

In the framework of the BIO-CAPITAL project supported by the EU Horizon program, the Research Laboratory in Geomatics of the Earth and Life Institute, UCLouvain, invites applications for the following PhD position to develop a methodological framework in:

Geoscience Information for monitoring biodiversity uplift and co-building biodiversity certificates and stakeholder engagement

(39 months, with possible extension)

Biodiversity protection and restoration are critical for maintaining the ecological balance and ensuring the planet's sustainability. Private investment can be a critical tool that has the potential to play a transformative role in financing conservation and restoration efforts, as public financing alone may be insufficient to address the scale of these challenges. By activating innovative sustainable finance solutions and incorporating technological advances within the field of geospatial analytics, the BIO-CAPITAL project can attract private investment to benefit the environment and secure investors' confidence.

BIO-CAPITAL project will develop and implement an interdisciplinary research and innovation endeavor by combining actions in the three fields of (i) Biodiversity protection and restoration, (ii) biodiversity-friendly financing mechanisms and (iii) advanced Space Technology. The implementation will learn from use cases (UCs), then demonstrate and amplify back to the UCs. BIO-CAPITAL will engage stakeholders through iterative processes, to increase financial flows for biodiversity protection, restoration and sustainable use.

Job description

The successful applicant will join a motivated team of young researchers, in geoscience information and satellite remote sensing. He/she will be in charge of methodological research to monitor biodiversity uplift based on data mining and remote sensing image analysis, and to design indicators for a biodiversity certification on European use cases.

In close collaboration with our international partners, the Geomatics team and the Lifewatch research infrastructure, the successful candidate will be in charge of activities of the BIO-CAPITAL project at UCLouvain, such as:

- Exploiting the potential of a new constellation of daily high resolution multispectral images for biodiversity monitoring;
- Generating clusters from ecosystems of similar biodiversity targets on a European scale;
- Designing robust biodiversity indicators based on EO products, citizen science and institutional monitoring schemes;
- Critically assessing the local relevance of global datasets to support biodiversity certification;
- Delivering reports and running stakeholders workshops for the consortium partners.

Qualifications

The applicant will be:

- graduated (MSc degree) in bioengineering, geomatics, ecology, environmental sciences or related scientific discipline;
- trained in remote sensing and geomatics;
- able to actively contribute to a collaborative and interdisciplinary research;
- fluent in English;
- motivated for applied research;

Fluency in French and additional experiences in biodiversity monitoring, biodiversity modelling, stakeholder engagement, advanced satellite image processing and Python or C++ programming are most welcomed.

Application

The interested candidates are invited to send a curriculum vitae and a motivation letter by email to Brigitte Bedoret (brigitte.bedoret@uclouvain.be) and Pierre Defourny (pierre.defourny@uclouvain.be) as soon as possible and not later than 20 April 2024.