Panel 5. The European continent as a time machine for knowledge production and learning towards sustainable landscapes

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Achieving sustainable development as an inclusive societal process, which results in sustainable and resilient landscapes, are wicked problems. While ambitious policies about conservation and sustainable use and societal steering of landscapes' material natural resources, services and immaterial values are well developed, implementation of feasible policy instruments, and assessment of consequences on the ground in social-ecological systems, is a challenge. Given the diversity of biophysical conditions, environmental histories and governance legacies on the European continent, regionally adapted and adaptive solutions towards sustainable landscapes are needed regarding both social and ecological systems.

A key challenge is to determine the effectiveness of different ideologies for achieving multifunctional landscapes. One dichotomy is between land sharing, which combines wood/fibre/biomass/food commodities with biodiversity conservation across the entire landscape; and land sparing, in which intensive land use is segregated from multiple-use and protected area networks as functional green infrastructure. How can place-based social learning processes that are characterized by a focus on a geographical area, commitment to sustainability and collaborative approaches be developed?

The aim of this session is to highlight the opportunity for mutual knowledge production and learning about evidence-based targets for sustainability of ecosystems, and approaches to landscape stewardship. We show how the diversity of development trajectories in social and ecological systems in European continent's West and East from the Atlantic Ocean to the Ural Mountains can be used to design comparative studies and natural experiments that facilitate knowledge production and learning about tipping points for sustainability, and stewardship solutions that are adapted to local and regional contexts.