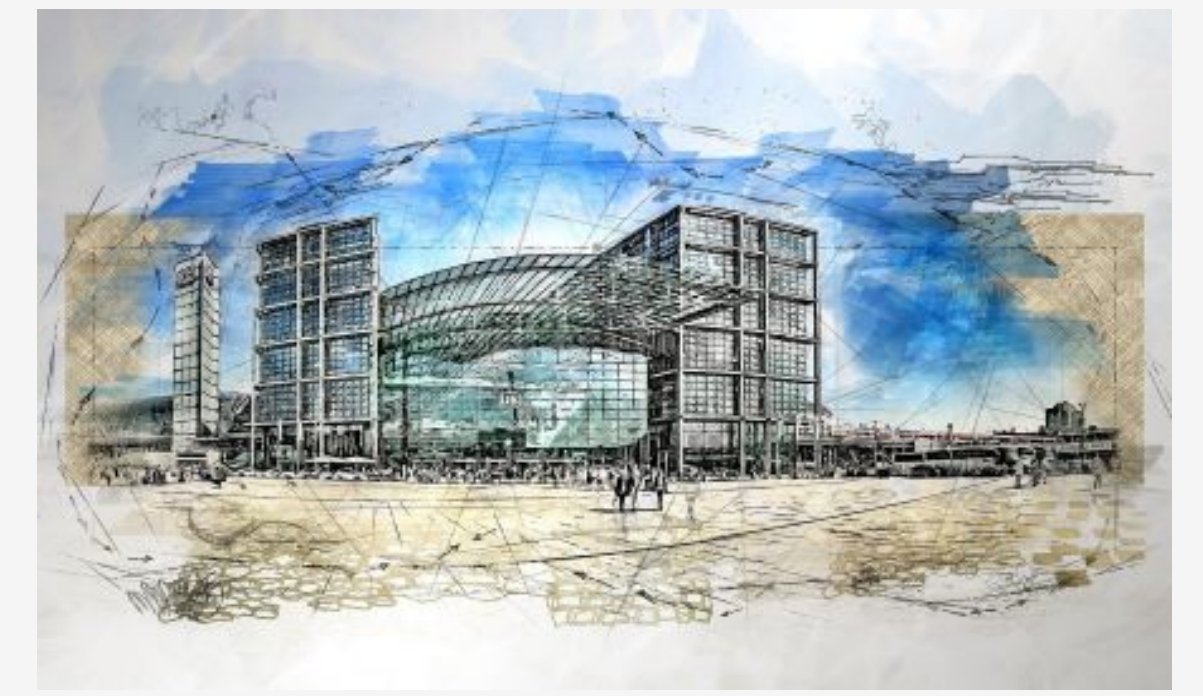




HES-GEO Research Teams



HES-GEO project aims to enhance existing research capacity and stimulate scientific excellence in the Institute of Geography and Spatial Management (IGSM), Jagiellonian University, in studying human-environmental systems (HES) of the Anthropocene, along variety of urban-rural-marginal gradients, at various spatial and temporal scales and using tools and data available through Earth observation (EO) and geospatial technologies. HES-GEO will build on existing strengths of IGSM and opportunities provided by new regulations of science and higher education in Poland, combining them with the vast expertise in studying HES and in capacity building of three excellent partner institutions: Paris Lodron Universität Salzburg, Humboldt-Universität zu Berlin and Katholieke Universiteit Leuven.



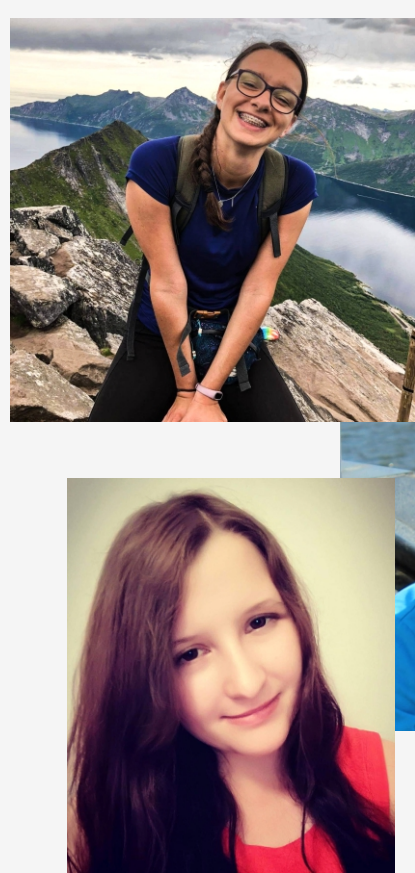
To reach the HES-GEO main goal, three groups of activities will be carried out:
1. training young post-doctoral and early stage researchers in academic soft skills (scientific writing, project development and leadership) and in geospatial and EO technologies;
2. setting up research teams (RTs) led by young scientists of IGSM and supervised by experienced scientists from partner institutions, providing them guidance towards development and submission of competitive research proposals to European research programmes, and
3. establishing a Centre of Excellence (CoE) in IGSM, composed of the RTs and a new project /knowledge management and outreach unit.



Building on trained young researchers developing new research ideas in the RTs, the CoE will gather the experiences of HES-GEO, and employ them beyond the project lifetime, ensuring sustainability and appropriate exploitation of project results. The three major activities of the project will be supported by diverse dissemination and communication measures, in order to increase HES-GEO overall visibility and establish research- and stakeholder-oriented networks, supporting sustainability of the future actions of the CoE.

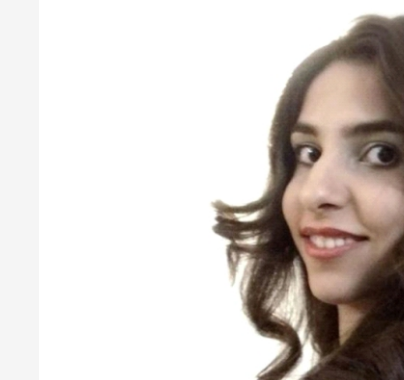
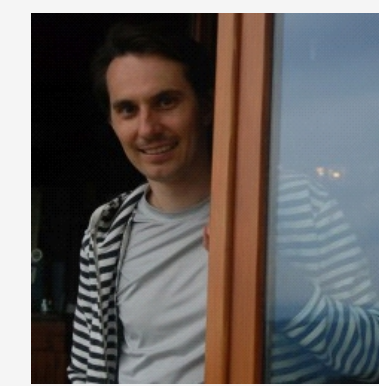
Carbon Sequestration in Soils of Mountain Ecosystems

Our research interest is in the data and knowledge gaps related to the effects of land-use history on present soil organic carbon stock.



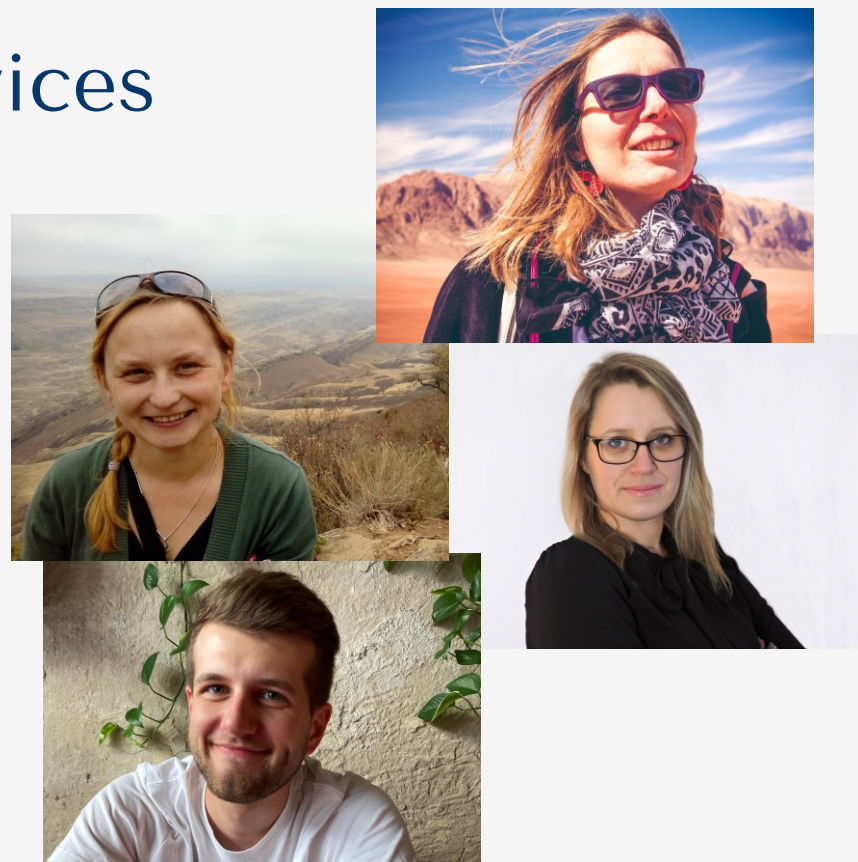
Land Use and Biodiversity

The researchers in this team aim at mapping and analysing wildland-urban interface at different spatial scales in order to answer the question of how land use changes affect habitats and animals dispersal.



Cultural Ecosystem Services

This research team plans to investigate the relationship between the landscape characteristics of green spaces and the CES they provide.



Research 6 Teams

Social Processes and Urban Resilience

In the XXI century many urban green and blue areas in postsocialist cities were lost due to aggressive build-up. We focus on different forms of civic engagement in projects related to sustainable development and environmental justice.



Food Waste

The problems of resilience and sustainable food systems concern both global and regional scale. We are keen to develop a system model for the effective transfer of food from distribution sources to potential consumers.



Soil Erosion

Soil erosion has been identified as the gravest threat among all soil degradation processes. This team studies soil piping as one of the most underestimated soil erosion processes.



Milestone actions in forming of research teams in 2021

BRAINSTORM EVENT 30 June 2021
on-line via Zoom

BRAINSTORM EVENT 4-5 November 2021
Kraków and on-line via Zoom

Outcomes:

- Six RTs established (with defined members, leaders and supervisors),
- Shared understanding of the profile, expectations and needs of RT leaders,
- Consolidated research questions for each RT,
- Improved match between research questions and research design / methods,
- Identification of main data needs,
- Clarified roles for all RT members.



Outcomes:

- Research questions for each RT defined,
- Identification of the methods used by RT,
- Recognition of "sub-projects and research collaboration and long term trainings of RT members in partner institutions
- Publication strategy and conference visits,
- Possible funding calls identified,
- Possible consortium partners identified,
- Risks and coping strategies identified,
- Refined timeline for development of project proposals (with milestones).



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<https://hes.geo.uj.edu.pl>