

# ISRIC – World Soil Information (World Data Center for Soils)

ICSU-WDS Member's Forum (SciDataCon2016, Denver, CO)

## Challenges and successes

With a relatively small team (~20 people, 16 fte), with expertise ranging from soil data recovery to ICT and cloud computing, ISRIC has further strengthened and elaborated its role as a globally operating trusted-broker of soil information.

Between 2014 and 2016 we have:

- Contributed to standard setting for soil data collection, monolith preparation, soil classification, data storage, data standardization/harmonization, data analysis, digital soil mapping, and interoperable data exchange.
- Developed a new World Soil Museum (2014). Subsequently, we have implemented a *virtual* soil museum through which users worldwide may freely consult our whole collection of soil monoliths and related materials.
- Implemented the World Soil Information Service (WoSIS). This service freely serves a growing selection of quality-assessed and standardized soil data to the international community; getting data providers to share their data remains a key challenge here!
- Integrated scientific developments, new digital soil mapping approaches such as machine learning, and advanced ICT techniques to generate a series of updateable soil property and class maps for the world (SoilGrids250m).
- Expanded our Training and Education Programme through: lectures and tours in the World Soil Museum, an annual Spring School, an active Guest Researcher programme, and through targeted courses and capacity building at host institutions worldwide.
- Updated our Data and Software Policy. We now share our own innovative products (e.g. SoilGrids) with an open data license. All soil data served from WoSIS are distributed in compliance with the license as specified by each data provider.

## Key targets for the upcoming two years

- Long-term stewardship of our collections and provision of quality-assessed data and web services to the international community.
- Further standard setting for soil data gathering, storage, processing, analysis, and distribution.
- Further development of the SoilInfo app for crowd-sourcing point data and serving SoilGrids predictions.
- Provide appropriately scaled soil information to different client groups using state-of-the-art web technology.
- Pro-actively contribute to international processes, projects, and activities, such as the Global Soil Partnership and GlobalSoilMap, and other research and capacity building projects.

## Remit of ISRIC – WDC Soils

ISRIC - World Soil Information is an independent, science-based foundation. The institute was founded in 1966 following a recommendation of the International Soil Science Society (ISSS) and United Nations Educational, Scientific and Cultural Organization (UNESCO). ISRIC has a mission to serve the international community with quality-controlled information about the world's soil resources to help addressing major global issues.

An International Scientific Advisory Council helps set out the overall strategy and provides advice about, and actively supports actions to implement ISRIC's long-term strategy.

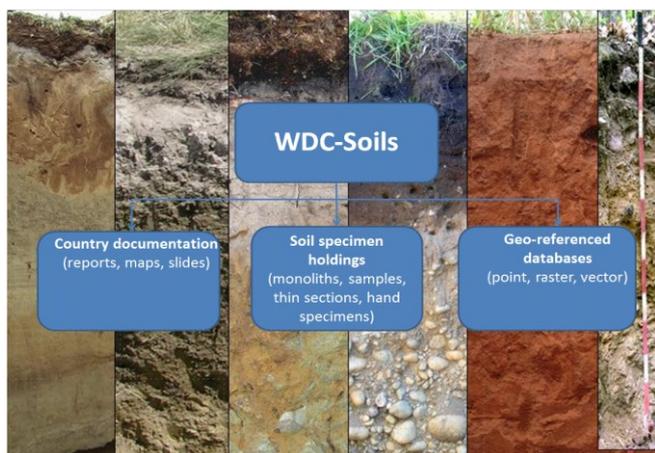
ISRIC receives baseline funding from the Netherlands Government; we acquire additional funds through targeted acquisition with partners.

Contact:

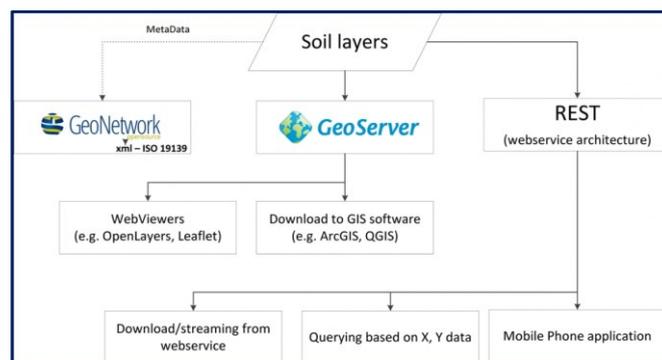
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Overview of ISRIC WDC-Soils holdings



ISRIC's emerging Spatial Data Infrastructure (SDI)



World Soil Information