## 25 years ROSA anniversary

on 20 November 2020



On 20 November 2020, the Romanian Space Agency (ROSA) celebrates 25 years since its establishment as a public institution entirely self-funded, with a rich history, which began in 1968.

That year marked the establishment of the interministerial committee CRAS - the "Romanian Commission for Space Activities", whose purpose was to coordinate the development of national space activities. The establishment of the committee came at the same time with the international development of the Intercosmos Programme in 1967, in which Romanian researchers were involved, the first space experiment with Romanian participation taking place back in 1972. The Romanian achievements in space culminated on 14 May 1981 when the first Romanian was sent to space, Dumitru Dorin Prunariu.

Since 1991, the coordination of the space activities in Romania and stronger collaboration in European and international space programs is achieved through the establishment of the Romanian Space Agency (ROSA), within the Ministry of Education and Technology, which was reorganised in 1995 by Government Decision (H.G. 923 / 20.11.1995), so that 20 years ago ROSA became public institution entirely self-funded.

As a government institution, ROSA has concluded international agreements on behalf of the Romanian Government. The activity of the Romanian Space Agency is linked to the first agreement between Romania and the European Space Agency (ESA) on space cooperation for peaceful purposes on 11 December 1992. This was followed in 1999 by the Romania - ESA agreement on the Cooperation for peaceful exploration and use of outer space, and in February 2006 by Romania's accession to the Programme for European Cooperating States - PECS) ESA, a result of ROSA efforts too.

On 22 December 2011, Romania became the 19th Member State of the European Space Agency, after the Agreement between the Government of Romania and the European Space Agency on Romania's accession to the ESA Convention.

Here are some highlights and milestones that took place after ROSA's 20 year anniversary, in 2015.

At the end of the year 2015, <u>ROSA was awarded</u> the Order of "Cultural Merit", the Officer rank, category H - "Scientific research" by the President of Romania, Mr. Klaus Iohannis.

In 2016, ROSA <u>was appointed Competent PRS Authority for Romania</u> in the Galileo Programme — a global navigation satellite system, developed as a common project of the European Union (EU) and the European Space Agency (ESA). At the end of the same year, ROSA <u>became one of the founding</u>

<u>members</u> of the Copernicus Academy, a European Commission initiative, connecting European universities, research institutions, business schools, both private and non-profit organisations, in the Participating Countries of the Programme and beyond.

An year later, ROSA and ESA <u>signed a bilateral Understanding of Cooperation in the framework of the Sentinel Collaborative Ground Segment</u>, providing primary access for GMES users to the Sentinel Mission data, as well as coordinated access to contributing missions.

Under the auspices of the Romanian Presidency of the Council of the European Union, the Romanian Space Agency (ROSA) initiated at the working level the reestablishment of the EU-ESA Space Council, the main instrument for the harmonisation of space policies in Europe. On 28 May 2019, in Brussels, the council gathered for the first time in the last eight years at Romania's initiative.

In the same context of Romanian Presidency of the Council of the European Union, as the coordinator of the Interinstitutional Security R&D and Innovation Group, the Romanian Space Agency contributed to the "Conference on Research and Innovation for Defence Capabilities", organised by the Ministry of National Defence, in collaboration with the European Defence Agency (EDA).

The year 2019 was generally rich in Space Situational Awareness activities: Romania, through ROSA, became part of the EU Space Surveillance and Tracking (SST) consortium, a programme that offers necessary information to the SATCEN services. In April, ROSA signed a space situational awareness agreement (SSA) with USSTRATCOM, a milestone for the U.S. Strategic Command, as it was the 100<sup>th</sup> agreement. These agreements foster openness, predictability of space operations, and transparency in space activities and Romania became the 20<sup>th</sup> nation that participates in these SSA data exchange agreements with USSTRATCOM.

Also in 2019, ROSA received the official letter announcing it has unanimously been accepted by the 16 member space agencies to join the International Space Exploration Coordination Group (ISECG). The International Space Exploration Coordination Group (ISECG) was created in 2007 as a voluntary, non-binding forum where participating space agencies exchange information about their space exploration plans, activities and interests with the goal of strengthening both individual agency exploration programmes and the collective effort.

Globally, the year 2020 was marked by the COVID-19 pandemic and ROSA was at the centre of managing research and technology proposals to mitigate its impact. ROSA together with the Interinstitutional Security R&D and Innovation Group (GI-CDIS), and representatives of the Ministry of Health <a href="https://have.launched.a.set-of-projects">have launched a set-of-projects</a>, aimed at obtaining quick results, to assist the population and the relevant bodies to mitigate the effects of the COVID-19 pandemic. Another initiative to manage the situation was <a href="the CovTrack app">the CovTrack app</a>, developed by Romanian company RISE. The app was based on spatial data and can notify users whether they have been in contact with somebody confirmed with Covid-19.

The challenges of this year did leave space for new collaborations and results as well. ROSA <u>signed a Memorandum of Understanding with the Moon Village Association (MVA)</u>, a non-governmental organisation based in Vienna, having a common purpose of promoting space activities and science public outreach and education, the parties aim to strengthen the space sector's workforce through career development, education and industry outreach, and gender equity. Dr. Marius-Ioan Piso <u>participated at the discussion between NASA and the international space agencies about the Artemis Program</u>, aiming to bring back humans on the Moon, including, for the first time, a woman.

In September 2020, it was announced that Romania will play an essential role in the HERA mission, the European Space Agency's first mission for planetary defence, part of an international asteroid deflection effort carried out in collaboration with NASA. ESA awarded a multi-million euro contract covering the detailed design, manufacturing and testing of Hera, set to perform sustained exploration of a double asteroid system. Romania is one of the key partners in the commercial consortium, being responsible, together with Portugal, for the development of the laser altimeter which will provide crucial information for the autonomous navigation functions. In addition, Romania is developing the image processing unit, harness and the electrical test equipment (while also contributing to its GNC development).

In the future, ROSA is determined to continue implementing Romania's national space strategy, built around the concept of 3S (Three S's): Science and technology, contributing to the humankind evolution via ambitious deep space missions, planetary probes, space telescopes, space station etc.; Services, provided by satellite infrastructures and downstream applications, including satellite industry and launch and orbiting services; Security, which has three major components: citizens protection, provided by disaster management, telemedicine, information security; space infrastructures protection, which make the previous applications possible; and global security against horizontal and vertical conflicts.

Image credit: ROSA