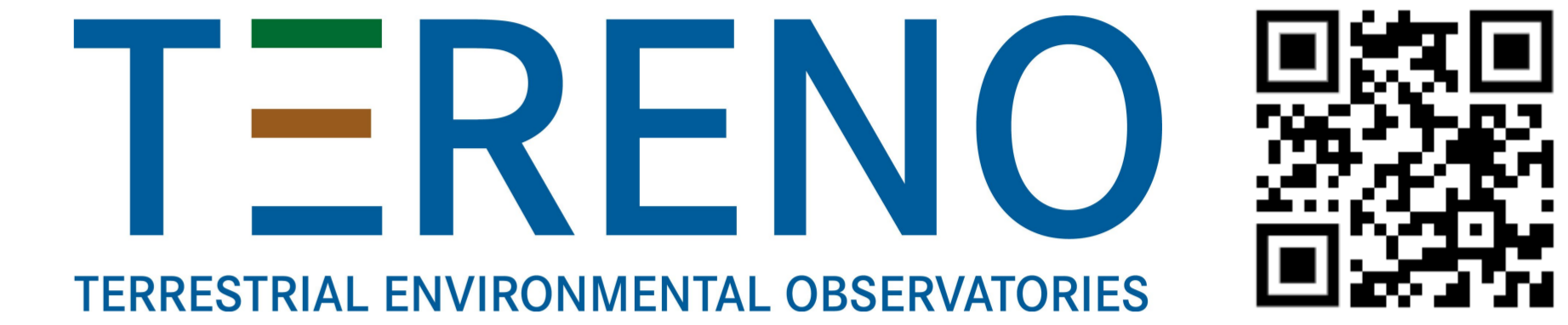


The TERENO-Rur Hydrological Observatory

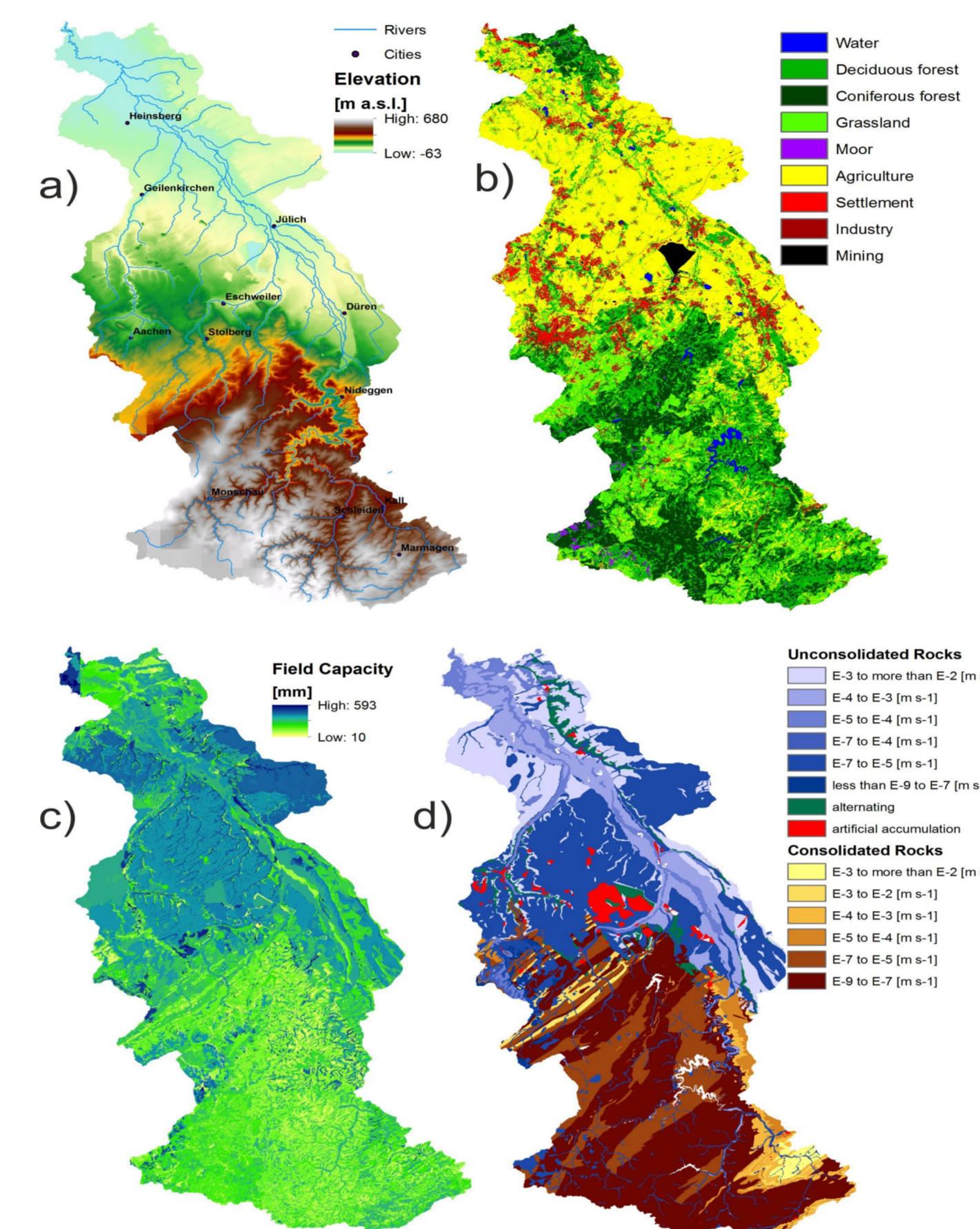
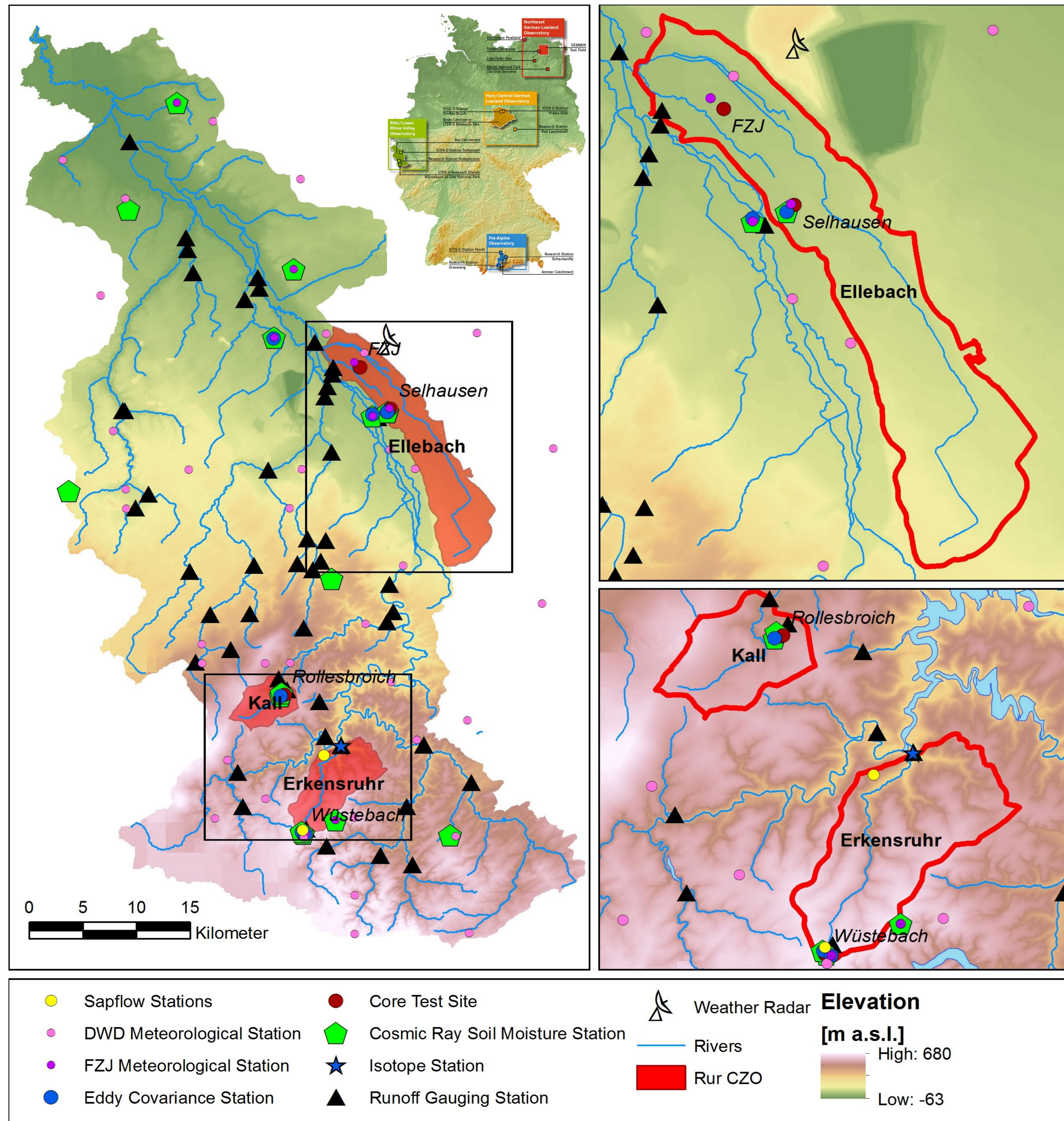
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The Rur hydrological observatory is the main observational platform of the TERENO (TERrestrial ENvironmental Observatories) Eifel/Lower Rhine Valley Observatory and was established in 2008. The Rur catchment area exhibits distinct gradients in altitude, climate, land use, soil properties and geology. The Eifel National Park (NLP) situated in the southern part serves as a reference site for the hydrological observatory. State-of-the-art monitoring methods are combined with advanced modelling techniques to gain more detailed understanding of catchment processes and to predict water and matter fluxes and their feedback to changes in climate, land use and water usage. The general observation strategy follows a nested multi-scale approach, with sparse observations across the Rur catchment to cover the large scale, moderate instrumentation at the Critical Zone Observatories Ellebach, Kall and Erkersruhr to cover the medium scale, and intense instrumentation in small test sites (Selhausen, Rollesbroich and Wüstebach).

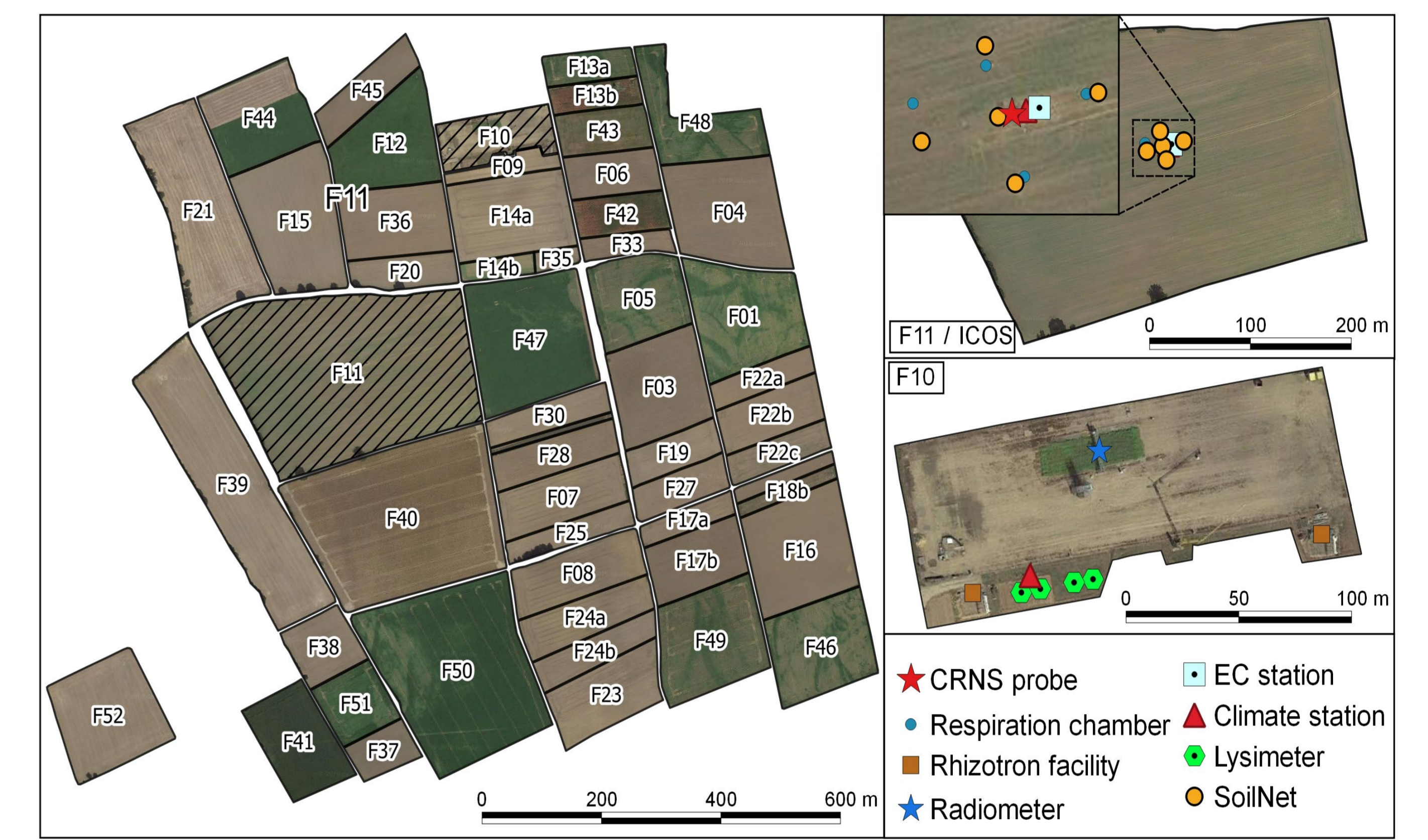


Overview of the Rur hydrological observatory



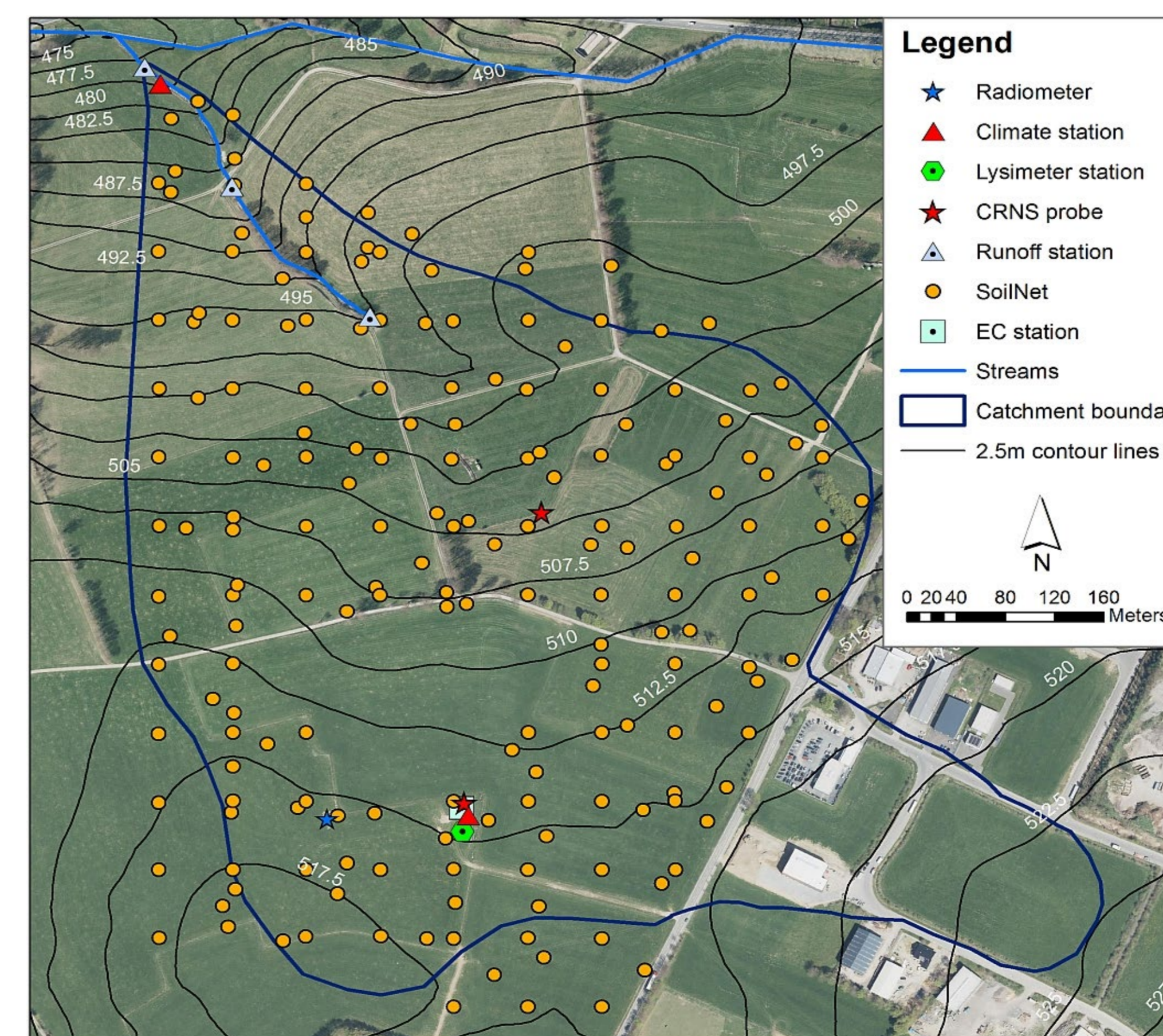
Main characteristics: (a) elevation, (b) land use, (c) soil field capacity, and (d) hydrogeology

Agricultural test site Selhausen



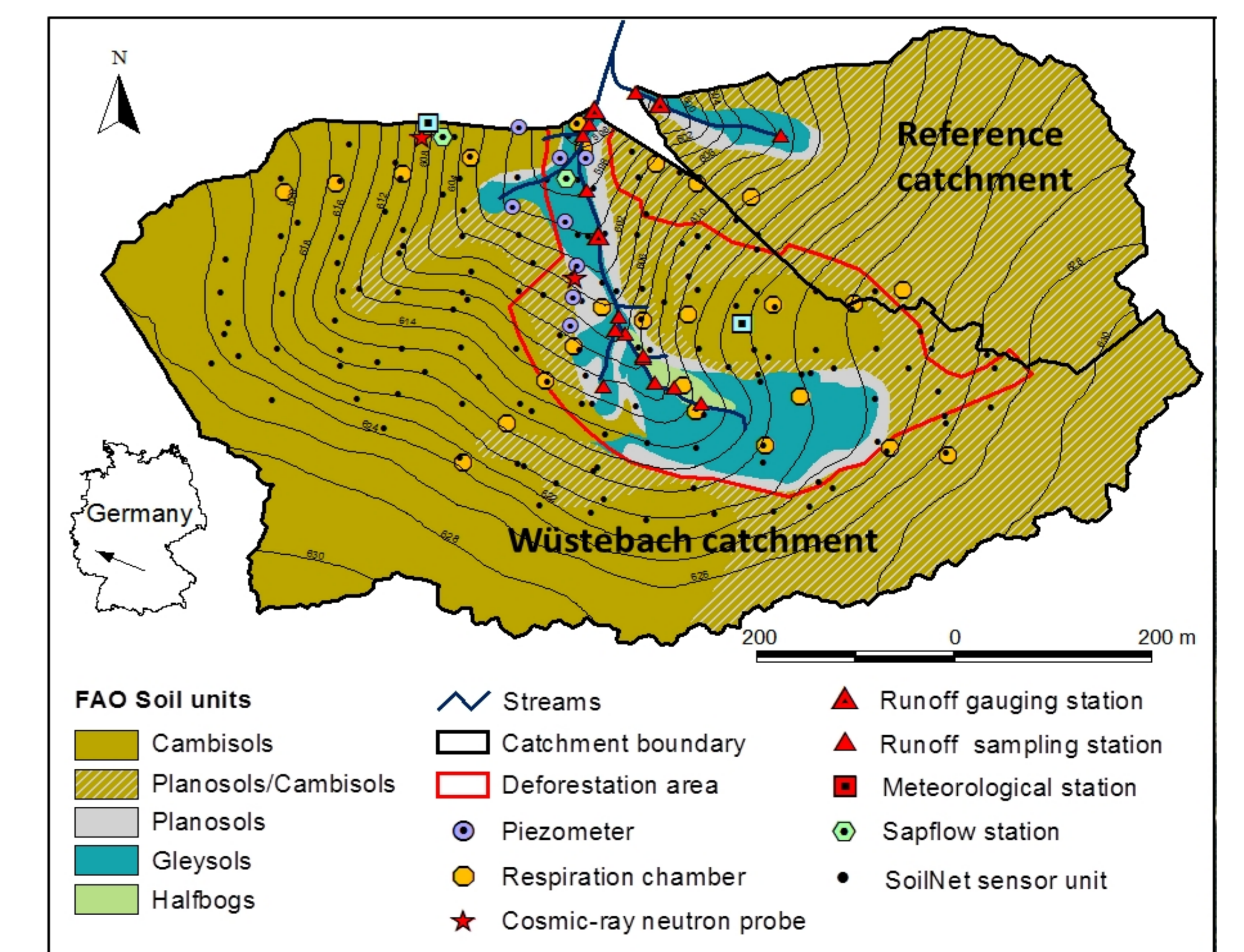
Test fields and instrumentation of the agricultural test site Selhausen (CRNS: Cosmic-ray neutron sensor, EC: Eddy covariance)

Grassland test site Rollesbroich



Instrumentation of the grassland test site Rollesbroich

Forest test site Wüstebach



Major soil types and the instrumentation of the Wüstebach experimental catchment located in the NLP Eifel