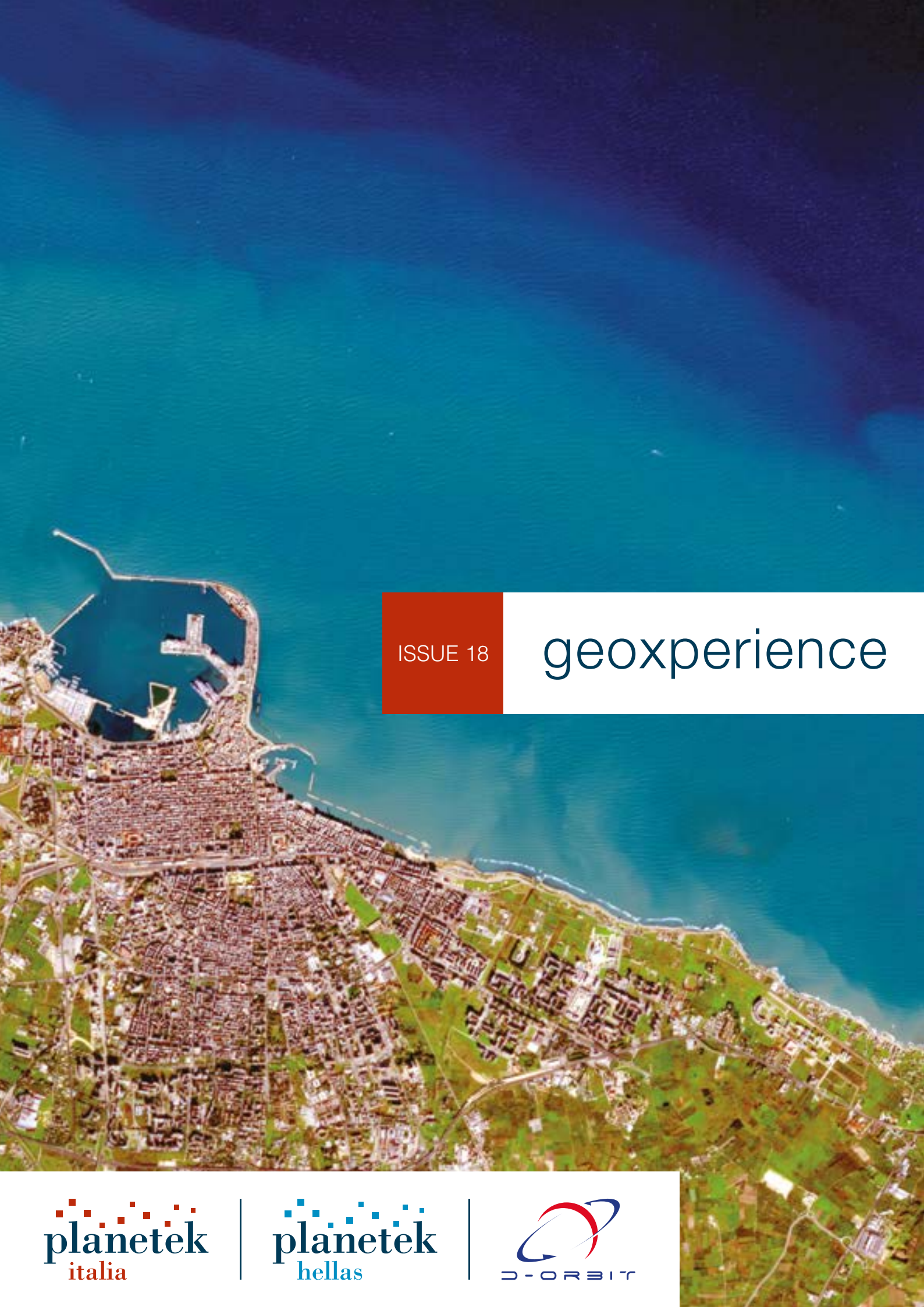
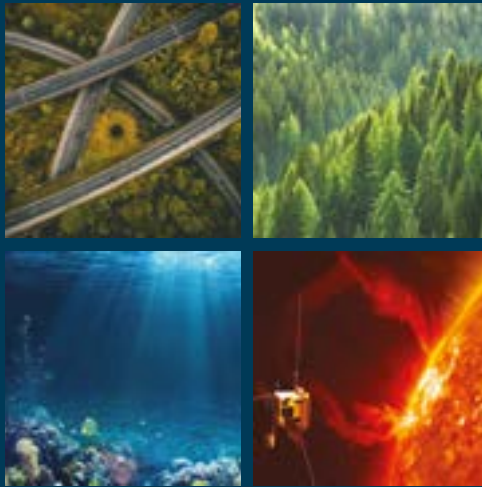




ISSUE 18

geoxperience



Looking at the Earth from space is a fascinating experience. Since 1994, we have been committed to transforming this experience into knowledge useful for improving the well-being of people and the protection of our planet.

**SIMPLIFYING THE
COMPLEXITY OF SPACE**

From Earth to Orbit: Planetek and D-Orbit Accelerate Europe's Strategic Autonomy.

A globally shared vision delivering real-time earth intelligence and sustainable innovation



Planetek and D-Orbit have joined forces to change the trajectory of Europe's space capability. What began as two distinct missions - one rooted in logistics and launch, the other in Earth Observation analytics - has become a unique ecosystem. SpaceStream is the outcome: a cloud-native, in-orbit processing architecture already operational aboard Al-eXpress satellites, deployed under ESA's InCubed programme.

These satellites represent more than technological excellence, introducing a new operational tempo. Artificial Intelligence runs directly in orbit, compressing the response time from hours to seconds. It's no longer about acquiring data but delivering decisions where and when needed.

At the heart of this alliance is a vision of Europe's strategic autonomy. The In-Orbit Lab developed in collaboration with ASI creates a testing ground for researchers and innovators to upload and execute software in space. Embedded in the Italian National Space Programme, this initiative offers a fast track from concept to orbit, driving a more agile, sovereign innovation model.

This fusion of upstream and downstream moves us beyond the traditional space value chain. Instead of a linear flow, we activate a real-time network, resilient, distributed, and capable of supporting civil protection, defence, and commercial services at scale. This is not a roadmap: it's already happening. We are steering IRIDE - Italy's new national EO constellation - towards operational maturity by

2026. This system will provide daily intelligence over the national territory, empowering users from public authorities to private developers. In parallel, Planetek Hellas is leading the development of several important projects in the space and defense sectors, such as the Government Hub, which will serve as the hub for the future Greek constellation and ensure its seamless integration with Copernicus.

Our impact is global. Through initiatives such as EO4SD, EO-Africa, ABIL and GDA-Marine, we support institutions in Africa, both with geoinformation

tools for the sustainable management of land and resources, and in the creation of national Innovation Labs and courses for the development of a Space ecosystem.

Sustainability is not an accessory. Planetek and D-Orbit are Benefit Companies and early adopters of ESA's Zero Debris Charter and the ESA Statement for a Responsible Space Sector. This takes shape both in ground-based applications to support environmental monitoring and the fight against climate change, and in space, developing solutions that implement the circular economy in the space around our Earth.



This business combination isn't just a merger. It's a species leap - a structural answer to the challenge of speed, autonomy and responsibility in space. A European SpaceStream is

now live: serving communities today and shaping the new frontier of tomorrow.



*Giovanni Sylos Labini
CEO of Planetek Italia*



Summary



APPLICATIONS

- ☐ ENVIRONMENT
- ☐ LAND PLANNING
- ☐ MARINE & COASTAL AREAS
- ☐ EMERGENCY DISASTER MANAGEMENT
- ☐ AGRICULTURE & FORESTRY
- ☐ INFRASTRUCTURE ENGINEERING
- ☐ SUSTAINABILITY SDG-ESG
- ☐ ENERGY AND UTILITIES
- ☐ SECURITY & DEFENCE
- ☐ SPACE SYSTEMS
- ☐ EDUCATION & CAPACITY BUILDING

08

Building Tomorrow's Space Infrastructure, Today.

10

Creating value with sustainability, and culture.

☐ **12**

Planetek Academy: Skyrocket your career!

14

IRIDE: Enabling Geospatial Innovation for Italian P.A.

16

IRIDE: A Portfolio of Services Designed for Public Needs.

FOCUS SPACE IN AFRICA

☐ **18**

Empowering African Space ecosystem

☐ **20**

Earth Observation for Sustainable Development

☐ **22**

Marine Environment Monitoring: Safeguarding Our Oceans

24

Rheticus®

26

Rethinking how we buy Satellite Data.

28

Satellite Intelligence for Smart Cities.

30

Satellites and Climate: Protecting Land, Lives and Infrastructures.

32

From OPEX to CAPEX:
Satellite Intelligence
for Utilities.

34

Defence and
Geospatial
Intelligence

36

Planetek's New
Satellite Command
and Control Center

38

Advancing Greece's
EO capabilities
within the EU

40

SpaceStream:
The Future of
Space Services
Takes Shape.

42

Mastering Space
Software: Planetek's
Robust Portfolio

44

Creating a sustainable
economy in Space

46

Planetek:
Simplifying the
complexity of Space



The Suez Canal in northeastern Egypt, with the Port Said at its northern end, was captured by the Copernicus Sentinel-2A satellite on 2 August 2017. Vegetation appears red in this false colour image, highlighting the contrast between the lush Nile Delta to the west of the Canal and barren Sahara to the east.

Image Credits: ESA, Copernicus Sentinel.



Planetek Italia s.r.l. Benefit Company - Via Massaua, 12 - I-70132 Bari, Italy.
Ref: PKM002-587-v18 - Free copy.



This document is under Creative Commons licence, available on
<http://creativecommons.org/licenses/by-nd/4.0>

Trademarks and logos are the registered trademarks of respective owners organizations.

Credits:

p.01 Copernicus Sentinel data; p.03 D-Orbit, Medspiration; p.04 D-Orbit, p.05 Copernicus Sentinel data; p.07 OpenAI; p.08 D-Orbit; p.10 nick fewings unsplash; p.12 Envato Elements Pty Ltd; p.13 ESA-Pierre Carril; p.14 e 15 IRIDE ESA/ASI; p.16 krisztian-tabori free use; p.18 Eumetsat, christina wocintechchat unsplash; p.19 Copernicus Sentinel data; p.20 NASA Johnson Space Center; p.22 Copernicus Sentinel data; p.23 NASA; p.24 ESA/ATG Medialab; p.25 Envato Elements Pty Ltd, Copernicus; p.26 david rodrigo unsplash; p.28 Orazio_Esposito; p.30-31 unsplash, NASA; p.32 pixabay; p.33 unsplash; p.34 Hexagon; p.36 Christopher DeWitt, Space Command; p.38 NASA; p.40 D-Orbit; p.42 Envato Elements Pty Ltd; p.44 ESA; p.48 ESA (right top and bottom), Envato Elements Pty Ltd (bottom left); p.42 NASA/GSFC.

Concept and layout Effediemme | Brand builders

Authors



PAG. 10

Mariella Pappalepore

Chief Financial Officer

Degree in Geology at the University of Bari. Masters in Geographical Information Systems (G.I.S.) and Remote Sensing. Since 2015, Vice President of Confindustria Bari and Bat. She is Chief Financial Officer and founder of Planetek Italia.



PAG. 12

Michela Sanfilippo

Human Resources Manager

Law Degree at the University of Bari. She specializes in Human Resource Management. Since 2013, she plays the role of HR Manager at Planetek Italia, taking care of all aspects related to the people management.



PAGG. 14-16

Edouard Royer

Government & Security SBU
Strategic Development
Manager Iride

Senior aerospace engineer with vast experience in the downstream segment and launchers, both in industry and national agencies. In Planetek he is Program Manager for IRIDE, dealing with the service segment and studies for the long-term sustainability of the constellation.



PAGG. 18-20

Gamal Abouzied

Strategic Development
Specialist - EMEA

Degree in Civil Engineering at Cairo University, MSc Land and Water Resources Management, and PhD Earthquake and Environmental Hazards. As a Business Development Specialist he focuses on expanding Planetek presence in the EO and geospatial sectors.



PAG. 22

Antonello Aiello

Technical Manager
Geoservices

Degree in Land Protection Engineering. PhD in Earth Sciences. Experience in EO and GIS at the CNR and at the JRC of the European Commission. He deals with the management of international projects.



PAG. 26

Daniela Valentino

Government & Security SBU
Product Specialist

Degree in Computer Science and Digital Communication, specialized in GIS. In Planetek since 2005, she is a product specialist for geospatial data. She is point of contact in Planetek for the international satellite data providers.



PAG. 28

Corrado Pisani

Government & Security SBU
Business Development Specialist

Degree in Communication Sciences. In Planetek Italia he focuses on Rheticus and EO solutions for Public Administration. He supports public-sector clients in identifying their needs and adopting geospatial solutions for territorial monitoring, infrastructure and satellite imagery applications.



PAG. 30

Andrea Navarra

Business to Business SBU
Business Development Manager

Degree in Political Science, specialized in E-Business Management. In Planetek Italia since 2003, he is in charge of commercial consultancy for EO solutions dedicated to private organizations of Infrastructures Engineering, Energy and Oil & Gas industries.



PAG. **32**

Francesco Lacriola

Business to Business SBU
Sr. International Business
Development Specialist

Degree in Business
Economics, he has matured
vast experience in international
BtoB development spanning
various geographic markets
including Europe, Africa, Asia
and Oceania.

In Planetek since 2020,
he is responsible for the
development of the BtoB
market at a global level with a
focus on the Utilities sector.



PAG. **34**

Giuseppe Maldera

Government & Security SBU
Pre-Sales Technical Manager

Master's Degree in
Environmental Engineering
at the Politecnico di Bari.
Environmental engineer
with a strong specialization
in GIS, Photogrammetry
and Remote Sensing.
Since 2015, he manages
the pre-sales and post-
sales technical activities
regarding Hexagon
software.



PAG. **36**

Konstantinos Pilaftsis

Business Development Manager
at Planetek Hellas

He manages Defence &
Security applications of EO
and AI-enabled geospatial
solutions.

He is actively involved in
European and national
R&D initiatives, including
EDF and Horizon Europe
programmes, supporting
strategic positioning, proposal
development and stakeholder
engagement for the Greek and
European defence ecosystem.



PAG. **38**

Maria Ieronymaki

Technical Manager
at Planetek Hellas

She coordinates technical
activities and multidisciplinary
teams on large-scale EO and
space infrastructure projects.

She is actively involved
in ESA and national
programmes, with
responsibilities spanning
system engineering,
verification & validation,
technical documentation and
interface with institutional
stakeholders.



PAG. **40**

Leonardo Amoruso

SpaceStream SBU
Associate Head

Degree in Electronic
Engineering, he is specialized
in the field of satellite Earth
Observation data processing
(SAR & optical).

Since 2009 he works in
Planetek Italia involved
in the design and
development of systems
and softwares for the
Space Systems domain.



PAG. **42**

Daniela Drimaco

SpaceStream SBU
Business Development Manager

Degree in
Telecommunication
Engineering, she is
specialized in the field of
satellite Earth Observation
data processing.
Since 2007, she works in
Planetek Italia involved
in the design and
development of systems
and softwares for the Space
Systems domain.



PAG. **44**

Diego Garcés de Marcilla

Business Unit Director,
In-Orbit Services, D-Orbit

MEng (Hons) graduate in
Space Technology and
Planetary Exploration at the
University of Surrey. He has
expertise in space missions
and spacecraft design,
manufacturing, AIT, launch
and operations, and is the
director of the IOS Business
Unit at D-Orbit.

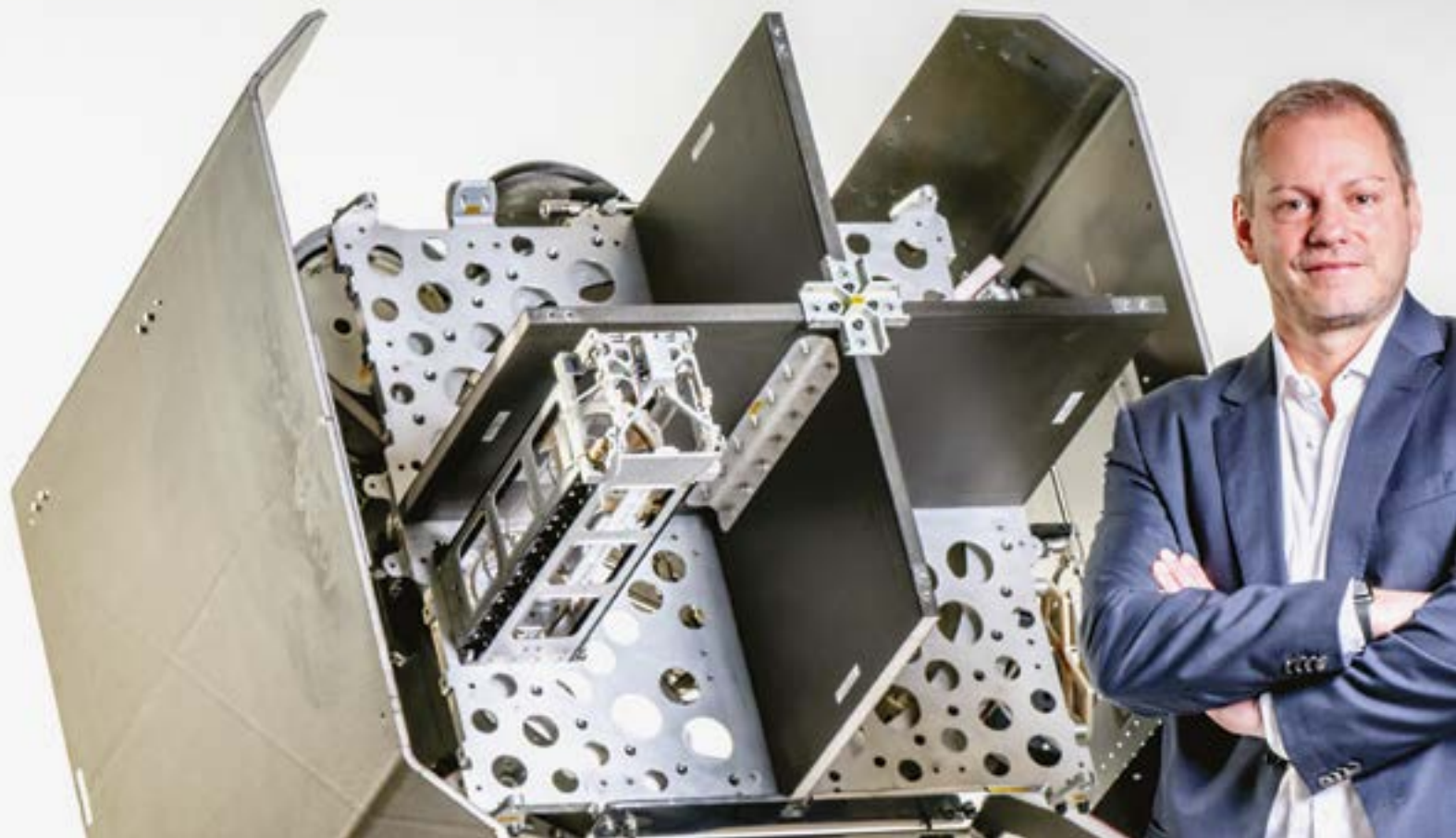


Chat GPT

Co-Editor

I helped Planetek to make
this magazine :-]

(Thanks OpenAI!!!)



Building Tomorrow's Space Infrastructure, Today.

When we started D-Orbit, the problem in front of us was concrete: the New Space Economy was about to start, and space was still a territory where just some exploration was done, without all the necessary infrastructures to enable the typical business activities we are used to see evolving in other domains on Earth, on land, air, water. We were also aware that building the space ecosystem and all the necessary infrastructures would have been a long journey, so we could not rely on defining today the technology of tomorrow, but rather defining a strong Vision based on principles rather than on scenarios. If in the far future the human society will be interplanetary, or even intergalactic, then that journey should have started sooner or later... we decided to start that journey straight away! We used the well-known The Natural Step framework, especially the backcasting from principle. We wanted to be the creator of the first “hyperlogis-

tics” infrastructure, capable, within a reasonable time, to connect Mars, the asteroid belt, Moon and Earth and capable of transporting goods, information, people and energy. And our principles were pretty obvious: creating a future capable of future. Sustainability was embedded in our activities since day 1... without this it would be impossible to be “there” in the future, if our actions today, our products and services, may create or postpone problems for the space activities. And we immediately became aware of one important, today obvious, fact: orbits were getting crowded, and without a way to remove satellites at the end of their life there would be no room for a real market in space. So our first building block was decommissioning, clearing orbits safely and keeping space sustainable to operate in. The logic extended from there. If you can move a satellite out of orbit, you can move it into the right orbit too, and that is how we came to transportation

and last-mile delivery. But logistics is broader still. It also means moving data, distributing power and providing computing capacity, building in space the same kind of infrastructure that lets economies work on Earth. With a heritage of 25 successful missions to date, D-Orbit today operates one of Europe's most active orbital-transportation fleets, is developing new spacecraft in-orbit servicing and Earth Observation, and is pioneering in-orbit computing applications. But what we do today is not the goal in itself. It is the foundation. Every satellite we deploy, every technology we demonstrate, every computing node we place in orbit adds to the infrastructure on which new services will be built. It is the path the Internet took: first the network, then the applications. Who own the infrastructure owns the software, who owns the software owns the data, who owns the data owns the application, and finally the market.

About D-Orbit

D-Orbit is a market leader in the space logistics and transportation services industry with a track record of space-proven services, technologies, and successful missions. Founded in 2011, D-Orbit is the first company addressing the logistics needs of the space market. D-Orbit's roadmap includes becoming a relevant player in the in-orbit servicing market, which is forecasted to become one of the largest, growing markets within the space sector. With offices in Italy, Portugal, Greece, the UK, and USA, D-Orbit is a registered benefit corporation. D-Orbit is organized in three main Business Units: Orbital Access; In-Orbit Servicing; Government & Defence

This is why our growth is not only about doing more of what we already do. It is about bringing together capabilities that reinforce the same Vision. The integration of Planetek is one example. D-Orbit builds the infrastructure that makes space accessible and operational; Planetek turns space data into intelligence, applications and decision-support tools for governments, businesses and communities. Together we cover a far wider part of the value chain, from orbit to the decisions those data enable on Earth, combining two complementary capabilities and strengthening our ability to open new markets and accelerate the adoption of space-based services. Our ambition is the same as it was on day one: to build the infrastructure that will enable tomorrow's space economy. Today that means orbital logistics, in-space computing, in-orbit services and protection of our assets in orbit and on Earth. Tomorrow it will mean space manufacturing, in-orbit recycling, power distribution, infrastructure maintenance and, in time, interplanetary logistics. The Vision is stronger and stronger, and with every new milestone we're getting one step closer to realizing it.

Luca Rossetti
CEO of D-Orbit

D-Orbit and Planetek, a strategic business combination to expand capabilities in advanced space technologies.

In April 2025, D-Orbit and Planetek joined forces through a strategic business combination, creating a stronger industrial group with the ambition to re-define how space technologies create value for society. More than a corporate transaction, the integration brings together two highly complementary companies with a shared vision of innovation, sustainability and long-term growth. D-Orbit contributes its global leadership in space logistics, orbital transportation and in-orbit services. Planetek adds more than three decades of expertise in Earth Observation, geospatial intelligence, mission software and digital applications that transform satellite data into actionable information. Together, they cover a significantly broader portion of the space value chain, from infrastructure in orbit to services and decision support on Earth. The business combination builds on years of successful collaboration, including the AI-eXpress programme, where the two companies demonstrated how artificial intelligence and cloud-

based computing can process satellite data directly in orbit, reducing latency and enabling faster, smarter services. This shared technological roadmap now provides the foundation for developing a new generation of space-enabled applications. While becoming part of the D-Orbit Group, Planetek has retained its operational autonomy, preserving its entrepreneurial culture, customer relationships and distinctive expertise. This approach allows both organisations to accelerate innovation while continuing to serve their respective markets with the agility that has driven their success. United by common values and complementary capabilities, D-Orbit and Planetek are building more than advanced technologies. They are creating an integrated ecosystem where orbital infrastructure, cloud computing, artificial intelligence and geospatial intelligence work together to make space-derived information more accessible, more timely and more valuable for governments, businesses and communities worldwide.



The three CEOs:

Stelios Bollanos
CEO Planetek Hellas

Luca Rossetti
CEO D-Orbit

Giovanni Sylos Labini
CEO Planetek Italia





Creating value with sustainability, and culture.

At Planetek Italia, we believe our choices — whether individual or corporate — profoundly influence society and the environment. Since our foundation, we have aimed to be part of the solution, not the problem.

Over time, we've recognised that the traditional growth model places unsustainable pressure on the environment and fails to deliver equity and inclusion. We are convinced that businesses can drive progress by aligning development with sustainability.

Our Sustainability Journey.

In 2021, Planetek Italia became a Benefit Company, and in 2022, we began monitoring our sustainability performance. This built on earlier milestones, such as implementing an environmental management system in 2008 (UNI EN ISO 14001:2004 and EMAS Regulation 761/2001), and adopting SA8000 standards for social responsibility. In 2024, we achieved the UNI

PDR 125:2022 Gender Equality Certification, reinforcing our dedication to an inclusive, respectful workplace where gender parity is valued.

Fostering Cultural Dialogue.

Within Confindustria, we promote cultural debate on sustainable socio-economic models. This has been achieved through initiatives such as the Club della Cultura. Since 2006, we've been part of Costellazione Apulia, a network of Apulian firms rethinking development.

#

There is no business to be done on a dead planet.

(Y. Chouinard. Founder of Patagonia)

#

Sustainability in the Space Sector.

In 2021, Planetek was among

the first 40 European companies to sign the "Statement for a Responsible Space Sector", and the «Zero Debris Charter» led by the European Space Agency. This initiative promotes sustainable space activities to benefit humanity.

Our Key Goals.

When becoming a Benefit Company, we formalised goals focused on improving well-being, reducing environmental impact, and supporting the development of our communities.

The UN's 2030 Agenda underscores the vital role of businesses in sustainable development. Achieving the 17 Sustainable Development Goals requires the collective effort of companies, institutions, civil society, academia, and the media. At Planetek Italia, we act every day to support this vision — convinced, as Mother Teresa said, that "what we do is just a drop in the ocean, but if we didn't do it, the ocean would have one less drop."

SDG	ACTION	WHAT WE DO IN PLANETEK ITALIA
 3 GOOD HEALTH AND WELL-BEING	Good health and well-being Ensuring health and well-being for all and all ages	We have a beautiful and comfortable office, bright and quiet, just a short walk from the sea. Walks along the seafront are part of a daily ritual during the working day. Those who wish can take part in sport at a partner fitness centre, supported by our flexible working hours. Table football matches mark the rhythm of the day, while evening five-a-side football and volleyball provide moments of relaxation and socialising, open to everyone. We have appointed two Chief Party Officers who, with the contribution of all, organise recreational and leisure activities. Employees are also offered free theatre tickets and season passes.
 4 QUALITY EDUCATION	Quality education Ensuring quality, equitable and inclusive education and promoting lifelong learning opportunities for all	Combating the obsolescence of people's skills is one of our key objectives. We actively promote refresher courses and participation in conferences. We encourage enrolment in university degree programmes, PhDs, and Master's courses. We regularly organise internal seminars, open also to external participants (Design Lab Meeting, Aperitek), on topics proposed by participants themselves, covering technological, social, and environmental issues. We host internships and training placements through partnerships with local universities and take part in school-to-work transition programmes. We support industrial PhD programmes.
 5 GENDER EQUALITY	Gender equality Achieving gender equality and empowerment (greater strength, self-esteem and awareness) of all women and girls	We guarantee equal opportunities for all employees, and any form of discrimination is strictly prohibited on the grounds of race, social background or national origin, religion, disability, gender, sexual orientation, family responsibilities, marital status, trade union membership, political opinions, age, or any other condition that might give rise to discrimination. Since 2009, our social responsibility system has been certified according to the international SA8000 standard. Women make up 60% of our Board of Directors and 31% of our workforce—above the industry average. Since 2024, we have held UNI/PdR 125:2022 Gender Equality Certification, with a score of 81/100.
 7 AFFORDABLE AND CLEAN ENERGY	Affordable and clean energy Ensuring access to affordable, reliable, sustainable and modern energy systems for all	We have chosen an electricity supplier that guarantees, via the Guarantee of Origin issued by the GSE, that we purchase only green energy, generated exclusively from renewable sources, without the use of fossil fuels and with zero greenhouse gas emissions into the atmosphere. We are constantly working to reduce energy consumption for office operations, business travel, and the functioning of the computers and servers that support our activities.
 8 DECENT WORK AND ECONOMIC GROWTH	Decent work and economic growth Promoting lasting, inclusive and sustainable economic growth, full and productive employment and decent work for all	The company's welfare system has received numerous awards over the years, proving significantly above the industry average. Since 2016, Planetek has been among the 100 best Italian companies according to Welfare Index PMI, and has been named Welfare Champion since 2019. In 2024, it achieved first place in the WelmpactIndex® Italia ranking and third in the HappyIndex® AtWork ranking. Since 2015, it has been recognized by Industria Felix as the best innovative SME for management performance and financial reliability inspired by ESG principles, and since 2023, it has been included in the Roll of Honour of the most competitive and reliable companies in Italy and awarded the High Balance Sheet Honor. In 2023, it was named an Italian Sustainability HERO by SME EnterPRIZE. In 2025, it was recognized as one of the 100 best geospatial companies in the world.
 9 INDUSTRY, INNOVATION AND INFRASTRUCTURES	Industry, innovation, infrastructures Building a resilient infrastructure and promoting innovation and fair, responsible and sustainable industrialisation	We invest over 5% of our revenue in research. We collaborate with local, national, and international research institutes and universities to offer training internships, theses, PhDs, and scholarships. We share our know-how and expertise through our learning platform (https://elearning.planetek.it) and by organizing free training internships, conferences, workshops, and seminars as part of our Planetek Academy.
 11 SUSTAINABLE CITIES AND COMMUNITIES	Sustainable cities and communities Making cities and human settlements inclusive, safe, durable and sustainable	We promote sustainable mobility through the use of public transport and bicycles. During business travel, we strongly encourage the use of public transport. We also support cultural growth in our region by backing the activities of Teatri di Bari, both financially and with managerial support.
 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Responsible consumption and production Ensuring sustainable patterns of production and consumption	All our company computers are low energy consumption models, and we use cloud-based servers that ensure a high level of energy efficiency. We have made investments to improve the energy efficiency of our workplaces, including the gradual adoption of LED lighting, improvements to thermal insulation in our offices, and the optimisation of air conditioning systems and the server room. We carry out waste separation for glass, plastic, paper, and organic waste. We are committed to reducing plastic usage by exclusively adopting compostable products.
 13 CLIMATE ACTION	Climate action Take urgent measures to tackle climate change and its consequences	Thanks to the 2013 investment plan for energy efficiency in the workplace, our energy consumption has progressively decreased. By 2025, only renewable sources will be used to generate our energy, resulting in an estimated annual saving of over 58 tons of CO2 emissions (source: Enegan).



Planetek Academy: Skyrocket your career!

Every decision we take daily affects the surrounding environment and the quality of citizens' lives. Reducing this impact requires rapid and informed choices. Geospatial information is vital to enhance the quality of our decisions and thus can greatly help make them more sustainable. Since the foundation of Planetek Italia, we have been devoted to promoting geospatial knowledge, particularly highlighting the role of space. In 2021, as we became a Benefit Company, we formalised our commitment by including the promotion of geomatics in our statute among the company's goals. Our awareness efforts target all: public and private sector managers, professionals, students,

————— #
**Empowering
the next generation
of researchers, scientists,
and entrepreneurs**

academics, and researchers. In 2022, we launched Planetek Academy, merging all initiatives into a single ecosystem. These range from events like webinars and workshops to educate and inform on geo-information's technological and practical evolution. As a natural evolution of our free online remote sensing course —

attended by over 20,000 people globally over 25 years — we launched in 2021 the EO-Learning platform, offering free Earth Observation courses in English and Italian, with over 5,000 students enrolled. Through Hackathons, we inspire young students to discover geoinformation and pursue EO careers. We also support students, undergraduates, postgraduates, and researchers by providing access to our facilities and guidance from our experts. Likewise, we foster start-up creation, including joint solution development. Confirming this commitment, in 2022 we became members of the Copernicus Academy network.

Academy & Hackathon

Planetek is part of the Copernicus Academy network.

The aim of the network is to connect research & academic institutions with authorities & service providers, foster collaborative research, and develop training sessions, traineeships, and educational resources to equip the next generation of researchers, scientists, and entrepreneurs with the right skills to fully exploit Copernicus data and information services.

This commitment enables Planetek's partners, customers, and stakeholders to benefit from hackathons, workshops, and webinars where qualified tutors, experience, and technical-scientific skills are shared.

To support these aims, Planetek promotes initiatives such as ECMWF or Copernicus Hackathons, engaging students, young researchers, and stakeholders eager to develop new service ideas and explore potential start-up creation.



National Copernicus Forum
<https://www.copernicus-italia.it/>

Improving EO skills

Planetek is part of the SpaceSUITE consortium, an Erasmus+ Blueprint project strengthening skills for Europe's downstream space sector. The project develops innovative curricula, training programmes and open educational resources to bridge the gap between emerging industry needs and workforce competences. Planetek contributes its expertise in geospatial technologies and training, helping create practical learning opportunities for higher education, vocational education and training (VET), professionals and organisations across Europe.



SpaceSUITE



<https://www.spacesuite-project.eu/>

SCOTTIE

EO services and capacity development to support the uptake of Copernicus data by institutions in Thailand and Indonesia.

SCOTTIE (SCOpe digiTal in Thailand and Indonesia through Earth observation) is a project funded by the European Space Agency (ESA) under the SCOPE – EU-ASEAN Sustainable Connectivity Package, contributing to the implementation of the EU Global Gateway Strategy.

The project aims to strengthen the capabilities of Thailand and Indonesia in the operational use of Earth observation (EO) data, particularly Copernicus, to support public policies and evidence-based decision-making. It focuses on the adaptation, demonstration, and transfer of validated EO services, with emphasis on environmental monitoring, land use, agriculture, forestry, and ground deformation. A key component is capacity development: alongside service deployment, SCOTTIE promotes training, stakeholder engagement, and institutional strengthening to ensure long-term sustainability and adoption. The project also fosters

regional cooperation, open data, and co-ownership, in line with the EU–ESA vision. Planetek contributes as a technical partner, providing expertise in EO services and capacity development to support the uptake of Copernicus data by institutions in Thailand and Indonesia.

Within the consortium led by GMV, Planetek is involved in adapting and demonstrating EO services based on Copernicus data, building on experience from CopPhil, including land cover, forest and crop mapping, and ground motion monitoring. The company also provides technical support for integrating EO services into the workflows of national stakeholders, particularly BRIN (Indonesia) and GISTDA (Thailand). In addition, Planetek delivers training and capacity-building activities, supporting local expertise development and promoting the long-term adoption of EO solutions through stakeholder engagement and co-ownership approaches.

EO learning

FREE ONLINE
COURSES
ON EARTH
OBSERVATION

Free online courses

EO-Learning is an e-learning platform launched by Planetek with free training courses and resources on Earth Observation and remote sensing. A new opportunity for students, and professionals in private and public entities (engineers, geologists, planners, etc.) to learn and stay up to date on technologies, methodologies and applications of satellite Earth Observation.



<https://eolearning.planetek.it>



IRIDE: Enabling Geospatial Innovation for Italian P.A.

Italy's IRIDE constellation is one of the most ambitious Earth observation initiatives ever launched in Europe. IRIDE aims to deliver a wide array of geoinformation services tailored to the evolving needs of central and local public administrations (PAs). The program represents a strategic investment in technological sovereignty and data-driven public governance. The IRIDE programme, funded by Italy's National Recovery and Resilience Plan (PNRR) and managed by ESA and ASI, is an end-to-end Earth observation system designed to deliver operational services to public

administrations (PA). It combines a constellation of satellites with a suite of downstream processing and service delivery capabilities. Its objective is to provide geoinformation products to improve decision-making in key domains such as water resources, air quality, environmental monitoring, urban planning, emergency response, and climate adaptation. Planetek Italia has played a central role in this programme, leading two of the four main

contracts to develop and deliver IRIDE services. As a prime contractor in Service Lots 1 and 3, and EOS4LPA, Planetek coordinates efforts to create tailored solutions that respond directly to the needs of institutional users. Its operational platform, Rheticus®, is at the core of the cross-monitoring and land cover services, transforming Earth observation data into actionable insights. Planetek also contributed to other areas of the programme, from managing



Funded by
the European Union
NextGenerationEU



Italiadomani
PIANO NAZIONALE
DI RIPRESA E RESILIENZA



ground motion and emergency services to supporting data quality and calibration of the system.

For PAs, these services are critical enablers of modern governance. From mapping landslide risks and monitoring air quality to tracking coastal changes and managing water resources, IRIDE's services deliver reliable, updated data layers that inform policies and planning across Italy. Planetek's commitment to user-centered design ensures

that these solutions are not only technologically advanced but also seamlessly integrated into public workflows. This was ensured also thanks to a close continuous involvement of end-users in the design and development of services. This alignment of cutting-edge geoinformation with institutional processes marks a major step forward in Italy's digital and green transitions, underscoring the growing role of Earth observation in shaping resilient, efficient public services.

NOX: D-Orbit SAR satellite for IRIDE.

NOX is a SAR (synthetic aperture radar) satellite developed by D-Orbit part of the forthcoming Italian IRIDE constellation. Based on ION's capabilities, NOX will host SAR sensor implemented by MetaSensing and will deliver imaging performance with sub-meter ground resolution, using a 3.2 m deployable RF-TX antenna. D-Orbit will provide one SAR satellite, and will manage its flight operations segment on behalf of the end user.

NOX is part of the IRIDE program - a satellite contract including ground operations infrastructure

and the potential for an additional SAR satellite.

The IRIDE program will consist of a satellite constellation, ground operational infrastructure, and services for the Italian public administration. The satellite constellation, which will be launched between 2025 and 2026, will use various detection techniques and technologies, including microwave and optical imaging in different frequencies, and will provide data for applications in commercial startups, SMEs, and industry.



Planetek Hellas Boosts Greece's National EO Programme

The Greece's National Satellite Space Project, developed in collaboration with ESA, marks a strategic investment in the country's Earth observation (EO) capabilities.

Centred around the creation of a governmental hub and a constellation of EO and secure connectivity satellites, the programme will enhance Greece's autonomy in environmental monitoring, security, and crisis management.

Planetek Hellas plays a key role in this ambitious initiative, leveraging its extensive experience in ESA programmes to support the development of advanced ground segment and service infrastructure.

The company leads the definition and implementation of mission planning, data processing and archiving systems, as well as user services.

This programme represents a unique opportunity for Greece to strengthen its national space ecosystem, building local capacity and accelerating innovation. Planetek Hellas stands at the forefront of this effort, contributing its EO expertise to ensure the programme's success and long-term impact.

THE IRIDE SYSTEM: OVERVIEW

IRIDE'S OPERATIONAL FRAMEWORK

IRIDE is an end-to-end system composed of constellations of satellites in Low Earth Orbit (LEO) [the Upstream segment], ground operational infrastructure [the Downstream segment], and services tailored for the Italian Public Administration [the Services segment]. Drawing upon a variety of detection tools and technologies, the IRIDE constellation will be unparalleled in its diversity, ranging from microwave imaging (via Synthetic Aperture Radar, SAR), to optical imaging at various spatial resolutions (from high to medium resolution) and across different frequency ranges, encompassing panchromatic, multispectral, hyperspectral, and infrared bands. The described system represents the current configuration, which can be adapted to future developments.

Therefore, IRIDE can be considered as "a constellation of constellations".



IRIDE: A Portfolio of Services designed for Public Needs.

The IRIDE programme provides a comprehensive suite of geoinformation services tailored to the operational requirements of central and local public administrations. These services cover a wide range of policy areas and are designed to support planning, monitoring, and decision-making through high-quality, ready-to-use information products.

The service requirements were defined through the work carried out within the 'Mirror Copernicus' initiative and the 'Copernicus National User Forum', which involved extensive consultation with a broad range of national institutional users. As prime contractor, Planetek Italia lead the design and development of the services of LOT 1 & 3 (S1, S2, S4, S5, S6), and EOS4LPA (LOT 3), and also collaborated in the LOT 2 & 4 (S3, S7, S8).

IRIDE services for PA



COASTAL AND MARINE MONITORING (S1)

Mapping and environmental monitoring of the marine-coastal zone, as well as to the modelling and forecasting of environmental parameters. Supporting the development of the blue economy and the protection of the environmental and cultural heritage of Italy's coastal areas.

Supporting

- National-scale forecasting and monitoring of the marine-coastal zone
- Forecasting and monitoring of specific areas such as ports, aquaculture sites, and offshore platforms
- Mapping and monitoring of environmental parameters in coastal areas



AIR QUALITY (S2)

A web service providing 3D maps generated from forecasting models developed by institutional bodies. The platform enables access to all data from federated models and the satellite information needed to support air quality monitoring and modelling activities.

Supporting:

- Air quality monitoring and forecasting
- Monitoring and assessment of pollutant emissions
- National-scale air quality reanalysis



GROUND MOTION (S3)

Mapping and monitoring ground and infrastructure movements caused by natural dynamics or events such as earthquakes, volcanic eruptions, landslides, subsidence, and other natural or human-induced phenomena.

Supporting:

- National-scale ground motion mapping
- Landslide, seismic volcanic area monitoring
- Monitoring of cultural heritage sites and critical infrastructure

In addition, the IRIDE Service Segment produces a high-resolution, national-scale Digital Surface Model (DSM) and Digital Terrain Model (DTM).



LAND COVER AND LAND USE (S4)

Provides regular maps and updates on land cover and use changes,



supporting urban planning, agricultural policies, and climate monitoring. The Soil Sealing Monitoring tracks the expansion of artificial surfaces and urban sprawl, contributing to soil protection strategies and sustainable urban development. Urban Heat Island.

Environmental Monitoring

Providing processing chains and support products to define the status and changes in land cover, land use, and land consumption at various scales (national, regional, local, parcel level).

Supporting:

- Mapping and monitoring of land cover and land use
- Mapping and monitoring of land consumption
- Mapping of natural habitats
- Monitoring of urban heat islands
- Characterisation of urban green areas
- Forest management

Forest Management

Support to National Forest Inventory production and update, to understanding forest capital both quantitatively and qualitatively, information on the health status of Italy's forests and associated carbon stock levels.

Supporting:

- National forest mapping
- Post-event mapping of burned forest areas
- Assessment of wildfire damage
- Evaluation of forest health
- Estimation of carbon stock indices

Agriculture

Delivering processing chains and information to monitor the environmental and natural resource impacts of agricultural activities. This includes assessing erosion risk, water requirements, and land use mapping. Support to the management system of the Common Agricultural Policy (CAP).

Supporting:

- Monitoring of soil organic carbon (SOC)
- Mapping of erosion risk

- Mapping of nitrogen-fixing crops (CPA)
- Mapping of irrigation needs and agricultural water consumption
- Identification of indices to assess crop health
- Common Agricultural Policy (CAP)



HYDRO-METEO-CLIMA (S5)

Satellite-derived processing chains and information to support national and regional activities in hydrometeorological monitoring and weather forecasting — from nowcasting to seasonal outlooks. These products will offer valuable data for forecast verification and for supporting the delivery of climate services.

Supporting:

- Mapping and hydrometeorological monitoring of atmospheric structure
- Monitoring of greenhouse gases (GHG) and other Essential Climate Variables (ECVs)
- Classification of herbaceous agricultural crop groups
- Lightning monitoring



WATER RESOURCE MANAGEMENT (S6)

Integrating satellite and in situ data to offer processing chains and information contributing to the mapping of the distribution and frequency of macro-geomorphological units (water, sediments, and vegetation), the granulometry of river sediments (grain size classes), the spatio-temporal evolution of river corridors, post-event flood zones, soil moisture, snow cover, drought indicators, and potential sources of pollution in river areas.

Supporting:

- Hydrological and hydraulic modelling, flood forecasting, and sediment management
- Hydro-morphological mapping of rivers and channel dynamics
- Integrated water resource management



EMERGENCY MANAGEMENT (S7)

Processing chains and rapid

mapping products that, upon request from competent authorities during emergency phases (such as floods, fires, earthquakes, volcanic eruptions, and other crises), support the identification of affected areas and initial damage assessment in cases of Natural and Man-made environmental disasters.



SECURITY (S8)

Processing chains and geospatial products designed to assist with the surveillance of national territory and terrestrial and maritime borders of the European Union, as well as the monitoring of critical structures and infrastructure. Satellite-based geospatial information is also provided to support efforts in countering illegal activities, both on land (e.g. illegal waste dumping) and at sea (e.g. oil spills).

E0 Services for Local PA

“Cross-Monitoring of Ground Motion and Hot Spots of Land Cover Change” is built on top of existing automatic robust sub-services integrated together in Planetek's operational Rheticus® platform to produce and provide the requested output: a thematic grid of ground motion, burnt area map and fire severity map, land cover change map. Through these services, IRIDE will significantly enhance the PA's capacity to act with greater awareness and strategic foresight. Planetek's leadership in several service domains ensures continuity with Europe's Copernicus ecosystem while introducing innovation in processing pipelines, AI integration, and user-centric service delivery.



Empowering African Space ecosystem.

Earth observation plays a vital role in supporting sustainable development by providing accurate, timely, and cost-effective data to inform decision-making across a wide range of applications, including natural resource management, urban planning, agriculture, and disaster resilience. It enables governments and organisations to support more effective planning and policy-making, helping to protect ecosystems, enhance food security, and manage climate-related risks.

Earth observation is not just a tool; it is a foundation for action aligned with the UN Sustainable Development Goals (SDGs), enabling more inclusive and resilient growth.

Several initiatives aim to strengthen partnerships between European and Italian institutions and African counterparts, in order to support local innovation ecosystems across African countries.

Through instruments such as the Piano Mattei, the Global Gateway Strategy, and the EU–Africa Joint Space Programme led by the European Commission, investments are directed towards building local capabilities, fostering entrepreneurship, and enabling the adoption of space-based technologies across key sectors.

Planetek Italia's role in Africa *(and beyond)*

Planetek Italia has extensive experience in the management of national and international projects across Europe and globally. This experience has been gained through numerous projects entrusted by public institutions at national, regional, and local levels, as well as by the European Commission, the EEA (European Environment Agency), other EU agencies, and international financial institutions such as the Asian Development Bank. These projects include large-scale programmes such as Copernicus, GDA AID Marine & Blue Economy, IRIDE, and EO4SD.

Within the D-Orbit group, Planetek is also a key reference point for a wide range of space activities across the entire space value chain, spanning from space logistics and transportation to satellite in-orbit servicing, midstream systems and software, and downstream services, as well as capacity-building and training programmes.

Our long-standing collaboration within the Copernicus programme positions us among the leading European organisations with extensive experience in the development and provision of downstream services delivered through Copernicus. As an official member of the Copernicus



Academy, our expertise also includes the delivery of training courses and the development of capacity-building programmes targeting both domestic and international end users. A relevant example is provided by the ESA programmes EO4SD- DRR and GDA AID Marine & Blue Economy, where Planetek contributed tools, maps, and training to support Asian, Indonesian, and African institutions in disaster risk reduction, agriculture, and coastal and marine environmental monitoring and protection. This experience now underpins **Planetek's growing role in Africa, combining technical expertise with capacity building to strengthen local ecosystems.** Among the projects currently underway with a strong focus on capacity building are "Continental Innovation" and the "Africa Business Innovation Lab (ABIL)", both implemented under the Africa-EU Space Partnership Programme (AESPP). These projects aim to **foster a more balanced and sustainable exchange ecosystem with African institutions in the field of Earth observation,** through training activities, skills development, and the promotion of EO-based market solutions.

Africa-EU Space Partnership

Sustainable innovation, partnerships, capacity building, and long-term growth of the EO ecosystem in Africa.

The "AESPP Continental Innovation" project implemented in the framework of the Africa-EU Space Partnership Programme (AESPP), aims to strengthen the African Earth Observation (EO) sector ecosystem and to facilitate sustainable European-African industrial cooperation in the space domain. Launched in 2025, the project is coordinated by Novaspace, in collaboration with the African Space Agency (AfSA). Planetek role focuses on "Capacity Development", "Continental Incubation" and "Results and Handover", leveraging its expertise in EO training, the development of educational methodologies, and support to space innovation. The project adopts an integrated approach that combines ecosystem analysis, capacity development, business incubation, and international matchmaking. The capacity development programme is aimed at strengthening both technical and entrepreneurial skills of African innovators, start-ups, and stakeholders. Training activities include online courses and in-person

workshops, and focus on the practical use of Copernicus and EO data, as well as on business development, innovation, and investment readiness. In parallel, the project supports African EO start-ups through structured incubation and mentoring activities, helping them to transform EO-based ideas into market-ready products and services. At the same time, it promotes European-African matchmaking to foster partnerships, industrial cooperation, and access to markets and investment opportunities. Finally, the project ensures wide visibility, dissemination of results, and long-term sustainability by consolidating lessons learned, success stories, and impacts into structured reporting and knowledge transfer actions, **supporting the growth of a durable and scalable EO innovation ecosystem in Africa** beyond the lifetime of the project.

➔ **Resources:**
www.planetek.it/en/solutions/key_topics/Space_in_Africa

Africa Business Innovation Lab

The Africa Business Innovation Lab (ABIL) is a collaborative initiative in the framework of Africa-EU Space Partnership Programme (AESPP) fostering entrepreneurship, digital innovation, and investment readiness in Kenya and across Africa by leveraging EO technologies. ABIL will establish an innovation lab in Kenya, offering incubation, acceleration, and capacity-building programs to support start-ups and SMEs in developing EO-based solutions for agriculture, climate resilience, health, and other sectors. The initiative will also organize hackathons, challenges, and investor

matchmaking events to strengthen the local innovation ecosystem. The project leverages the consortium's extensive networks, including partnerships with African universities, research institutions, and innovation hubs. It aims to create a sustainable, investment-oriented infrastructure aligned with ESA's Explore Invest logic, fostering long-term collaboration between EU and African innovation communities. ABIL is led by STAM, in partnership with Planetek Italia, Corallia, Adanian Labs, and Locatell, supported by the Italian Space Agency (ASI).



NAIROBI, KENYA





Earth Observation for Sustainable Development.

Earth observation (EO) plays a vital role in supporting sustainable development by providing accurate, timely, and cost-effective data to inform decisions on natural resource management, urban planning, agriculture, and disaster resilience. Through satellite imagery and geospatial analytics, EO enables governments and organizations to monitor land use, deforestation, water availability, and crop health, even in remote or conflict-affected areas where ground-based data collection is challenging. This information supports more effective planning and policy-making, helping to protect ecosystems, enhance food security, and manage climate-related risks.

Moreover, EO empowers local communities and institutions by building digital infrastructure and data literacy, often in partnership

—————
**EO is not just a tool;
it is a foundation for action
aligned with the UN SDGs**

with international agencies and NGOs. By integrating EO data into local decision-making — such as identifying areas vulnerable to floods, mapping informal settlements, or tracking the impacts

of mining — developing countries can pursue more inclusive and resilient growth. **EO thus becomes not just a tool for observation, but a foundation for action aligned with the UN Sustainable Development Goals (SDGs).**

Planetek Italia is involved in several projects providing satellite-based environmental information and capacity building to support ESA and IFI (e.g. Asian Development Bank) initiatives in monitoring land, water and food resources in developing countries.

Planetek activities in African regions include natural disaster risk reduction, water resource management, biodiversity conservation, food agriculture and aquaculture, and land monitoring.

Natural Disaster Risk Reduction:

In **Gambia**, historical ground motion is assessed using Rheticus® Displacement service to support local authorities in masterplan development and monitoring. Project: ESA EO4SD-DRR.

Water Resource Management:

In **Egypt**, EO AFRICA WRM activity aims to estimate crop water stress and evapotranspiration using EO data, with outcomes including precision irrigation planning and better regional water management policies. Project: EO AFRICA

In East African Rift Valley

(**Ethiopia, Kenya, Tanzania**), a sustainable water management system is developed to address fluoride contamination in water, soils and food to help improve living standards (environmental, health and food security) of its population. Project: Flowered H2020.

Sea and Coastal Water Management:

In **Tanzania**, EO-processing chains are tailored for national SDG monitoring (SDG 14.1.1a), focusing on coastal eutrophication. Innovative EO-based methods are deployed on a dedicated EO platform, which funnels the information into the national systems and processes that measure the SDGs. Early adopters and experts involved in the project are: National Bureau of Statistics, Tanzania; Regional Environmental Centre (REC) **Albania** (directly connected with the national statistical office). Project: Eu-Mon

Coastal Eutrophication Monitoring:

In **Tunisia**, evaluation of blue carbon from coastal ecosystems includes seagrass and phytoplankton mapping. These data and trends helps policy makers and decision making having a constantly updated information on ecosystems and in evaluating changes and high-risk areas. Project: GDA AID Marine Env. & Blue Economy

Biodiversity Conservation:

In **Guinea Bissau**, mangrove detection and delineation support WB

team studying the impact of economic activities on coastal ecosystems. EO products in Guinea-Bissau drive economic development and marine biodiversity preservation. They are systematically integrated into the “West Africa Coastal Areas Resilience Investment Project” and enhance coastal resilience efforts. Project: GDA AID Marine Env. & Blue Economy

Aquaculture Development

In **Kenya**, EO technologies assess potential aquaculture sites and support decision-making for farm locations. A Geospatial web platform allows the consultation of geospatial dataset and socio-economic data supporting decision-making. Project: Worldfish.

Food:

Wastewater reuse in agriculture. In **Tunisia**, wastewater reuse strategies in agriculture are planned, optimizing irrigation needs and energy consumption.

Land Monitoring:

Soil sealing products for **Mediterranean** coastline support policymakers and researchers in coastal zone management and climate change resilience. Project: Ulysses.

Forest Carbon Emission:

In **Mozambique**, preventing deforestation and preserving forests generate carbon stocks for nature-based offsetting projects,

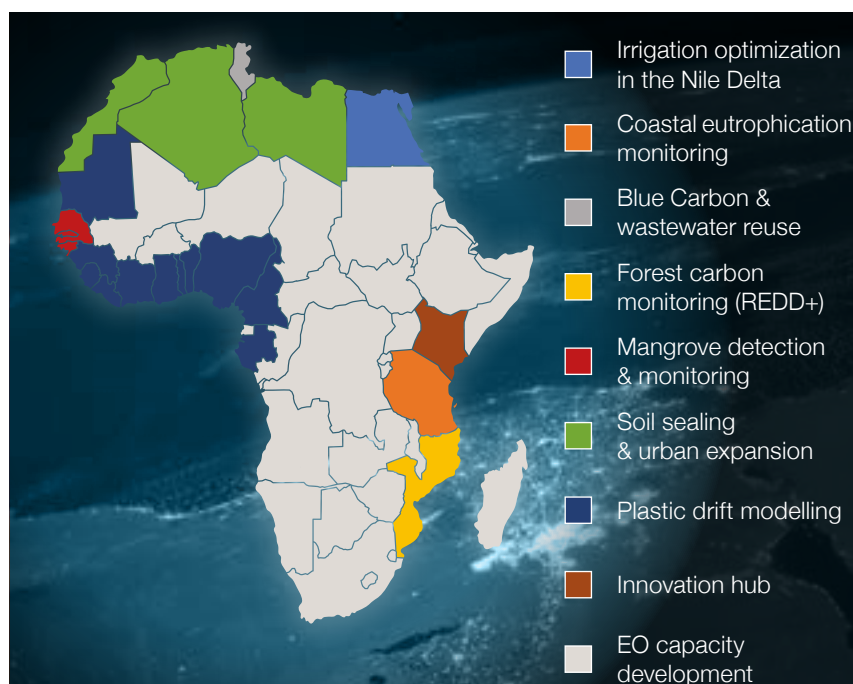
complying with REDD+ program requirements. Reliability ranking of the Carbon Credits productivity estimations deriving from REDD+ Projects. Estimation indexes are generated through standardized procedures based on satellite images’ multi temporal analysis. Site Report: based on standard procedures, standardized indexes in space and time, short production timescales, available on sites located anywhere in the world.

Further Activities of Interest:

Activities include coffee sector development in **Timor-Leste**, ecosystem-based management in **Philippines**, informal trade estimation in **Central Asia**, responsible banana supply chains in Philippines, and afforestation monitoring in **Saudi Arabia**.

Capacity Building:

Supporting the growth of space ecosystems across African countries. Several projects are currently implemented under the Africa–EU Space Partnership Programme (AESPP). Working closely with African institutions these projects aim to support the growth of local Earth observation ecosystem, through training activities, skills development, and the promotion of startups and EO-based market solutions. Projects: ESA EO4SD-DRR; Africa Business Innovation Lab, AESPP Continental Innovation.





Marine Environment Monitoring: Safeguarding Our Oceans.

The marine environment is vital for life on Earth, covering over 70% of the planet and producing at least 50% of the world's oxygen through phytoplankton. Oceans also absorb around 25% of human-generated CO₂, helping to mitigate climate change, while regulating weather and temperature via ocean currents. Coastal ecosystems like mangroves and coral reefs provide protection from storms and are key to food security and livelihoods. The "blue economy" - the sustainable use of ocean resources - is valued at \$ 2.5 trillion annually and supports sectors such as fisheries, marine biotechnology, tourism, and maritime transport. Fisheries alone support the livelihoods of over

800 million people and are a major protein source for more than 3 billion. However, this economy is at risk due to overfishing, pollution, habitat loss, and climate change, with over 30% of global fish stocks overexploited and 8 million tons of plastic entering the oceans each year.

Monitoring ocean health is crucial to safeguard marine ecosystems and sustain the blue economy. Satellite-based EO technologies provide continuous, large-scale data on sea surface temperature, chlorophyll, currents, and more - essential for informed decisions and effective conservation. Planetek plays a leading role in marine monitoring through

advanced EO solutions. Within ESA's GDA Programme, Planetek develops tools for water quality assessment, fishery resource tracking, erosion mapping, and pollution monitoring. Projects like EuMon focus on eutrophication impacts, while REACT and SPOTTED use AI and high-resolution imagery to detect marine plastic pollution. Initiatives in Saudi Arabia and Cambodia further show Planetek's global impact in supporting sustainable coastal and marine ecosystems. Through innovation and international cooperation, Planetek contributes to a healthier, more resilient ocean for future generations.

GDA AID Marine Environment and Blue Economy

The Global Development Assistance (GDA) programme, launched by the European Space Agency, builds upon the Earth Observation for Sustainable Development (EO4SD) initiative. It seeks to raise awareness among stakeholders in developing countries about the potential of satellite Earth Observation in facing critical development challenges. The programme collaborates with the World Bank (WB) and the Asian Development Bank (ADB) to create advanced EO thematic information products and integrate EO-based information into all stages of international development assistance projects, aiming to amplify the benefits of EO-based information for development assistance operations. The GDA Marine, led by Planetek Italia, has supported the WB and the ADB through various use cases, addressing diverse needs such as ecosystem protection, water quality assessment, pollution monitoring, fisheries support, shoreline erosion mapping, and evaluating the impact of port infrastructure on marine environments. GDA Marine aimed to expand the adoption of EO services on a pre-operational basis, aligning with the current operations, planning, and strategic goals of the WB and the ADB in the marine domain of developing countries.

Spotted

In the ESA-funded SPOTTED project, Planetek has developed new techniques using advanced data fusion and Artificial Intelligence to enhance marine debris detection. By using high-resolution satellite images, such as those from Sentinel-2 and PlanetScope, they can better identify and monitor landfills and floating debris.

EuMon

The EUMON project is dedicated to enhancing the monitoring of marine environments to support Sustainable Development Goal (SDG) reporting, with a particular emphasis on indicator 14.1.1a, which addresses eutrophication.

The project seeks to validate and showcase effective EO products by leveraging advanced satellite data and collaborating closely with early adopters. These tools offer crucial insights into the health of marine ecosystems, aiding in the assessment of water quality and the preservation of these vital environments.

The information provided by the EUMON project empowers early adopters to accurately report on SDG 14.1.1a, marking a significant advancement in our capacity to monitor and protect marine ecosystems, ensuring their sustainability for future generations.

React

The ESA-funded REACT project was an innovative initiative to address the growing issue of marine plastic pollution. The project sought to develop a proof-of-concept for remotely sensing marine plastic litter by utilising advanced satellite imagery and image fusion techniques.

This cutting-edge approach allowed for the detection of plastic waste in our oceans, providing valuable data to support efforts in reducing plastic pollution and protecting marine ecosystems.

The REACT project represented a significant step forward in our ability to understand and combat the environmental impacts of plastic waste in marine environments.

ULYSSES: Soil Sealing Assessment and Monitoring.

The project Mediterranean Soil Sealing, promoted by ESA European Space Agency, aims to provide specific products related to soil sealing presence and degree over the entire Mediterranean coastal areas by exploiting EO data with an innovative methodology capable to optimise and scale-up their use with other non-EO data. Such products have to be designed to allow - concerning current practices and existing services - a better characterisation, quantification and monitoring within time of soil sealing over the Mediterranean basin, supporting users and stakeholders involved in monitoring and preventing land degradation.

The project fits perfectly with the proposed EU Soil Monitoring Law which aims to protect and restore soils to ensure they are used sustainably. The law aims to address key soil threats in the EU, such as erosion, floods, landslides, sealing, as well as the loss of soil biodiversity.

Maps and Products

The targeted products generated from Copernicus Sentinel-2 are high-resolution maps of soil sealing over **the entire Mediterranean coastal areas (within 20km from the coast) for the 2015-2020** time period, at yearly temporal resolution with a targeted spatial resolution of 10m. The team, led by Planetek

and supported by CLS and ISPRA, have generated maps spanning the 2018-2022 period.

In 2024, ESA decided to extend the scope of this mapping efforts from the coastal regions to encompass the entirety of the involved member states - specifically Spain, France, Italy and Greece.





Rheticus®

Geoinformation services by subscription
to support production activities and land management

The availability of timely, up-to-date and accurate information is essential to make quick and informed decisions. Rheticus® is a geoportal that provides actionable information services designed to support decision-making in a growing number of business applications. Public Administrations and companies will access maps, reports and indicators, to monitor specific land related phenomena, satisfying multiple application areas. Rheticus® has the ability to detect millimeter displacements of the Earth's surface and infrastructures. This is essential to monitor

#

Maps, reports, and indicators for timely and accurate information

#

landslide and subsidence prone areas to help the management of spatial planning plans, the monitoring stressed water and sewage pipelines, the stability of transport infrastructures, and of electric towers, the areas affected by mining and geothermal activities. Thanks

to its flexibility, it is possible to monitor areas affected by wildfires and the evaluation of the level of reforestation, but also to monitor the quality of coastal marine waters, and to provide a vertical support service for aquaculture. Each service is offered through the activation of an annual subscription, which guarantees access to updated information and the receipt of periodic summary reports. Information and the receipt of periodic summary reports. Rheticus® services are marketed internationally through a network of distributors.

Industries



UTILITIES

Oil&Gas, Energy, Mining, Sewerage,
District heating, Desalination plants



ENGINEERING

Airport, Railways, Roads, Tunnels, Dams,
Bridges, Subway, Offshore drilling, Dredging



FOOD

Fishing, Aquaculture, Crop yield forecasting,
Precision farming



GOVERNMENT

Masterplan, Illegal crops, Wildfires,
Coastal marine environment

Rheticus® services

Rheticus® Displacement

Designed for the monitoring of areas prone to subsidence or landslides it identifies millimetric movements of ground surface.

Rheticus® Network Alert

Identification of water and wastewater pipelines under stress to support preventive maintenance and field inspections campaigns.

Rheticus® Safeway

Timely identification of critical situations in the stability of road infrastructures and the surrounding areas.

Rheticus® Safeland

Ground motion detection and monitoring supporting regional geological survey information services.

Rheticus® Marine

Marine water quality assessment in coastal zones in accordance with the EU "Marine Strategy" Directive.

Rheticus® Aquaculture

Information service for fish and shellfish farming activities in marine waters, designed for environmental and production monitoring.

Rheticus® Oenoview

Supporting the agronomic management of vineyards and the selective harvesting of wine grapes.

Rheticus® Wildfires

Identification, localization and classification of areas burnt by wildfires, identification of illegal transformations and monitoring of renaturalization processes.

Rheticus® Urban Dynamics

Monitoring the progress of urban transformation plans (VAS) and the environmental impact assessment of works (EIA).

Rheticus® Building Check

Monitoring of buildings and facilities stability to provide predictive analysis of any movement within the area of interest, while also timely tracking any anomaly and its evolution over time.

Rheticus® Electric Towers

Monitors electricity infrastructure and suggests predictive maintenance prioritizing areas that need interventions.

Rheticus® Forest Carbon Offset

Evaluating and reporting Forest Carbon Offsets of REDD+ projects through EO-derived analytics.



Rethinking how we buy Satellite Data.

Satellite data, cloud platforms and pay-per-use.

The Earth Observation market has entered a new era. With hundreds of satellites in orbit and an ever-growing number of commercial providers, users now have access to an unprecedented variety of imagery, differing in resolution, revisit frequency, spectral capabilities and acquisition models.

Alongside commercial constellations, freely available Copernicus Sentinel and Landsat data have dramatically expanded the amount of accessible information. The challenge is no longer finding satellite data, but choosing the right data and turning it into value.

As the market shifts from scarcity to abundance, traditional purchasing models based on price per square km are giving

way to more flexible approaches. Cloud-native platforms are driving this transformation by providing centralised access to multiple data sources, on-demand processing and scalable computing. Instead of purchasing and managing raw imagery, organisations can subscribe to services, pay only for what they use, or access satellite data through APIs that integrate seamlessly into existing digital workflows.

Even more significant is the evolution from imagery-as-a-service to insights-as-a-service. Increasingly, users are interested not in satellite images themselves, but in actionable information: change detection, infrastructure monitoring, crop health, environmental indicators or risk alerts delivered directly into their

decision-making processes. These new business models are making EO more accessible, affordable and easier to adopt across industries. As cloud technologies, AI and geospatial analytics continue to converge, satellite data is becoming less a product to purchase and more a service that delivers timely intelligence whenever and wherever it is needed.

#

Users are interested not in satellite images themselves, but in actionable information

#

imageryPack

A Smarter Way to Access Satellite Data

ImageryPack is an innovative system for purchasing imagery and geospatial products developed by Planetek. ImageryPack introduces an innovative credit-based subscription that makes satellite data and geospatial products easier and faster to acquire. Instead of managing complex purchasing procedures, users can instantly access imagery from multiple satellite constellations, historical archives spanning up to 20 years, or request new acquisitions through a single service. Designed to reduce

bureaucracy and accelerate operations, ImageryPack integrates seamlessly into GIS workflows, allowing organisations to focus on analysis and decision-making rather than procurement. By combining flexible access, pay-per-use logic and a wide portfolio of data sources, ImageryPack represents a new generation of Earth Observation services: simpler, faster and built around the needs of users.

Resources:
www.imagerypack.com



Partnerships

Main partnerships for the distribution of satellite imagery.

AIRBUS

Spot
Pléiades
Pléiades Neo
TerraSAR-X



RapidEye
PlanetScope
SkySat



WorldView
Legion
Satellogic
Umbra SAR
GeoEye-1
QuickBird
IKONOS

and also imagery of Capella
Space, Onyx Space, Orbital
Sidekick, ICEYE, 21AT.

Resources:
https://t.ly/_HN5D





Satellite Intelligence for Smart Cities.

Local Public Administrations are increasingly on the front lines of complex environmental, urban, and climate-related challenges: extreme weather events, aging infrastructure, unplanned urban expansion, critical mobility, and land protection. Addressing these issues requires governance based on up-to-date, integrated, and timely data. In this context, Earth Observation (EO) plays a strategic role, one that becomes concrete by meeting three fundamental needs of local governments: simplifying access to reliable information, ensuring full alignment with existing administrative processes so that data can be effectively used and maintained over time, and enabling smooth integration with other information

layers already in use within municipal territorial portals. These three pillars are the foundation of **Rheticus®**, a platform that transforms satellite data into real operational tools. Not just maps, but a system that delivers advanced analytics, ready-to-use thematic indicators, and intuitive dashboards, all seamlessly integrated into the operational workflows of public entities. Rheticus® does not replace existing systems but fits naturally into decision-making dashboards, territorial portals, and document systems already in use, ensuring operational continuity without requiring changes to tools or procedures. The Rheticus® suite of services spans multiple domains, mobility,

land consumption, landslides, infrastructure, coastal zones, and urban quality, and is tailored to the specific needs of various municipal departments such as urban planning, environment, and mobility. Each function is supported by indicators designed according to the operational logic of public administrations, already aligned with relevant regulatory frameworks.

In short, access to EO-based information is now practical, contextualized, and actionable. Local decision-makers can finally embed Earth Observation into their daily decision-making flows, without technical complications, but with concrete tools that meet real needs in management, planning, and sustainability.

Palermo: An Urban Control Room for Integrated Territorial Governance.

In the heart of Palermo, urban governance is being transformed through a control room where all the city's informational layers converge. This is where the **SIAC, Sistema Informativo Ambientale Comunale** project, developed by SISPI and the Municipality of Palermo, takes concrete form: a digital system where Rheticus® satellite data integrates seamlessly with the municipality's existing geospatial data. The modular and flexible Rheticus® suite powers the control room with specific services: **Rheticus® Safeland**, for managing

hydrogeological risk areas and road infrastructure; **Change Detection**, to monitor urban transformations; a module for asbestos mapping; and tools for monitoring urban greenery, helping to optimize irrigation and maintenance while reducing fire risk. All this data, continuously updated and validated, is not merely accessible, it is interrelated, providing a transversal view of the territory. Anomalies, changes, and priorities emerge in near real-time and become actionable insights, reducing response times, waste, and uncertainty.

Rheticus® UHI Satellite Data for Healthier Cities

As cities grow and temperatures rise, urban heat islands are becoming an increasing challenge for public administrations. Dense buildings, paved surfaces and limited vegetation can make some neighbourhoods significantly hotter than others, putting the health of vulnerable people at greater risk during heatwaves. Rheticus UHI helps cities understand where heat accumulates and where action is needed most. Using Copernicus satellite data, the service combines high-resolution thermal mapping with demographic information to identify the areas where high temperatures overlap with vulnerable communities.

In Palermo, Italy, the solution supports Sistema Palermo Innovazione (SISPI) urban planners with detailed (10 meter) thermal micro-zoning maps integrated into existing GIS workflows. The information is used to prioritise interventions such as planting trees, creating shaded public spaces, increasing green areas, introducing permeable surfaces and using reflective materials to reduce heat. Regular updates also allow the city to measure the effectiveness of these actions over time.

Developed by Planetek, with thermal-layer processing provided by Latitudo 40, Rheticus UHI transforms satellite observations into practical decision-support information. The result is a simple and objective way for cities to plan climate adaptation measures, improve the quality of urban spaces and build healthier, more resilient communities.

➔ Resources: <https://www.rheticus.eu>



Rheticus UHI interactive dashboard of Palermo's thermal zoning and vulnerability score across 26,650 census areas, combining satellite-derived heat data with population statistics.

Taranto and the Time Machine: A Platform for Air, Sea, and Green Spaces.

In Taranto, where environmental challenges are intertwined with a complex urban and industrial context, continuous monitoring of air, marine waters, and green spaces is not just a technological choice but a strategic necessity. Through the **Calliope** project, the Municipality adopted Rheticus® not as a mere observation tool, but as a true **environmental time machine**, capable of narrating the past, interpreting the present, and anticipating the future.

With services such as **Air Quality**, **Marine**, and **Urban Green**, it is possible to reconstruct the state of the environment over time, generating trend maps and historical analyses that help understand how phenomena evolve. Continuous monitoring, regularly updated, also allows early detection of recurring or emerging environmental issues, enabling more timely and targeted interventions.

From identifying areas most exposed to air pollution, to evaluating the impact of coastal discharges on water quality and analyzing the health of urban vegetation using indices like **NDVI**, each indicator contributes to building an integrated and dynamic picture of the territory. The data, fully integrable with other information layers and easily shareable with both public and private stakeholders, supports evidence-based decision-making for more informed and sustainable urban management.





Satellites and Climate: Protecting Land, Lives and Infrastructures.

Extreme weather events - floods, wildfires, landslides - are increasing in intensity and frequency, placing growing pressure on people, infrastructure and ecosystems. Public authorities, engineers and land managers urgently need reliable tools to prevent risks and plan sustainable development. Earth Observation (EO) satellites now offer a vital, objective and continuous source of environmental intelligence. Satellite data, from optical and radar sensors, allow us to observe vast areas in near real time, detect minute changes in the land, assess risk and monitor ongoing transformations. Optical sensors track vegetation, land use and

surface impact, while radar (SAR) penetrates clouds and darkness to detect ground movement - crucial for landslide or infrastructure monitoring. Planetek has developed cutting-edge EO solutions to serve this growing demand. With its Rheticus® platform, EO becomes a ready-to-use

—————
**ready-to-use
geoinformation for
predictive management**
————— #

service for public agencies and private actors. Platforms like Rheticus® offer continuous support throughout all phases of risk management: from mapping vulnerable areas and monitoring territorial changes, to evaluating the effectiveness of mitigation measures. By integrating high-resolution satellite imagery with predictive models, EO provides accurate and up-to-date information, which is crucial for informed and proactive territorial governance. Rheticus® builds on free Copernicus data and is accessible via WebGIS or API. It empowers national and local governance in line with EU policies, including the



Landslide Monitoring in Urban Areas and Infrastructure

In a hilly area of central Italy, a local authority used the Rheticus® Displacement service for weekly monitoring of ground movements in a neighbourhood exposed to hydrogeological risk. SAR (Synthetic Aperture Radar) analysis enabled the detection of millimetric deformations not visible from the ground. The information was integrated into the municipality's emergency plans and guided the design of stabilisation works, improving safety for both citizens and infrastructure.



Wildfire Prevention in Forest Areas

In collaboration with Civil Protection and regional authorities, Rheticus® Wildfires was activated - a service based on Sentinel-2 optical imagery, climate data, and vegetation indices. The aim was to map high-risk ignition areas ahead of the critical fire season. Hazard maps and predictive models enabled better allocation of prevention and surveillance resources across the territory.

Green Deal, Agenda 2030 and the Floods Directive. As climate change accelerates, EO becomes not just a technological advantage, but a public necessity. Yet beyond its technical strengths, what stands out is the growing urgency to equip ourselves with tools capable of transforming the Earth's signals into meaningful action. Satellite observation is not just about data - it is a window into our collective future. It helps us recognise the vulnerabilities of the present and lays the groundwork for adaptation strategies that are effective, equitable and sustainable.

Rheticus® Safeway Aligns Infrastructure Monitoring with ANSFISA Guidelines

Among the many responsibilities of Metropolitan Cities, the management and safety of road infrastructure are among the most urgent. Compliance with regulatory obligations, such as **Ministerial Decree 204/2022** and the **ANSFISA 2026 Guidelines**, requires a significant step forward in systematically surveying, overseeing, and monitoring hundreds of road structures. In this context, the Rheticus® platform offers a solution fully aligned with public administration workflows. Its multi-level analyses, already structured according to regulatory requirements, enable administrations to define the **Class of Attention (CdA)** for each bridge, using a scalable, objective, and documentable approach. One of the key features is the automatic generation of **ground motion indicators** using satellite data, capable of detecting even millimetric displacements over time, signaling potential structural issues before they become emergencies.

A concrete example comes from the **Metropolitan City of Milan**, which has integrated Rheticus® into its **Metroponte** project, a digitalization initiative to improve road infrastructure management. Here, **Rheticus® Safeway** provides an interactive and integrated view of the road network through thematic indicators, dynamic maps, and exportable reports, turning regulatory requirements into real, operational tools that can be integrated with public asset management systems.

 **Resources:**
<https://www.rheticus.eu>



From OPEX to CAPEX.

How Satellite Intelligence Turns Maintenance into Strategic Investment.

Maintaining water and sewage networks is one of the most critical and costly responsibilities for utility operators.

With increasing regulatory pressure to improve efficiency, sustainability and digital transformation, there is a growing need to adopt technologies that enhance infrastructure resilience—while being recognised not merely as operational expenses (OPEX), but as strategic capital investments (CAPEX). Satellite intelligence offers exactly this opportunity. By continuously monitoring the territory, Earth Observation (EO) data can detect early warning signs of ground movement,

subsidence, and anomalies that may indicate leaks or stress within underground pipelines. When integrated into predictive maintenance workflows, this intelligence becomes a multi-year asset—improving planning, reducing emergency costs and guiding targeted interventions.

EO solutions such as Rheticus® Network Alert by Planetek Italia provide utility companies with a digital service that transforms routine maintenance into a strategic investment. This approach can be formally recognised in the Regulatory Asset Base (RAB), qualifying for tariff remuneration as outlined by the Italian Regulatory Authority

for Energy, Networks and Environment (ARERA). Both the ARERA Guide to the RAB (<https://www.arera.it/it/docs/22/074-22.htm>) and the latest MTI-3 framework (Del. 639/2023/R/idr) actively promote digital and innovative infrastructure investments as part of long-term service sustainability.

By shifting from reactive to predictive operations, satellite monitoring becomes a pillar of intelligent asset management—offering not only greater operational resilience, but also financial return and regulatory alignment. In this light, EO no longer supports the network; it becomes part of it.



Predictive Sewer Network Maintenance: From Risk to Resilience.

In pursuit of more sustainable and efficient sewer infrastructure management, **Planetek Italia** and **Aquanexa** have developed an integrated solution for predictive maintenance that combines satellite intelligence with on-the-ground technical expertise.

The service relies on multi-temporal SAR satellite analysis to detect recurring ground motion patterns - often linked to hydrogeological dynamics and clay-rich soils - which may threaten the stability of underground networks.

The **Rheticus® Network Alert** platform classifies pipeline segments by risk level, generating thematic maps to prioritise inspections. Satellite data, validated through geotechnical and geophysical surveys by Aquanexa, supports the planning of preventive interventions - avoiding unexpected failures and optimising resource allocation.

This structured and systemic service provides multi-year impact and qualifies as a capital investment (CAPEX) under ARERA's MTI-3 tariff regulation.

The benefits are clear: greater infrastructure resilience, reduced emergency costs, extended asset lifespan, and inclusion in the Regulatory Asset Base (RAB), enabling tariff-based remuneration.

In short, this is a capital-ready solution that combines technological innovation with long-term economic value.



Enabling predictive maintenance in Varese, Italy.

With growing environmental pressures from climate change, managing water infrastructure requires tools that enable predictive maintenance and prevent critical failures. This was the approach taken by Alfa Srl, the Integrated Water Service operator for the Province of Varese, which adopted Rheticus® Network Alert as a key technology for advanced network monitoring. Using high-resolution satellite data, the system detects ground movements with

millimetric precision, providing objective, continuous assessment of stress on underground infrastructure.

The service was structurally integrated into operational workflows, turning satellite observation into a long-term strategic asset. Its CAPEX classification is justified by its ability to enable data-driven planning and proactive interventions - optimising time, resources and cost-efficiency. By reinforcing infrastructure

management, the service directly contributes to the operator's asset base.

The results speak for themselves: of 40 critical segments flagged by the system, 32 were confirmed as damaged and classified by severity (18 class 3, 10 class 4, 4 class 5 under UNI-EN13508-2). Timely action prevented major failures and strengthened network resilience - an investment delivering operational, environmental, and asset value.





Defence and Geospatial Intelligence.

The current crisis and war scenarios near Europe's external borders, in addition to the historical problem of terrorist attacks, are just some of the elements that are changing the conditions in which Defense operators operate. The availability of updated and accurate information can be decisive for reducing risks and countering threats.

In this scenario, the need for geospatial information for Intelligence purposes is growing (satellite images, aerial photos and data collected in the open field), which can guarantee information "dominance". It is no coincidence that the main satellite data market is defense, thanks to the huge investments of the American defense in this field. Interoperability, security, on-

the-fly distribution of data and information extracted from their processing are basic requirements in the development of solutions for Geospatial

#

Multi-source and multi-sensor analysis

#

Intelligence (IMINT, SIGINT, C4ISR). On the market there are architectures based on OGC standards that allow you to produce, manage and share geospatial data and content, in an effective and secure way. Systems that have 2D, 3D visualization tools and 3D virtual

worlds useful for mission planning and situational awareness. Through simplified procedures, these systems allow for rapid analysis of changes, identification of objects and target recognition through multi-source and multi-sensor analysis of optical satellite and airborne sensors (E.O. e.g. Opsat -3000), hyperspectral (HSI), multispectral (MSI), LiDAR and Radar (SAR), such as those of the Italian constellation COSMO- SkyMed and CSG. In this context, Planetek Italia, within the D-Orbit Group, has matured a sound experience and developed Geospatial Intelligence solutions for defence, homeland security and public safety operations. These solution have been already tested by operators and exhibited during the NATO Task Force X CentMed initiative.

DECISMAR: European defence industrial development programme (EDIDP 2019).

Planetek Hellas is one of the companies that can claim the prestige, within the EU, of participating in one of the 16 selected projects of the European Defense Industrial Development Program (EDIDP 2019).

The project aims to develop a decision support toolbox (DSTx) in a feasibility study in updating maritime surveillance systems, integrating already consolidated solutions with new innovative solutions (DECISMAR). The toolbox, implemented in a “cyber

secured” and innovative IT environment, greatly facilitates and automates the decision-making process and procedures by adopting a holistic philosophy; the objectives are relevant to the program as they provide an innovative defense product. Ultimately, a new solution to conduct feasibility studies on enhancing the EU’s maritime surveillance capabilities through the adoption of new technologies that combine PESCO, EDIDP and innovation together.

An integrated system for monitoring the territory via drones.

Planetek Italia and Sky Eye Systems have developed an integrated solution for monitoring the territory using drones. Process the video streams and the optical and SAR data, acquired by the sensors on board the Rapier family drones, using artificial intelligence algorithms in order to automatically extract sensitive and useful information to IMINT analysts and to all entities that deal with territorial control and management of environmental emergencies: this is the object of the collaboration of the two companies in the aerospace sector.

Planetek’s thirty years of experience in the processing of

geospatial and multi-source data for IMINT and GEOINT well paired with Sky Eye Systems’ innovative family of drones, “Rapier”: a fixed wing UAS (Unmanned Aerial System) used in intelligence and surveillance missions. Among the main applications developed and made available in real-time on a rugged workstation dedicated to data exploitation, the system includes: change detection, data fusion, generation of 3D models and automatic object recognition. The information acquired by the drone, and the reports generated through the rugged workstation, can be shared, in real time, both with other units deployed in the field and with remote command centers.

Preciso® ISR

**Integrated AI-powered
ISR exploitation suite.**

In today’s complex operational landscape, Intelligence, Surveillance, and Reconnaissance (ISR) capabilities are essential for defence, security, and emergency response. Modern ISR relies on advanced sensors such as satellites and UAVs, combined with AI and machine learning to fuse data, detect threats, and provide real-time situational awareness. These capabilities enable faster, more precise decisions, strengthen security operations, and support critical missions.

With more than 30 years of expertise in Earth Observation, Planetek Italia has developed Preciso® ISR, an integrated AI-powered exploitation suite designed to enhance operational effectiveness across defence, homeland security, and civil protection missions.

Applications

- Defence & Armed Forces: operational situational awareness and precision targeting.
- Border Security: surveillance of land and maritime boundaries.
- Emergency Response: disaster recovery, damage assessment, and rescue coordination.
- Critical Infrastructure Protection: monitoring pipelines, power lines, and large-scale events.



Resources:

www.planetek.it/en/precisoisr





Planetek's New Satellite Command and Control Center.

In November 2025, Planetek Hellas inaugurated its new Satellite Command and Control Centre (C2) in the presence of the Greek Minister of Digital Governance, and representatives of the Hellenic National Defence General Staff, the General Secretariat for National Security, the Hellenic Defence Innovation Center and the Hellenic Space Center.

The facility represents a state-of-the-art infrastructure at the forefront of Greek space technology, enabling the operational management of space missions and the real-time exploitation of satellite data.

The new centre plays a key role in strengthening Greece's technological and operational autonomy in the space sector, while reinforcing the country's position within the EU space ecosystem.

The Control Centre enables the full operational management of satellites from Greek territory and represents a critical capability for supporting future national and European missions. It also serves as a strategic hub where Greek engineers design space missions, operate satellites in orbit and leverage advanced technologies such as artificial intelligence, edge computing, big data and supercomputing. These capabilities allow satellite data to be transformed into actionable insights supporting civil protection, national security and environmental monitoring.

ASIMOV: Europe's OOS System of Systems for Defence

ASIMOV is a major European Defence Fund initiative advancing On-Orbit Operations & Services (OOS) for secure, autonomous and sovereign space capabilities across LEO, MEO and GEO. With a total project value of over €57M, ASIMOV aims to establish Europe's OOS System of Systems for Defence, supporting future inspection, servicing, maintenance and protection of critical space assets.

Led by Leonardo, ASIMOV brings together 34 entities from 12 EU Member States, including 4 Greek organisations, highlighting the ambition of the Hellenic MoD to secure a strong role for Greece in Europe's next-generation on-orbit ecosystem, representing almost 8% of the total project budget.

Planetek Hellas will contribute to ASIMOV initiative through its newly established Command & Control (C2) facility in Athens, providing sovereign and secure access to space capabilities for Greek national Ministries of Defence, supporting federated yet resilient next-generation on-orbit services.



ARGOS: AI-Driven Satellite Intelligence for EU Defence

ARGOS (AI Reconnaissance for Geo-based Operational Systems) is a project funded by the European Defence Fund (EDF) aimed at strengthening the European Union's defence capabilities through advanced artificial intelligence applied to satellite imagery.

The initiative focuses on developing AI-driven solutions capable of analysing large volumes of EO data to detect, identify and monitor military activities with greater accuracy. By integrating optical and radar satellite imagery, ARGOS seeks to enhance situational awareness and support more informed decision-making in defence and security operations, while promoting the use of technologies developed within EU.

Coordinated by TRACASA Instrumental, the project brings together a multidisciplinary consortium of 11 EU companies and research organisations specialising in artificial intelligence, geospatial technologies and Earth observation.

Over a four-year period, the consortium will develop innovative AI models designed to address key operational challenges such as target detection, activity monitoring, search operations, mapping and damage assessment.

Planetek Hellas participates in the ARGOS consortium, contributing its expertise in EO and geospatial data analysis within the broader European research effort.

Through collaboration with industrial and research partners across Europe, the project aims to advance the use of satellite-based intelligence and strengthen Europe's technological capabilities in the space and defence domains.

FEDERATES EU Modeling & Simulation ecosystem for security and defence

FEDERATES (FEDerated Ecosystem of EuROpean Simulation Assets for Training and DEcision Support) is a European Defence Fund (EDF) project aimed at creating a unified European Modelling & Simulation as a Service (MSaaS) ecosystem for training and decision support.

Strengthening military training and decision-making capabilities across EU Member States is essential to maintaining operational readiness. Distributed simulation and training are key enablers for meeting both current and future training needs.

FEDERATES proposes a European MSaaS solution for Distributed Synthetic Training and decision support, making use of existing modelling and simulation assets.

The approach will enable new training opportunities, facilitate the sharing of simulation resources, improve access to training, reduce set-up times and costs, and accelerate the development of future solutions through a dedicated services marketplace.

The project highlights the EU's commitment to strengthening defence capabilities through innovative approaches and advanced technologies. By establishing a shared ecosystem of simulation resources, FEDERATES aims to enhance training and decision-making within the European defence community while promoting cooperation and interoperability among Member States.

The FEDERATES consortium includes 32 partners from 15 EU countries and Norway, forming a highly skilled and interdisciplinary team coordinated by Rheinmetall with the support of the European Commission.

Planetek Hellas plays a key role as partner and national coordinator, contributing to the integration of EO data and satellite-derived intelligence into the FEDERATES ecosystem.

Its activities focus on providing geospatial, maritime and environmental intelligence to support the development of a secure, cloud-based platform for defence training and decision-making.



Advancing Greece's EO capabilities within the EU.

Planetek Hellas is steadily strengthening its role within the European space technology ecosystem. Founded in 2006 and part of the D-Orbit group, Planetek Hellas is evolving into an increasingly significant player, focusing on the development of infrastructure that supports both national and EU strategic autonomy.

Employing more than 50 specialised scientists and engineers, the company actively participates in ESA and European Defence Fund (EDF) programmes. Today, Planetek has a prominent role in Greece implementing the Governmental Hub of the National EO Programme, a €11.5 million project developed for ESA and the Greek Ministry of Digital Governance.

Beyond ESA and EDF, Planetek Hellas collaborates with organisations such as the EU Satellite Centre (SatCen), the European Environment Agency (EEA), Interpol and Frontex. The company also maintains strategic partnerships with leading European industries, including Airbus, Leonardo, Indra and Rheinmetall.

Among its most recent achievements is the completion of the optical communications terminal for the Optisat CubeSat, designed and developed by Planetek Hellas within the framework of the National Space Programme, as well as the establishment of the Satellite Control and Guidance Centre. These initiatives are part of the National Satellite Space Project supported by the Greece 2.0 Recovery and Resilience Fund and involve the participation of more than 20 Greek companies and universities. Since its establishment, Planetek Hellas has acted as an accelerator for the national space ecosystem, strengthening the domestic value chain, generating multiplier benefits and transferring know-how and expertise from the European space industry to Greece. This collaborative approach remains a cornerstone of Planetek Hellas' strategy and has enabled the development of strong partnerships with leading European institutions and industrial players.

Building Greece's EO Constellation

HELEO (Hellenic Electro-Optical) is one of the main EO satellite constellations developed within the framework of the Greek National SmallSat Programme. It represents a key step in positioning Greece as a provider of sovereign satellite infrastructure for Europe, with a strong focus on practical Earth observation applications. The HELEO programme includes the development and launch of seven high and very-high resolution satellites designed to support environmental monitoring, precision agriculture and the management of natural risks, including those related to climate change. Led by Open Cosmos, the HELEO constellation is being developed in collaboration with Planetek Hellas, Nova ICT, EMTECH-Space, the Libre Space Foundation, Adamant Composites and Priority Consultants.

Planetek Hellas is responsible for developing the ground segment (PDGS) and the data processing solutions required to manage and exploit the data generated by the constellation. The seven satellites will operate in Low Earth Orbit and collect data through a multi-sensor instrument suite, including VHR optical multispectral and hyperspectral cameras, IoT and Automatic Identification System (AIS) receivers, complemented by onboard AI to maximise operational efficiency.

The programme is being delivered in partnership with ESA and will complement existing systems such as the EU Copernicus programme, while remaining fully compatible with the Atlantic constellation.



Governmental Hub of the Greek satellite constellation

The Governmental Hub is one of six contracts signed by ESA in the presence of the Hellenic Space Center and the Greek Ministry of Digital Governance. The contracts cover Axis 3, the services component required to complete the end-to-end Earth observation system.

The system is designed to transform raw satellite data into systematic, coherent, timely and actionable information tailored to users' needs across five key domains: agriculture, forests, water, land monitoring, and safety and security.

These services will be hosted on the Governmental Hub's IT infrastructure.

The hub will provide an integrated end-to-end platform capable of processing and distributing data generated by the EO satellites that Greece plans to launch. Acting as the central processing unit for the constellation, it will ensure efficient data management, accessibility and distribution across governmental entities. Planetek leads a consortium including Space Hellas SA, Neupublic SA and Knowledge SA, with additional organisations participating as external providers.

Planetek Hellas also leads the development of the Safety & Security service subsystem, which focuses on flood risk assessment, wildfire monitoring and surveillance, as well as target identification such as ships. It will be developed in cooperation with the National Intelligence Agency (EYP-KETYAK), the Center for Security Studies (KEMEA), the Foundation for Research and Technology – Hellas (FORTH), the National Technical University of Athens (NTUA), and the National Observatory of Athens (NOA).

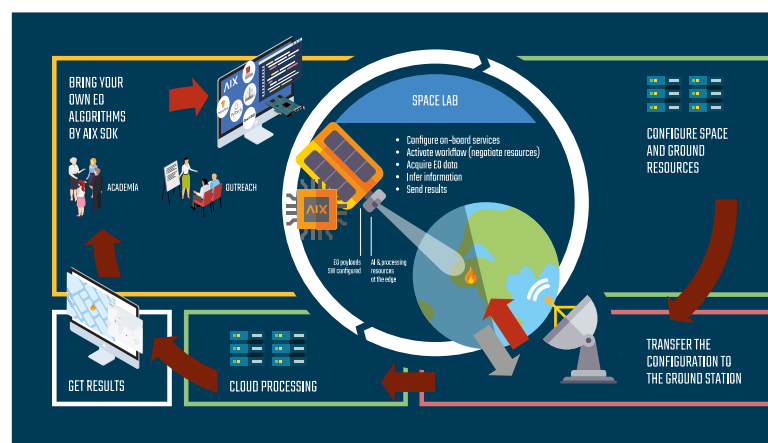
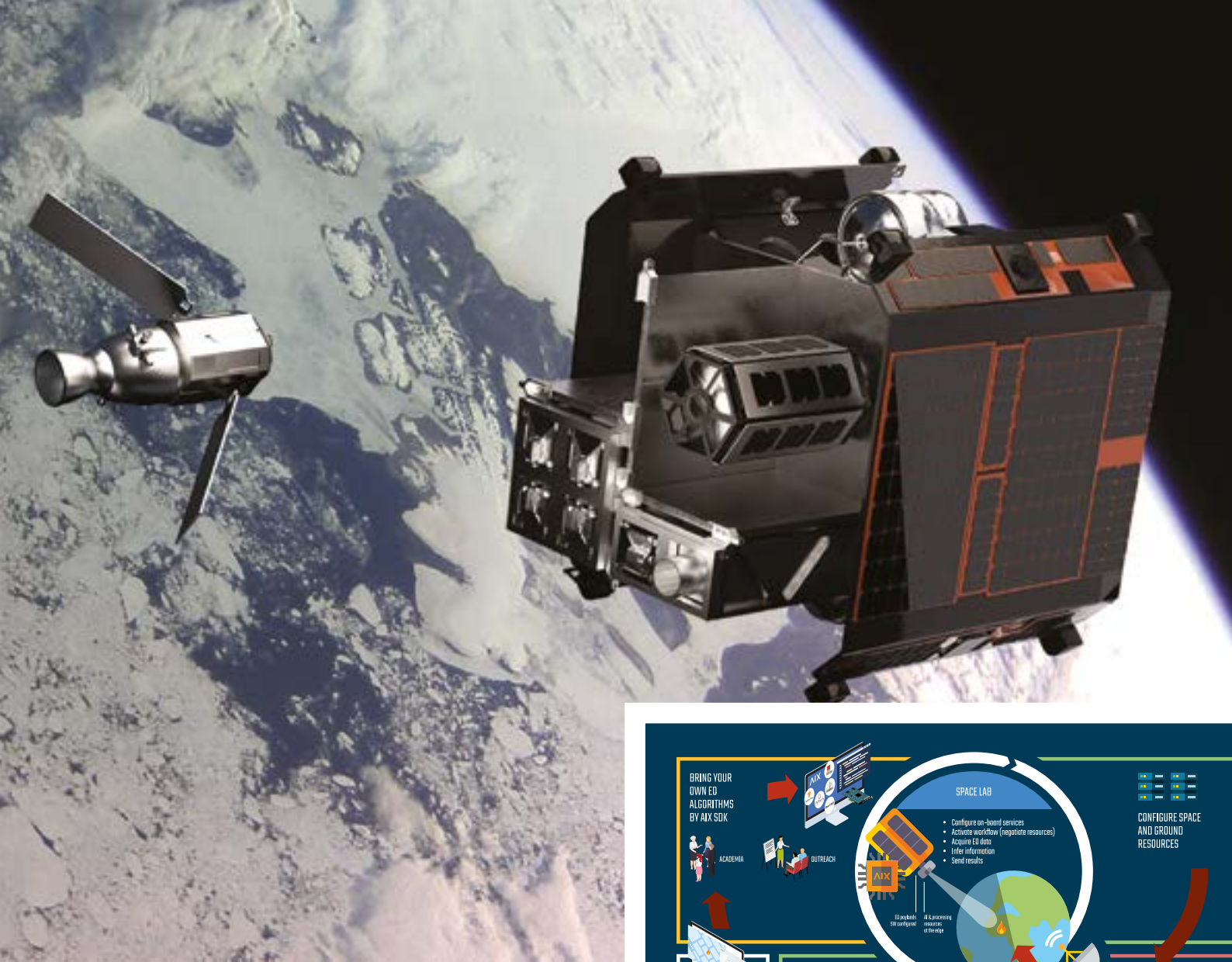
OPTISAT: Advanced Laser Satellite Communications.

ESA is supporting an extensive test campaign for optical laser terminals led by a broad coalition of Greek aerospace and academic partners under the Greek Connectivity Programme. Scheduled to begin with four CubeSat missions in the first half of 2026, the campaign will validate next-generation laser communication terminals in support of Greece's expanding Connectivity and Secure Communications Programme. All missions will conduct in-orbit demonstrations of three different laser payload designs. The optical terminals will use laser light to enable high-bandwidth, secure links between satellites and ground stations, potentially exceeding data rates of 1 Gbps. This technology represents a significant step forward compared with traditional radio-frequency communications, which are more vulnerable to interference, offer lower data rates and require spectrum licensing. OptiSat, led by Planetek Hellas, is a pioneering mission within Greece's National Satellite Space Programme, supported by ESA's Directorate of Connectivity and Secure Communications.

The CubeSat hosts a TESAT SCOT20 laser communication terminal payload designed to demonstrate secure, high-rate laser links from small satellites in low Earth orbit, suitable for both telecommunications and defence applications.

The laser technology enables transmission speeds of up to 1 Gbps while providing strong protection against interference and eavesdropping. Within the framework of the national microsatellite programme, Planetek is also implementing the Payload Data Ground Segment (PDGS), the system responsible for the primary processing and management of optical satellite data.

The OptiSat mission also fosters collaboration with Greek and European partners. In Greece, Planetek Hellas is working with the University of Piraeus Digital Systems Lab, JNP Consultancy Services and BitRezus (ESA BIC Greece) to integrate advanced cybersecurity, blockchain and AI-based technologies. At the EU level, the mission is supported by leading suppliers including TESAT, EnduroSat, SkyLabs, D-Orbit and Planetek Italia.



SpaceStream: The Future of Space Services Takes Shape.

SpaceStream is Planetek's visionary response to a fast-changing Space Economy. A new paradigm for space operations: delivering the right action, in the right place, at the right time. By overcoming the traditional separation between upstream and downstream, SpaceStream enables a seamless continuum where satellites do not just collect data, but process and interpret it directly on board. This approach

dramatically reduces latency and paves the way for real-time Earth Observation and space services. Thanks to the strategic integration with D-Orbit, SpaceStream has today both a technological vision and an industrial roadmap. It brings together Planetek's decades of expertise in EO services and onboard computing, and D-Orbit's capabilities in space logistics. By connecting EO, secure communications, and AI-based

onboard services, it will support national sovereignty, industrial innovation, and the growth of highly specialized skills across the European space sector. D-Orbit and Planetek's commitment to this model goes beyond innovation — it reflects a shared vision for a resilient and sustainable future in space, aligned with the ambitions of the EU Space Programme and Italy's National Space Plan.



AI-EXPRESS

AIX: a new era of opportunities in Earth Observation.

Space mission scenarios are rapidly evolving and raising the need for new operational concepts that must be able to implement novel technologies, and approaches at mission design that comply with the shortening of the development cycles.

AI-eXpress (AIX) addresses these needs through a configurable set of space components offered as-a-service - including advanced imaging capabilities provided by the dual-head camera, onboard Artificial Intelligence enabled by a high-performance computing platform, and software services secured with Blockchain technologies.

AIX is the first end-to-end EO satellite mission implementing the SpaceStream. Flying from January 2025, the AIX satellite series is able to demonstrate how we can change the Space Value Chain to

improve the advanced EO services for our customers.

AIX provides a hybrid edge/cloud ecosystem on a Low Earth Orbit (LEO) platform equipped with EO payloads, deployable CubeSats and a software framework that autonomously manages sensors and on-board resources.

A new concept of cognitive cloud computing in space leverages cutting-edge technologies such as Artificial Intelligence and Blockchain in Space to enhance satellite capabilities in terms of reactivity, responsiveness, and low-latency data delivery.

AIX - www.aiexpress.eu - is a Planetek project developed in collaboration with D-Orbit and AIKO, and co-funded by ESA Φ-lab's InCubed programme.



Resources:

<https://incubed.esa.int/portfolio/aix/>

ASI In-Orbit Space Lab

A pioneering venture is underway in Italy as Planetek, in collaboration with D-Orbit and AIKO, is developing the In-Orbit Space Lab for the Italian Space Agency (ASI). Funded by the PNRR, this innovative project is set to transform Earth observation within a multi-purpose Low Earth Orbit (LEO) laboratory.

The concept revolves around a reconfigurable LEO satellite equipped with advanced observation instruments and an onboard high-performance computer capable of dynamically loading algorithms and neural networks produced on the ground. Coupled with a development hub at the Matera Space Centre, the Space Lab will allow researchers, start-ups and innovators to deploy and test Earth Observation tools and applications in orbit. This real-time processing, enhanced by Artificial Intelligence, will fast-track data delivery and support strategic decision-making.

The In-Orbit Space Lab is developed by Planetek in collaboration with D-Orbit, and AIKO. Planetek leads the integration and software ecosystem, including a novel "Space App Store" that creates a seamless data flow between earth and space. D-Orbit contributes to ION satellite platform, while AIKO delivers advanced mission automation to orchestrate payload processing.

By bridging upstream satellite assets and downstream services, the Space Lab promises to reduce time-to-market, foster sustainable growth for technology providers and lay the groundwork for future inter-satellite constellations.

In short, the In-Orbit Space Lab represents a bold leap forward: a living laboratory in orbit where Europe's next generation of satellite intelligence takes shape - on demand, in real time, and ready to reshape how we understand our planet.

The Circle: Pioneering Earth Observation for a Sustainable Future.

The Circle is an ambitious ESA project aimed at revolutionizing Earth Observation systems through a science-driven EO reference architecture addressing key questions from ESA's Science Strategy. It leverages the full EO ecosystem to boost ESA's digital presence and user engagement. Using a system-of-systems (SoS) approach, it integrates satellite fleets, in-situ data, HAPS, and digital infrastructure to tackle scientific challenges such as the ocean carbon cycle's response to anthropogenic CO₂, drivers of ice mass changes, and ecosystem transitions.

The Circle aims to shape a flexible, future-ready EO architecture that meets evolving user and stakeholder needs.

This includes operational and scientific satellites, commercial and small satellite assets, data and operations systems, ground infrastructure, predictive modelling, access to space, industrial enablers, and global partnerships.

The project is structured around six core tasks: assessing ESA's current and future EO architecture, defining observational requirements, creating initial EO and SoS scenarios, analysing future configurations, and producing a strategic action plan based on SWOT analysis.

With a long-term vision beyond 2050 and milestones for 2030 and 2040, The Circle seeks to build a sustainable, adaptive EO ecosystem for the future.



Mastering Space Software: Planetek's Robust Portfolio.

In over thirty years of activity, Planetek has gained solid experience in space software, delivering comprehensive solutions from satellite on-board processing to ground segment control. Our expertise spans mission-critical systems, real-time image handling, and multi-mission orchestration - enabling clients to develop, launch, and operate cutting-edge space technologies.

For over three decades we have contributed to the definition and implementation of software for space missions such as IRIDE, COSMO-SkyMed, COSMO Second Generation, PRISMA, TRUTHS, Solar Orbiter, μ HETSat, ERS, Envisat, Chime, PLATiNO, and AI-eXpress. At the core of our Space Software Portfolio, are ERMES, EarthBIT,

and Kadmos, which construct a powerful ecosystem: from satellite command, on-board processing, through to multi-source intelligence aggregation. Backed by years of software development in space and ground segment infrastructures, Planetek addresses the full satellite data lifecycle - design, acquisition, management, analysis, and distribution.



ERMES is a cloud-ready, modular mission control system supporting AIT, check-out and operation of satellites and payloads. It adheres to CCSDS and SCOS-2000 standards, utilises Python and SPELL scripting for automated procedures, and supports multi-mission management via lightweight plugin models. It's deployed on ESA's Solar Orbiter and ASI's PLATiNO missions.



Kadmos is a middleware service suite enabling seamless fusion of data across different space missions. It supports synergistic exploitation of multi-sensor satellite imagery, enhancing cross-mission analytics and interoperability.



EarthBIT processes large-scale SAR, hyperspectral imagery, and live video streams in real time. It offers map/reduce frameworks, GPU/FPGA acceleration, and interactive co-registered visualisation. Used by ASI missions PRISMA and COSMO-SkyMed, it delivers ~400fps GPU filtering and supports custom algorithm integration via SDK.



Earthbit with its customized plug-ins is now in use in PRISMA and Cosmo Second Generation operational activities.

PRISMA Toolbox implements a comprehensive support for rapid interpretation and visualization of the hyperspectral data acquired from PRISMA and EnMap missions.



Operating in:

SOLAR ORBITER

ESA • ASI • MSSL



- Solar Wind Analyzer Instrument Suite
- Payload Data Ground Segment
- SWA DPU EGSE

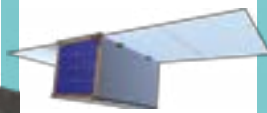


ALCOR

ASI



- Earth Next
- Spy Eye
- Innovator



PLATINO

ASI • SITAEL



- Mission Control System
- Avionic Test Bench
- Platform EGSE



EAGLE-1

SITAEL • SES



- Mission Control
- Spacecraft Planner

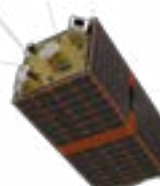


μ-HET SAT

ESA • SITAEL



- Satellite Control System for operations



HYPER SAT

CREOTECH



- Satellite Control System for operations
- Payload Control System for operations



Creating a sustainable economy in Space.

With an exponentially growing number of satellites, the space industry is at a turning point of its development. ESA's Space Safety programme is dedicated to protecting our planet, its people and critical infrastructure from natural threats from space as well as humanmade ones.

An essential part of ESA's Space Safety programme is dedicated to getting and keeping Earth's orbits clean from space debris. ESA's ambitious Zero Debris approach aims to stop creating new debris by 2030, with stringent standards and policies for its future missions that help stimulate technology development. Clean space technologies go beyond debris prevention. The end-goal of sustainable spaceflight is creating a true Circular Economy in space. Satellites should no longer be single-use, discarded after running low on fuel, a failure or outdated equipment. In-orbit services are the way forward.

D-Orbit, as a leader of space logistics and orbital transportation services, aims to leverage satellite platforms to ensure mission longevity and success for commercial and government space endeavours.

D-Orbit is developing its next generation of spacecraft, a fully modular servicing vehicle designed to provide a wide range of in orbit services, from LEO to GEO and beyond. This innovative platform is based on the heritage and experience developed through ION and will provide a cost-effective, reliable service to satellite operators.

The company has developed proprietary space logistics technology and transportation solutions that will accelerate the growth and development of the space economy. The company's roadmap includes becoming a relevant player in the in-orbit servicing market.

In orbit servicing is a suite of solutions designed to extend the life of satellites in orbit. It includes services to capture, repair, and reposition satellites, lowering replacement costs while supporting long-term orbital sustainability. These services are enabled by GEA, a proprietary robotic spacecraft currently under development.

D-Orbit's General Expansion Architecture (GEA) spacecraft design for In-Orbit Servicing of satellites. Such GEA Space Servicing Vessels (SSVs) would be able to perform

Circular economy in Space

Satellites around the Earth there are many, over 10,000 at the moment, but predictions are to go far beyond this number, towards 40,000 in two years, Circular economy in space means to introduce a new concept where satellites can be repaired, upgraded, reconfigured and refuelled while they are already in orbit.

a variety of In-Orbit Servicing for satellites in low-Earth orbit (LEO) and in geostationary orbit (GEO).

GEA's capabilities will be demonstrated over the course of RISE, a groundbreaking mission developed in collaboration with the European Space Agency (ESA). Scheduled for launch in 2029, RISE represents a strategic milestone in establishing Europe's leadership in commercial satellite servicing. During this first mission, GEA will validate its capabilities in geostationary orbit, testing autonomous rendezvous, docking, and precise orbital maneuvering.

GEA's technology promises to achieve spacecraft life extension at a fraction of replacement costs.

 **Resources:**
<https://dorbit.space/in-orbit-servicing-gea/>



RISE: Resilient In-orbit Servicing for Europe.

An essential part of ESA's Space Safety programme is dedicated to getting and keeping Earth's orbits clean from space debris. In the long run, the Agency aspires to stimulate a true circular economy in space, minimising the impact of spaceflight on Earth and its resources where possible. As part of ESA's Zero Debris approach, new ESA missions will be designed for safe operations and disposal to stop the creation of new debris by 2030. ESA has now taken another important step on the road

towards sustainability in space with its first in-orbit servicing mission RISE, planned for launch in 2029.

A €119 million contract was signed with D-Orbit as the co-funding prime contractor at IAC 2024. The Resilient In-orbit Servicing for Europe (RISE) mission is a commercial in-orbit servicing mission that will demonstrate that it can safely rendezvous and dock to a geostationary client satellite, extending the life of geostationary satellites that need support with

attitude and orbit control, but are otherwise in working order. After verifying that it meets all the performance standards in a first demonstration, prime contractor, operator and D-Orbit will start commercial life extension services for geostationary satellites. ESA's RISE mission marks a promising step towards enhancing in-orbit services and technologies, such as refuelling, refurbishment and assembling – all essential elements for creating a circular economy in space.

MORPH, an On-Orbit Satellite Refurbishment Mission.

MORPH (Modular On-Orbit Refurbishment for Permanent Hardware) is a project commissioned by the European Space Agency (ESA) and awarded to D-Orbit as prime contractor. The initiative is part of ESA's broader efforts to develop in-orbit servicing capabilities and to enable a more sustainable and circular space economy, building on programmes led by the Agency's Clean Space Office. The project aims to demonstrate a new mission architecture capable of refurbishing, upgrading, and potentially assembling satellites directly in orbit.

By moving beyond the traditional "single-use" satellite model, MORPH explores a paradigm in which space assets can be repaired, refuelled, and adapted over time, significantly extending their operational life and reducing the need for replacement launches. Within this framework, D-Orbit is responsible for the overall system design and development of the mission concept, leveraging its expertise in space logistics and in-orbit servicing technologies. As prime contractor, the company coordinates the industrial team and leads the technical activities required to define and validate the

refurbishment architecture, building on previous developments such as the RISE mission and other servicing-related initiatives. MORPH is therefore positioned within the emerging European ecosystem for in-orbit servicing, where ESA is investing in technologies that enable satellite life extension, maintenance, and reuse. The project represents a key step towards long-term orbital sustainability, contributing to the reduction of space debris and supporting the transition towards a circular economy in space by maximising the value of existing assets.

planetek
italia





Simplifying the complexity of Space

We are a Benefit Company established in 1994, which employs women and men passionate and skilled in Geoinformatics, Space solutions, and Earth science. Our mission is to simplify the adoption of geospatial data in order to live better and preserve the Earth. For this reason, we design new processes and solutions that simplify the use of geo-localized information to facilitate the understanding of the world around us. Our systems are designed to enable our users, public officials, researchers, major industries, entrepreneurs or individuals, to act in an informed and timely manner. We work in all phases of the life cycle of geo-localized data from the acquisition, storage, management, analysis and sharing of information to produce and generate knowledge.

At all stages, we adopt the principles of strategic design to create and develop solutions able to meet the requirements of our users, adopting the best technologies available on the market, with full respect for economic, social and environmental sustainability. We operate in different application areas: scientific missions for planetary exploration, environmental and land monitoring, infrastructure engineering, energy, open-governments and smart cities. Through the Planetek group, we operate at an international level by providing solutions for the European Commission and its agencies, space agencies, national and international public administrations, research institutions, private companies and engineering firms.

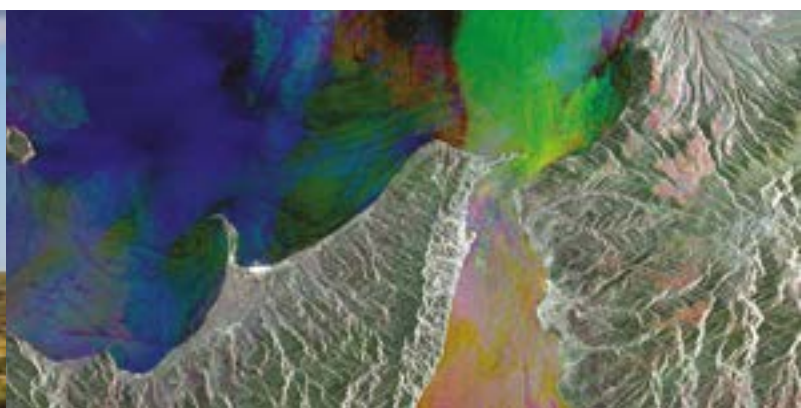
#

We adopt the principles of strategic design to meet the requirements of our users, with full respect for economic, social and environmental sustainability.

#



From Space to applications: closer to users' needs.



The organization of the company is structured into Corporate and Strategic Business Unit (SBU) functions, which constitute the Executive Committee. Strategic Business Units are segmented by market in order to better understand the needs of customers while at the same time ensuring continuity over time. The SBUs are structured to operate independently with planning, sales and production capacities. In our software development projects we use Agile and Dev-ops methodologies.

Government & Security SBU

It offers application solutions and services in the P.A. market at national and international levels, and for the Defence, Educational and scientific research markets in Italy. It provides geospatially powered solutions to the agencies and institutions of the European market such as the European Environment Agency, the European Defence Agency, the

European Union (EC, REA, JRC). It develops solutions for the Earth observation using optical and radar data from satellite, aircraft and drones. It develops Spatial Data Infrastructures compliant to INSPIRE, based on the Cart@net® platform, using Free Open Source and commercial software from major vendors. It offers solutions for the creation of geographic open data and metadata catalogs. It distributes remote sensing satellite data from major international operators through the Preciso® product family. It looks after the distribution of Hexagon Geospatial products within the Italian market.

Business to Business SBU

The target market consists of companies operating in the Oil & Gas, Renewable Energy, transport (railways, roads) sectors and engineering work and infrastructure activities. Its products range from systems for business intelligence on

geographic data to the creation of geoinformative products to value-added data from Earth observation.

SpaceStream SBU

The target market consists of space agencies (e.g. the Italian Space Agency with the COSMO-SkyMed program, and the European Space Agency with the Sentinel program); those related to them (such as Galileo) and the major players in the aerospace market. It develops and integrates hardware and software infrastructures for the acquisition, processing and distribution of remote sensing data along their entire chain of production: from Earth Observation to Deep Space; from the Space Segment to the Ground Segment to the User Segment. The main responsibilities of the SBU fall into Systems and Software Engineering with strong verticalization towards Space Mission Analysis and Design (SMAD).

Our leaders



Stelios Bollanos

Director and co-founder of Planetek Hellas. Since 2004, he is involved in different EU and ESA projects in the EO and Geomatics fields. He matured experience in the Greek and International Space Markets.



Cristoforo Abbattista

Head of SpaceStream SBU. From 2002 he works in Planetek, mainly involved in the design and development of space systems. He has been teacher of WebGIS at Venice University.



Sergio Samarelli

Chief Technical Officer and Head of Business to Business SBU. Founder of Planetek Italia. He has been teacher of Remote sensing image processing at Venice University (IUAV).



Giovanni Sylos Labini

CEO and founder of Planetek Italia, and BoD member of D-Orbit. He cooperated with NASA and ESA, and was director of the ASI Space Geodesy Center in Matera. Permanent Advisor of AIPAS, Vice Chairman of EARSC, BoD member of SME4SPACE and Apulian Aerospace District. He was also Professor at Venice University (IUAV).



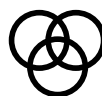
Luca Rossetti

CEO and founder at D-Orbit. He is an aerospace engineer with a Ph.D. in advanced space propulsion. MBA in Strategic Leadership Towards Sustainability and a Certificate in Technology Entrepreneurship from St. Clara University, California. He is also co-founder of The Natural Step Italia, and IRTA (Imaging and Research Technology Association).



Mariella Pappalepore

Chief Financial Officer and founder of Planetek Italia. Past President of Communication and Innovative Service sector, and the "Club delle imprese per la Cultura" in Confindustria Bari and Bat.



Vincenzo Barbieri

Chief Marketing Officer & Head of Design Lab. Founder of Planetek Italia, he matured expertise in the market of geospatial applications for Public Administration.



Massimo Zotti

Head of Government & Security SBU. Responsible for the BD in the Defence & Governmental markets, and of the Hexagon Geospatial portfolios. He is also active in several associations dealing with Open Data, Open Government and Geospatial innovation.

THE GROUP



D-ORBIT
Como, Italy



D-ORBIT PORTUGAL
Lisboa, Portugal



D-ORBIT US
Boulder, Co, Usa



D-ORBIT UK
Didcot, United Kingdom



PLANETEK ITALIA
Bari, Italy



PLANETEK ITALIA
Athens, Greece



GAP (Spinoff)
Bari, Italy



GEO-K (Spinoff)
Rome, Italy



Planetek Italia is part of the D-Orbit Group and includes four companies based in Italy and Greece, which are active in both national and international markets.

D-Orbit operates globally, with offices in Italy, Portugal, UK, Greece, and the US. Planetek extends its reach with two spin-off companies, GAP s.r.l. and GEO-K s.r.l., and its well-established branch in Greece, Planetek Hellas.



D-Orbit is a global leader in space logistics and orbital transportation. Founded in 2011, one of the first players in the New Space market, we are building a space logistics infrastructure that will enable service providers to streamline satellite launch, across-orbit transportation, on-orbit servicing and refueling, and end of mission disposal. A Benefit Company, D-Orbit's roadmap includes becoming a relevant player in the in-orbit servicing market.



Planetek Italia is a Benefit Company specializing in Geoinformatics, Space solutions, and Earth Observation. Since 1994, its mission has been to simplify the complexity of space. From downstream to upstream, Planetek designs and develops solutions that harness the value of geospatial data, helping users better understand the world and act sustainably.



Planetek Hellas is a company based in Athens, Greece, established in 2006. It operates in the fields of Satellite Earth Observation, Spatial Data Infrastructure, and Space & Ground Segment Software. The company is actively involved in major European and National space initiatives and projects with a specific focus on the application domains of Emergency, Security and Defence.



Geo-K is a spin-off of the University of Tor Vergata, Roma. Its mission is to carry out research and development and provide advice, services and products in the field of image processing and optical, hyperspectral, and microwave remote sensing.



GAP is a spin-off of the Polytechnic of Bari. It develops products, processes and services of highly scientific or technological content in the field of remote sensing and related hardware and software technologies, with an emphasis on Geomatic applications.

EARTH IS OUR SPACE



WELCOME
ABOARD



Share & read more

Visit our web channels to explore more resources, documents, video and tutorials, and feel free to contact us, make comments and give us yourlikes.



www.planetek.it



[/planetek](https://www.facebook.com/planetek)



[/company/planetek-italia](https://www.linkedin.com/company/planetek-italia)



[/planetekitalia](https://www.youtube.com/planetekitalia)