a Regulation on

¹ COM (2012) 42 final of 8 February 2012

² COM (2005) 565 final of 10 November 2005

³ COM (2008)748 final of 11.12.2008

the European Earth monitoring programme (GMES) and its initial operations (2011-2013)⁴ and the Communication entitled "Global Monitoring for Environment and Security (GMES): Challenges and Next Steps for the Space Component"⁵.

Since the entry into force of the GMES Regulation in 2010, the consultation of Member States and users has continued through the new governance bodies set up by the Regulation itself: the GMES Committee and the User Forum composed of public user representatives.

The consultation has confirmed the interest and need for the Copernicus Programme and – now that it is indeed becoming an EU programme – it now focuses on different design options, in particular for the Copernicus Services. Stakeholders have indicated that the uninterrupted and guaranteed availability of the information coming from the Copernicus Services is the cornerstone for the success of the programme and for its benefits to fully materialise.

An impact assessment was made in 2011 and the main conclusions were published in Document SEC (2011) 867 final of 28.06.2011, which accompanied the Commission's proposal on the Multiannual Financial Framework, COM (2011) 500. The impact assessment has now been adapted and the recommendations of the Impact Assessment Board have been taken into account. What has changed since 2011 is the political consideration of the usefulness of funding the Copernicus programme in the MFF. The Commission therefore considers that it is now time to make a formal proposal.

It should be noted, however, that this proposal had to be readjusted to the amount agreed under the ceiling of Multiannual Financial Framework, which cut the initial proposal of the Commission by over 2 billion EUR. In order to preserve the service delivery, the Commission had to cut new developments in the space component to renew and modernise the observation capacity. ESA will take over responsibility for the development of the next generation of the Sentinels.

The question of ownership of the Copernicus space component assets is important and cannot be considered in isolation from the rights and responsibilities that such ownership confers upon the owner. The owner has the fullest possible rights including the right of use, transfer and disposal.

In determining whether to accept ownership of the space component assets, two phases need to be distinguished: During the first phase, i.e. the present Multi-Annual Financial Framework, the EU was only a contributor to an ESA programme at a rate of some 30% and was lacking the funds to assume a leading role in shaping the space component of Copernicus. Moreover, the EU funds were largely FP7 appropriations and were not designed to fund an operational programme on a permanent basis. The EU was therefore unable to assume ownership during this phase. The second phase will begin with the next Multi-Annual Financial Framework. It brings about a fundamental change in that the EU will now be able to fund 100% of most parts of the Copernicus space component, including the ground segment and the cost of operations of the satellites.

⁴ COM (2009) 223 final of 20.5.2009. Regulation (EU) n°911/2010 of the European Parliament and of the Council of 22 September 2010 on the European Earth monitoring programme (GMES) and its initial operations (2011-2013) – OJ L276 of 20.10.2010, page 1.

⁵ COM (2009)589 final of 28.10.2009

In this new context, as referred to in Article 18, the ownership of the satellites will need to be reviewed. The Regulation foresees the option that the EU or a specifically designated body or fund could take over the ownership from ESA. In view of an ownership transfer, options will need to be assessed, taking account relevant factors including the operation of the satellites; legal ownership of the data; data access conditions; and the value of the assets. These options will only be considered if disadvantages of EU ownership seem to outweigh its advantages. The transfer of ownership from the EU could only be exercised by means of a delegated act.

The option of a data purchase scheme could also be considered.

3. LEGAL ELEMENTS OF THE PROPOSAL

Having regard to Article 189 of the Treaty on the Functioning of the European Union, the proposal is for a new Regulation of the European Parliament and the Council establishing the Copernicus Programme. It focuses on the following main aspects

- (1) Change of name into Copernicus;
- (2) Governance of GMES in its operational phase, with a view to allowing the Commission to delegate activities to a number of operators;
- (3) Funding over 2014-2020.

4. BUDGETARY IMPLICATION

The financial statement accompanying this proposal for a Regulation sets out indicative budget appropriations, which are compatible with the multiannual financial framework 2014 – 2020, with a maximum level of commitments of EUR 3,786 million, in 2011 prices, equivalent to EUR 4,291 million in current prices.

5. OPTIONAL ELEMENTS

The Commission may adopt delegated acts in order to achieve certain objectives set out in the proposal.

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 189(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Having regard to the opinion of the European Economic and Social Committee⁶,

Having regard to the opinion of the Committee of the Regions⁷,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) Global Monitoring for Environment and Security (GMES) was an Earth monitoring initiative led by the Union and carried out in partnership with the Member States and the European Space Agency (ESA) The origin of GMES date back to May 1998, when institutions involved in the development of space activities in Europe made a joint declaration known as the "Baveno Manifesto". The Manifesto called for a long-term commitment to the development of space-based environmental monitoring services, making use of, and further developing, European skills, and technologies. In 2005, the Union made the strategic choice of developing an independent European Earth observation capacity to deliver services in the environmental and security fields⁸, which resulted ultimately in Regulation (EU) No 911/2010 of the European Parliament and of the Council of 22 September 2010 on the European Earth monitoring programme (GMES) and its initial operations (2011 to 2013)⁹.

⁶ OJ C , , p. .

⁷ OJ C , , p. .

⁸ COM(2005) 565 final of 10 November 2005.

⁹ OJ L 276, 20.10.2010, p. 1.

- (2) Copernicus should be considered as a European contribution to building the Global Earth Observation System of Systems (GEOSS) developed within the framework of the Group on Earth Observations (GEO).
- (3) Based on the results of that initiative, Regulation (EU) No 911/2010 established the European Earth monitoring programme (GMES) and the rules for the implementation of its initial operations.
- (4) While the programme set up under Regulation (EU) No 911/2010 should continue under the new multiannual financial framework, the acronym 'GMES' should be changed to 'Copernicus' in order to facilitate the communication with the public at large. The Commission has registered the trademark so that it can be used by the Union institutions and licensed to other interested users, in particular the providers of core services.
- (5) The objectives of the Copernicus programme are to provide accurate and reliable information in the field of the environment and security, tailored to the needs of users and supporting other Union's policies, in particular relating to the internal market, transport, environment, energy, civil protection, cooperation with third countries and humanitarian aid. It builds on capabilities existing in Europe, complemented by new assets developed in common.
- (6) The Copernicus programme should be implemented consistently with other relevant Union instruments and action, in particular with environmental and climate change actions, and instruments in the field of security, protection of personal data, competitiveness and innovation, cohesion, research, transport, competition and international cooperation, with the European Global Navigation Satellite Systems (GNSS) programme. Copernicus data should maintain coherence with Member States' spatial reference data and support the development of the infrastructure for spatial information in the Union established by Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)¹⁰. Copernicus should also complement the Shared Environmental Information System (SEIS) and Union activities in the field of emergency response.
- (7) Copernicus is a programme to be delivered under the Europe 2020 strategy for smart, sustainable and inclusive growth. It is to benefit a wide range of Union policies and contribute to reaching the objectives of Europe 2020, in particular by developing an effective space policy to provide the tools to address some of the key global challenges and meet the targets on climate change and energy sustainability.
- (8) The Copernicus programme stands to benefit from the results provided by Horizon 2020, the Union's Framework Programme for Research and Innovation 2014-2020, in particular through its activities in research and innovation for future Earth Observation technologies and applications using remote sensing, airborne and in-situ technologies and data to respond to the grand societal challenges.
- (9) In order to attain its objectives, the Copernicus programme should rely on an autonomous Union's capacity for space-borne observations and provide operational

¹⁰ OJ L 108, 25.4.2007, p. 1.

services in the field of environment, civil protection and security. It should also make use of the available in-situ data provided, namely, by the Member States. The provision of operational services depends on the well-functioning and safety of the Copernicus space component. The increasing risk of collision with other satellites and space debris is the most serious threat to the Copernicus space component. Therefore, the Copernicus programme should support actions aimed at reducing such risks, in particular by contributing to the programme established by Decision [XXX] of the European Parliament and the Council establishing a Space Surveillance and Tracking Support Programme¹¹.

- (10) The maximum financial envelope needed for the Copernicus actions (2014-2020) is EUR 3 786 million in 2011 prices, allotted in a separate budget chapter under Title 2 of Heading 1a of the Union's General Budget. Staff and administrative expenditures incurred by the Commission in the coordination of the Copernicus programme should be funded from the budget of the Union.
- (11) With a view to improving the implementation of Copernicus and its long-term planning, the Commission should adopt the annual work programme in line with the priorities, objectives and strategies of a multi-annual plan,
- (12) Copernicus should be user driven, thus requiring the continuous, effective involvement of users, particularly regarding the definition and validation of service requirements.
- (13) The international dimension of Copernicus is of particular relevance in the exchange of data and information, as well as in access to observation infra-structure. Such an exchange system is more cost-efficient than data-buy schemes and strengthens the global dimension of the programme.
- (14) The EEA Agreement and the Framework Agreements with candidate and potential candidate countries provide for participation by those countries in Union programmes. Participation by other third countries and international organisations should be made possible by the conclusion of international agreements to that effect.
- (15) Member States, third countries and international organisations should be free to contribute to the programmes on the basis of appropriate agreements.
- (16) The Commission should have the overall responsibility for the Copernicus programme. It should define its priorities and objectives and ensure the overall coordination and supervision of the programme.
- (17) Taking into account the partnership dimension of Copernicus and in order to avoid duplication of technical expertise, the implementation of the programme should be delegated to entities with the appropriate technical and professional capacity.
- (18) In the implementation of the Copernicus programme, the Commission may rely, where duly justified by the special nature of the action and specific expertise of the Union body, on competent Union agencies, such as the European Environment Agency (EEA), the European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union (FRONTEX), the

¹¹ OJ L , , p. .

European Maritime Safety Agency (EMSA) and the European Union Satellite Centre (EUSC) or any relevant body potentially eligible for a delegation according to Article 58 of Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the annual budget of the Union¹². The choice of the Union body shall take due account of the cost efficiency of entrusting those tasks and the impact on the body's governance structure and on its financial and human resources

- (19) In order to achieve the objective of Copernicus on a sustainable basis, it is necessary to coordinate the activities of the various partners involved in Copernicus, and to develop, establish and operate a service and observation capacity meeting the demands of users. In this context, a committee should assist the Commission in ensuring the coordination of contributions to Copernicus by the Union, the Member States and inter-governmental agencies, making the best use of existing capacities and identifying gaps to be addressed at Union level. It should also assist the Commission in monitoring the coherent implementation of Copernicus.
- (20) The work of the operators to whom the Commission has delegated tasks should also be measured against performance indicators. This would provide the European Parliament and the Council with an indication of the progress of the Copernicus operations and programme implementation.
- (21) The data and information produced in the framework of the Copernicus programme should be made available to the users on a full, open and free-of-charge basis, in order to promote their use and sharing, and to strengthen Earth observation markets in Europe, in particular the downstream sector, thereby enabling growth and job creation.
- (22) Wherever the access or use of Copernicus or third party data and information may endanger the security of the Union and its Member States or threaten their external relations, the Commission should restrict their availability or limit the licences awarded.
- (23) The question of ownership of the Copernicus space component assets is important and cannot be considered in isolation from the rights and responsibilities that such ownership confers upon the owner. In order to have the right of use, transfer and disposal, the Union should become the owner. In the case of the Sentinel satellites, ownership implies in particular the right to decide upon the data policy and to manage its implementation, to choose the exploitation model and the operator of the Sentinels, and to conclude international agreements with third countries on, among other, sharing satellite data.
- (24) The financial interests of the Union should be protected through proportionate measures throughout the expenditure cycle, including the prevention, detection and investigation of irregularities, the recovery of funds lost, wrongly paid or incorrectly used and, where appropriate, administrative and financial penalties in accordance with Regulation (EU, Euratom) No 966/2012.

¹² OJ L 298, 26.10.2012, p. 1.

- (25) In order to increase the value of Copernicus to users, the Commission should be assisted by representatives of mid and end-users, experts from Member States including from relevant national agencies or by independent experts.
- (26) In order to ensure uniform conditions for the implementation of this Regulation as regards the adoption of the annual work programme, the multi annual plan for the period 2014-2020 and the measures to promote the convergence of Member States in the use of Copernicus data and information and their access to the technology and development in Earth Observation, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by the Member States of the Commission's exercise of implementing powers¹³.
- (27) So as to inform Member States and respect the impartiality in the decision-making, the advisory procedure should be used for the adoption of measures to promote the convergence of Member States in the use of Copernicus data and information and their access to the technology and development in Earth Observation. The examination procedure should be used for the adoption of the annual work programme and the multi-annual plan for the period 2014-2020 given that that act relates to a programme with substantial implications.
- (28) In order to take into account possible security risks as well as bandwidth and other technical limitations, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of the data requirements necessary for the operational services, the conditions and procedures regarding access to, registration and use of Copernicus data and information, the conditions and procedures for the transmission and use of satellite data transmitted to receiving stations not part of the Copernicus programme and for the archiving of Copernicus data and information, the specific technical criteria necessary to prevent the disruption of the Copernicus data and information system and the criteria for the restriction of dissemination of Copernicus data and information due to conflicting rights or security interests, as well as the criteria for the performance of the security assessment. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level. The Commission, when preparing and drawing up delegated acts, should ensure a simultaneous, timely and appropriate transmission of relevant documents to the European Parliament and to the Council.
- (29) The actions financed under this Regulation should be monitored and evaluated in order to allow for readjustments and new evolutions.
- (30) Since the objective of this Regulation, namely the establishment of the programme Copernicus, cannot be sufficiently achieved by the Member States because it will also comprise pan-European capacity and depend on the coordinated provision of services throughout the Member States that needs to be coordinated at Union level and can therefore, by reason of the scale of the action, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out

¹³ OJ L 55, 28.2.2011, p. 13.

in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective.

- (31) It is therefore necessary to repeal Regulation (EU) No 911/2010 in order to establish an appropriate framework for governance and funding and to ensure a fully operational Copernicus programme from 2014 onwards,

HAVE ADOPTED THIS REGULATION:

Article 1
Subject-matter

This Regulation establishes the Union Earth observation programme called Copernicus and lays down the rules for its execution.

Article 2
General objectives

1. The Copernicus programme shall contribute to the following general objectives:
 - (a) protection of the environment and provision of support to civil protection and security efforts;
 - (b) support of the Europe 2020 growth strategy by contributing to the objectives of smart, sustainable and inclusive growth; in particular, it shall contribute to economic stability and growth by boosting commercial applications.
2. The original data and information produced from space-borne observations, as well as from available in-situ data ('Copernicus data and information') shall be accurate and reliable, supplied on a long term and sustainable basis and respond to the requirements of Copernicus user communities. The access to those data shall be full, open and free of charge, subject to the conditions defined in or on the basis of this Regulation.
3. For the purpose of paragraph 2, the Copernicus user communities are defined as those comprising the European national, regional or local bodies entrusted with the definition, implementation, enforcement or monitoring of a public service or policy in areas referred to in point (1) of Article 4.
4. The achievement of the objectives referred to in paragraph 1 shall be measured by the following result indicators:
 - (a) data and information made available in accordance with the respective service-level delivery requirements for environment, civil protection and security;
 - (b) market penetration and competitiveness of the European downstream operators.

Article 3
Specific objectives

1. In order to attain the general objectives described in Article 2, the Copernicus programme shall address user needs and deliver the operational services referred to in point (1) of Article 4. This objective shall be measured by the use of data and information measured by the progression in number of users, by the volume of accessed data and added-value information, and by the widening of distribution across Member States;
2. The Copernicus programme shall provide a sustainable and reliable access to space-borne observations from an autonomous Union's Earth Observation capacity, and build on existing assets and capabilities, complementing them whenever necessary. This objective shall be measured by the accomplishment of the space infrastructure in terms of satellites deployed and data it produces.

Article 4
Scope of the Copernicus services

The Copernicus services, as referred to in point (1) of Article 3 shall include:

1. Operational services:
 - (a) The atmosphere monitoring service shall provide information on air quality on a European scale and of the chemical composition of the atmosphere on a global scale. It shall in particular provide information for air quality monitoring systems at the local to national scales, and should contribute to the monitoring of atmospheric chemistry climate variables;
 - (b) The marine monitoring service shall provide information on the state and dynamics of physical ocean and marine ecosystems for the global ocean and the European regional areas;
 - (c) The land monitoring service shall provide information in support of the global-to-local environmental monitoring of biodiversity, soil, water, forests and natural resources, as well as in general implementation of environment, agriculture, development, energy, urban planning, infrastructure and transport policies;
 - (d) The climate change monitoring service shall provide information to increase the knowledge base to support adaptation and mitigation policies. It shall in particular contribute to the provision of Essential Climate Variables (ECVs), climate analyses and projections at temporal and spatial scales relevant to adaptation and mitigation strategies for the various Union's sectorial and societal benefit areas;
 - (e) The emergency response service shall provide information for emergency response in relation to different types of disasters, including meteorological hazards, geophysical hazards, deliberate and accidental man-made disasters and other humanitarian disasters, as well as the prevention, preparedness, response and recovery activities;

- (f) The security service shall provide information in support of the security challenges of Europe improving crisis prevention, preparedness and response capacities, in particular for border and maritime surveillance, but also support for the Union's external action, through detection and monitoring of trans-regional security threats, risk assessment and early warning systems, mapping and monitoring of border areas;
- 2. Development activities consisting in improving the quality and performance of operational services, including their evolution and adaptation, and in avoiding or mitigating the operational risks;
- 3. Support activities consisting in measures to promote the use of operational services by users and downstream applications, as well as communication and dissemination activities.

Article 5
Space component

The Copernicus space component shall provide space-borne observations to meet the objectives referred to in Articles 2 and 3, serving primarily the operational services referred to in point (1) of Article 4. The Copernicus space component shall include the following activities:

- (a) Provision of space-borne observations, including:
 - operation of the Copernicus space infrastructure, including tasking of the satellites, monitoring and control of the satellites, reception and processing, archiving and dissemination of data, and permanent calibration and validation;
 - provision of in-situ data for calibration and validation of space-borne observations;
 - provision, archiving and dissemination of third-party space-borne mission data complementing the Copernicus space infrastructure;
 - maintenance of the Copernicus space infrastructure
- (b) Activities in response to evolving needs of the users, including:
 - identification of observation gaps and the specification of new space missions on the basis of user requirements.
 - developments aiming at modernising and complementing the Copernicus space component, including design and procurement of new elements of the space infrastructure;
- (c) Contribution to the protection of satellites against the risk of collision.

Article 6
In-situ component

The in-situ component of the Copernicus programme shall include the following activities:

- (a) coordination and harmonisation of the collection and provision of in-situ data, provision of in-situ data to the operational services, including third party in-situ data at international level;
- (b) technical assistance to the Commission on the service requirements for in-situ observation data;
- (c) cooperation with in-situ operators to promote the consistency of development activities related to the in-situ observation infrastructure and networks.

Article 7
Funding

1. The financial envelope allocated to the Copernicus programme for the period 2014 – 2020 has a maximum amount of EUR 3 786 million in 2011 prices.
2. Appropriations shall be authorised annually by the budgetary authority within the limits laid down in the multiannual financial framework. Budgetary commitments for activities extending over more than one financial year may be broken down over several years into annual instalments.
3. The financial allocation for the Copernicus programme may also cover expenses relating to preparatory, monitoring, control, audit and evaluation activities which are required directly for the management of the Copernicus programme and the achievement of its objectives, and in particular studies, meetings, information and communication actions, as well as expenses linked to IT networks focusing on information processing and exchange of data. The resources allocated to communication actions under this Regulation may also contribute proportionally to covering the institutional communication of the political priorities of the Union.
4. Tasks entrusted to other bodies shall be subject to the procedure referred to in Articles 164 and 165 of Regulation (EU, Euratom) No 966/2012.

Article 8
Work programme of the Commission

The Commission shall adopt, a work programme pursuant to Article 84 of the Regulation (EU, Euratom) No 966/2012. That implementing act shall be adopted in accordance with the examination procedure referred to in point (3) of Article 20 of this Regulation.

Article 9
Cooperation with Member States

1. The Commission shall co-operate with Member States in order to improve the exchange of data and information between them and increase the volume of the data and information made available to the Copernicus programme
2. The Commission may adopt measures to promote the convergence of Member States in the use of Copernicus data and information and their access to the technology and development in Earth Observation. Such measures shall not have the effect to distort free competition. Those implementing acts shall be adopted in accordance with the advisory procedure referred to in point (2) of Article 20.

Article 10
International cooperation

1. The Union, represented by the Commission, may enter into agreements with the following third countries:
 - (a) European Free Trade Association (EFTA) countries which are Contracting Parties to the EEA Agreement in accordance with the conditions laid down in the EEA Agreement;
 - (b) the candidate countries, as well as potential candidate countries in accordance with the respective Framework Agreements or a Protocol to an Association Agreement establishing the general principles and conditions for the participation of those countries in Union programmes;
 - (c) Switzerland, other third countries not referred to in points (a) and (b), and international organisations, in accordance with agreements concluded by the Union with such third countries or international organisations pursuant to Article 218 TFEU, which shall lay down the conditions and detailed rules for their involvement.
2. Third countries or international organisations may provide financial support or contributions in kind to the programme. The financial support shall be treated as external assigned revenue, in accordance with point 2 of Article 20 of Regulation (EU, Euratom) No 966/2012. Financial support and contributions in kind shall be admissible under the terms and conditions of the agreement concluded with the respective third country or international organisation.

Article 11
Role of the Commission

1. The Commission shall have the overall responsibility for the programme. It shall define the priorities and objectives of the programme and oversee its implementation, in particular with respect to the cost, schedule and performance.
2. The Commission shall manage, on behalf of the Union and in its field of competence, relationships with third countries and international organisations,

ensuring the coordination of the Copernicus programme with activities at national, Union and international levels.

3. The Commission shall coordinate the contributions of Member States aiming at the operational delivery of services and the long-term availability of the data from observation infrastructures needed to operate the services.
4. The Commission shall ensure the complementarity and consistency of the Copernicus programme with other relevant Union policies, instruments, programmes and actions.
5. The Commission shall maintain a transparent and regular user involvement and consultation, enabling identification of user requirements at Union and national levels.
6. The Commission shall adopt delegated acts in accordance with Article 21 concerning the establishment of the data requirements necessary for the operational services, making provision for their evolution.
7. The Commission shall make the financial resources available for the funding of the Copernicus programme.

Article 12
Operators

1. The Commission may entrust, in part or in full, where duly justified by the special nature of the action and specific expertise of the Union body the implementation tasks described in Article 4 to competent Union bodies. Among such agencies are:
 - (a) the European Environment Agency (EEA);
 - (b) the European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union (FRONTEX);
 - (c) the European Maritime Safety Agency (EMSA);
 - (d) the European Union Satellite Centre (EUSC).
2. The choice of the Union body shall take due account of the cost efficiency of entrusting those tasks and the impact on the body's governance structure and on its financial and human resources.
3. Budget implementation tasks entrusted exceptionally to competent Union bodies under this Article shall be included in the work programme of such Union body for information purposes.
4. The Commission may entrust, in part or in full, to the European Space Agency (ESA) the development tasks of the space component described in point (b) of Article 5.

5. The Commission may entrust, in part or in full, the operational tasks of the space component described in point (a) of Article 5 to ESA and the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT).
6. The Commission may entrust, in part or in full, the activities of the in-situ component described in Article 6 to the operators of the services described in Article 4.

Article 13
Supervision of operators

Complaints on the award of contracts and grants by operators in the execution of the delegation agreement or the work programme may be submitted to the Commission. Nonetheless, such complaints may concern only deliberate wrongdoing, gross negligence or fraud and be submitted only after all means of recourse before the operator have been exhausted.

Article 14
Copernicus Data and Information Policy

Copernicus data and information shall be made available on a full, open and free-of-charge basis, subject to the following limitations:

- (a) licensing conditions attached third party data and information;
- (b) dissemination formats, characteristics and distribution means;
- (c) security interests and external relations of the Union or its Member States;
- (d) risk of disruption, for safety or technical reasons, of the system producing Copernicus data and information.

Article 15
Limitations and conditions of access and use

1. The Commission may adopt delegated acts in accordance with Article 21 concerning:
 - (a) the conditions and procedures as regards access to, registration and use of Copernicus data and information, including the formats, characteristic and dissemination means;
 - (b) the conditions and procedures for the transmission and use of satellite data transmitted to receiving stations not part of the Copernicus programme;
 - (c) the conditions and procedures for the archiving of Copernicus data and information;
 - (d) the specific technical criteria necessary to prevent the disruption of the Copernicus data and information system, including priority of access;

- (e) the criteria for the restriction of dissemination of Copernicus data and information due to conflicting rights or security interests;
 - (f) the criteria for the performance of the security assessment.
2. The Commission shall establish the relevant licenses for Copernicus and third party data and information, and the download of satellite data to reception stations not part of the Copernicus programme in compliance with this Regulation and the delegated acts referred to in paragraph 1.

Article 16
Protection of security interests

1. The Commission shall perform a prior security assessment on the Copernicus data and information to identify data and information which are vital for the protection of the interests of Union or national security.
2. Member States and third countries participating in the Copernicus programme under Article 10 may request the Commission to perform a new security assessment when security developments warrant such a new assessment.
3. Where the prior security assessment is not possible in the time frame of the Copernicus data and information collection and production, the Commission may perform an on-the-spot security assessment.
4. The Commission shall issue instructions on the restrictions of the dissemination of Copernicus data and information in individual cases based on the criteria adopted pursuant to point (1), subparagraph (f) of Article 15. In case of urgency, the Commission instructions shall be adopted in a timeframe as short as necessary to be effective. The Commission shall take the least disruptive measure in view of the objectives of the Copernicus programme and the Copernicus data and information policy. Its instructions shall be proportionate, including as regards timeliness and territorial scope, and weigh the protection of the security interest at stake against the availability of data and information from other sources.

Article 17
Protection of the financial interests of the Union

1. The Commission shall take appropriate measures ensuring that, when actions financed under this Programme are implemented, the financial interests of the Union are protected by the application of preventive measures against fraud, corruption and any other illegal activities, by effective checks and, if irregularities are detected, by the recovery of the amounts wrongly paid and, where appropriate, by effective, proportionate and dissuasive administrative and financial penalties.
2. The Commission or its representatives and the Court of Auditors shall have the power of audit, on the basis of documents and on the spot, over all grant beneficiaries, contractors and subcontractors who have received Union funds under the Programme.

3. The European Anti-Fraud Office (OLAF) may carry out investigations, including on-the-spot checks and inspections, in accordance with the provisions and procedures laid down in Regulation (EC) No 1073/1999 of the European Parliament and of the Council of 25 May 1999 concerning investigations conducted by the European Anti-Fraud Office (OLAF) and Council Regulation (Euratom, EC) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities with a view to establishing whether there has been fraud, corruption or any other illegal activity affecting the financial interests of the Union in connection with a grant agreement or grant decision or a contract funded under the Programme.
4. Without prejudice to paragraphs 1, 2 and 3, cooperation agreements with third countries and with international organisations, contracts, grant agreements and grant decisions, resulting from the implementation of this Programme shall contain provisions expressly empowering the Commission, the Court of Auditors and OLAF to conduct such audits and investigations, according to their respective competences.

Article 18
Ownership

1. The Union or a specifically designated body or fund shall be the owner of all tangible and intangible assets created or developed under the Copernicus programme subject to agreements concluded with third parties, wherever appropriate, with regard to existing ownership rights.
2. The terms and conditions relating to the transfer of ownership to the Union shall be laid down in the agreements referred to in paragraph 1.
3. The Commission shall adopt delegated acts in accordance with Article 21 to establish the terms and conditions of any subsequent transfer of ownership from the Union. The delegated act shall designate the subsequent body or fund on the basis of transparent and objective grounds, which shall not give rise to a conflict of interests.

Article 19
Assistance to the Commission

1. The Commission may be assisted by representatives of end users, independent experts, in particular on security issues, and by representatives of the relevant national agencies, in particular national space agencies, to provide it with the necessary technical and scientific expertise and user feedback.

Article 20
Committee procedure

1. The Commission shall be assisted by a committee (the "Copernicus Committee"). That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.

2. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.
3. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

Article 21
Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in point (1) of Article 15 and point (3) of Article 18 shall be conferred on the Commission for an indeterminate period from 1 January 2014.
3. The delegation of power may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. The revocation shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
4. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
5. Delegated acts adopted pursuant to point (1) of Article 15 and point (3) of Article 18 shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or the Council.

Article 22
Evaluation

1. By 30 June 2018 at the latest, an evaluation report shall be established by the Commission on the achievement of the objectives of all the tasks financed by the Copernicus programme at the level of their results and impacts, their European added value and on the efficiency of the use of resources. In particular, the evaluation shall address the continued relevance of all objectives, as well as the contribution of the measures to the objectives described in Articles 2 and 3.
2. The Commission shall carry out the evaluation referred to in paragraph 1 in close cooperation with the operators and the user communities of the Copernicus programme shall examine the effectiveness and efficiency of the Copernicus programme and its contribution to the objectives referred to in Articles 2 and 3. The Commission shall communicate the result of these evaluations to the European

Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions.

3. The Commission may, whenever necessary, be assisted by independent entities, undertake an evaluation of the methods of carrying out projects as well as the impact of their implementation, in order to assess whether the objectives, including those relating to environmental protection, have been attained.
4. The Commission may request a Member State to provide a specific evaluation of the actions and the linked projects financed under this Regulation or, where appropriate, to supply it with the information and assistance required to undertake an evaluation of such projects.

Article 23
Repeal

Regulation (EU) No 911/2010 is repealed.

References to the repealed Regulation shall be construed as references to this Regulation.

Article 24
Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from the 1 January 2014.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President

LEGISLATIVE FINANCIAL STATEMENT

1. FRAMEWORK OF THE PROPOSAL

- 1.1. Title of the proposal
- 1.2. Policy area concerned in the ABM/ABB structure
- 1.3. Nature of the proposal
- 1.4. Objectives
- 1.5. Grounds for the proposal
- 1.6. Duration and financial impact
- 1.7. Management methods envisaged

2. MANAGEMENT MEASURES

- 2.1. Monitoring and reporting rules
- 2.2. Management and control system
- 2.3. Measures to prevent fraud and irregularities

3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

- 3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected
- 3.2. Estimated impact on expenditure
 - 3.2.1. Summary of estimated impact on expenditure
 - 3.2.2. Estimated impact on operational appropriations
 - 3.2.3. Estimated impact on appropriations of an administrative nature
 - 3.2.4. Compatibility with the current multiannual financial framework
 - 3.2.5. Third-party participation in financing
- 3.3. Estimated impact on revenue

LEGISLATIVE FINANCIAL STATEMENT FOR PROPOSALS

1. FRAMEWORK OF THE PROPOSAL

1.1. Title of the proposal

Proposal for a Regulation of the European Parliament and the Council on establishing the European Earth Observation Programme (Copernicus)
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1.2. Policy area concerned in the ABM/ABB structure¹⁴

Title 02: Enterprise Chapter 02 06: Copernicus

1.3. Nature of the proposal

- The proposal/initiative relates to a **new action**
- The proposal/initiative relates to a **new action following a pilot project/preparatory action**¹⁵
- The proposal/initiative relates to **the extension of an existing action**
- The proposal/initiative relates to **an action redirected towards a new action**

1.4. Objectives

Copernicus is the new name of the European Earth Observation Programme, GMES (Global Monitoring for Environment and Security). It covers all the activities for ensuring an uninterrupted provision of accurate and reliable data and information on environmental issues and security matters to users in charge of policy making, implementation and monitoring, in the EU and its Member States. Copernicus aims at providing Europe with a continuous, independent and reliable access to observation data and information.

Copernicus is a programme to be delivered under the Europe 2020 strategy for smart, sustainable and inclusive growth. Its contribution to growth and economic stability, to be obtained by boosting value-added commercial applications, makes it a component of the industrial policy flagship in the wake of the Europe 2020 strategy¹⁶.

Copernicus shall contribute to the following general objectives:

- (a) protection of the environment and provision of support to civil protection and security efforts;

¹⁴ ABM: Activity-Based Management – ABB: Activity-Based Budgeting.

¹⁵ As referred to in Article 49(6)(a) or (b) of the Financial Regulation.

¹⁶ COM(2013) 108 final of 28.2.2013

- (b) support of the Europe 2020 growth strategy by contributing to the objectives of smart, sustainable and inclusive growth; in particular, it shall contribute to economic stability and growth by boosting commercial applications.

The Copernicus user communities are defined as those comprising the European national, regional or local bodies entrusted with the definition, implementation, enforcement or monitoring of a public service or policy in areas referred to in Article 4(1) of the Regulation. The most affected groups will include:

- public authorities at European, national, regional and local levels (as users and contributors), including in third countries (such as participating countries and those benefiting from e.g. the GMES and Africa initiative);
- downstream industry, in particular SMEs; and
- the final users (regional and local authorities, public institutions including universities, research centres, even single citizens using public services facilitated through Copernicus), customers of the downstream sector.

1.4.1. *The Commission's multiannual strategic objectives targeted by the proposal*

Copernicus aims to contribute to the Europe 2020 objectives in the following ways:

- « *a more resource efficient, greener economy* », i.e. in particular the preservation and management of environmental resources and ecosystems and biodiversity; achieving efficiency gains as a result of better enforcement of EU policies such as transport, by e.g. monitoring the ice allowing an improvement of the ships routes; agriculture, by e.g. supporting *smart farming* reducing the needs of entrants; energy, by measuring the solar radiation necessary for photovoltaic energy production;
- « *a more competitive economy* », as a flagship on industrial and space policies, Copernicus aims to foster the competitiveness of EU industry and its technological edge in space and beyond; it specifically aims to create business potential for SMEs by boosting innovation in the downstream sector, developing new services relying on Copernicus information;
- « *an economy based on knowledge* », Copernicus aims to contribute to a better understanding of global challenges, it supports the development of research/science by the provision of critical data;
- « *an economy based on innovation* », Copernicus allows the emergence of highly innovative downstream services. It aims to create partnerships between research and business communities and can set benchmarks for transfer of research and development into business;
- « *a high-employment economy* », Copernicus creates additional potential for new jobs by boosting additional demand for highly-skilled workers;
- « *economic, social and territorial cohesion* », i.e. need for new ground infrastructure in particular in the EU-12; creating new business potential for SMEs in all EU Member States Copernicus will give an impetus to those countries lagging behind in land or emergency services and will therefore contribute to the objective of an

increased cohesion among the Member States. Copernicus services are by definition pan-European and respond to European requirements.

1.4.2. Specific objectives and ABM/ABB activities concerned

The Copernicus programme comprises the following specific objectives:

Specific objective No. 1: Copernicus Services

The Copernicus land monitoring service will focus on a Periodic Land Cover mapping service on the European, regional and national level, and dynamic Land monitoring activities.

The Copernicus marine environment monitoring service will provide information on the state of physical oceans and marine ecosystems for the global ocean and the European regional areas. The application areas of the Copernicus marine services include maritime safety, the marine environment and coastal regions, marine resources as well as seasonal meteorological forecasting and climate monitoring.

The Copernicus atmosphere environmental service will ensure the monitoring of air quality on a European scale and of the chemical composition of the atmosphere on a global scale. It shall in particular provide information for air quality monitoring systems at the local to national scales, and should contribute to the monitoring of atmospheric chemistry climate variables.

The Copernicus climate change monitoring service will allow for the adaptation and mitigation of its effects. It should in particular contribute to the provision of ECVs (Essential Climate Variables), climate analyses and projections on a scale relevant to adaptation and mitigation and relevant service delivery.

The Copernicus emergency response service will offer a combination of maps and/or various levels of pre-processed data produced to support emergency response players at international, European, national or regional levels in disasters such as storms, fires floods, earthquakes, volcanic eruptions, deliberate or man-made disasters or other humanitarian disasters. The service can address all the crisis management cycle: prevention, preparedness, response or recovery activities.

The Copernicus security service will provide information in support of the challenges which Europe is facing in the security field, notably border control, maritime surveillance and support for EU external actions.

The Copernicus in-situ component will ensure observations through airborne, seaborne and ground-based installations for the service areas. The access to reference data is necessary for operating the services. While this is mainly a responsibility of the Member States, the programme may contribute to cross border harmonisation of in-situ data within the EU and additional collection of in-situ data outside the EU. Activities will be entrusted to entities responsible for the Services.

Horizontal activities are included as well, supporting the overall management of the funds allocated under this Regulation, overseeing the implementation of all the programme activities, in particular with respect to the cost, schedule and performance, the establishment of appropriate instruments and structural measures necessary to identify, control, mitigate and monitor the risks associated with the programme; the relationships with third countries and international organisations; reporting activities to Member States; the coordination with

activities at national, Union and international levels, notably GEOSS; the coordination of voluntary contributions of Member States; ensuring the complementarity and consistency of the programme with other relevant Union policies, instruments and actions; the establishment of user needs and the monitoring of their implementation.

Specific objective No. 2: Space observation

The Copernicus space component will ensure sustainable space-borne observations for the Copernicus services.

It includes the operations of the dedicated space infrastructure (i.e. the Sentinel satellites); access to third party missions; distribution of data; technical assistance to the Commission for federating service data requirements, identifying observation gaps, contributing to the specification of new space missions.

Development activities include design and procurement of new elements of the space infrastructure; provision of technical support to the Commission for the translation of service requirements into specifications of new space missions with the support of space infrastructure operators; coordination of the development of space activities, including developments aiming at modernising and complementing the Copernicus Space Component.

1.4.3. Expected results and impact

The development of services for ensuring the long term sustainability of the system and for covering new users' needs not expressed so far is foreseen. The advantage is that Copernicus remains able in a sustainable way to consistently respond to users' needs, thereby increasing users' up-take and downstream market development.

Economic impact: the development of new products and new services will stimulate product and process innovation and hence have a long term impact on the European industry. The full continuity of Copernicus services would significantly improve the boost to the industry's competitiveness and the emergence of commercially viable businesses.

Environmental impact: Availability of long term Copernicus Services supports the objective for Europe to be a key player in climate change. It will insure as well a real partnership in GEOSS.

Social impact: new jobs would be created, not only in the satellite industry and in R&D, but also in businesses linked to the development of new techniques for Earth observation and related industries and services. More important, the sustainable commitment will facilitate the development of the downstream services where the impact in terms of employment would be significant.

1.4.4. Indicators of results and impact

The achievement of the objectives will be measured by the following indicators:

- (a) data and added-value information made available in accordance with the service-level delivery requirements;
- (b) use of data and information measured by the progression in number of users, by the volume of accessed data and added-value information, and by the widening of distribution across Member States;

- (c) market penetration and competitiveness of the European downstream operators.

Specific tools will be put in place for measuring regularly those parameters, in particular by including specific requirements in the delegation agreements and/or contracts to be established with operators. Ad hoc studies will be procured at several milestones of the programme to measure the degree of satisfaction of the (potential) users, as well market penetration and the effect of Copernicus in the competitiveness of the downstream sector.

In addition, it is expected that a large part of programme implementation will be delegated to third parties. Delegation agreements will include objectives and indicators to allow monitoring the performance of the operators. Those indicators will serve as well for the overall monitoring of the programme. They include:

- the establishment at operational level of the 6 services, all six services being in place operationally by 2017;
- the delivery within budget and planning of service information as established in the delegation agreements and/or contracts with operators;
- the number of users of services and their degree of satisfaction;
- the development of the downstream sector using Copernicus data and information.
- the launch and exploitation of the planned satellites or instruments, including the timely delivery of observation data in the adequate format to the identified users, according to the planning to be agreed in the Long Term Scenario document for the space component;
- the definition and development within budget and planning of new satellites and respective ground segment, as defined in the Long Term Scenario and in the delegation agreement to be established with ESA;

1.5. Grounds for the proposal/initiative

1.5.1. Requirement(s) to be met in the short or long term

Insufficiently reliable information on the state of the earth to public users

In the last thirty years, substantial R&D efforts in the field of Earth observation have been made by the EU, the European Space Agency (ESA) and their respective Member States, with a view to developing infrastructure and pre-operational Earth observation services. However, many of the existing Earth observation services in Europe are insufficient due to infrastructural gaps and lack of guarantees on their availability in the long term. Data provided through the currently existing services either do not cover all the parameters needed by policy makers¹⁷ or are not provided on a continuous and sustainable basis, in particular because the lifetime of the service or the underlying observation infrastructure is limited due to budgetary and/or technical constraints. Failure to address this problem will have major

¹⁷ In particular, information aggregated at European or global level with a sufficient quality is currently not available to European policy makers.

short and long term consequences. For example, in the short term, no maps will be available for civil protection in the event of natural disasters and in the longer term, vital climate change data will not be available for decision makers.

Downstream investments at risk

The Copernicus programme based on the Initial Operation Regulation finances, during the period 2011 – 2013, a set of operational activities. With the existing programme, covering the initial operations, a first step has been made towards an Earth observation system. However, it is still limited in time (i.e. 2011-2013).

This risk of disruption represents a major concern for final users like public authorities, but also for downstream service providers, as they are not likely to invest significantly in non-mature, risky markets and will face additional difficulties in raising capital.

Innovation potential at risk

Disruption would also imply that R&D investments are not translated into innovation. Therefore the potential to unleash the innovation capacity linked to Copernicus, which is mainly a service related innovation, will not be exploited. This would be regrettable especially taking into account that the EU innovation policy should be more targeted to the services sector, as different studies show¹⁸.

Impact on employment

Finally, satellite application systems are the main source of income for the European space industry (3.1 billion euro), and are the main domain of exports (with 1.13 billion euro).¹⁹ One of the two most significant segments in terms of income is Earth observation (e.g. Copernicus Sentinels). Currently, Earth observation systems account for around 30 % of the total income for the European space industry. Besides this direct impact on industry sales, Copernicus has a significant impact on the competitiveness and the profitability of the European space manufacturing industry. Export and trade vastly depend on the relative competitive position of the sector. For these reasons, Copernicus impact on employment in the sector would be significant with an estimated 35,000 jobs over the period 2015-2030.

1.5.2. Added value of EU involvement

The legal basis for a European Earth observation programme (Copernicus) is Article 189 of the TFEU, which allows the EU to develop its own space programme. Article 2 of the Regulation 911/2010 on the European Earth Monitoring programme (GMES) and its initial operations already lists activities included in the programme. Moreover, the delivery of Copernicus is a strategic objective of Europe 2020.

Responsibility for funding the exploitation and the renewal of space infrastructure developed with EU and intergovernmental funds cannot be optimally achieved by individual Member States because of the costs incurred. In the field of space-based observation for operational meteorology, European States have pooled their resources to develop and exploit

¹⁸ See for instance Next generation innovation policy, the future of EU innovation policy to support market growth, CEPS and Ernst & Young, 2011.

¹⁹ The European Space Industry in 2010, ASD-Eurospace, 15th edition, June 2011.

meteorological satellites in the framework of the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT). European States also developed demonstrators of environmental satellites either through ESA or through national space agencies. They could, not however, find a way to co-operate with regard to the funding of sustained operational programmes in the field of environmental monitoring similar to those in meteorology. The need for continuing such observations is becoming critical, considering the increasing political pressure on public authorities to take informed decisions in the field of environment, security and climate change and the need to respect international agreements.

For the services with a pan-European or global coverage, Member States cannot sufficiently achieve the objectives of the proposed action, as the inputs from different Member States have to be aggregated at European level. The provision of other services (e.g. emergency maps or thematic land monitoring maps of a more limited geographical scope) can be better achieved at EU level for two reasons. First, a more coherent and centralised management of input data, from space based or in situ sensors will allow for economies of scale. Secondly, an uncoordinated provision of Earth observation services at Member State level would lead to duplications and would render the monitoring of the implementation of EU environmental legislation on the basis of transparent and objective criteria difficult or even impossible. If information produced at Member State level is not comparable, it will not be possible for the Commission to ascertain whether environmental legislation has been implemented correctly in all Member States. Moreover, action at European level will create economies of scale leading to a better value for public money. Action at EU level thus leads to a clear added value.

1.5.3. Lessons learned from similar experiences in the past

This proposal builds on the experience acquired during development of Copernicus as a research initiative over the last twelve years and the initial operations phase in 2011-2013. This experience proves that, while funding for research is still necessary to continue the development of Copernicus, it has become necessary to support delivery of Earth observation services and operations of satellites in order to reap the full benefits of the investments made so far and to respond to the needs identified above.

1.5.4. Coherence and possible synergy with other relevant instruments

In the operational phase Copernicus will be able to deliver information to policy makers, public authorities, businesses and European citizens. This means that Copernicus, as an EU autonomous source of information, aims to support all relevant Union policies, instruments and actions, where understanding the way our planet changes is paramount.

Examples of Copernicus' contribution to other EU policies are the following:

- International cooperation policies: extending Copernicus services to Africa represents a concrete contribution to EU development policies. Satellite Earth Observation, for instance, allows the monitoring of crop conditions during the agriculture season and the development of a Food Security Early Warning System for at-risk regions worldwide. In addition some applications of Copernicus could provide policy makers with information on natural resources in Africa.
- Transport policy: by optimising ship routing Copernicus Marine service can minimise fuel consumption and emissions.

- Environmental policies: the Copernicus services provide systematic or periodic information at various scales which are necessary for monitoring on a continuous basis the state of the Marine, Atmosphere and Land environment. In this context environmental images collected through Copernicus could provide the basis to monitor the targets of the new European biodiversity strategy, or as a tool to monitor the efficient use of resources such as wood, water, minerals, land, air (quality) and many others at European and global scale.
- Humanitarian aid: Copernicus services play also an important role in emergency response activities inside and outside EU, providing up-to-date information which is crucial for decision makers, operation planners and field teams.
- Energy: Copernicus can provide Europe with a reliable source of information on solar energy and can contribute to the monitoring of nuclear proliferation or decommissioning of nuclear sites.
- Regional policy: at Pan-EU level the Copernicus Land Service provides harmonised land cover and land cover change products. This information is essential for land use and urban policies purposes.
- Climate change policy: there are several Copernicus services that touch upon climate-related issues such as forest monitoring and land carbon information, monitoring sea and ice level, analysis of green-house gases and fluxes.
- Security: Copernicus can contribute to border surveillance and maritime surveillance. In this framework since 2008, DG ENTR and DG HOME have established a close cooperation.
- Agriculture: Copernicus could contribute to the improvement of the timely and accurate monitoring of agricultural land use and its changes at European, national and regional levels by providing common methodologies and indicators covering various temporal, spatial and thematic scales. The common agriculture policy could use Copernicus in order to monitor the ‘set-aside’ policy.
- Marine related policies: Copernicus allows understanding the ocean, its dynamic and its impact on climate change. Applications in this domain include: Maritime Security, Oil Spill, Marine Resources management, Climate Change, Seasonal Forecast, Coastal Activities, Ice Survey and Water Quality.

1.6. Duration and financial impact

- Proposal/initiative of **limited duration**
 - Proposal/initiative in effect from 2014 to 2020
 - Financial impact from 2014 to 2020
- Proposal/initiative of **unlimited duration**
 - Implementation with a start-up period from YYYY to YYYY,
 - followed by full-scale operation.

1.7. Management modes envisaged²⁰

- Direct management** by the Commission
- Indirect management** with the delegation of implementation tasks
 - executive agencies
 - bodies set up by the Communities²¹
 - national public-sector bodies/bodies with public-service mission
 - persons entrusted with the implementation of specific actions pursuant to Title V of the Treaty on European Union and identified in the relevant basic act within the meaning of Article 49 of the Financial Regulation
- Shared management** with the Member States
- Decentralised management** with third countries
 - International organisations

If more than one management mode is indicated, please provide details in the "Comments" section.

Comments:

Copernicus builds on capabilities existing in Europe, avoiding unnecessary duplication and, to the contrary, looking for synergies among existing national or international capabilities. In addition, it is considered that the Commission has neither the internal workforce nor the expertise to manage alone this highly complex operational system of systems. This is why, in line with the objectives of simplification and of improving the performance of EU spending programmes, it is proposed to implement large parts of the programme indirectly, in the meaning Article 58 of the Financial Regulation, delegating implementing powers to a number of relevant bodies, in their field of expertise. With delegation agreements, the Commission

²⁰ Details of management modes and references to the Financial Regulation may be found on the BudgWeb site: http://www.cc.cec/budg/man/budgmanag/budgmanag_en.html

²¹ As referred to in Article 185 of the Financial Regulation.

will remain responsible for the programme but will transfer implementation responsibilities to a number of operators. The Commission, supported by the committee and independent experts, will focus on defining the high level programmatic decisions and on monitoring their implementation. Operators will be requested to submit annual Work Programmes and Annual Activity Reports together with audit certificates.

Until 2013, the development of the Space component was co-funded by the EU and ESA through a contribution of the FP7 Space theme and the GMES and its initial operations Regulation to the ESA's GMES Space Component programme. The Commission, on behalf of the EU, contributed by one third to the overall budget of the GSC programme, i.e. circa 780 million out of € 2.4 billion. To that aim, a delegation agreement was established in 2008 between the EU, represented by the Commission, and ESA. This agreement was established under the framework agreement between the EU and ESA. Recognising that ESA has a unique expertise and is the only agency for research and development activities of space related programmes at European level, it is proposed to continue entrusting it the development activities, i.e. design, construction and procurement of satellites and related ground segment, of Copernicus. It is considered that ESA can continue co-funding the development activities, and in particular developments of a new generation of satellites, to be opposed to the procurement of recurrent units replicating the design of the already developed units.

It is proposed as well to entrust the operations of the developed infrastructure to both ESA and EUMETSAT. ESA will be responsible for the operations of Sentinels 1, 2 and of the processing of the Land part of Sentinel 3. Having design and coordinated the design and procurement of the ground segment, acknowledging its expertise acquired on the operations of many scientific missions, ESA is well placed to manage these tasks. EUMETSAT will be entrusted with the operations of satellites and instruments particularly relevant for the atmosphere and marine communities, which are very close, often identical, to its own domain of competences. It should be recalled that Sentinels 4 and 5 are instruments carried on EUMETSAT own satellites. In addition, reception, treatment and distribution of data will mostly be done using multi-mission capacities of EUMETSAT. Both organisations will be responsible for the access and delivery of observations from contributing missions, in their respective domains of expertise.

One of the key products of the Land service is a comprehensive and timely assessment of land cover and land cover change. Corine Land Cover (CLC) datasets have provided a time series of land cover and land use information over the European continent since 1990. These allow for monitoring changes to the earth's surface that result from the interaction of both natural processes and human activities. Since 1994, Corine is implemented by the European Environment Agency. The EEA is an agency of the European Union which task is to provide sound, independent information on the environment to those involved in developing, adopting, implementing and evaluating environmental policy, and also the general public. EEA is also responsible for coordinating the European environment information and observation network (Eionet) in which national experts contribute to the collection and validation of environmental data. During the GMES initial operations (2011-2013), the coordination of the pan-European and local components of the Land service were entrusted to the EEA and implemented through centralized implementation, with procurement via framework and service contracts to service providers; and decentralized implementation, using grant agreements to national agencies that are the EEA's direct stakeholders. In addition, it should be noted that the Land service relies strongly on in-situ measurements and geographical reference data. EEA is well placed to arrange their furniture by national environmental and/or mapping agencies. This is why, acknowledging the obvious synergies

possible between Copernicus and EEA's core responsibilities, and the unique position of the EEA, as coordinator of the Eionet, vis-à-vis Copernicus stakeholders that are the national environmental agencies, it is proposed to continue delegating the implementation of these two components of the Land service to the EEA.

Since 2008, work has been on-going to establish a European Border Surveillance System (EUROSUR) to reinforce the control of the Schengen external border, especially the southern maritime and eastern land borders. EUROSUR will provide Member States with a common technical (infrastructure) and operational framework (workflow) in order to increase the situational awareness at their external borders and improve the reaction capabilities of their national authorities surveying the EU borders. One of the objectives agreed is to set up a common application of surveillance tools (satellites, UAVs, aerostats, etc), Frontex acting as a facilitator. Frontex is the European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union. It promotes, coordinates and develops European border management. For the strand on border control of the Security service, the active cooperation of Frontex is instrumental. Frontex was involved in all FP7 projects preparing the strand, as well as other related projects of the FP7 Security theme. It can be noted that the need for Frontex to rely on GMES/Copernicus for those activities is recognised in the Commission's proposal for the EUROSUR Regulation²². It is thus proposed to delegate the implementation of this strand to Frontex.

As for the Security strand on maritime surveillance, it is proposed to delegate its implementation to EMSA, the European Maritime Safety Agency. Indeed, EMSA's mandate includes some responsibilities in maritime security and an obligation to assist the Commission in related activities. EMSA has a widely recognised expertise in the implementation of CLEANSeaNET, a maritime safety operational programme relying on Earth observations. It is also actively involved in several R&D projects preparing for the Copernicus Security service.

²² COM(2011) 873 final

2. MANAGEMENT MEASURES

2.1. Monitoring and reporting rules

A monitoring system will be put in place to ensure the highest quality outputs and most efficient use of resources. Monitoring will run throughout the life of the programme. It will build on regular reports from the implementing partners.

2.2. Management and control system

2.2.1. Risk(s) identified

All the risks relating to the programme will be recorded centrally in a register listing. Each risk will be allocated a degree of probability and an impact rating. The risk register will also include a list of measures intended to reduce the probability of a risk materialising. The risks are classified as follows:

- Technological risks: e.g. satellite uses leading-edge technology which has yet to be validated and the specifications of which are constantly evolving.
- Industrial risks: establishing the infrastructure involves many industrial players, in a number of countries, whose work has to be coordinated effectively in order to arrive at systems which are reliable and fully integrated, particularly with regard to security.
- Market risk: what has to be avoided is a technical performance that is inferior to that promised having a negative effect among users, and the infrastructure not being used as a result.
- Timetable risk: any delay in the implementation would jeopardize the window of opportunity.
- Governance risk: governance of the programmes requires various bodies to work together, and an appropriate degree of stability and organisation has to be guaranteed. Moreover, differences of opinion between the various parties involved have to be taken into account on several major issues. In this context the sharing of some risks, including financial and security-related risks, among those players who are best placed to cope with them, should be considered.

Moreover, the budget of the Programme will be implemented, for the most part, in indirect management, through delegation agreements, and, in a marginal part, in centralised mode, where the Commission will make use of grants and public procurement. The risks are different for each of these different types of expenditure. Audits carried out by the European Court of Auditors and by the Commission's own ex-post audits have identified the following main risks which remain potentially valid for this Programme:

For delegation agreements: The main risks identified refer to eligibility of the operators (the entity with whom the Commission concludes a delegation agreement), contractual compliance (transposal of the Commission's requirements into the contractual documentation), process

compliance (non-observance of processes prescribed by the Commission) and performance (non-achievement of pre-defined targets/objectives).

These risk types will be addressed taking account of the following factors:

- Significant aspects of the management and control process are carried out by the operators.
- The Commission has to rely to a significant extent on the operators' management control systems.
- It is important to ensure the appropriate level of controls along the implementation chain with clear responsibilities for all the involved partners.

For grants: The complex cost eligibility rules and the relatively limited financial management expertise of certain beneficiaries could result in a high risk of incorrectly declared costs (e.g. overheads and equipment costs).

The lack of a complete database with information about beneficiaries, projects and declared costs could make the detection of risky beneficiaries and of possible duplicate charging of costs or other irregularities difficult and thus result in ineffective antifraud activity.

For public procurement: Undetected errors or uncorrected imprecisions in tenders or tender specifications could lead to bad contract execution.

2.2.2. Control method(s) envisaged

Different control methods are envisaged to address the different risks identified above

2.2.2.1. Delegation Agreements

Information on the internal control system set-up

A management and control system based on the following measures should be established:

- ex-ante assessment of the operator
- risk based monitoring, included on the basis of standardised reporting,
- preventive action through the design of appropriate eligibility, contractual compliance, process compliance and performance requirements;
- contractual remedies allowing for corrective action in case of implementation error regarding eligibility, contractual compliance, process compliance and performance requirements;
- ex-ante controls on payments from the DG to the trust account of the operator;
- alignment of interest measures;
- participation in governance

- audit access rights concerning operators, affiliated entities and final beneficiaries;
- a full audit trail covering the implementation chain;
- compliance and performance audits by Commission's agents
- integrated assurance building taking account of the system of internal controls and internal auditing maintained by operators and affiliated entities addressing eligibility, contractual compliance, process compliance and performance requirements;
- financial statements audited by external auditors;
- statements of assurance provided by operators on an annual basis.

The verification that processes are working as designed will be ensured through several information channels:

management's knowledge about the state of the DG's internal control systems, gathered through the day-to-day work and experiences;

the DG's formal supervision, follow-up and monitoring arrangements;

- the results from the annual ICS review ('full compliance with baseline requirements');
- the results of the Risk Assessment exercise;
- the ex-ante and ex-post controls, including reports of exceptions and/or internal control weaknesses;
- the results from the DG's external financial audits;
- the audit and consultancy work performed by the DG's Internal Audit Capability;

evaluations of the Programmes carried out by external evaluators.

Auditing by the IAC, the IAS or the ECA will provide further feedback on the adequacy of the control system.

Estimation of the costs and benefits of the controls implied by the control system

Controls envisaged have been considered in a broad sense in line with the COSO model definition of internal control defined as "a process designed to provide reasonable assurance regarding the achievement of objectives in effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations". The costs of controls are estimated on a comprehensive basis covering any activities which are directly or indirectly related with the verification of the rights of operators and the regularity of the expenditure. Where possible they are detailed along the various management stages, and in line with the description of the control system envisaged.

Adjustments to take account of the expected changes of the new proposal include data for the alignment of interest measures and further contractual remedies allowing for corrective action in case of implementation error regarding requirements.

Assessment of the expected level of risk of non-compliance with the applicable rules

Under the envisaged control system, the expected level of risk of non-compliance (defined as the expected risk of error of legality and regularity occurring at the level of transactions) will be kept below 2% on a multi-annual basis, however with a lower cost due to risk frequency and risk impact mitigation, stemming from the additional measures introduced.

The error rate is expected to drop due to the clarification of the applicable rules including SMART requirements, due to further reinforcement of contractual remedies and due to the increased alignment of interest.

It is envisaged that a minor part of this Programme's budget might be implemented under centralised direct management (see below) through grants and public procurement.

2.2.2.2. Grants

Information on the internal control system set-up

The current internal control framework is built on the implementation of the Commission's Internal Control Standards, procedures for selecting the best projects and translating them into legal instruments, project and contract management throughout the project lifecycle, ex-ante checks on claims, including receipt of audit certificates, ex-ante certification of cost methodologies, ex post audits and corrections, and evaluation.

The documentation of calls for proposal contains detailed guidance about eligibility rules and notably about the most frequent errors in relation to staff costs. Beneficiaries are invited to provide already when making a proposal sufficient details about the envisaged costs allowing ex-ante verification and detection of possible errors or misunderstandings and where necessary changes of the implementation or adaptation of the grant agreement. This will significantly increase the legal certainty of beneficiaries and decrease the risk of error.

Ex-post controls will be carried out in order to determine the representative average error rate that will remain despite of training, ex-ante checks and corrections. The ex-post audit strategy for expenditure under the Programme will be based on the financial audit of transactions defined by Monetary Unit Sampling, complemented by a risk-based sample. The ex-post audit strategy regarding legality and regularity will be complemented by reinforced operational evaluation and the anti-fraud strategy.

Estimation of the costs and benefits of the controls implied by the control system

A balance will have to be found between, on the one hand, increasing the attractiveness of the Programme by reducing the control burden for the beneficiaries (increased trust and risk taking using more flat rates, lump sums and scales of unit) and, on the other hand, ensuring that the rate of un-corrected errors stays as low as reasonably feasible.

DG ENTR will establish a cost-effective internal control system that will give reasonable assurance that the risk of error, over the course of the multiannual expenditure period is, on an annual basis, is within the range of 2-5%; with the ultimate aim to achieve a residual level of

error as close as possible to 2% at the closure of the multiannual programmes, once the financial impact of all audits, correction and recovery measures have been taken into account.

The audit strategy shall aim at providing a fair and reliable representation of the risk of error and at effectively and efficiently examining indications of fraud. The ex-ante checks of proposals before signature of the grant agreement and clarification of eligibility rules should not significantly increase the time to contract. The authorising officers by delegation shall report annually about the costs and benefits of control and the Commission shall report to the legislative authority in the framework of the Mid-Term Review about the level of non compliance that could be achieved.

Assessment of the expected level of risk of non-compliance with the applicable rules

A. Current sources of error

Based on results so far, recurring errors have been identified in relation to the following:

- **personnel costs:** charging average or budgeted costs (rather than actual costs), failure to keep adequate records of time spent on the programme, charging of ineligible items (SME owner-manager costs).
- **other direct costs:** regular errors identified are subcontracting without prior authorization, or without respecting the rules of value for money, etc.
- **indirect costs:** in a number of cases the indirect costs are a flat rate percentage of direct costs, and so the error in indirect costs is proportional to the error in direct costs.

B. Proposed simplification opportunities

The program will benefit from the simplification measures included in the triennial review of the Financial Regulation. In this framework the Commission will use the possibility to adopt simplification measures as for example scales of unit cost for SME owner managers or the use of standard rates for staff costs in line with the beneficiaries usual account principles.

C. Contribution of control changes to the reduction of the expected level of noncompliance

The starting point is the status quo, based on FP7 grant audits carried out so far. Based on the assumptions that:

- the beneficiaries of grants under the future Copernicus programme are similar to those who participated in FP7, and that
- one third of the sources of errors are estimated to be those listed under point B above,

the simplification measures included in the Financial Regulation are expected to lead to a reduction of the error rate. Another reduction of errors is expected from the ex-ante clarification of the eligibility rules.

Conclusion: taken all measures referred to above together, the ultimate aim is to achieve a residual level of error as close as possible to 2% by the end of the lifecycle.

This scenario is based on the assumption that the measures of simplification are not subject to substantial modifications in the decision making process.

2.2.2.3. Public Procurement

The internal control framework built on the implementation of the Commission's Internal Control Standards, public procurement procedures for selecting the best proposals and for contract management throughout the project / contract, and ex-ante checks on invoices and payments shall avoid residual errors being above 2%.

2.3. Measures to prevent fraud and irregularities

Specify existing or envisaged prevention and protection measures.

In the framework of the Commission's Anti-Fraud Strategy (CAFS)²³ and with the assistance of OLAF through consultation and participation in the OLAF Fraud Prevention and Detection Network (FPDNet) DG ENTR has developed its own draft Anti Fraud Strategy (AFS) covering measures for the prevention and detection of fraud and irregularities both internally and towards beneficiaries and contractors. The AFS will be updated annually.

In particular for grants, the DG ENTR AFS Action Plan foresees the creation of a central register of all its beneficiaries (coordinators, partners, subcontractors and other actors) and projects (reports and cost declarations). This database, in combination with the planned acquisition of powerful data analysis tools for the detection of fraud indicators or 'red flags' will significantly improve its control functions and audit capabilities.

In order to increase the knowledge and capacity for performing preventive and effective controls, the DG ENTR AFS Action Plan foresees the offer of specific training courses and guidance material. Furthermore, a control strategy for the evaluation of the financial and technical capacity of beneficiaries will be developed and implemented as well as a risk-categorisation of beneficiaries based on fraud-indicators, registration in IT tools and flagging for ex ante / ex post audits.

In addition, audit procedures and guidance for risk-based ex post audits will be developed focussed on possible fraud cases and irregularities. This AFS will also be better aligned to the internal control standards, in particular with the risk assessment exercise, and to the AFS of other DGs and sub-delegated entities.

²³ COM(2011)376, 24.06.2011

3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected

Existing expenditure budget lines requested

In order of multiannual financial framework headings and budget lines.

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number [Heading.....]	Diff./non-diff.	from EFTA countries	from candidate countries	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
[1]	02010404 – Support expenditure for European Earth observation programme (Copernicus)	Non Diff	YES	NO	YES	NO
[1]	020601 - Operational services (Copernicus)	Diff	YES	NO	YES	NO
[1]	020602 – Space-borne observations (Copernicus)	Diff	YES	NO	YES	NO

3.2. Estimated impact on expenditure

3.2.1. Summary of estimated impact on expenditure

EUR million (to 3 decimal places)

Heading of multiannual financial framework:		Smart and inclusive growth										TOTAL	
		1	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021			
• Operational appropriations	DG Enterprise												
	020601	Commitments	58,500	179,721	189,426	197,952	208,610	283,691	210,291			1,328,191	
		Payments	29,215	195,417	188,779	197,673	207,871	266,906	231,030	11,300		1,328,191	
	020602	Commitments	301,933	373,949	394,141	411,880	434,051	590,279	437,556			2,943,789	
Payments		150,785	406,608	392,796	412,159	434,790	555,362	480,717	110,582		2,943,789		
Appropriations of an administrative nature financed from the envelope for specific programmes ²⁴													
02010404			2,500	2,700	2,700	2,800	2,900	2,900	3,000			19,500	
	Commitments	=-1+1a +3	362,933	556,370	586,267	612,632	645,561	876,870	650,847			4,291,480	
TOTAL appropriations for DG Enterprise			182,500	604,725	584,275	612,632	645,561	825,168	714,737	121,882		4,291,480	
	Payments	=-2+2a+3											

²⁴ Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former "BA" lines), indirect research, direct research.

Heading of multiannual financial framework:	5	" Administrative expenditure "						
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EUR million (to 3 decimal places)

DG: Enterprise	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	TOTAL
• Human resources	4,497	5,259	5,894	5,894	5,894	5,894	5,894	39,226
• Other administrative expenditure	0,343	0,343	0,343	0,343	0,343	0,343	0,343	2,401
TOTAL DG ENTERPRISE	4,840	5,602	6,237	6,237	6,237	6,237	6,237	41,627

TOTAL appropriations under HEADING 5 of the multiannual financial framework	4,840	5,602	6,237	6,237	6,237	6,237	6,237	41,627
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EUR million (to 3 decimal places)

	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	TOTAL
TOTAL appropriations under HEADINGS 1 to 5 of the multiannual financial framework	367,773	561,972	592,504	618,869	651,798	883,107	657,084		4,333,107
Commitments									
Payments	187,340	610,327	590,512	618,869	651,798	831,405	720,974	121,882	4,333,107

3.2.2. *Estimated impact on operational appropriations*

- The proposal/initiative does not require the use of operational appropriations
- The proposal/initiative requires the use of operational appropriations, as explained below:

Commitment appropriations in EUR million (to 3 decimal places)

Objectives	YEAR 2014	YEAR 2015	YEAR 2016	YEAR 2017	YEAR 2018	YEAR 2019	YEAR 2020	TOTAL
SPECIFIC OBJECTIVE No 1 Services	58,500	179,721	189,426	197,952	208,610	283,691	210,291	1,328,191
SPECIFIC OBJECTIVE No 2 Space	301,933	373,949	394,141	411,880	434,051	590,279	437,556	2,943,789
TOTAL COSTS	360,433	553,670	583,567	609,832	642,661	873,970	647,857	4,271,980

3.2.3. Estimated impact on appropriations of an administrative nature

3.2.3.1. Summary

The proposal/initiative does not require the use of administrative appropriations

The proposal/initiative requires the use of administrative appropriations, as explained below:

EUR million (to 3 decimal places)

	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	TOTAL
HEADING 5 of the multiannual financial framework								
Human resources	4,497	5,259	5,894	5,894	5,894	5,894	5,894	39,226
Other administrative expenditure	0,343	0,343	0,343	0,343	0,343	0,343	0,343	2,401
Subtotal HEADING 5 of the multiannual financial framework	4,840	5,602	6,237	6,237	6,237	6,237	6,237	41,627

Outside HEADING 5²⁵ of the multiannual financial framework								
Human resources								
Other expenditure of an administrative nature	2,500	2,700	2,700	2,800	2,900	2,900	3,000	19,500
Subtotal outside HEADING 5 of the multiannual financial framework								

TOTAL	7,340	8,302	8,937	9,037	9,137	9,137	9,237	61,127
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²⁵ Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former "BA" lines), indirect research, direct research.

3.2.3.2. Estimated requirements of human resources

- The proposal/initiative does not require the use of human resources
- The proposal/initiative requires the use of human resources, as explained below:

Estimate to be expressed in full amounts (or at most to one decimal place)

	2014	2015	2016	2017	2018	2019	2020
• Establishment plan posts (officials and temporary agents)							
02 01 01 01 (Headquarters and Commission's Representation Offices)	28	34	39	39	39	39	39
02 01 01 02 (Delegations)	-	-	-	-	-	-	-
02 01 05 01 (Indirect research)	-	-	-	-	-	-	-
10 01 05 01 (Direct research)							
• External personnel (in Full Time Equivalent unit: FTE)²⁶							
02 01 02 01 (CA, INT, SNE from the "global envelope")	14	14	14	14	14	14	14
02 01 02 02 (CA, INT, JED, LA and SNE in the delegations)	-	-	-	-	-	-	-
02 01 04 yy ²⁷	-	-	-	-	-	-	0
	-	-	-	-	-	-	0
02 01 05 02 (CA, INT, SNE - Indirect research)	-	-	-	-	-	-	-
10 01 05 02 (CA, INT, SNE - Direct research)	-	-	-	-	-	-	-
Other budget lines (specify)	-	-	-	-	-	-	-
TOTAL	42	48	53	53	53	53	53

The human resources required will be met by staff from the DG who are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

The current human resources in 2013 is 29FTE (17 Establishment plan posts and 12 External personnel): the progressive increase to 53 FTE (+ 22 Establishment plan posts and + 2 External personal should be covered as follows: After the revision on 2016 of all existing delegation agreements, a re-assessment of the resources allocated is necessary to ensure that the objectives can be met with the staff in place. The actual figures for 2016 to 2019 are indicative and could be revised.

- for the 22 additional establishment plan posts (EPP); 8 would be covered by redeployment inside the Directorate G of DG Enterprise (a reorganisation is foreseen to merge the Space policy activities and Space research and development activities), other 4 EPP would be covered by redeployment inside DG Enterprise. The remaining 10 additional EPP must be covered by the pool of redeployment from the

²⁶ CA= Contract Agent; INT= agency staff ("Intérimaire"); JED= "Jeune Expert en Délégation" (Young Experts in Delegations); LA= Local Agent; SNE= Seconded National Expert;

²⁷ Under the ceiling for external personnel from operational appropriations (former "BA" lines).

Commission and/or by seconded (mis à disposition) personnel from DGs involved in the Copernicus programme as it was foreseen by the Commission decision on the creation of GMES from 2006 (C(2006)673) A proposal of modification of this decision will be submit.

- for the External personnel: 2 additional FTE requested in 2014 will be covered by internal redeployment; and if needed; additional resources could be requested after the 2016 revision.

Description of tasks to be carried out:

Officials and temporary agents	<ul style="list-style-type: none"> - Prepare and monitor the implementation of the programme including the definition of the users requirements; - Select delegate bodies; - Negotiate delegation agreements (6-fold increase) - Supervise delegate bodies (4-fold increase); - Monitor budget implementation in indirect mode - Provide legal and regulatory analysis to support the policy-making process; - Ensure the compliance of proposed solutions with the applicable rules; - Guarantee sound financial management and complete the financial transactions related to contract management; - Perform activities required to ensure efficient cost control; - Follow-up on international cooperation and negotiate international agreements - Monitor security aspects of Copernicus - Maintain relations with Member States, in particular the in-situ component - Risk assessment and mitigation (accrued due to financial exposure of the enhanced envelope) - Relations with the European Parliament and the Council under art 58, 60-61 Financial Regulation - Prevention of fraud and irregularities and relations with OLAF and the Court of Auditors - Data policy and its enforcement by all stakeholders - Promote user uptake in the Member States
External personnel	Support to the tasks described here above

3.2.4. *Compatibility with the current multiannual financial framework*

- Proposal/initiative is compatible the current multiannual financial framework.
- Proposal/initiative will entail reprogramming of the relevant heading in the multiannual financial framework.
- Proposal/initiative requires application of the flexibility instrument or revision of the multiannual financial framework²⁸.

3.2.5. *Third-party contributions*

- The proposal/initiative does not provide for co-financing by third parties
- The proposal/initiative provides for the co-financing estimated below:
- The programme will be open for participation to third countries but no formal agreement has been concluded yet.

Appropriations in EUR million (to 3 decimal places)

	2014	2015	2016	2017	2018	2019	2020	Total
<i>Specify the co-financing body</i>								
TOTAL appropriations cofinanced								

²⁸ See points 19 and 24 of the Interinstitutional Agreement.

3.3. Estimated impact on revenue

- Proposal/initiative has no financial impact on revenue.
- Proposal/initiative has the following financial impact:
 - on own resources
 - on miscellaneous revenue

EUR million (to 3 decimal places)

Budget revenue line:	Appropriations available for the ongoing budget year	Impact of the proposal/initiative ²⁹					... insert as many columns as necessary in order to reflect the duration of the impact (see point 1.6)		
		Year N	Year N+1	Year N+2	Year N+3				
Article									

For miscellaneous assigned revenue, specify the budget expenditure line(s) affected.

Specify the method for calculating the impact on revenue.

²⁹ As regards traditional own resources (customs duties, sugar levies), the amounts indicated must be net amounts, i.e. gross amounts after deduction of 25% for collection costs.