

Rome, 20 June 2022

## **Telespazio signs a contract with ESA for I\*STAR, an innovative service to improve access to Earth observation data**

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- The project springs from the InCubed programme, the technology incubator of the European Space Agency's  $\Phi$ -lab
- I\*STAR allows new users such as start-up and, non-space companies an easy access to EO data

Telespazio, a joint venture between Leonardo (67%) and Thales (33%), has signed a contract with the European Space Agency (ESA) for the development of I\*STAR, an innovative service rooted in cloud-based artificial intelligence techniques capable of improving and facilitating the use of Earth observation satellites.

The project springs from the ESA InCubed programme, the technology incubator of the agency's  $\Phi$ -lab, dedicated to cutting-edge research and development initiatives.

Through an innovative as-a-service model, I\*STAR allows new user families – whether start-ups, new space companies looking for a smart solution, or space institutions and agencies interested in reducing costs and promoting the use of their space infrastructures – to request new acquisitions and data from the Earth observation constellations, simply, efficiently and promptly.

Using deep and machine learning algorithms, I\*STAR can model user preferences with regard to satellite platforms, sensors, topics, areas of interest, and types of products, ensuring that even non-specialist users can make specific acquisition requests from the satellites in orbit, without the direct support of space operations.

In addition to ensuring lower costs and easier access to data, in the event of natural disasters I\*STAR can speed up response times and support local authorities and civil protection departments more efficiently and effectively.

*"I\*STAR introduces a brand-new solution in the Earth observation Ground segment – the ability to request products or acquisitions according to user profiles while minimizing the need to know specific mission or to have operational skills. We're very pleased and encouraged that the ESA InCubed programme has recognised our novel approach and given us the opportunity to bring I\*STAR to market,"* said Marco Brancati, Head of Innovation and Technical governance of Telespazio.

*"I\*STAR is built on the idea that AI is a key enabler for new ways to exploit EO data,"* commented Michele Castorina, Head of the ESA  $\Phi$ -lab Invest Office. *"Improving usability and access for an ever-*

*wider user community will help to invigorate commercial EO by providing a marketspace for both downstream and institutional operators.”*

A service like I\*STAR can be adapted to any Ground segment and is applicable to other domains, such as Space Domain Awareness, or the monitoring of objects in orbit – an increasingly important topic if we are to ensure the sustainability of access to space.