

## **Memorandum of Understanding**

Between

**The Association for the Development of the Atlantic International Research Centre –  
AD AIR Centre**

and

**The National Institute for Space Research – INPE**

**for mutual recognition, strategic alliance and intention to establish sustainable collaboration  
projects between participants in both networks.**

**The ASSOCIATION FOR THE DEVELOPMENT OF THE ATLANTIC INTERNATIONAL RESEARCH CENTRE**, hereinafter also referred to as the “**AD AIR Centre**”, a private non-profit Portuguese association created to support the development of the AIR Centre and to provide, promote and foster the basis of a truly international and innovative scientific agenda with a multidisciplinary approach that can surpass the existing R&D gaps and link the areas of Space, Oceans, Atmosphere, Climate Change Mitigation, Energy and Data Science, in a South-North and North-South cooperation hereby represented by its Executive Director, António Sarmento,

and

**the NATIONAL INSTITUTE FOR SPACE RESEARCH**, hereinafter also referred to as the “**INPE**”, a research institute of the Brazilian Ministry of Science, Technology, Innovation and Communications (MCTIC), whose main goals are fostering scientific research and technological applications and qualifying personnel in the fields of space and atmospheric sciences, space engineering, and space technology, hereby represented by its Director, Ricardo M. O. Galvão,

referred to herein as “the Signatories”,

**Considering** that both the AD Air Centre and INPE have a common interest to foster and develop research and academic projects through collaboration with national and international public and private entities which are on the scientific and technological areas of interest of their activities,

**THEREFORE THE SIGNATORIES HAVE AGREED TO COOPERATE UNDER THIS MEMORANDUM OF UNDERSTANDING AS FOLLOWS:**

Clause 1

The present Memorandum of Understanding (MoU) aims at establishing a synergetic relationship between AD AIR Centre and INPE, with the objective to align activities wherever feasible, to optimize each organisation's relevance and value to society by collaboration, enhancing mutual use of resources and minimising potential overlaps or redundancy of actions.

Clause 2

In the context of the present MoU, the Signatories will take, among others, the following actions:

- a) To identify areas of mutual scientific and technological interests that address both regional priorities and global challenges, bringing together the Signatories competences, experiences and networks to jointly co-create innovative research and development projects, to explore new funding opportunities and to stimulate knowledge-driven business ecosystems with emphasis in the following societal benefit areas:
  - Marine resources and biodiversity;
  - Healthy and clean oceans;
  - Systems integration from deep ocean to outer space;
  - Mitigation and adaptation to climate change;
  - Sustainable energy systems;
  - Data science.
- b) To proactively engage researchers to produce a comprehensive mapping of the sources, distribution and fate of marine litter in the Atlantic Ocean, building consensus around methodologies for collection and identification, combining satellite imagery and aerial, in-situ and ex-situ observations, and integrating data using advanced numerical models to assess, monitor, predict and inform about the circulation patterns, deposition cycles and impacts of marine litter in marine and coastal environments.
- c) To jointly discuss and analyze the feasibility of deployment of an Atlantic Constellation of nano/micro satellites in concert with space agencies from other Atlantic countries with the aims of providing Earth Observation data, services, and products to promote the development in the societal benefits areas addressed in this MoU;
- d) To strengthen Signatories' knowledge-transfer and capacity-building capabilities through the mobility of researchers and exchanges of information, skills, resources and technical expertise, and through national or global collaborative initiatives, involving governments, academia, businesses and civil society, to advance science and technology for the preservation of marine and coastal ecosystems and for the benefit of all people living around the Atlantic Ocean;

- e) To stimulate the organization of joint workshops, of specialized short duration training courses and other dissemination and user engagement activities, as well as to encourage mutual representation at dissemination events organized by the Signatories;
- f) To jointly disseminate scientific knowledge to the general public, policy makers and media;
- g) To proactively engage citizens, coastal communities, policy makers and local businesses in the development of effective Earth observation services and products for decision making;
- h) Other forms of collaboration that contribute to the mission of AD AIR Centre and/or INPE.

Clause 3

1. A Joint Commission for monitoring the implementation of the present MoU will be set up by mutual written agreement;
2. Once an action plan is defined and approved, the Joint Commission shall meet at least twice per year, per remote conference or at location to be mutually agreed.

Clause 4

Each Party is responsible for taking necessary action to secure adequate financial and human resources to perform the projects or activities developed in collaboration.

Clause 5

The Signatories will collaborate respecting the principles of reciprocity, mutual benefit and results sharing.

Clause 6

The present MoU can be modified at any time, under mutual written agreement of the Signatories.

Clause 7

The content of this MoU does not generate any obligation in the context of International Public Law.

Clause 8

1. The present MoU shall come into effect on the date of its signature and will remain in force for a period of five (5) years. Thereafter, it will be renewable for further periods by mutual written consent of the Signatories.
2. The present MoU shall cease to have effect if one of the Signatories expresses this wish, notifying the other in written, and with a time span of 60 days before the cessation.

Signed in Las Palmas de Gran Canaria, Spain on November 27, 2018, in two originals, in English language.

SIGNED for and on behalf of the AD AIR Centre

SIGNED for and on behalf of INPE



António Sarmento  
Executive Director



Ricardo M. O. Galvão  
Director