**Session Proposal**

# Session Title

Operational Digital Soil Mapping: fitness for use of DSM products: pitfalls to avoid and way forward

# Session Organizers

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* Feng Liu, Institute of Soil Science, Chinese Academy of Sciences, fliu@issas.ac.cn
* D G Rossiter, ISRIC-World Soil Information, david.rossiter@isric.org; Section of Soil & Crop Sciences, Cornell University (USA), d.g.rossiter@cornell.edu
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# Session Description

Digital Soil Mapping (DSM) has changed how we acquire, analyse, and disseminate spatial soil information. DSM products are increasingly integral to decision-making across various disciplines. Unfortunately, DSM products are not always used appropriately for many reasons, some due to lack of clarity from the producers and some due to lack of understanding by the users. This session will critically examine the “fitness for use” of DSM products, focusing on the practical implications of their application and ways to improve how they are used. We aim to highlight common pitfalls encountered during the production and deployment of DSM, focusing on product evaluation, quality assessment and communication of uncertainty to the users. Furthermore, the session will explore innovative approaches and best practices that can mitigate these challenges, leading to more reliable, transparent, and actionable DSM products.

Session Goals and Objectives:

* To identify and critically discuss the key pitfalls and challenges in the operationalization of Digital Soil Mapping (DSM).
* To showcase current research and practical examples demonstrating the "fitness for use" of DSM products in various applications.
* To present and discuss innovative methodologies, technologies, and workflows that enhance the accuracy, reliability, and utility of DSM products.
* To explore strategies for effective communication of DSM uncertainty and the importance of user-centric design in DSM product development.
* To discuss the “local vs. global" conundrum and model interpretability and transferability.

This session is explicitly not to present new and innovative DSM modelling methods, unless they fit these themes, leading to successful operational use of the products.

# Format

Invited keynote presentations (selected from submitted abstracts), short oral presentations, followed by panel discussions leading to a set of recommendations. Posters are also welcome. The short presentations can be expanded with posters.

# Proposed Speakers

* Laura Poggio, ISRIC-World Soil Information, Chair IUSS Global Soil Map working group: keynote: Problems and possible solutions at global level
* Feng Liu, Institute of Soil Science, Chinese Academy of Sciences: keynote: Problems and possible solutions at national level (China)
* Others to be selected from the most relevant Abstracts