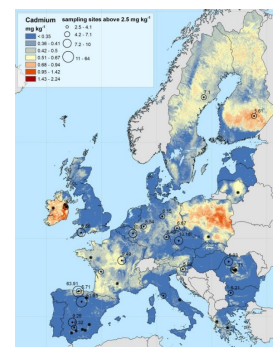


## **Cadmium in topsoils of the European Union**

Using the 21,682 soil samples from the LUCAS soil survey, we estimated the spatial distribution of the concentration of Cd in the European Union (EU) and UK topsoil as documented in the [publication](#). Applying an ensemble of machine learning models supported by a variety of environmental descriptors, we created maps of Cd distribution at a resolution of 100m. The ensemble approach included 5 models and increased the prediction accuracy to  $R^2$  of 0.45. The approach used resulted in a high predictive power for the Cd distribution, while also identifying hotspots of Cd contamination. Natural factors influencing Cd levels include soil properties (pH, clay), topography, soil erosion, and leaching. As anthropogenic factors, we identified phosphorus inputs to agricultural lands as the most important for Cd levels. Download the data:

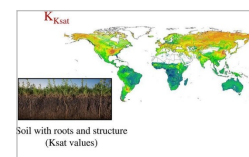
<https://esdac.jrc.ec.europa.eu/content/cadmium-topsoils-european-union>



## **Global Soil Erodibility**

This dataset encompasses global soil erodibility (K) factor maps, with the K factor being estimated through the Wischmeier and Smith (1978) method. The equation incorporates permeability information crudely and indirectly, mainly relying on soil texture details, potentially overlooking factors like vegetation, biopores, and clay minerals. To address this limitation, we incorporated soil hydraulic properties (Ksat) in the K-factor by merging Ksat with soil texture and organic carbon into a modified K-factor dataset. Therefore, we developed K-factor maps of 1 km spatial resolution maps both for the original methodology, the one used in GloSEM and the modified one (Ksat) as documented in the [publication](#). The three datasets and their uncertainties are available:

<https://esdac.jrc.ec.europa.eu/content/global-soil-erodibility>



## **European Soil Mission Week (21-23 Nov. 2023)**

The European Mission Soil Week was organised by the European Commission DG AGRI together with the project PREPSOIL and the EU Soil Observatory (EUSO). The event was followed by 310 participants physically and 640 online. The European Mission Soil Week was a major gathering that brought together the European soil community: researchers, policymakers, farmers, foresters, spatial planners, landowners and land managers, businesses, NGO organisations as well as the general public. Download the presentations and the recordings: <https://www.europeanmissionsoilweek2023.com/en/event-material>



## **Centennial Celebration & Congress of the International Union of Soil Sciences (19-21 May 2024)**

The custodian of soil science will celebrate in 2024 its centennial contribution to the nature and human wellbeing. The event will empower the linkages with different disciplines, policy makers, stakeholders, institutions, and associations to effectively address civil society needs within agriculture, forestry, environment, urban planning, energy, education, and other societal issues. The celebration will occur on May 19th and will be followed by two intense days of congress. Abstract submission deadline (15 January 2024): <https://centennialiu2024.org/call-for-abstracts/>



## **HUMUS launched an open call for pilot projects**

The aim of this call is fostering new spaces of dialogue for the participatory governance of soil health and quality issues at regional and/or local levels in Europe. A total budget of €600 000 will be allocated to fund 20 pilot project proposals led by municipalities, regions or other public entities. Participation is also open also to private and non governmental stakeholders at local and regional levels, such as agricultural enterprises, associations of land managers (e.g. farmer associations), civil society organisations and research institutions throughout Europe. More information about the collaboration of EUSO with Soil Mission projects: <https://esdac.jrc.ec.europa.eu/projects/soil-mission-projects>



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