

PRESS RELEASE



FOR IMMEDIATE RELEASE

January 2026

ASTRAIOS LAUNCHES NEW MOOCs ON EARTH OBSERVATION AND GNSS TO SUPPORT SPACE SKILLS DEVELOPMENT

The ASTRAIOS project is pleased to announce the release of two new Massive Open Online Courses (MOOCs) focused on key technologies shaping the future of the space sector: Earth Observation (EO) and Global Navigation Satellite Systems (GNSS).

Developed as part of ASTRAIOS's commitment to capacity building and workforce development, these courses aim to address emerging knowledge and skills gaps in space-related fields. The MOOCs provide open, accessible, flexible, and interactive learning opportunities for professionals, researchers, students, and lifelong learners interested in expanding their expertise in the space domain.

By offering high-quality educational resources in these strategic areas, ASTRAIOS contributes to strengthening Europe's space ecosystem and supporting the development of a skilled, future-ready workforce capable of driving innovation across multiple sectors.

The course materials are now available in the ASTRAIOS Knowledge Hub, where users can explore the content and download the presentations.

MOOC 1: Earth Observation Data and Machine Learning for Agriculture Applications

This course introduces participants to the use of Earth Observation data and Machine Learning techniques to address pressing agricultural challenges, including crop monitoring, yield estimation, and food security.

Participants will gain both theoretical knowledge and practical insights into how EO and ML technologies can support sustainable agriculture and data-driven decision-making.

Key topics include:

- Introduction to food security and the role of EO and Machine Learning
- Fundamentals of Earth Observation and sensor technologies
- Machine Learning methods and their applications in agriculture
- Data acquisition, preprocessing, and feature reduction techniques
- Advanced ML models and an introduction to Deep Learning for agricultural data analysis

 **[Download the course presentations \(MOOC 1 - PDF\).](#)**

THE ASTRAIOS PROJECT



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MOOC 2: Global Navigation Satellite Systems (GNSS) – Applications and Capabilities

The second MOOC explores the design and applications of high-precision GNSS solutions, with a particular focus on the capabilities of Galileo and multi-GNSS systems.

The course highlights innovative applications of GNSS technologies in fields such as climate monitoring, drone navigation, and natural hazard detection.

Key topics include:

- Novel Galileo services and their applications
- GNSS for monitoring Essential Climate Variables
- Navigation in GNSS-denied environments using drones
- Current gaps in GNSS education and training
- Space geodetic techniques for natural hazard detection
- Smartphone positioning technologies

[Download the course presentations \(MOOC 2 – PDF\).](#)

Through these educational resources, ASTRAIOS continues to promote knowledge transfer, digital skills development, and wider access to space-related education, supporting both professionals and newcomers interested in exploring opportunities in the European space sector. Although the ASTRAIOS project concluded in December 2025, its impact continues through the educational resources developed during the project. The MOOCs and other training materials remain available in the ASTRAIOS Knowledge Hub, supporting ongoing learning and skills development in the space sector.

Explore the materials in the ASTRAIOS Knowledge Hub:

<https://www.astraios.eu/>

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