

Quarterly Update

October 2026



ROOT

Resources for Orientation
and Occupational Transition

From Skills Insights to Action

Welcome to the third issue of the ROOT Quarterly Update.

As ROOT moves forward, the project is building a clearer picture of the skills and career guidance needs shaping the downstream Earth Observation sector.

In this issue, we look at why changing technologies and applications are creating new skills demands, meet ROOT's coordinator, Instituto Pedro Nunes, and highlight some of the project's recent activities and outputs.

We also take a closer look at the first ROOT policy analysis report, share highlights from the Space & Water Nexus Hackathon in the Netherlands, and look ahead to the consortium meeting and dissemination event taking place in The Hague in November.

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EO Insights: Why does the EO sector need new skills?

The question

Earth Observation (EO) is evolving rapidly. New satellite missions, increasingly sophisticated sensors, artificial intelligence, cloud computing and advanced data-processing technologies are expanding what can be observed, analysed and delivered to users.

But what does this technological and market evolution mean for the people and organisations working with EO? **Why does the EO sector need new skills?**

The short answer

Because the EO sector is **evolving** from a field focused primarily on collecting and processing data into a broader ecosystem that turns Earth observation data into services, solutions and actionable knowledge.

This transformation **requires** not only new technical capabilities, but also stronger combinations of digital, analytical, sector-specific and transversal skills.

Why it matters

EO is increasingly connected to major environmental, economic and societal priorities. Satellite-based information supports climate adaptation, environmental monitoring, disaster risk management, sustainable agriculture, water management, territorial planning and digital public administration, among many other applications.

As these applications grow, so does the need for people who can bridge the gap between **EO data and real-world needs**.

This does not mean that everyone working in EO needs to become a data scientist or satellite engineer. Rather, **the sector needs a broader and more diverse skills base**. Technical professionals need to keep pace with developments in areas such as AI, machine learning, cloud technologies, data analytics and geospatial technologies. At the same time, professionals working at the interface between technology and application domains need to understand how EO can address specific challenges in areas such as agriculture, environmental management, urban planning and climate resilience.

There is also growing demand for transversal capabilities, including communication, problem-solving, collaboration, entrepreneurship and the ability to work across disciplines.

This makes **upskilling and reskilling** increasingly important. Skills cannot be treated as something acquired only at the beginning of a career. As technologies, applications and labour-market needs change, lifelong learning becomes essential for individuals and organisations alike.

For SMEs in particular, keeping skills up to date can be crucial to remaining competitive, adopting new technologies and identifying new business opportunities. At the same time, employees need access to relevant learning opportunities that can help them adapt their existing skills or develop new ones.

How it relates to ROOT

Understanding changing skills needs is at the heart of ROOT.

The project focuses on strengthening **career guidance for adults in the downstream Earth Observation sector**, helping employees, SMEs and career guidance professionals navigate an evolving skills landscape and make more informed decisions about upskilling and reskilling.

ROOT brings together partners from different parts of the ecosystem to connect the perspectives of **industry, education and academia, public authorities and civil society**. This multi-stakeholder approach recognises that addressing skills gaps cannot be the responsibility of one group alone.

Through its activities, ROOT aims to make emerging career and learning opportunities in the EO sector more visible and accessible, while helping career guidance professionals better understand the sector and its evolving skills requirements.

The project also places particular emphasis on **Living Labs**, where stakeholders can work together to explore challenges, exchange knowledge and co-create practical approaches. By connecting labour-market needs with learning opportunities and career guidance, ROOT seeks to contribute to a stronger link between skills development and the realities of the EO sector.

Ultimately, the goal is not simply to identify which skills are changing. It is to help people and organisations **navigate that change**.

Key takeaway

- **The future of Earth Observation depends not only on technological innovation, but on people with the skills to turn EO data into solutions.**
- **ROOT aims to strengthen the connection between changing skills needs, lifelong learning and career guidance, helping adults and organisations navigate the evolving EO sector.**

Partner Spotlight



Founded in 1990 on the initiative of the University of Coimbra, **Instituto Pedro Nunes (IPN)** is a private non-profit organisation dedicated to promoting innovation and technology transfer. Its work connects the scientific and technological community with businesses and organisations through three complementary areas: research and technological development, the incubation and acceleration of technology-based companies, and specialised training. IPN also hosts **ESA BIC Portugal**, one of the European Space Agency's business incubation centres, strengthening its connection to the space and entrepreneurship ecosystem.

With around 200 employees, IPN has extensive experience in managing research and innovation projects, working closely with companies and other organisations. It manages more than 60 R&D projects each year and is also active in specialised training, mentoring and coaching for researchers, entrepreneurs, companies and graduates. This combination of project management, innovation, training and links with industry provides a strong foundation for its role in ROOT.

As **ROOT's project coordinator and Work Package 1 leader**, IPN is responsible for ensuring effective coordination across the consortium and supporting the project's overall implementation. Its experience in managing complex R&D projects and bringing together research, business and training perspectives gives IPN the expertise and capacity needed to coordinate ROOT and help the consortium work towards its shared objectives.

ROOT in Action



Earth Observation Policy Analysis Report

Turning policy into practical opportunities for people and businesses is one of the key challenges facing the Earth Observation (EO) sector. ROOT's first deliverable, **D2.1 – EO Policy Analysis Report**, explores this challenge across Italy, Portugal, the Netherlands and Greece.

The findings of this report will provide an important evidence base for ROOT's next activities, helping the project develop **career guidance approaches and practical solutions that connect people with the skills and opportunities emerging in the downstream EO sector**.

D2.1 – EO Policy Analysis Report is available [here](#).

Have Your Say: ROOT Skills Survey

ROOT is gathering insights into future skills needs and career development barriers in the Earth Observation sector. Companies, professionals, educators, public authorities and other stakeholders are invited to share their views in a short, 5–10-minute survey.

Help shape the EO workforce of the future. [Take the survey.](#)



ROOT at the Space & Water Nexus Hackathon

In early October, the **Space & Water Nexus Hackathon** brought together participants, experts, challenge owners and potential end users at CometLab in Noordwijk, the Netherlands, to explore how Earth Observation, data and other space technologies can contribute to solutions for challenges related to water, infrastructure and environmental monitoring.

The ROOT project was also featured during the hackathon, introducing participants to its work on strengthening career guidance and supporting skills development in the downstream Earth Observation sector.

Read more [here](#).

ROOT Heads to the Netherlands in November

ROOT EVENT



At the end of November, the ROOT consortium will come together in the Netherlands for an in-person consortium meeting, bringing partners together to review progress, exchange insights and plan the next steps of the project.

Associated with the meeting, ROOT will also host a **dissemination event on 26 November at Titaan Campus in The Hague**, marking an important moment for the project and bringing ROOT's work closer to stakeholders beyond the consortium.

The event will also mark the launch of the **Dutch ROOT Living Lab**, bringing together relevant stakeholders to explore skills needs, career guidance and opportunities for the development of the downstream Earth Observation sector.

Registrations are already open. Register today, [here](#).

Thank you for reading. To stay informed between editions, follow ROOT on LinkedIn for the latest project news and updates.

