

EGU2020-10460

<https://doi.org/10.5194/egusphere-egu2020-10460>

EGU General Assembly 2020

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## AnaEE: a European infrastructure for future-oriented experimental ecosystem research

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Human activities are directly and indirectly generating major environmental pressures on ecosystems worldwide through climate change, pollution and other global changes. Altogether, these changes result in a rapid erosion of biodiversity and a perturbation of ecological and agricultural systems and services, prompting urgent societal questions on how to retain or promote sustainable ecosystem services in a global change context. Understanding the responses of ecosystems to such pressures and perturbations, and developing adaptation strategies critically requires state-of-the-art experimental facilities that are able to simulate multiple global change factors. AnaEE (Analysis and Experimentation on Ecosystems) brings together such facilities in a European-wide infrastructure for experimental research on managed and unmanaged terrestrial and aquatic ecosystems. It assists and integrates four types of national platforms (Open-air, Enclosed, Analytical, and Modelling) and provides support to scientists who wish to engage in research projects using these platforms or the data they generate. These services are organised through the Central Hub and three Service Centres (Technology, Data and Modelling, Interface and Synthesis). This integrated approach improves the quality and availability of data and projections on ecosystem responses to global changes, enabling policy makers and stakeholders to make fact-based decisions on how to sustainably manage ecosystem services. As an example, we shortly discuss the new open air FATI-platform (UAntwerp) in which ecosystems can be exposed to various combinations of precipitation change and warming, and present first results of a study on the impacts of precipitation regime changes on temperate grassland.