



## **Challenges for soil functions assessment and mapping at continental scale and some preliminary results**

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Soil is key in the realisation of a number of UN Sustainable Development Goals providing a variety of goods and services. Erosion, decline in soil organic carbon and loss of biodiversity can lead to soil and land degradation, a global challenge for sustainability. It is therefore important to link the ecosystem services approach with the multitude of functions provided by soils. Soil information is often not directly used when modelling/mapping soil functions, but represented via proxies (such as land use and land cover data). In this work, we present an approach to spatially assess the multiple contributions of soil for land evaluation. The main challenges we identified are:

- 1) Use simplified models that derive soil functions from basic soil properties and other land characteristics available at continental scale
- 2) Use models that are meaningful for the different pedo-climatic regions
- 3) Provide indication of low/high risk areas to help planning for sustainable soil management.

We present some preliminary results on how we addressed the challenges for a global assessment of soil functions.