

# Procedure file

Basic information	
COD - Ordinary legislative procedure (ex-codecision procedure) Regulation	Procedure completed <a href="#">2009/0070(COD)</a>
European Earth monitoring programme (GMES) and its initial operations 2011?2013 Repealed by <a href="#">2013/0164(COD)</a>	
Subject 3.40.05 Aeronautical industry, aerospace industry 3.50 Research and technological development and space 3.50.04 Innovation 3.70 Environmental policy 3.70.03 Climate policy, climate change, ozone layer 3.70.10 Man-made disasters, industrial pollution and accidents 3.70.11 Natural disasters, Solidarity Fund 6.50 Emergency, food, humanitarian aid, aid to refugees, Emergency Aid Reserve	

Key players			
European Parliament	Committee responsible	Rapporteur	Appointed
	<b>ITRE</b> Industry, Research and Energy		16/09/2009
		S&D <a href="#">GLANTE Norbert</a>	
		Shadow rapporteur	
		PPE <a href="#">DATI Rachida</a>	
		ALDE <a href="#">VĂLEAN Adina-Ioana</a>	
		Verts/ALE <a href="#">LAMBERTS Philippe</a>	
		ECR <a href="#">CHICHESTER Giles</a>	
		NI <a href="#">BALCZÓ Zoltán</a>	
	Former committee responsible		
<b>ITRE</b> <a href="#">Industry, Research and Energy</a>			
Committee for opinion	Rapporteur for opinion	Appointed	
<b>BUDG</b> Budgets		21/10/2009	
	PPE <a href="#">ABAD Damien</a>		
<b>ENVI</b> Environment, Public Health and Food Safety		09/09/2009	
	S&D <a href="#">PRODI Vittorio</a>		
<b>LIBE</b> Civil Liberties, Justice and Home Affairs	The committee decided not to give an opinion.		
Former committee for opinion			
<b>BUDG</b> <a href="#">Budgets</a>			
<b>ENVI</b> <a href="#">Environment, Public Health and Food Safety</a>			
<b>LIBE</b> <a href="#">Civil Liberties, Justice and Home Affairs</a>			

Council of the European Union	Council configuration	Meeting	Date
	<a href="#">General Affairs</a>	<a href="#">3032</a>	13/09/2010
	<a href="#">Competitiveness (Internal Market, Industry, Research and Space)</a>	<a href="#">3016</a>	25/05/2010
European Commission	Commission DG	Commissioner	
	<a href="#">Internal Market, Industry, Entrepreneurship and SMEs</a>	TAJANI Antonio	

## Key events

20/05/2009	Legislative proposal published	<a href="#">COM(2009)0223</a>	Summary
14/07/2009	Committee referral announced in Parliament, 1st reading		
11/05/2010	Vote in committee, 1st reading		Summary
17/05/2010	Committee report tabled for plenary, 1st reading	<a href="#">A7-0161/2010</a>	
25/05/2010	Debate in Council	<a href="#">3016</a>	Summary
16/06/2010	Results of vote in Parliament		
16/06/2010	Decision by Parliament, 1st reading	<a href="#">T7-0214/2010</a>	Summary
13/09/2010	Act adopted by Council after Parliament's 1st reading		
22/09/2010	Final act signed		
22/09/2010	End of procedure in Parliament		
20/10/2010	Final act published in Official Journal		

## Technical information

Procedure reference	2009/0070(COD)
Procedure type	COD - Ordinary legislative procedure (ex-codecision procedure)
Procedure subtype	Legislation
Legislative instrument	Regulation
	Repealed by <a href="#">2013/0164(COD)</a>
Legal basis	Treaty on the Functioning of the EU TFEU 189
Other legal basis	Rules of Procedure EP 159
Stage reached in procedure	Procedure completed
Committee dossier	ITRE/7/00307

## Documentation gateway

Legislative proposal	<a href="#">COM(2009)0223</a>	20/05/2009	EC	Summary
Document attached to the procedure	<a href="#">SEC(2009)0639</a>	20/05/2009	EC	
Document attached to the procedure	<a href="#">SEC(2009)0640</a>	20/05/2009	EC	

Committee draft report		<a href="#">PE430.283</a>	12/11/2009	EP	
Amendments tabled in committee		<a href="#">PE431.026</a>	17/12/2009	EP	
Economic and Social Committee: opinion, report		<a href="#">CES0096/2010</a>	20/01/2010	ESC	
Committee opinion	<b>ENVI</b>	<a href="#">PE430.605</a>	24/02/2010	EP	
Committee opinion	<b>BUDG</b>	<a href="#">PE431.174</a>	17/03/2010	EP	
Committee report tabled for plenary, 1st reading/single reading		<a href="#">A7-0161/2010</a>	17/05/2010	EP	
Text adopted by Parliament, 1st reading/single reading		<a href="#">T7-0214/2010</a>	16/06/2010	EP	Summary
Commission response to text adopted in plenary		<a href="#">SP(2010)6136</a>	01/09/2010	EC	
Draft final act		<a href="#">00022/2010/LEX</a>	22/09/2010	CSL	
Follow-up document		COM(2013)0805	20/11/2013	EC	Summary
Follow-up document		<a href="#">COM(2016)0492</a>	02/08/2016	EC	Summary
Follow-up document		SWD(2016)0262	02/08/2016	EC	

#### Additional information

National parliaments	<a href="#">IPEX</a>
European Commission	<a href="#">EUR-Lex</a>

#### Final act

<a href="#">Regulation 2010/911</a> <a href="#">OJ L 276 20.10.2010, p. 0001</a> Summary Final legislative act with provisions for delegated acts
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#### Delegated acts

<a href="#">2013/2731(DEA)</a>	Examination of delegated act
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## European Earth monitoring programme (GMES) and its initial operations 2011?2013

**PURPOSE:** to establish a Community programme for Earth observation (GMES) and the rules for the implementation of GMES initial operations (2011?2013).

**PROPOSED ACT:** Regulation of the European Parliament and of the Council.

**BACKGROUND:** GMES is an Earth observation initiative led by the EU, which has decided to develop its own operational Earth observation capacity in order to reflect its growing responsibility in European and world affairs. Over the last thirty years, the EU, the European Space Agency (ESA) and their Member States have made substantial R&D efforts in the field of Earth observation, with a view to developing infrastructure and pre-operational Earth observation services. However, with the exception of the field of operational meteorology, the data provided by the existing services either do not cover all the parameters needed by policy-makers or are not provided on a continuous basis. In other words, many of the existing Earth observation services in Europe are unreliable due to infrastructure gaps and lack of guarantees on their availability in the long term. GMES was conceived to ensure operational Earth observation in environmental and security domains beyond operational meteorology. It comprises both development activities and an operational phase.

Following the Commission Communication entitled 'Global Monitoring for Environment and Security: From Concept to Reality?' (see [COM\(2008\)0748](#)) and the orientations of the Third Space Council, implementation of GMES operations is following a phased approach, based on clearly identified priorities, starting with development of three fast-track services on emergency response, land monitoring and marine services. Establishing such a system marks a strategic choice, with a lasting impact on the further political, economic, social and scientific development of the EU.

**IMPACT ASSESSMENT:** in addition to the baseline (?Do nothing?) scenario, the Impact Assessment report analyses three options for

implementation of GMES initial operations:

1. Open method of coordination only;
2. Regulatory intervention;
3. Community financing.

The Impact Assessment demonstrates that Community financing is regarded the best option, as it is likely to be more cost-effective and would offer value for money and give the downstream sector a sustainable basis on which to develop customised services.

CONTENT : the objective of this proposal is to establish a legal basis for the GMES programme and EC funding of GMES initial operations (2011-2013), in order to:

- enable the provision of emergency response services (including emergency maps and reference maps) to various emergency response actors at Community and Member State level, as well as the key United Nations agencies, in the areas of civil protection, humanitarian aid and crisis management between 2011 and 2013, on a 24/7 basis, so that they can respond to emergencies and humanitarian disasters more efficiently and effectively;
- enable the provision of land monitoring services (in particular, pre-processed data, pan-European land cover products, high-resolution maps of cities, soil maps and thematic maps) to public authorities (including environmental agencies) in Europe between 2011 and 2013, so that they will be better able to perform their policy-making, implementation and monitoring tasks. Land monitoring services could support, inter alia, the implementation of the [Soil Thematic Strategy](#) and the assessment of ecosystems;
- contribute to the production and availability to public of environmental information, in line, in particular, with the principles of the Aarhus Convention, the [INSPIRE Directive](#) and the Shared Environmental Information System (SEIS);
- stimulate, by lowering the cost of access to information, the growth of the downstream Earth observation sector in terms of jobs, innovation and international competitiveness between 2011 and 2013.

A fully fledged GMES programme is expected to be in place in the course of the next multiannual financial framework (from 2014).

BUDGETARY IMPLICATION: research and development aspects of GMES are currently, and will continue to be, co-financed at European, intergovernmental and national levels. Part of the cost of development and operation of all the space-based and in situ installations providing data for the GMES services will be borne by Member States and intergovernmental organisations. The EC will concentrate on domains where Community intervention will provide clear added value.

The EU will both coordinate these partnerships and manage its own contribution to GMES. With the exception of a limited contribution to operation of the emergency response and land monitoring services financed as preparatory actions, this contribution currently consists, in particular, of co-financing the following research activities under the space theme of FP7:

- space infrastructure development carried out by ESA to fill gaps in existing space infrastructure;
- research on integration of in situ data and space data;
- pre-operational service development.

For pre-operational services, the funding is focusing mainly on development of the processing chain and efforts to validate the concepts and the technologies and services developed. For the period 2011-2013, this means that the FP7 funds already allocated to the space theme should be supplemented by additional non-research funds under the proposed Regulation to cover GMES initial operations.

The proposed Regulation states that the financial envelope allocated to the implementation of the Regulation shall be EUR 107 million. Third countries or international organisations may also provide additional funding for the GMES programme.

## European Earth monitoring programme (GMES) and its initial operations 2011-2013

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The Committee on Industry, Research and Energy adopted the report drawn up by Norbert GLANTE (S&D, DE) on the proposal for a regulation of the European Parliament and of the Council on the European Earth observation programme (GMES) and its initial operations (2011-2013). It recommended that the European Parliament's position at first reading under the ordinary legislative procedure (formerly known as the codecision procedure) should be to amend the Commission proposal as follows:

Funding: the operative clauses are not amended. However, new recitals in the text state that the financial envelope is compatible with the ceiling for subheading 1a financial framework 2007-2013, but the margin remaining in Heading 1a for 2011-2013 is very small. The annual amount will be determined during the annual budgetary procedure, in accordance with point 37 of the Interinstitutional Agreement of 17 May 2006. The fund should if possible be further increased so that commitment appropriations can be allocated for the space component during the current Multiannual Financial Framework (MFF). In specific terms, this concerns the operation of the A series of Sentinel satellites and the launch of the B series and the procurement of crucial components for the C series. To that end, the Commission should, in the context of the mid-term review of the current MFF, and before the end of 2010, examine the possibility of additional funding for GMES, within the overall EU budget during the MFF 2007-2013. The allocation of any additional funding to this Regulation on top of the EUR 107 million already allocated should be considered in the context of the discussion on the future of European space policy, notably on procurement and governance. The Commission should also submit a long-term financing strategy for the future MFF during the first semester of 2011, without prejudice to the outcome of the negotiations on the MFF 2014-2020. In its financial planning, the Commission should ensure that data continuity is ensured both during and after the end of the period of the initial GMES operations (2011-2013), and that the services can be used uninterruptedly and without restrictions.

Members add that the European Parliament's resolution of 20 November 2008 on the European space policy: how to bring space down to earth stressed the need to find adequate EU instruments and funding schemes for the European Space Policy to supplement the allocations from the Seventh Framework Programme for Research, Technological Development and Demonstration Activities (2007-2013), so as to allow the different economic actors to plan their actions in the medium and long term and emphasised that the next financial framework should take into account adequate EU instruments and funding schemes to allow long-term Union investment in space-related research and for the operation of sustainable space-based applications for the benefit of the Union and its citizens.

Subject-matter: the wording is amended to state that the Regulation establishes the European Earth monitoring programme (Global Monitoring for the Environment and Security ("GMES programme")), and the implementation of its initial operations during the 2011-2013 period.

GMES programme: the committee states that the service component of the GMES programme should comprise access to information in support of the following areas (not in order of priority): atmosphere monitoring; climate change monitoring in support of adaptation and mitigation policies; emergency management; land monitoring; marine environment monitoring; security. GMES initial operations may cover these areas, as well as support for in-situ data collection (see Annex below);

Organisational arrangements: Members state that the Commission must ensure coordination of the GMES programme with activities at national, European Union and international level, notably the Global Earth Observation System of Systems (GEOSS). The implementation and operation of GMES shall be based on partnerships between the EU and Member States. The coordination of the voluntary contributions of Member States, and the potential synergies with relevant national, EU and international initiatives, shall be implemented in accordance with the advisory procedure.

The committee also specified that the Commission shall ensure that, the GMES programme being a user-driven initiative, service specifications match user needs. To that end, it shall establish a transparent mechanism for regular user involvement and consultation, enabling identification of user requirements at European and national level. The Commission shall ensure coordination with relevant public sector users in Member States, third countries and international organisations. Service data requirements shall be established independently by the Commission after consultation of the User Forum.

Technical coordination and implementation of the GMES space component shall be delegated to the European Space Agency, relying on the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) where necessary. The Commission shall entrust the coordination of the technical implementation of the GMES services, where appropriate, to competent European or intergovernmental institutions.

Service Delivery: a new article provides that the Commission must take adequate measures to ensure effective competition in the provision of GMES services and to promote the participation of SMEs. The Commission shall facilitate the use of the GMES services output to develop the downstream sector. The provision of GMES services shall be decentralised, where appropriate, to integrate at European level existing space, in-situ and reference data inventories and capacities in Member States, thus avoiding duplication. Procurement of new data that duplicate existing sources shall be avoided unless the use of existing or upgradable data sets is not technically feasible or cost-effective.

The Commission, taking into account the opinion of the User Forum, may define or validate appropriate procedures for the certification of the production of data within the framework of the GMES programme. Those procedures shall be transparent, verifiable and auditable to ensure authenticity, traceability and data integrity to the user. In its contractual arrangements with GMES service operators, the Commission shall ensure that those procedures are implemented.

Lastly, it must report annually on the results achieved in the implementation of this Article.

Forms of European Union funding: the text states that EU funding may take the form of delegation agreements as well as grants and public procurement contracts.

GMES Data and Information Policy: for the purpose of providing for a framework ensuring the attainment of the GMES information and data policy objective while providing for the necessary protection of the information produced by the GMES services and of data collected through the GMES dedicated infrastructure, the Commission may adopt, by means of delegated acts in accordance with the text the following measures, taking into account the data and information policies of providers of data needed for GMES, and without prejudice to national rules and procedures applicable to space and in situ infrastructures under national control:

- measures establishing registration and licensing conditions for GMES users;
- measures defining criteria for restricting access to the information produced by the GMES services and to data collected through the GMES dedicated infrastructure. (see below)

Comitology: Members state that for the purpose of providing for a framework ensuring full and open access to information produced by GMES services and data collected through GMES infrastructure, while providing for the necessary protection of the information produced by the GMES services and of data collected through the GMES dedicated infrastructure, the Commission empowered to adopt delegated acts in accordance with Article 290 of the Treaty on the Functioning of the European Union in respect of registration and licensing conditions for GMES users and of criteria for restriction of access to GMES data and information, while taking into account the data and information policies of providers of data needed for GMES, and without prejudice to national rules and procedures applicable to space and in situ infrastructures under national control.

In addition, in order to ensure uniform conditions for implementation of the Regulation and of the delegated acts adopted on the basis of the Regulation, implementing powers are conferred to the Commission to adopt, on the basis of the conditions and criteria established by delegated acts, specific measures on restricting access to the information produced by the GMES services and to data collected through the GMES dedicated infrastructure, including individual measures taking into account the sensitivity of the information and data in question. Implementing powers are also conferred to the Commission to coordinate the voluntary contributions of Member States and the potential synergies with relevant national, EU and international initiatives, to set the maximum rate of co-financing for grants, to adopt measures laying down the technical requirements in order to ensure the control and integrity of the system within the GMES space component dedicated programme and to control the access to, and handling of, technologies that provide security to the GMES space component dedicated programme, and to adopt the annual work programme of GMES.

Evaluation: the Commission must submit an interim evaluation report by 31 December 2012 and an ex-post evaluation report by 31 December 2015.

GMES Committee: Members state that the GMES Committee may meet in specific configurations to deal with concrete issues, notably those relating to security ("Security Board").

User Forum: a new clause establishes the User Forum to advise the Commission with regard to the definition and validation of user requirements, and to the coordination of the GMES programme with its public users. It shall be chaired by the Commission and consist of GMES public sector users appointed by the Member States. The Secretariat of the User Forum shall be provided by the Commission. The GMES Committee shall be kept fully informed of the advice of the User Forum for the implementation of the GMES programme.

Annex - Objectives of GMES initial operations (2011-2013): in addition to the objectives in the proposal, Members insert the following:

- marine monitoring services shall provide information on the state of physical ocean and marine ecosystems for the global ocean and

the European regional areas. The application areas of the GMES marine services include maritime safety, the marine environment and coastal regions, marine resources as well as seasonal meteorological forecasting and climate monitoring;

- atmosphere environmental services shall 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 on the local to national scales, and should contribute to the monitoring of atmospheric chemistry climate variables;
- Security Services shall provide useful 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;
- monitoring of climate change shall allow for the adaptation and mitigation of its effects. It should in particular contribute to the provision of ECVs, climate analyses and projections on a scale relevant to adaptation and mitigation and relevant service delivery;
- with regard to data, the in-situ component shall ensure coordination of in-situ data collection and in-situ data access for GMES services.

## European Earth monitoring programme (GMES) and its initial operations 2011-2013

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The Council took note of a presidency progress report (see document [9862/10](#)) on a draft regulation on the European Earth observation programme (GMES) and its initial operations (2011-2013).

The objective is to establish GMES as an operational programme and to provide additional funds for its initial operations enabling a gradual build-up of capabilities up to the end of the current EU financial framework in 2013, as well as putting into place the necessary structures for the governance of the programme.

The report includes the three main outstanding issues contained in the proposal:

- funding for 2011 to 2013,
- governance,
- treatment of data and information policy.

A first reading agreement with the European Parliament is expected to be confirmed after the vote at the EP plenary.

assembly in mid-June, thus allowing to invest an additional EUR 107 million in the initial operational phase of GMES, as proposed by the Commission in May 2009.

GMES is an EU-led initiative to develop Europe's own operational Earth observation capacity in order to collect information about the planet's physical, chemical and biological systems or, more generally, to monitor of the natural environment. It draws on both space-based (i.e. satellite) and non-space-based facilities, including airborne, seaborne and ground-based ("in situ") installations. Data collected via satellites and in situ infrastructure are processed to provide information services allowing better management of the environment and enhancing security for citizens.

## European Earth monitoring programme (GMES) and its initial operations 2011-2013

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The European Parliament adopted by 624 votes to 33, with 12 abstentions, a legislative resolution on the proposal for a regulation of the European Parliament and of the Council on the European Earth observation programme (GMES) and its initial operations (2011-2013).

The European adopted its position at first reading under the ordinary legislative procedure (formerly known as the codecision procedure). The amendments adopted in plenary are the result of a compromise reached between the European Parliament and the Council.

They amend the Commission proposal as follows:

**Funding:** the operative clauses are not amended. However, new recitals in the text state that the financial envelope is compatible with the ceiling for subheading 1a financial framework 2007-2013, but the margin remaining in Heading 1a for 2011-2013 is very small. The annual amount will be determined during the annual budgetary procedure.

The fund should if possible be further increased so that commitment appropriations can be allocated for the space component during the current Multiannual Financial Framework (MFF). In specific terms, this concerns the operation of the A series of Sentinel satellites and the launch of the B series and the procurement of crucial components for the C series. To that end, the Commission should, in the context of the mid-term review of the current MFF, and before the end of 2010, examine the possibility of additional funding for GMES, within the overall EU budget during the MFF 2007-2013.

The allocation of any additional funding to this Regulation on top of the EUR 107 million already allocated should be considered in the context of the discussion on the future of European space policy, notably on procurement and governance. The Commission should also submit a long-term financing strategy for the future MFF during the first semester of 2011, without prejudice to the outcome of the negotiations on the MFF 2014-2020. In its financial planning, the Commission should ensure that data continuity is ensured both during and after the end of the period of the initial GMES operations (2011-2013), and that the services can be used uninterruptedly and without restrictions.

Parliament adds that the [European Parliament's resolution](#) of 20 November 2008 on the European space policy underlined the need to find adequate EU instruments and funding schemes to allow long-term Union investment in space-related research.

**Subject-matter:** the wording is amended to state that the Regulation establishes the European Earth monitoring programme (Global Monitoring for the Environment and Security ("GMES programme")), and the implementation of its initial operations during the 2011-2013 period.

**GMES programme:** Parliament states that the service component of the GMES programme should comprise access to information in support of the following areas (not in order of priority): atmosphere monitoring; climate change monitoring in support of adaptation and mitigation policies; emergency management; land monitoring; marine environment monitoring; security. GMES initial operations may cover these areas, as well as support for in-situ data collection.

**Organisational arrangements:** the amended text stipulates that the Commission must ensure coordination of the GMES programme with

activities at national, European Union and international level, notably the Global Earth Observation System of Systems (GEOSS). The implementation and operation of GMES shall be based on partnerships between the EU and Member States. The coordination of the voluntary contributions of Member States, and the potential synergies with relevant national, EU and international initiatives, shall be implemented in accordance with the advisory procedure.

The Commission should ensure that, the GMES programme being a user-driven initiative, service specifications match user needs. To that end, it shall establish a transparent mechanism for regular user involvement and consultation, enabling identification of user requirements at European and national level. The Commission shall ensure coordination with relevant public sector users in Member States, third countries and international organisations. Service data requirements shall be established independently by the Commission after consultation of the User Forum.

Technical coordination and implementation of the GMES space component shall be delegated to the European Space Agency, relying on the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) where necessary. The Commission shall entrust the coordination of the technical implementation of the GMES services, where appropriate, to competent European or intergovernmental institutions.

Service Delivery: a new article provides that the Commission must take adequate measures to ensure effective competition in the provision of GMES services and to promote the participation of SMEs. The Commission shall facilitate the use of the GMES services output to develop the downstream sector. The provision of GMES services shall be decentralised, where appropriate, to integrate at European level existing space, in-situ and reference data inventories and capacities in Member States, thus avoiding duplication. Procurement of new data that duplicate existing sources shall be avoided unless the use of existing or upgradable data sets is not technically feasible or cost-effective.

The Commission, taking into account the opinion of the User Forum, may define or validate appropriate procedures for the certification of the production of data within the framework of the GMES programme. Those procedures shall be transparent, verifiable and auditable to ensure authenticity, traceability and data integrity to the user. In its contractual arrangements with GMES service operators, the Commission shall ensure that those procedures are implemented.

Lastly, it must report annually on the results achieved in the implementation of this Article.

Forms of European Union funding: EU funding may take the form of delegation agreements as well as grants and public procurement contracts. Genuine competition, transparency and equal treatment shall be ensured in the provision of funding by the European Union.

The Commission shall report on the allocation of European Union funds to each of the activities and on the evaluation process and results of the procurement tenders and of the contracts concluded on the basis of this Article, after the award of the contracts.

GMES Data and Information Policy: for the purpose of providing for a framework ensuring the attainment of the GMES information and data policy while providing for the necessary protection of the information produced by the GMES services and of data collected through the GMES dedicated infrastructure, the Commission may adopt, by means of delegated acts, the following measures, taking into account the data and information policies of providers of data needed for GMES, and without prejudice to national rules and procedures applicable to space and in situ infrastructures under national control: (a) measures establishing registration and licensing conditions for GMES users; (b) measures defining criteria for restricting access to the information produced by the GMES services and to data collected through the GMES dedicated infrastructure.

Comitology: in order to ensure uniform conditions for implementation of this Regulation and of the delegated acts adopted on the basis of this Regulation, implementing powers should be conferred to the Commission to adopt, on the basis of the conditions and criteria established by delegated acts, specific measures on restricting access to the information produced by the GMES services and to data collected through the GMES dedicated infrastructure, including individual measures taking into account the sensitivity of the information and data in question. Implementing powers should also be conferred to the Commission to: (i) coordinate the voluntary contributions of Member States and the potential synergies with relevant national, European Union and international initiatives; (ii) set the maximum rate of co-financing for grants; (iii) adopt measures laying down the technical requirements in order to ensure the control and integrity of the system within the GMES space component dedicated programme and to control the access to, and handling of, technologies that provide security to the GMES space component dedicated programme, and to adopt the annual work programme of GMES.

Monitoring and evaluation: the Commission must submit an interim evaluation report by 31 December 2012 and an ex-post evaluation report by 31 December 2015.

GMES Committee: the GMES Committee may meet in specific configurations to deal with concrete issues, notably those relating to security ("Security Board").

User Forum: a User Forum shall be established to advise the Commission with regard to the definition and validation of user requirements, and to the coordination of the GMES programme with its public users. It shall be chaired by the Commission and consist of GMES public sector users appointed by the Member States. The Secretariat of the User Forum shall be provided by the Commission. The GMES Committee shall be kept fully informed of the advice of the User Forum for the implementation of the GMES programme.

Annex - Objectives of GMES initial operations (2011-2013): in addition to the objectives in the proposal, Members insert the following:

- marine monitoring services shall provide information on the state of physical ocean and marine ecosystems for the global ocean and the European regional areas. The application areas of the GMES marine services include maritime safety, the marine environment and coastal regions, marine resources as well as seasonal meteorological forecasting and climate monitoring;
- atmosphere environmental services shall 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 on the local to national scales, and should contribute to the monitoring of atmospheric chemistry climate variables;
- Security Services shall provide useful 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;
- monitoring of climate change shall allow for the adaptation and mitigation of its effects. It should in particular contribute to the provision of ECVs, climate analyses and projections on a scale relevant to adaptation and mitigation and relevant service delivery;
- with regard to data, the in-situ component shall ensure coordination of in-situ data collection and in-situ data access for GMES services.

# European Earth monitoring programme (GMES) and its initial operations 2011-2013

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**PURPOSE:** to set up a Community programme for Earth observation (GMES) and the rules for the implementation of GMES initial operations (2011-2013).

**LEGISLATIVE ACT:** Regulation (EU) No 911/2010 of the European Parliament and of the Council on the European Earth monitoring programme (GMES) and its initial operations (2011 to 2013).

**BACKGROUND:**

**CONTENT:** the Council adopted this regulation on the European Earth observation programme (GMES) and its initial operations (2011-2013), following an agreement reached with the European Parliament at first reading. It will contribute to the establishment of GMES as an operational programme, and will provide additional funds for its initial operations allowing a gradual build-up of capabilities until 2013, as well as putting into place the necessary structures for the governance of the programme.

**Scope of GMES:** the GMES programme shall build on the research activities carried out under Decision No 1982/2006/EC concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013) and the GMES Space Component Programme of ESA.

The GMES programme shall comprise the following:

(a) a service component ensuring access to information in support of the following areas:

- atmosphere monitoring,
- climate change monitoring in support of adaptation and mitigation policies,
- emergency management,
- land monitoring,
- marine environment monitoring,
- security;

(b) a space component ensuring sustainable spaceborne observations for the service areas referred to in this Regulation;

(c) an in-situ component ensuring observations through airborne, seaborne and ground-based installations for the service areas.

**GMES initial operations (2011 to 2013):** these operations may comprise operational actions in the following fields: (i) specific service areas; (ii) measures to support take-up of services by users; (iii) data access; (iv) support for in-situ data collection; (v) the GMES space component.

The objectives of the operational actions are defined in the Annex.

**Organisational arrangements:** the Commission shall ensure the coordination of the GMES programme with activities at national, Union and international levels, notably GEOSS. The implementation and operation of GMES shall be based on partnerships between the Union and the Member States, in compliance with their respective rules and procedures. The voluntary contributions of Member States, and the potential synergies with relevant national, Union and international initiatives, shall be co-ordinated in accordance with the advisory procedure.

The Commission shall manage the funds allocated to the activities under this Regulation in accordance with the Financial Regulation. It shall ensure the complementarity and consistency of the GMES programme with other relevant Union policies, instruments and actions, relating in particular to the environment, security, competitiveness and innovation, cohesion, research (in particular the activities of the Seventh Framework Programme linked to GMES, without prejudice to Decision No 1982/2006/EC), transport and competition, international cooperation, the European Global Navigation Satellite Systems (GNSS) programmes, the protection of personal data and existing intellectual property rights, Directive 2007/2/EC, the Shared Environmental Information System (SEIS) and Union activities in the field of emergency response.

Since GMES is a user-driven programme, the Commission shall ensure that service specifications match user needs. To that end, it shall establish a transparent mechanism for regular user involvement and consultation, enabling identification of user requirements at Union and national level. The Commission shall ensure coordination with relevant public sector users in Member States, third countries and international organisations. Service data requirements shall be established independently by the Commission after consultation of the User Forum.

Technical coordination and implementation of the GMES space component shall be delegated to ESA, relying on the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) where necessary.

The Commission shall entrust the coordination of the technical implementation of the GMES services, where appropriate, to competent Union bodies or intergovernmental organisations.

**Service delivery:** the Commission shall take adequate measures to ensure effective competition in the provision of GMES services and to promote the participation of SMEs. It shall facilitate the use of the GMES services output to develop the downstream sector. GMES Committee : the Commission shall be assisted by a committee (GMES Committee). The GMES Committee may meet in specific configurations to deal with concrete issues, notably those relating to security (Security Board). The committee shall ensure the coordination of contributions to GMES 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 GMES. It should monitor the evolution of policy and enable exchanges of good practice in GMES.

**User Forum:** the User Forum is hereby set up as a dedicated body. It shall advise the Commission with regard to the definition and validation of user requirements, and to the coordination of the GMES programme with its public sector users. It shall be chaired by the Commission and shall consist of GMES public sector users appointed by the Member States.

**Funding:** the financial envelope allocated to the operational actions shall be EUR 107 million. Appropriations shall be authorised annually by the budgetary authority within the limits laid down in the MFF. The fund should if possible be further increased so that commitment appropriations can be allocated for the space component during the current MFF. The Commission should also submit a long-term financing strategy for the future MFF during the first semester of 2011, without prejudice to the outcome of the negotiations on the MFF 2014-2020.

In its financial planning, the Commission should ensure that data continuity is maintained both during and after the end of the period of the

initial GMES operations (2011 to 2013), and that the services can be used uninterruptedly and without restrictions.

It should be noted that third countries or international organisations may also provide additional funding for the GMES programme.

GMES data and information policy: the data and information policy for actions financed under the GMES programme shall have the following objectives: (a) promoting the use and sharing of GMES information and data; (b) full and open access to information produced by GMES services and data collected through GMES infrastructure, subject to relevant international agreements, security restrictions and licensing conditions, including registration and acceptance of user licences; (c) strengthening Earth observation markets in Europe, in particular the downstream sector, with a view to enabling growth and job creation; (d) contributing to the sustainability and continuity of the provision of GMES data and information; (e) supporting the European research, technology and innovation communities.

Monitoring and evaluation: the Commission shall monitor and evaluate the implementation of the operational actions. It shall submit an interim evaluation report by 31 December 2012 and an ex-post evaluation report by 31 December 2015.

Entry into force: 09/11/2010.

## European Earth monitoring programme (GMES) and its initial operations 2011-2013

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The Commission presents a report on the interim evaluation of the European Earth Monitoring Programme (GMES) and its initial operations (2011-2013). The report, being an intermediate one, has mainly adopted a qualitative approach to the evaluation and proposed a set of possible indicators for future evaluations.

The delay in dealing with this action was due to the overwhelming drain on resources due to the urgent drafting of the [proposed Copernicus Regulation](#) (the successor to the GMES Programme) for the operational phase of the Programme as well as due to the drafting of the delegated act to define the Copernicus data policy. This was considered a priority to ensure the maximum continuity and stability of the regulatory framework for users' to take-up.

The GIO Programme officially started on 1st January 2011, and the first GMES operational services commenced in April 2012. The two services which have reached a fully operational status are: (i) the Emergency Management Service (EMS) and (ii) the Land Monitoring service.

The main outcomes of the Programme interim evaluation: the evaluation was commissioned by the Commission and undertaken by the Centre for Strategy and Evaluation Services, and confirmed the relevance, effectiveness and efficiency of the Programme. The main conclusions are as follows:

- The objective of establishing the first operational services has already been achieved. With regard to coherence, there are barriers to maximising potential due to a lack of awareness among enterprises and there is also a demand for higher resolution data. Overall, the two main operational services are expected to deliver good value for money. Other impacts will need to be assessed at the ex-post evaluation, which will take place in 2015.
- Stakeholders were satisfied with the overall management and implementation arrangements within the Programme. Most users declared themselves to be interested both in already operational services and in the transversal products to come from the full set of operational services. Users were satisfied with the delegation of specific functions to the JRC, the European Environmental Agency and DG ECHO's Monitoring and Information Centre relating to the development of two GMES services.
- The work of the Commission Unit responsible has been positively evaluated and the existence of continuity between research projects and pre-operational services has been recognised. Nonetheless, the need for better prioritisation was underlined. Overall, the Programme has been judged as an effective mechanism for developing fully operational services.
- The European added value of the Programme was clearly identified as addressing users cross-border Earth Observation monitoring needs in the emergency management and land sectors.

Over time, through a phase in, phase out approach, European datasets could incorporate contributions from National Mapping, Land Registry and Cadastral Agencies. This is however, dependent on resolving outstanding problems related to insufficient data harmonisation.

Main recommendations and follow-up actions planned by the Commission: learning the lessons from the evaluation, the Commission endeavours to improve its implementation of the Programme and take into account the recommendations in the design and implementation of the fully operational phase.

Data policy: the evaluation has provided important practical guidance for the preparation of the proposal for the new Copernicus Regulation for data policy development and for data requirements identification (i.e. Data Warehouse).

To answer the need for a better data buy scheme, both for the Emergency Management and the Land Monitoring Services, a new version of the Data Warehouse is currently under discussion between the Commission and the European Space Agency.

Governance: questions arose in the evaluation regarding the future role of the User Forum which must be separated from that of the GMES Committee, so as not to undermine the User Forums role in providing the link in governance arrangements between the Commission, Member States and real end-users. The User Forum is not mentioned in the current proposal for the Copernicus Regulation. However, regular stakeholders' involvement will be maintained, in particular at the service level and with more specialised user groups.

Exploiting synergies and avoiding duplications: in the evaluators view, up to now there has been a tendency to focus more on the space component to the detriment of the in-situ and services components. It is crucial that greater policy attention be given to ensuring services are sufficiently well resourced. At the Commission, there has recently been a re-organisation to ensure that both the infrastructure component and services get due attention. Moreover, the draft Copernicus Regulation responds to the recommendation by providing for a considerable increase in the funding for services.

Finalising data and information policy: Copernicus stakeholders and in particular the private sector, who are less well informed, need clarity on how the concept of full and open data access will operate in practice. The Commission has recently adopted the [Delegated Regulation](#) on data policy which clarifies these issues.

# European Earth monitoring programme (GMES) and its initial operations 2011-2013

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This report from the Commission sets out the main conclusions resulting from the ex post evaluation on the European earth monitoring programme (GMES) and its Initial Operations (GIO) (2011 to 2013). The evaluation is part of a wider evaluation, covering three related elements, namely the GMES Preparatory Actions, as well as the parts funded by the 7th framework research programme (FP7) of the GMES space component.

The European Earth monitoring programme GMES GIO ([renamed Copernicus](#) in 2014) is a flagship programme of the European Union on space activities. In order to respond to ever growing challenges at global level Europe needs a well-coordinated and reliable Earth observation system of its own. GMES GIO was that system.

GMES GIO was a long-term programme built on partnerships between the Union, the Member States, the European Space Agency (ESA) and other relevant European stakeholders.

Main results of the evaluation: the evaluation had two overarching objectives:

- to evaluate the relevance, effectiveness, coherence, efficiency, sustainability and European added value of the GMES GIO; and
- outline the overall societal value, in terms of the balance between the investments made in space infrastructures and services, and the value of data gathered for the selected services.

The main observation of the report are as follows:

- five years after the publication of the GMES GIO regulation (2010), the GMES programme, as well as each of its six services - atmosphere monitoring; climate change monitoring in support of adaptation and mitigation policies; emergency management; land monitoring; marine environment monitoring; security -remains important for serving the information needs of Europes policy makers and public services;
- the GIO programme was broadly effective in contributing to its stated objectives. It had a positive impact on the build-up of the present Copernicus programme, establishing two out of the six services, coordinating access to other space and in situ data, and contributing to developing, building, launching and operating the "Sentinels" satellites;
- the required outputs were delivered by the programme at reasonable and proportionate costs. The GMES space component produced substantial direct benefits for Europes space industry, with more than 230 suppliers benefitting from 530M in ESA contracts, including 48 SMEs. industrial statistics indicate that the total societal benefits produced by the GMES infrastructure reach up to EUR 3 billion;
- the programme also provides substantial added value through the provision of harmonised data and technology applied across EU Member States. It also had positive effects on intra-EU and international cooperation and enabled the creation of a permanent European earth monitoring system;
- GIO demonstrated its usefulness through its support to Member States during various extreme flood events (e.g. in Poland) or forest fires, for data on crop yield forecasting, for the monitoring of bio-diversity, urban development, water basins, rivers, lakes, ice-caps and much more.

Recommendations and follow-up: the main concern of the GIO stakeholders, namely the sustainability of the GIO programme has been addressed by the creation of the Copernicus programme. The evaluators nevertheless underline several aspects where further attention may still be worthwhile:

- strengthen the user orientation of the core services, with explicit strategies that are driven by the information and functional needs of key market segments, and which are a little less in thrall to the technological ambitions of the space sector;
- continue to invest in user uptake, within both institutional and private sector client groups, and in particular strengthen the development of substantial impact case studies, which will showcase benefits;
- increase interaction with Member States and regional authorities within the governance structures (and consultative processes) of the core services, in order to leverage [the INSPIRE process](#). Increased international cooperation and standardisation would be valuable too;
- continue to support innovation in both the core services and their platforms, looking to make greater use of data linking (and big data more generally). It would be helpful to retain some kind of research budget for this riskier, blue skies activity, perhaps through Horizon 2020 and its successor;
- increase substantially the support available to develop downstream applications, including universal and easy access to Copernicus satellites and in-situ data and focusing in particular on incentives for smaller businesses.

Beyond those recommendations, efforts to create EU wide open geospatial reference data should be continued.