

PRESS NOTE

TELESPAZIO AND LEONARDO AWARD THE PRIZES TO THE WINNERS OF THE FIFTH EDITION OF #T-TEC, THE INTERNATIONAL OPEN INNOVATION COMPETITION IN THE SPACE SECTOR

- The first prize in the Prototype category went to a team from Spanish and Chilean universities, the developers of an algorithm that, through satellite images, allows for a more efficient use of water in mining activities
- The prize for the Idea category went to a team from the Federico II University of Naples, who designed an automatic system for transporting and releasing small satellites around the Moon
- The winners will have the opportunity to create start-ups and join pre-incubator programmes
- Students from 24 universities worldwide participated in the 2023 edition of #T-TeC

Brussels, 23 January 2024 - The winners of the fifth edition of the #T-TeC - Telespazio Technology contest received their prizes today in Brussels during the European Space Conference. #T-TeC is an Open Innovation competition organised by Leonardo and Telespazio to promote the space-related ideas and projects of STEM students from universities all over the world.

Innovative algorithms that use satellite data for more efficient water usage during lithium extraction operations; new inflatable robotic arms for increasingly accessible space missions; the use of hydrogen peroxide as a green and sustainable propellant for satellites; an automatic system for the transport and release of small satellites around the moon, to make human presence easier in the future: these were the topics that characterised the projects that won the 2023 edition of #T-TeC.

With over 60 years of experience and skills that can cover the entire value chain of the space industry, consolidated in part also through a widespread presence in Europe, USA, South America and Oceania, industrial participations and partnerships, as well as participation in the most important international space missions, Leonardo continues to be a major player in this sector's push for innovation. The company also works constantly and continuously with universities and research centres. All the winning proposals therefore also act to stimulate and foster interaction in all the fields in which the Leonardo group operates in the space sector, from access to Space and satellite manufacturing to services, in this way allowing the entire group to imagine, with the younger generations, the technologies that will mark the future and will have a considerable impact in terms of sustainability.

The prizes, which were assigned by a jury made up of industry experts and some of the main European space agencies, were awarded by **Luigi Pasquali**, Chief Executive Officer of Telespazio, **Gabriele Pieralli**, Chief Operating Officer of Telespazio, **Franco Ongaro**, Chief Space Business Officer for Leonardo, and by **Marco Brancati**, Chief Research, Digital and Innovation Officer for Telespazio.

The ceremony was attended by Luca del Monte, Head of Commercialisation Department at ESA; Teodoro Valente, ASI President, Marian-Jean Marinescu, Member of the European Parliament and Chairman of the "Sky and Space" Intergroup, Erasmo Carrera, President of the Italian Association of Aeronautics and Astronautics (AIDAA), Evi Papantoniou - Deputy Director for Space and the Head of the Space Policy Unit in the European Commission and Michelangelo Nerini, from Permanent Representative of Italy at EU institutions.





Record numbers were a feature of the 2023 edition of the Telespazio Technology Contest, with over 100 representatives from 24 universities worldwide, who took part in a competition that offers winners the opportunity to transform their ideas into an actual start-up and to join accelerator and pre-incubator programmes. There were two competition categories in this edition, Idea and Prototype, dedicated to projects in different stages of development.

In the **Prototype category**, reserved for more mature projects, the 10,000 euro prize went to the "**ESTESIA**" project, submitted by a team of students from two Spanish universities (the **Autonomous University of Barcelona** and the **Barcelona Institute of Science and Technology**) and a Chilean university (**Adolfo Ibañez University**, Santiago de Chile). Their project focused on the possibility of using satellite data to optimise the water resources used to extract lithium, making the production of this precious resource very sustainable. Lithium is essential for the future of electric engines worldwide. The team will be able to create a start-up and, through it, take part in the prestigious **Seraphim Space Accelerator programme**, dedicated to space and funded by the Seraphim Space investment fund.

The "**IDRA**" project, submitted by a team of students of the **Politecnico di Torino** university, was ranked as second. The team designed an innovative robotic arm made of "inflatable" material, which allows the arm to operate in particular conditions making it more versatile in orbiting services. In addition to a 6,000 euro cash prize, the team will take part in a **pre-incubator programme** offered by **Lazio Innova**.

The third prize went to the "Hydrogen Peroxide Propulsion for Satellites" project submitted by a group of students from the **Delft University of Technology** (Netherlands), which proposes to use hydrogen peroxide as a propellant for satellites; the project is therefore linked to the study of tanks and propulsion systems that can store and use this propellant for the long periods of time required by satellite missions. Also in this case, there is considerable focus on safety and environmental aspects, as the project minimises the use of toxic and flammable substances such as the currently used propellant fuels. The team received a 4,000 euro cash prize and were offered a place in the **pre-incubator programme** offered by **Lazio Innova**.

The jury felt that this particular project and the ESTESIA project (winner of the Prototype category) deserved a **special mention for sustainability** and stressed the considerable impact that the two solutions would have in this respect, both on Earth and for operations in orbit.

In the Idea category, the 5,000 Euro prize went to the "DELUNERY" project submitted by a large team of students from the Federico II University of Naples. They designed a system that could position small satellites in orbit around the Moon from a lunar-orbiting platform, with the aim of making the release of these satellites as routine as placing satellites in orbit around Earth. This winning team will have one of the three places in the pre-incubator programme offered by **Lazio Innova**.

The special "**Test-it Award**" prize, which offers the winning team the possibility of developing a proof-of-concept of their idea (and therefore the opportunity to laboratory-test their idea, with funding from Leonardo and the technical support of Telespazio), went to the **SunCubes** team. This **Politecnico di Milano** team of students had come third in the previous edition and this year were able to present the advances and the new plans for their technology.

"This fifth edition of the Telespazio Technology Contest confirms the quality and success of our competition, which starting from last year has been promoting participation in pre-incubation and acceleration programmes, which will help the best projects transform into real, concrete solutions that can help the growth of space economy" declared Luigi Pasquali, CEO of Telespazio. "Today we are rewarding students' and researchers'





innovative ideas on frontier technologies the entire Leonardo Group is interested in, which include topics close to services but also to manufacturing, delivering sustainability that is increasingly important in the space sector as well."

Franco Ongaro, Chief Space Business Officer of Leonardo, said "Research and innovation are at the heart of Leonardo's activities in the space sector. Initiatives such as #T-TeC help establish a direct channel with talented young people, start-ups and universities. We wish to strengthen our open innovation system which, for Leonardo, currently consists also in solid collaborations with universities and research centres worldwide."

#T-TeC, an initiative under the patronage of a number of space agencies (ESA, ASI, UKSA and AEE) and aerospace associations such as AIDAA, SGAC and CEAS, is part of the activities promoted by Leonardo for Open Innovation, the shared innovation that has taken on a key role in promoting new ideas and opportunities.

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Leonardo is a leading global Aerospace, Defence and Security (AD&S) company. With 51,000 employees worldwide, it operates in the fields of Helicopters, Electronics, Aircraft, Cyber & Security and Space, and is a key partner in major international programmes including Eurofighter, NH-90, FREMM, GCAP and Eurodrone. Leonardo has significant industrial capabilities in Italy, the UK, Poland, and the US and also operates through subsidiaries, joint ventures and stakes, including Leonardo DRS (72.3%), MBDA (25%), ATR (50%), Hensoldt (22.8%), Telespazio (67%), Thales Alenia Space (33%) and Avio (29.6%). Listed on the Milan Stock Exchange (LDO), Leonardo reported new orders of \notin 17.3 billion in 2022, with an order backlog of \notin 37.5 billion and consolidated revenues of \notin 14.7 billion. The company is included in the MIB ESG index and has been part of the Dow Jones Sustainability Indices (DJSI) since 2010.