

Rome, 15th December 2020

#T-TeC 2020, Telespazio rewards the innovation of young European students

- **The awards for #T-TeC 2020, Telespazio's Open Innovation contest, part of Leonardo's largest "Ideas Factory", were awarded today**
- **50 students, doctoral students and researchers from 32 departments of 20 European universities participated in the initiative**
- **Participants discussed important technology issues, of strategic importance for Telespazio, and which represent the main trends for the future of the space sector**

New systems for interplanetary communications, neural networks that will make air traffic safer, software that will improve Galileo services, services for sustainable agriculture, and the fight against fires using artificial intelligence. These are the contents of some of the proposals submitted for the #T-TeC 2020, the Open Innovation contest run by Telespazio, a joint venture between Leonardo (67%) and Thales (33%), which ended today with the awards ceremony of the winning projects. This project is part of Leonardo's wider "Ideas Factory".

From Italy to the United Kingdom, via France, Germany and Spain, the 2020 edition of the #T-TeC (Telespazio Technology Contest) saw the participation of 50 students, doctoral students and researchers from 32 departments of 20 universities in 15 European cities, who challenged one another with innovative ideas and solutions in the space and aeronautical field.

The representatives of the teams took part in the event, run in digital mode by live streaming, and included input from Luigi Pasquali, CEO of Telespazio, Roberto Cingolani, Chief Technology & Innovation Officer of Leonardo and Marco Brancati, Chief Technology & Innovation Officer of Telespazio.

"Fully in the spirit of Open Innovation, for us #T-TeC is first and foremost a great opportunity to move ahead on our path to innovation, gathering ideas and projects from the world of universities. In fact, those who take part in the contest have discussed technological issue of strategic importance for Telespazio, that already constitute the Company's main lines of research and development. Also, by means of initiatives like #T-TeC we are better prepared to deal with future challenges in the best possible manner", said **Luigi Pasquali**, Telespazio's CEO.

"We live in a time when humanity needs to look to space as the frontier of the future. Everything we do today for space research will make the world more sustainable and will have a role of primary importance for all of us. For this reason, as Leonardo, we believe a lot in the Open Innovation approach and in initiatives such as Telespazio's #T-TeC, and see them as great opportunities to

share innovation and technology with students and researchers from all over Europe,” said **Roberto Cingolani**, Leonardo's Chief Technology & Innovation Officer.

Those taking part in #T-TeC 2020 were able to choose to deal with various technological themes: Geo Information platforms and applications; Ground Segment and Ground-as-a-Service; Autonomous and pilotless systems; Hybrid communications; Cybersecurity in space; Space exploration; In-orbit services; Quantum communications; Space Traffic Management & Space Domain awareness. The competition was divided into two categories: “Light”, dedicated to the integration of existing technologies in order to create new services; and “Photon”, that dealt with the development of new technologies.

In the “Light” category, the team from Naples' Federico II University, who submitted the “MATES-Mars Telecommunications System” project, a telecommunications system for future robotic and crewed missions to Mars, won the Euro Ten Thousand prize.

The “Photon” category, on the other hand, saw two teams come out as tied winners: that **from the Polytechnic University of Catalonia**, with the “Development of a software tool for a receiver, to provide precise positioning using the Galileo High Accuracy Service (HAS)” project, able to improve the precision of the Galileo navigation system using software; and the team from Rome's “Sapienza” University, with their “Forest fire propagation prediction with convolutional neural network using remotely sensitive products” project, able to predict the propagation of fires, thanks to neural networks. The two teams will share the Euro Ten thousand prize.

In addition to the three winners, two special mentions were assigned to the team made up of **the University of Leicester together with AriesPACE**, a spin-off from Federico II in Naples, and **Bologna University**. The first, in the “Light” context, presented “Crystal Crop-the Crystal Ball for your Harvest”, which was designed to improve harvesting techniques, while the second – in the “Photon” category – was the “Onboard Automation of Collision Avoidance Decisions” project, which uses artificial intelligence to avoid collisions in flight.