

Project **Horizon Europe Earthbridge:**
Project Overview

- Building bridges between Earth observation and Environmental sciences
- Building bridges between universities
- Building bridges between Earth and Space

Earth Observation (EO) has created new opportunities for regularly obtaining standardised information useful for environmental research and nature conservation.

Within this context, EarthBridge aims to develop and further improve environmental EO tools that are robust, transferable, and applicable across disciplines and landscapes.

EarthBridge brings together EO and environmental sciences expertise to bridge the existing gaps between these two disciplines at educational, practical, and governmental levels.

Through the twinning of the Czech University of Life Sciences Prague (CZU) and two internationally-leading universities: Technische Universität Dresden (TUD), and Alma Mater Studiorum – Università di Bologna (UNIBO) and Universität Bonn (UBO), EarthBridge activities will ensure knowledge transfer and exchange by developing new methods and training new professionals in environmental EO.

Activity plan:

Unprecedented human-induced changes in climate and biodiversity are increasingly threatening nature, human life, and well-being around the world. Earth Observation (EO) has become one of the most important methods for regularly obtaining standardised information about the Earth's environment and is therefore essential for addressing climate change, biodiversity loss, and other societal challenges. However, the full utilisation of EO is still limited. This is especially due to (1) a lack of experts in the field of EO with background in environmental sciences as well as (2) a lack of general awareness of the potential of EO in the field of environmental sciences or policy support and implementation. Universities play an essential role in bridging such knowledge and communication gaps by conducting research, developing new methods, and training new professionals. The proposed project (EarthBridge) aims to: (i) substantially increase the interdisciplinary research capacity of the Czech University of Life Sciences Prague (CZU) in the field of environmental EO; (ii) and to further improve the use of environmental EO tools by a wider community, through twinning with two internationally-leading universities: Technische Universität Dresden (TUD) in Germany, and Alma Mater Studiorum - Università di Bologna (UNIBO) in Italy. EarthBridge focuses on the development and application of environmental assessment methods for monitoring, restoration, and conservation of biodiversity in agricultural landscapes, a research topic of high relevance to Europe. The project will benefit from ongoing research activities that will feed into it existing EO data. Ways to achieve the bridging will include staff exchanges; scientific training and training to prepare research proposals; organisation of summer school and scoping for a joint study programme; a synthesis project for early-career researchers; and involvement of regional/national institutions according to their needs or requirements.