

Copernicus Space Component

ESA-Ireland Technical Collaborative Arrangement

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G.M. 

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Copernicus Space Component Technical Collaborative Arrangement

Between:

the European Space Agency (ESA), established by the ESA Convention opened for signature in Paris on 30 May 1975, having its headquarters located 8-10 rue Mario-Nikis, 75738 Paris Cedex 15 – France, represented by Mr Josef Aschbacher, Director of Earth Observation,

on the one part,

and

Enterprise Ireland,

located at: East Point Business Park,
The Plaza
Dublin 3
D03 E5R6
Ireland

represented by Mr Gearoid Mooney, Department Manager, Research and Innovation Business Unit,

and

by Mr Conor Sheehan, Irish Delegation to the European Space Agency,

on the other part,



Preamble

Whereas:

Copernicus is the European Union Earth Observation and Monitoring programme, providing Earth Observation information for environmental monitoring and civil security. The dedicated Sentinel missions are being developed to meet the operational needs of the programme.

The Copernicus programme was established as a European Union (EU) programme pursuant to Regulation (EU) No 377/2014 (the Copernicus Regulation). Articles 13 and 23 of the Regulation provide for the fostering and promotion of distribution of Copernicus data and lay down the principles governing the Copernicus data and information policy.

In line with this Regulation, the European Commission has concluded Agreements with the European Space Agency (ESA) and the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) on the implementation of the Copernicus Programme.

According to Article 16 of the Agreement between the European Union and ESA signed on 28 October 2014, the principles for data access and data dissemination are those established by the Copernicus Regulation, Regulation (EU) 1159/2013 and the ESA Copernicus Sentinel Data Policy adopted by the States participating in the ESA GMES Space Component (GSC) Programme.

On this basis, the European Commission has invited ESA to establish relevant technical collaborative arrangements with interested Copernicus Participating States, primarily focusing on the Sentinels operated by ESA and EUMETSAT and addressing issues such as technical data interface specifications.

ESA will be responsible for the implementation of the technical collaborative arrangements, in coordination with and subject to the prior submission of the arrangements for the European Commission's consideration. The European Commission has concurred with the present technical collaborative arrangement on 10 October 2017.

Ireland, in its capacity as EU Member State, participates in the Copernicus programme.

Typically, in the frame of the Sentinel Collaborative Ground Segment, ESA supports the conduct of activities by States participating in the ESA GSC Programme established by Declaration ESA/PB-EO/CXI/Dec. 1, rev.10 (Final) for the purpose of furthering national use of Sentinel data. As Ireland is not participating in the ESA GSC Programme, the present Technical Collaborative Arrangement (TCA) is required as a basis for ESA to support the conduct of activities by Ireland for the purpose of furthering national use of Sentinel data.

Ireland is aware of the Data Access and Information Services (DIAS) initiatives which are being developed simultaneously under the Copernicus Programme, and are due to be operational in 2018.



The Department of Business, Enterprise and Innovation of Ireland has designated Enterprise Ireland, which enters into the present TCA with ESA, as the authority responsible for implementing this TCA on behalf of Ireland, and has authorised Enterprise Ireland to interact directly with ESA to this end.

The Parties agree as follows:

Section 1 - Purpose and entry into force

1. ESA and Enterprise Ireland undertake to cooperate for the purpose of supporting Ireland's development of a national mirror site for hosting Sentinel data and related Sentinel data initiatives, without any exchange of funds. In the event that either ESA or Enterprise Ireland is unable to continue one or several of the activities described in this TCA, each may have the option of terminating the participation in the activity, after consultation with the other and after giving reasonable advance notice.
2. The TCA shall take effect on the date of the last signature by both Parties to this TCA.

Section 2 – Scope and nomination of NPC

This TCA sets out the technical collaborative arrangements between ESA and Enterprise Ireland, such as the description of Ireland's intended initiatives, the operational interfaces, and the support required from ESA. This TCA does not provide for any legally binding rights and obligations between ESA and Enterprise Ireland, with the exception of the provisions of Section 5.2 concerning access to the Collaborative Hub, of Section 6 concerning Sentinel data governance and communication, and of Section 8 which contains the Disclaimer.

Enterprise Ireland is nominated as the National Point of Contact (NPC) for Ireland. In case other entities, such as universities, institutes, private companies, intend to participate in any of Ireland's Sentinel data initiatives established under this TCA, Enterprise Ireland shall act as the interface and contact point between ESA and any such other entity.

Section 3 –Materials for the technical cooperation

The following materials are relevant for the fulfilment of the purposes of this TCA and Enterprise Ireland shall refer to them and shall ensure that they are complied with:

- (i) An overview of the overall Copernicus dedicated Sentinel missions which is available in the Sentinel Online portal at sentinels.copernicus.eu. In particular, the portal contains up-to-date information on:
 - Mission description, including space and ground segment aspects, and operational news
 - Products definition, including contents and format specifications

- Detailed mission user handbook
 - Link to data access hubs, including registration, user manuals, operational news
- (ii) The GMES Space Component Operations Concept, ref. GMES-GSEG-EOPG-PD-12-0056, Issue 1.1, dated 9 August 2013.
- A copy of this document is appended to this TCA as Annex I.
- (iii) “Legal notice on the use of Copernicus Sentinel Data and Service Information”, which can be downloaded from:
- https://sentinels.copernicus.eu/documents/247904/690755/Sentinel_Data_Legal_Notice.
- A copy of this Legal Notice is appended to this TCA as Annex II.
- (iv) Sentinel High Level Operations Plan (HLOP), ref. COPE-S10P-EOPG-PL-15-0020, issue 2, rev. 1, dated 27 January 2017. This document is updated from time-to-time following agreement with the European Commission.
- The HLOP is available in the Sentinel Online portal at sentinels.copernicus.eu.

Section 4 - Areas of technical cooperation

The Copernicus Space Component technical collaborative arrangements with Copernicus Participating States provide a frame for specialised solutions in five main areas of cooperation:

1. Data acquisition and Quasi Real Time production (Local passive listen-in Stations)
2. Complementary collaborative data products and algorithms definition
3. Core data product dissemination and access (e.g. mirror sites)
4. Development of innovative tools and applications
5. Complementary external validation support activities

Additional areas of technical cooperation may be included in the future if they are deemed relevant and agreed by the European Commission.

Sections 5 and 7 below define the technical arrangements for each specific area of cooperation currently included within the frame of this TCA.

Section 5- Ireland’s National Mirror Site Initiative

Ireland plans to establish a national subset mirror site, with both a long-term geographically limited archive and a rolling archive and specific intermediate product processing facilities for Sentinel data. The geographical extent for the archive shall, for the most part, be initially confined to Irish territory (including the extent of the Irish Continental Shelf, Celtic and Irish

Seas), Vietnam, Cambodia, and Brazil (and close surroundings), but Sentinel-5P data products shall be hosted on the National Mirror Site with a global coverage, as available. This list will be expanded upon further identified requirements.

The data shall be made available to several public authorities, services using Copernicus data both in the public and private sector, research organisations and enterprises, with the required registration of all users.

Section 5.1 - Entities operating the National Mirror Site

Enterprise Ireland shall be in charge of operating the National Mirror Site and shall be entitled to delegate the operation of the National Mirror Site to a separate organisation (hereafter "the Operator").

Section 5.2 - Access to the Collaborative Hub

ESA shall grant Enterprise Ireland access to the Collaborative Hub (ColHub), which hosts a rolling archive of Sentinel data products, and provides bulk dissemination capabilities for Sentinel data products. The ColHub will continuously store Sentinel data acquired during the last month(s) at the processing levels agreed as part of the Sentinel core data product list and with the associated timeliness as defined in the GSC Operations Concept, which is referenced at Section 3(ii) above and appended to this TCA as Annex I. ColHub enables searching, browsing, previewing and downloading the Sentinel data. The time interval covered by the ColHub rolling archive will be scalable and will include at least the last month of data.

Access to the ColHub shall be possible via a web authentication module. ESA shall provide Enterprise Ireland with a username and password to access the ColHub. Enterprise Ireland may pass this username and password to the Operator on condition that the Operator has first explicitly accepted the relevant terms of this TCA, in particular this Section 5.2, and sections 6 (Sentinel data governance and communication) and 8 (Disclaimer) below. Enterprise Ireland and the Operator, including any of their representatives, employees or contractors involved in the initiative, may only use the ColHub username and password for the purpose of this TCA. Enterprise Ireland and the Operator shall not share the username or password with any other natural or legal person.

Enterprise Ireland and the Operator shall use the ColHub access only for the purpose of the activity described at Section 5 above. Through registration at the ColHub, accessing and/or downloading available content, the Operator shall not misuse or interfere with the service of the ColHub portal. In particular, the Operator aims to build up a mirror archive of Sentinel data and hence shall not repeat the download of identical datasets from the ColHub, but will instead store downloaded Sentinel data for re-use and re-dissemination.

Section 5.3 - Data Transfer

ESA will make its reasonable efforts to provide all the functionalities and contents offered by the ColHub. The transmission of content from the ColHub may be interrupted or delayed by ESA in the event of technical constraints, such as the internet bandwidth. In such a case, the download requested by the Operator will be enabled later, taking into account other users' requests.



ESA will make its reasonable efforts to provide appropriate interfaces to facilitate the transfer of Sentinel data from the ColHub to the Operator via internet.

Section 5.4 - Time Schedule

The ColHub will be available from the sentinels.copernicus.eu portal. ESA will make its reasonable efforts to provide Sentinel data sets as they become available in accordance with ESA's data provision plan (e.g. after launch, commensurate with the ramp-up plan for data provision).

The National Mirror Site activities in Ireland will be formally launched in Quarter 4 2017 and plans are in place for roll-out activities through 2018.

Section 5.5 - Reporting

Enterprise Ireland and the Operator shall keep ESA and the European Commission informed about the course and success of any collaborative initiative.

Enterprise Ireland shall submit regular reports regarding the National Mirror Site on at least an annual basis. The annual reports shall, as a minimum, contain information regarding:

- Sentinel data use and applications;
- Onward-dissemination of Sentinel data, including user statistics on the use of the Sentinel data on the National Mirror Site;
- Any changes to the pre-agreed set up of activities that will have an impact on ESA's support to the partner's activities.

More specifically, as concerns National Mirror Site usage statistics, the following minimum set of information shall be provided to ESA and the European Commission as part of the annual reports:

User account statistics, including:

- Total number of registered users
- Number of registered users per utilisation domain (i.e. research, commercial, education, public entity, other)
- Number of registered users per usage field (i.e. atmosphere, emergency, marine, land, security, climate, other)
- Number of registered users per country of the account user
- Total number of active users (i.e. registered users who have made one or more successful download during the reporting period)

Note: the country, utilisation domain and usage field should be requested as part of the user account registration.

Data dissemination statistics, including:

- Number of data products delivered per utilisation domain and usage field
- Volume of data delivered per utilisation domain and usage field

- Total number and volume of Sentinel core products distributed
- Number and volume of Sentinel core products distributed per mission and per product type

Section 6 - Sentinel data governance and communication

Sentinel data made available via the ColHub shall be governed by the 'Legal notice on the use of Copernicus Sentinel Data and Service Information' which is referenced at Section 3(iii) above and appended to this TCA as Annex II.

It is recalled that the Legal Notice stipulates as follows:

"Where the user communicates to the public or distributes Copernicus Sentinel Data and Service Information, he/she shall inform the recipients of the source of that Data and Information by using the following notice:

(1) 'Copernicus Sentinel data [Year]' for Sentinel data; and/or

(2) 'Copernicus Service information [Year]' for Copernicus Service Information.

Where the Copernicus Sentinel Data and Service Information have been adapted or modified, the user shall provide the following notice:

(1) 'Contains modified Copernicus Sentinel data [Year]' for Sentinel data; and/or

(2) 'Contains modified Copernicus Service information [Year]' for Copernicus Service Information.

The users' rights on their personal data are protected under European law. Such data will only be used by the European Commission and the providers of the said Data and Information for providing services to the user and for statistical as well as evaluation purposes."

If in the future specific Sentinel data is assessed by the EU to be "sensitive", the access to such Sentinel data through the ColHub and its use and distribution may become subject to different licensing conditions. This shall also apply for Sentinel data which has already been received by the Operator or Enterprise Ireland through the ColHub, if the Sentinel data is assessed to be "sensitive" after the time of data download.

Section 7 - Ireland's initiative for additional Sentinel data services and products

Enterprise Ireland plans to encourage the development and validation of regional products by Irish Research Performing Organisations and enterprises, to contribute to Sentinel data validation activities and promote the use of Sentinel data across several application areas.

Enterprise Ireland shall, on a case-by-case basis, act as interface between ESA and the other entities involved in developing additional Sentinel data services and products, and shall remain at all times responsible for ensuring compliance with the relevant terms and conditions of this TCA by those other entities.

Section 7.1 - ESA's support in Sentinel observation planning

ESA will endeavour to include, where possible, Sentinel data requirements indicated by Enterprise Ireland into the Sentinel acquisition planning. The acquisition planning is implemented by ESA according to the Sentinel High Level Operations Plan (HLOP), which is referenced at Section 3(iv) above. Data Requirements for future acquisitions may be communicated to ESA by Enterprise Ireland at any time. It is noted that Sentinel missions follow a long term planning, so that changes to the acquisition plan, if accepted, can be implemented only approximately every 6 months.

Section 7.2 - Product quality support

On a case-by-case basis, ESA shall be available to Enterprise Ireland to answer queries and to provide expertise on data processing and data quality.

Section 7.3- Advertising and networking support

ESA will publish information about the initiative online, together with advertising other initiatives using Sentinel data so as to support the networking amongst Sentinel data users and to promote the initiative across partners.

Section 7.4 - Reporting

Enterprise Ireland shall keep ESA informed about the course and success of the initiative.

In particular, reports shall provide information on:

- Type of value-added products generated
- Number of value-added products generated
- Number of value-added products distributed

Section 8 - Disclaimer

1. Access to data from the Sentinel missions is on an "as is" basis. ESA disclaims all conditions, representations and warranties of any kind of any kind, whether express, implied statutory or otherwise including, but not limited to what concerns the functionalities of the ColHub and the data transferred. This disclaimer includes the warranties regarding availability, continuity, accuracy, integrity, reliability, fitness for or compatibility with a particular purpose or meeting the users' requirements, satisfactory results or non-infringement of third party rights.
2. ESA shall not be held liable for any damage that may result from the support activities provided under this TCA, including in particular the functionalities of the ColHub, the data transfer, and advice and communication by ESA personnel.
3. ESA may at any time review, modify, suspend or terminate the support activities under this TCA, including but not limited to on the occurrence of the following events:

- (i) lack of sufficient funding for sustaining Sentinel missions, and associated facilities and activities,
 - (ii) satellite or ground system failure,
 - (iii) suspension or cancellation of planned activities of related Sentinel systems and facilities, in order for ESA or the EU to carry out activities considered of a higher priority.
4. ESA may modify the Sentinels' operations plans at any time, if it considers such corrective action necessary for ensuring the safety and success of the missions.



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Done and signed in two originals, one for each party to the TCA,

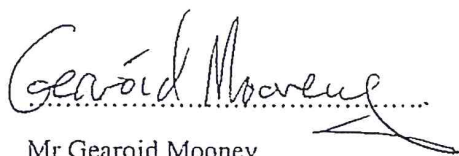
For the European Space Agency,
on this day,



Mr Josef Aschbacher

Director of Earth Observation Programmes

For Enterprise Ireland,
on this day,



Mr Gearoid Mooney

Department Manager, Research
and Innovation Business Unit

For Enterprise Ireland,
on this day,



Mr Conor Sheehan

Irish Delegation to the European Space
Agency

13/10/2017.



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