

# United Nations UNISPACE+50 Symposium

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**HEADS OF SPACE AGENCIES PANEL**  
Moderated by Ms. Simonetta Di Pippo

**Title: Climate change, a top priority for Our Planet and for Space assets**

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## 1. Introduction

Dear colleagues

It is a great pleasure to be here with you today to celebrate the 50<sup>th</sup> anniversary of UNISPACE+50 and to share this moment with my fellow heads of space agencies. I also would like to thank Ms. Simonetta Di Pippo for her invitation to this very special event, which is a unique occasion to remind ourselves how much space can do for the benefit of humankind in supporting the Sustainable Development Goals (SDG) defined by the United Nations and acting for the long-term sustainability of outer space activities. These are for sure major tasks in which space can show its invaluable contribution looking forward to 2030.

## 2. UNISPACE+50

France supported the UNISPACE+50 initiative and worked on the corresponding Resolution to ensure that the UN's commitments to the Sustainable Development Goals (SDGs) are reflected in this Resolution as well as the future role of COPUOS.

Among the 17 SDGs, which are all closely interrelated, France puts tackling climate change at the very top, as was shown with the considerable support it provided to the COP21 Conference of the Parties, which culminated in 2015 with the historic Paris Agreement.

In this context, the international space community has a major role to play utilizing its unique assets to help achieve the ambitious goals set by this Agreement. Indeed, among the 50 GCOS (Global Climate Observing System) essential climate variables used by the IPCC (International Panel on Climate Change), 26 cannot be measured without the decisive contribution of Space.

### **3. CNES and Climate Change**

CNES has long been committed to tackling climate change, which is fundamental for the future of our planet. After the extraordinary results of the Topex/Poseidon and Jason series of satellites, whose remarkable data have provided evidence of an average 3-millimetre-per-year rise in ocean levels, CNES is now looking to measure greenhouse gas emissions with MicroCarb for carbon dioxide and MERLIN for methane detection.

During COP21, CNES took the initiative of federating space players around the world to tackle climate change: CNES is at the origin of the Mexico Declaration in 2015 and that of New Delhi in 2016. In December 2017, on the occasion of the One Planet Summit organized in Paris at the initiative of President Emmanuel Macron, CNES submitted the Paris Declaration to heads of space agencies in order to facilitate the mobilization of space tools in tackling climate change through the creation of the Space Climate Observatory (SCO).

### **4. Space Climate Observatory (SCO)**

SCO is a global observatory of climate change and its impacts monitored from Earth-observation data. It is built around existing international programmes delivering key Essential Climate Variables (ECVs) at global scale. This observatory focuses on the delivery of data, building derived information and tools by using those ECVs in combination with other high-resolution EO data and models. The ultimate objective related to the Paris Agreement signed at COP21 is to help decision-makers to devise mitigation measures and coping solutions at global, continental, regional, national and local scales.

### **5. Conclusion**

As far as the Paris Agreement is concerned, space agencies recognize that high-quality measurements from space combined with ground-based measurements and models will be essential in supporting a monitoring and verification system for the health of the planet.

Space agencies can work together to define a strategic architecture to achieve progress on this matter through CEOS and can promote a free and open data policy as well as higher-level satellite data products that are directly usable by decision-makers.

Space agencies can combine their efforts in capacity-building activities to increase the awareness of applications of satellite monitoring among downstream users, in particular in emerging countries, to develop useful data for prevention, surveillance, crisis management and restoration in all regions of our planet.

Thank you for your attention.

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