Unlocking the secrets of space data

e-GEOS brings satellite observation to everyone
Humans have long been fascinated by outer space: the final frontier, full of mystery and promise. Now, technology is making it possible to harness that promise and, in turn, to transform life on Earth.

Each day, satellites send back a staggering amount of satellite data as they observe the earth and monitor the changes. But how can we make down-to-earth use of those terabytes of images and information?

e-GEOS, a Telespazio/Italian Space Agency (ASI) company and a pioneer in the "new space economy," may have an answer.

While most people might not have heard the term "geoinformation," it is quietly becoming part of our everyday lives. Geoinformation products are created from satellite data such as COSMO-SkyMed, a satellite constellation owned by the Italian Space Agency and the Italian Ministry of Defense, for which e-GEOS holds the exclusive global commercialization rights.

These products have diverse applications, from maritime surveillance, to disaster mapping, to defense and intelligence and beyond. And when earth observation data is fused with other data sources—such as socio-demographics and IoT—it offers tremendous value for end users.

The private sector demand for complex satellite data is growing at an exponential rate, driven by industries including agriculture, utilities, insurance and finance. This data can also play a crucial role in helping companies meet their sustainability goals, particularly around land management and natural resources.

To meet shifting customer expectations and maintain its lead in the space economy race, e-GEOS needed a cutting-edge solution. The company envisioned an AI-powered platform that would process and analyze satellite data, transforming e-GEOS into a multi-dimensional data provider and expanding its customer base.
When tech meets human ingenuity

A data-driven sustainability solution

e-GEOS teamed up with Accenture to design and deploy its own scalable satellite data and information cloud platform. The extensive strategy and development process included interactive workshops and immersive experiences in the user journey, with a focus on creating a platform that could serve experts and novices alike.

The solution—CLEOS (Cloud Earth Observation Services)—is a revolutionary, AI-powered product that unlocks massive amounts of geoinformation data and makes them accessible through a simple, seamless user interface. CLEOS puts the customer at the core: streamlining the management and processing of satellite data and distilling it into relevant, actionable reports.

The solution delivers cohesive user experience not only for satellite experts, but also for market specialists across industries. Accenture and e-GEOS teams simultaneously implemented a number of technology solutions, including leveraging the power of Max-ICS - an analytics platform developed by EarthLab Luxembourg, an e-GEOS company which serves as a smart enabler for centralizing data.

The platform’s marketplace is a one-stop-shop for satellite data, which users can exploit in the cloud or download locally. Customers can easily locate an area on a map, enter a period of time and receive a satellite image that may be used to produce information layers, thanks to scalable and tailored AI and image processing tools.

The scope for commercial application—in agriculture, in natural resource management, in infrastructure monitoring and so much more—is immense. Users can also set up automatic image extraction and real-time analysis, which has significant implications when it comes to emergency and natural disaster management. During the Australia wildfires, where conditions were constantly changing, the local mapping capabilities were deployed to inform the public and keep people safe.

Earth observation also plays a key role in Industry of the Future innovations, enabling new intelligent operations across multiple sectors.

With sustainability now a top priority for companies, CLEOS can support clients in reaching their sustainability targets and in managing the impacts of climate change. AI analyzes huge volumes of data and turns that information into insights, enabling objective, uniform measurement of changes to soil, water resources, forests and urban development across the globe, thereby empowering companies to make data-driven decisions.

For example, the platform can help agriculture companies to track water levels and adapt accordingly, relocating crops locally or even globally depending on drought or flooding patterns. CLEOS can also be used to inspire more responsible urban development, track air quality changes and pollution levels, and guide natural resource exploration.
Together with Accenture, e-GEOS is now well on its way to significantly increasing company revenues and emphasizing its role as a global player in the geoinformation market by reaching more private citizens and corporate clients.

Customers have on-demand access to the satellite data they require, through a reliable, speedy and secure experience. And the developer portal allows expert users to build, test, scale and sell their own geoinformation services.

With CLEOS, e-GEOS now covers the entire value chain, from data acquisition and analysis to self-service, scalable tools and AI-powered applications.

CLEOS offers an online platform to exploit the value of global satellite coverage of the planet, access to over a decade of historical COSMO-SkyMed satellite data of First and Second Generation and more than ten separate commercial and open satellite missions. It manages over 45 million discrete items, including satellite data, processing services and information products.

e-GEOS is committed to innovate further, and when artificial intelligence is applied to earth observation data, the possibilities are truly promising. Now that e-GEOS has the powerful and scalable solution that it envisioned, the dynamic company is positioned to truly broaden its universe.
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