

CNES Statement

By Jean-Yves Le Gall
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Dear Ministers,

Dear colleagues and friends,

It is a great pleasure to be here with you today for the fourth edition of the International Space Forum at Ministerial Level to engage stimulating discussions on the “*Mediterranean Chapter*”. Characterized by a cultural diversity nurtured by a rich history, the Mediterranean region is becoming a key player in the space sector. The benefits of the development and utilization of space in a region facing tremendous challenges are undeniable. As the government agency of a Mediterranean spacefaring nation, France, CNES is focused on providing space solutions to three real-world challenges: innovation, climate and exploration.

First, innovation. Encouraging the uptake of space solutions is an effective way to meet the challenges that Mediterranean societies are facing today and will do in the future. Healthcare, transport, agriculture and land planning are just some of the crucial applications for which space affords excellent and cost-effective solutions. Through our efforts, CNES aims to encourage collective emulation to boost creativity and keep up with the pace of change. Innovation is also vital for launching ambitious missions enabling crucial scientific advances. For example, CNES has developed world-renowned expertise in oceanography with the Jason series of altimetry satellites developed in partnership with NASA. Regarded as a vital resource by the world’s oceanographers, the Jason satellites have helped scientists better understand the vast system of deep and surface ocean currents. They have also revealed that the global sea level is rising at an average rate of 3.4 mm per year, a phenomenon that directly affects the Mediterranean region.

This example leads to our second critical challenge, which is the climate. The time has come to seriously tackle global warming and its impacts, to which the Mediterranean countries are particularly exposed. Nations need indicators tailored to their needs, so they can gauge the effects of these impacts and devise solutions. With the SCO, the Space Climate Observatory, which was created last June at the 53rd International Paris

Air Show, CNES is calling on its partners to provide an effective tool to tackle climate change. Mediterranean partners have shown a strong commitment to this initiative, which is a great step forward we should be proud of.

The third challenge I would like to address is exploration. By gaining new insights into the Universe and our galaxy, we also learn more about our home planet and ourselves. With science missions enabling us to explore the surface of Mars and land on an asteroid, we are advancing knowledge for all humankind. But to do so, international cooperation is a necessity.

And it is on this last point that I would like to conclude. Through the years, CNES has forged a wide range of European and international partnerships spanning the full spectrum of space activities, from studies and joint missions to exchanges of personnel, information and data. Among CNES's numerous international partners, numbering close to 70, Mediterranean countries have a special place. A big effort is made to forge ties not only with established space nations but also with new space powers. To illustrate this, some of our most active cooperations should be mentioned.

CNES has developed a historic partnership with Italy, whose space programme has many similarities with the French programme: this may be why our cooperation is so intense. The ASI and CNES together developed the Athena Fidus mission: a secure telecommunication satellite for civil security in Italy and France. The ASI became a founding member of the Space Climate Observatory by signing the Joint Declaration of Interest with 22 other space agencies throughout the world at a ceremony during the last Paris Air Show in the presence of the French President Emmanuel Macron. CNES and the ASI are jointly developing the Majis instrument for ESA's JUICE (Jupiter Icy moon Explorer) mission.

Spain is another key partner of CNES in the region, with its strong involvement in Earth observation optical satellites for defence and security. This cooperation is also active at the level of ESA, since Spain chairs the ESA Council at ministerial level and will organize the next meeting in Seville on 27 and 28 November, co-chaired by Portugal and France.

CNES has also recently strengthened its cooperation with Greece, Portugal and Malta. Let me remind you that CNES and the Portugal space agency signed a cooperation agreement on 17 June 2019 on launcher expertise, Earth observation data, NewSpace and nanosatellites. This is the first agreement between the two agencies since Portugal Space's inception in March 2019. A cooperation agreement was also signed in October 2017 between CNES and the Malta Council for Science and Technology to boost the development of Malta's space sector.

But CNES is also paying close attention to its partners on the other side of the Mediterranean Sea. Indeed, cooperation with the Israel Space Agency (ISA) is very active, in particular through the Venüs (Vegetation and Environment observation on a New Micro Satellite) joint satellite project orbited in August 2017 by a Vega launcher. ISA also became a founding member of the Space Climate Observatory, demonstrating that the east side of the Mediterranean is just as active as the west as far as climate change is concerned.

With Morocco, CNES, CRTS and CRERS signed a Framework Agreement in 2015 on space. Climate change is very high on our common agenda and our cooperation is very much oriented towards the applications of space in water resources, agriculture, oceanography and coastal areas, all of which are very relevant to the topic of this conference. Copernicus data is proving to be very powerful for this wide range of applications. Our Moroccan partner has also been very active in promoting and setting up the Space Climate Observatory, which has potential benefits for Africa. A joint nanosatellite demonstrator is under consideration with our Moroccan colleagues for applications in climate change.

More recently, our cooperation with Jordan was formalized in 2017 with the Crown Prince Foundation to allow internships for Jordanian students with the CNES teams working on nanosatellites.

These affordable space projects are not only a powerful educational goal but, thanks to technology miniaturization, they are delivering interesting scientific and societal outcomes that clearly demonstrate the benefits of space technology.

To conclude, these examples of cooperation illustrate how players with very different backgrounds and capabilities can combine their energies to take practical steps to meet the needs of Mediterranean populations and help them develop their space capabilities. And I have no doubt that this forum will help serve this common objective.