

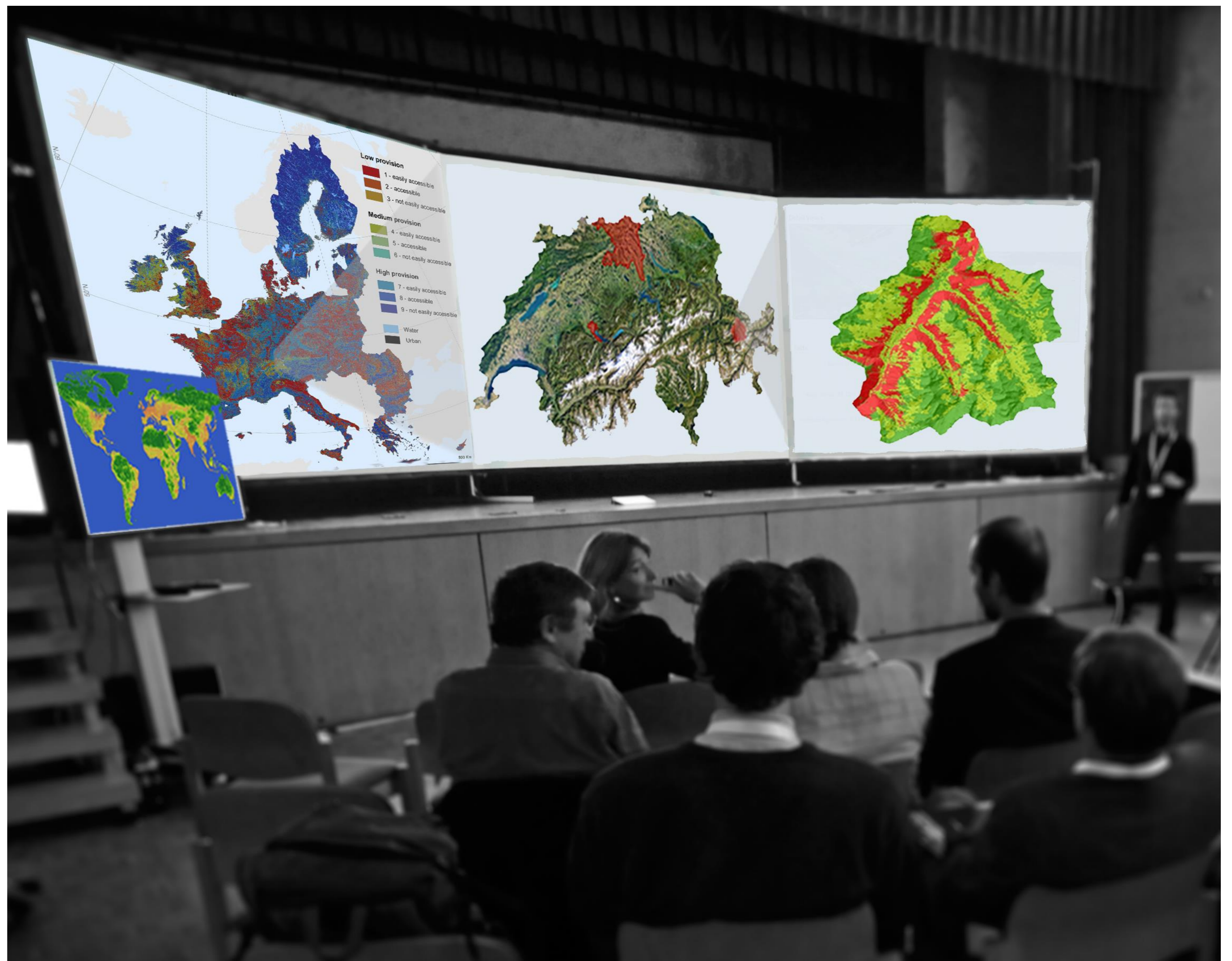
WHO WE ARE

ETH Zurich is an engineering, science, technology, mathematics and management university in the City of Zurich, Switzerland. ETH has more than 17,000 students from approximately 80 countries, 3,800 of whom are doctoral candidates. More than 400 professors teach and conduct research in the areas of engineering, architecture, mathematics, natural sciences, system-oriented sciences, and management and social sciences. ETH Zurich regularly appears among the top-ranked universities worldwide with 21 Nobel Prizes having been awarded to students or professors of the Institute in the past, the most famous of them being Albert Einstein in 1921, and the most recent being Richard F. Heck in 2010.

The chair PLUS (Planning of Landscape and Urban Systems) focuses on developing and testing innovative decision-support and planning systems balancing the use of natural resources against their availability in order to ensure the ability of future generations to meet their own needs. The research includes fundamental contributions to new spatial decision-support systems integrating the value of ecosystem services, spatial modelling in landscape planning with new approaches such as inverse techniques and data assimilation or 3D visualizations of landscapes in participative approaches for human-agent modelling.

OUR EXPERIENCE

- ★ Quantification and valuation of ES in a spatially explicit manner at various scales
- ★ Cross-scale assessments of socio-ecological systems and their ecosystem services
- ★ Development of tools and approaches to support land management decisions using for example Bayesian Networks and backcasting approaches
- ★ Scenario-based evaluation of future land use alternatives
- ★ Integration of ecosystem services information into spatial planning using new tools and participatory approaches
- ★ Development of tools and methods to facilitate stakeholder involvement in collaborative planning, e.g. web-based tools and 3D visualizations
- ★ Research in 3D visualizations by combining various software and hardware solutions to seek new thresholds in the perception and portrayal of the environment
- ★ Contribution to various international research projects such as the Natural Capital/ TEEB Germany, MESEU or OPERAs
- ★ Expertise in inter- and transdisciplinary work (Swiss National Science Foundation Transdisciplinary Award)



WHAT WE DO IN ESMERALDA

We support ESMERALDA with our expertise

- ★ in mapping and modelling human-environmental systems across scales
- ★ in tier-based approaches as a framework for mapping ecosystem services
- ★ in inter- and trans-disciplinary work and collaborations between different stakeholders including scientists, politicians and practitioners
- ★ from the TRAIN hands-on ecosystem services mapping workshops with EU member states

WE ARE ALSO INVOLVED IN

OPERAs, ECOPOTENTIAL, MESEU, TRAIN workshops, Future Cities Lab Singapore, Mountland (ETH), NRP 61 Water Resources, NRP 65 Urban Quality, NRP 68 Soil



**Adrienne
Grêt-
Regamey**

- ★ Professor at the Chair of Planning Landscape and Urban Systems (PLUS), ETH Zurich
- ★ Expertise in socio-ecological modelling, development of spatial decision support systems and 3D based acoustic-visual landscape visualizations



**Bettina
Weibel**

- ★ Research associate at PLUS, ETH Zurich
- ★ Expertise in land use modelling and mapping of ecosystem services across scales
- ★ Member of the TRAIN workshop team



**Sven-Erik
Rabe**

- ★ Research associate at PLUS, ETH Zurich
- ★ Expertise in landscape and environmental planning as well as mapping and assessment of ecosystem services



**Sibyl
Brunner**

- ★ PhD candidate at PLUS, ETH Zurich
- ★ Expertise in land use modelling and modelling of human-environment systems
- ★ Expertise in assessment and mapping of ecosystem services