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Telespazio UK Awarded an ESA Contract to Develop AI-enabled Satellite Data Quality Assurance Tool

- **Tool uses Machine Learning to Automate Processing of EO Products using High-performance Cloud Computing Technology**
- **The contract strengthens Telespazio UK's world leading capabilities in EO data quality assurance**
- **Telespazio UK is one of the organizations through which Leonardo engages with the UK market**

Telespazio UK, a subsidiary of Telespazio – a joint venture between Leonardo (67%) and Thales (33%) – has been awarded a European Space Agency (ESA) contract to further develop a tool to automate quality assurance analysis of Satellite-based Earth Observation data products.

The new tool uses advanced machine learning techniques to automate processing of EO Products within a high-performance Cloud Computing environment. It will be made available as an easy to use Cloud-based service for NewSpace mission providers and Institutions.

The volume of EO data from satellites has increased 10x in the last 5-years due to modern satellites launched by NewSpace companies and Governments/Institutions. The total data generated is already on the petabyte scale and it is not feasible to perform quality assurance of such data volumes with only human interaction alone, or traditional image processing techniques. The automated tool seeks to address this challenge of analysing the huge volume of EO data products.

The new activity, funded by the European Space Agency (ESA), seeks to build on previous internal development activities. Overall, it seeks to strengthen Telespazio UK's world leading capabilities in EO data quality assurance and to provide an easy-to-use service to commercial organisations and institutions.

Dr Patrick Griffiths, EO data engineer at ESA/ESRIN - and technical officer for the project - said: *"Quality assurance is a critical step in the Earth Observation value chain. Yet with the drastically increasing volumes of acquired data, traditional approaches to quality assurance are no longer viable. This activity will explore how novel technologies, such as cloud processing and new machine learning approaches, can help making the process more efficient and ensuring that the best quality data products are delivered to the user community."*

Dr Geoff Buswell, Head of Sales at Telespazio UK said: *"We are excited to be applying innovative Artificial Intelligence technology to develop this tool. This new capability allows cost effective provision of quality control services to our customers and allows them to continue provide leading-edge EO data and information products to their users"*

Telespazio, a Leonardo and Thales 67/33 joint venture, is one of the world's leading operators in satellite services. Its activities range from the design and development of space systems to the management of launch services, from in-orbit satellite control to Earth observation, from integrated communications, satellite navigation and localisation services to scientific programmes. Telespazio plays a leading role in the reference markets harnessing technological experience acquired over the years. Since its establishment, the company has participated in major European space programmes such as Galileo, EGNOS, Copernicus and COSMO-SkyMed. In 2019, Telespazio generated sales of EUR 535 million while employing approximately 2,600 people worldwide.

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