

**COOPERATION ARRANGEMENT  
BETWEEN THE EUROPEAN  
COMMISSION AND THE MINISTRY  
FOR SCIENCE, TECHNOLOGY,  
INNOVATION AND COMMUNICATION  
OF THE FEDERATIVE REPUBLIC OF  
BRAZIL ON COOPERATION IN THE  
AREA OF DATA ACCESS AND USE OF  
SENTINEL DATA OF THE  
COPERNICUS PROGRAMME.**

**CONTEXT**

Both the European Commission and the Ministry for Science, Technology, Innovation and Communication of Brazil (the Sides) are pursuing Earth observation activities in a number of areas of common interest and consider that data sharing of each other's satellite data on the basis of reciprocity will provide mutual benefits.

The Copernicus programme was established by Regulation (EU) No 377/2014. The space component of the Copernicus programme comprises a set of satellites or instruments, the so-called "Sentinels". According to Article 9 of the Copernicus Regulation the European Commission manages, on behalf of the Union, the relationships with international partner countries and international organisations and hence acts as the direct interlocutor for the Ministry of Science, Technology, Innovation and Communication and its agencies for the Copernicus programme. The European Space Agency (ESA) and the European Organisation for the Exploitation of the Meteorological Satellites (EUMETSAT) are entrusted with tasks related to the technical implementation of the Copernicus programme in coordination with, and subject to prior agreement by, the European Commission.

The Copernicus programme and the Earth observation programmes of the Brazilian agencies and institutions provide a wide range of applications to support forecasting, management and mitigation of natural disasters and crisis management as well as land, ocean and atmosphere monitoring.

**ACCESS TO AND USE OF DATA & INFORMATION**

Both Sides aim to foster cooperation activities in the area of data access and use of Sentinel data with the agencies entrusted with the operations of the Sentinel satellites and Brazilian Government satellites.

The European Commission intends to provide the National Institute for Space Research (INPE) with access to Sentinel data using high bandwidth connections from data hub to data hub with a view to foster the exchange of Earth Observation data between Europe and Brazil. This will not entail any financial commitment from the European Commission. The European Commission will not provide direct download capabilities.



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All Brazilian satellites data and other data (e.g. Resourcesat-2, DMC-II) acquired by INPE will continue to be made available for free distribution on INPE's catalogue.

Both Sides acknowledge that the Copernicus programme emphasises the importance of in-situ observations and complementarity with space-based observations. The Brazilian Ministry for Science, Technology, Innovation and Communication intends to support this objective by facilitating access to data from regional observatory networks, including geophysical and meteorological networks, to support the enhancement of the Copernicus data architecture and the development of global products.

Both Sides wish to foster cooperation activities in the areas of data access and use of Sentinel data between the agencies entrusted with the operations of the Sentinel satellites on one hand and Brazilian data centre at INPE. EUMETSAT and ESA have established cooperation with Brazilian agencies and institutions, such as the Brazilian Space Agency (AEB) and INPE.

INPE wishes to co-ordinate and promote the use of information and data provided by the Copernicus programme with various institutions in the environmental sector, academia and the private sector which are producers or beneficiaries of spatial information and to act as interlocutor with the European agencies for data exchange and information for the specific needs of those user groups.

INPE intends to provide technical support to the Copernicus programme for calibration and assessment of the data generated by the Sentinel satellites for Brazil and to develop jointly new applications.

Although the Cooperation Arrangement will be broad in nature, INPE wishes to foster cooperation activities especially in the following areas:

- Support to big Earth Observation data management;

- Multi-sensor data integration;

- Analysis ready data development;

- Data discovery and data dissemination tools;

- Technical support (calibration/validation);

- Applications of Earth observation data in research domains such as land use and land cover, biomass quantification, human settlement mappings, conservation and water studies.

Cooperation on Earth Observation data, applications and services should lead to an active downstream sector and joint product development. It is intended to facilitate jointly the involvement of the private sector in the development of products and services by enabling policies and supporting inventories of relevant private sector companies.

Both Sides look forward to Brazil leveraging its experience on big data management by establishing and operating a regional data hub to support distribution of Sentinel data in the Latin-American region.



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Both Sides support a free, full and open access for end users of Sentinel and Brazilian Earth Observation satellite (e.g. CBERS) data and information, subject to the restrictions applicable under Regulation (EU) 377/2014. Both Sides understand that the data is made available to INPE (and to users) 'as is' without any express or implied warranty, including as regards quality, liability, and suitability for any purpose. Any fees that may be levied for high-bandwidth access and/or direct downlinks should be waived on the basis of reciprocity, *i.e.* both Sides will adhere to the principle of 'no exchange of funds'.

Both Sides wish to ensure that the observations acquired by Sentinel satellites are optimised to meet global, regional and local needs. INPE wishes to contribute its expert knowledge of local and regional needs as regards Earth Observation from space towards this goal.

Where mirror sites are established and/or where data are stored after direct download, the Brazilian operator of the site intends to provide for a simple and un-bureaucratic user registration process where no more than a limited number of pieces of information for statistical purposes are requested (see Annex).

INPE intends to share with the European Commission for statistical and evaluation purposes only the following aggregated information, along with a summary of the nature and volume of data accessed: i) the name of the institution/entity, ii) country, iii) intended use, iv) domain of application, and v) estimated number of potential downstream users, customers, academic users or third parties benefitting from the data downloaded. Each Side will apply their respective laws on privacy protections and data protection.

The use of Copernicus satellite data and Copernicus service information should be acknowledged in publications and any other means of dissemination as follows:

for Sentinel data: 'Copernicus Sentinel data[Year]'; and/or 'Contains modified Copernicus Sentinel data [Year]'


for Copernicus Service Information: 'Copernicus [Atmosphere/Climate Change/Emergency Management/Land/Marine/Security] Service information [Year]' and /or 'Contains modified Copernicus [Atmosphere/Climate Change/Emergency Management/Land/Marine/Security]Service Information [Year]'.

## **ASCERTAINING THE QUALITY OF SATELLITE DATA**

Both Sides intend to support the continued availability of specific spectrum bands for the Sentinel respective satellites in order to maintain high quality data. Recognising the fact that valuable data from all six Sentinels will be made readily available to INPE and that agencies, research organisations and downstream users are interested in high quality radar data without any background noise, both Sides intend to continue to advocate an international spectrum management framework that supports the continues provision of high quality data from the radar sensors of Sentinel 1 and 3.

## **IMPLEMENTATION**

Both Sides intend this Cooperation Arrangement to be complemented by separate "Copernicus technical operating arrangements" that are to be jointly determined between the mutual



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operating agencies on both Sides (ESA, EUMETSAT, AEB, INPE) in coordination with and subject to the prior agreement of the European Commission.

Both Sides intend to facilitate the coordination of this partnership with a 'Copernicus Cooperation Group' whose members may meet whenever necessary to oversee and stimulate cooperation activities under this arrangement and to discuss topics of mutual interest (e.g. exchange of best practices, comparison of products, exchange of personnel, fostering Brazilian participation in the calls of the space domain of the EU Framework Programmes for Research and Innovation, technical arrangements to exchange experience on management of big data from space).

This Cooperation Arrangement does not create any legally binding rights or obligations for either Side, and it does not create any legal rights or financial obligations under international or national law. This Cooperation Arrangement takes into account the existing legal frameworks of both Sides and should be revisited should there be any modifications thereto in the future.

The present Arrangement of Cooperation will be signed in duplicate, in English and Portuguese languages, and shall take effect from the date on which it has been signed by both Sides.

For the European Commission:



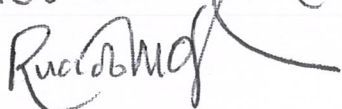
**PHILIPPE BRUNET**  
Director for Space Policy, Copernicus and  
Defence

For the Ministry for Science, Technology,  
Innovation and Communication of the  
Federative Republic of Brazil:



**GILBERTO KASSAB**  
Minister of State

Date and place:

São Paulo 8<sup>th</sup> March 2018  


Date and place:





## ANNEX

### LIST OF ITEMS FOR USER REGISTRATION

With a view to obtain statistical information that is both meaningful for reporting and at the same time easy to provide in the perspective of self-registration of the user, the following fields should be filled in:

- User Name, Password, [Confirm password]
- First Name, Last Name
- E-mail address
- Country
- Intended use defined via a drop down menu, i.e. research, commercial, education, other (please specify)
- Estimated number of potential downstream users, customers, academic users or similar third party benefitting from the data download (via dropdown menu, indicating 0 -10, 11-100, 101 – 1000, over 1000)
- Domain defined via a drop down menu, i.e. atmosphere, emergency, marine, land, security, climate change, other (please specify)



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