



ISRIC
World Soil Information

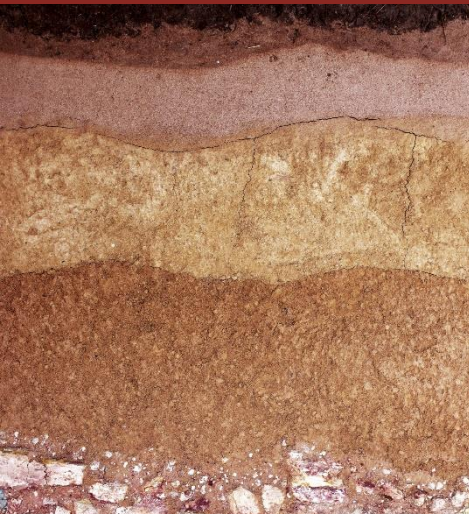
gODAN
Global Open Data
for Agriculture & Nutrition



Towards Global Soil Data Exchange

H. van den Bosch, F. van Egmond (ISRIC – World Soil Information), B. Schaap (GODAN),
R. Baritz (FAO/GSP)

Berlin, 27 September 2017



ISRIC – World Soil Information



ISRICs Mission



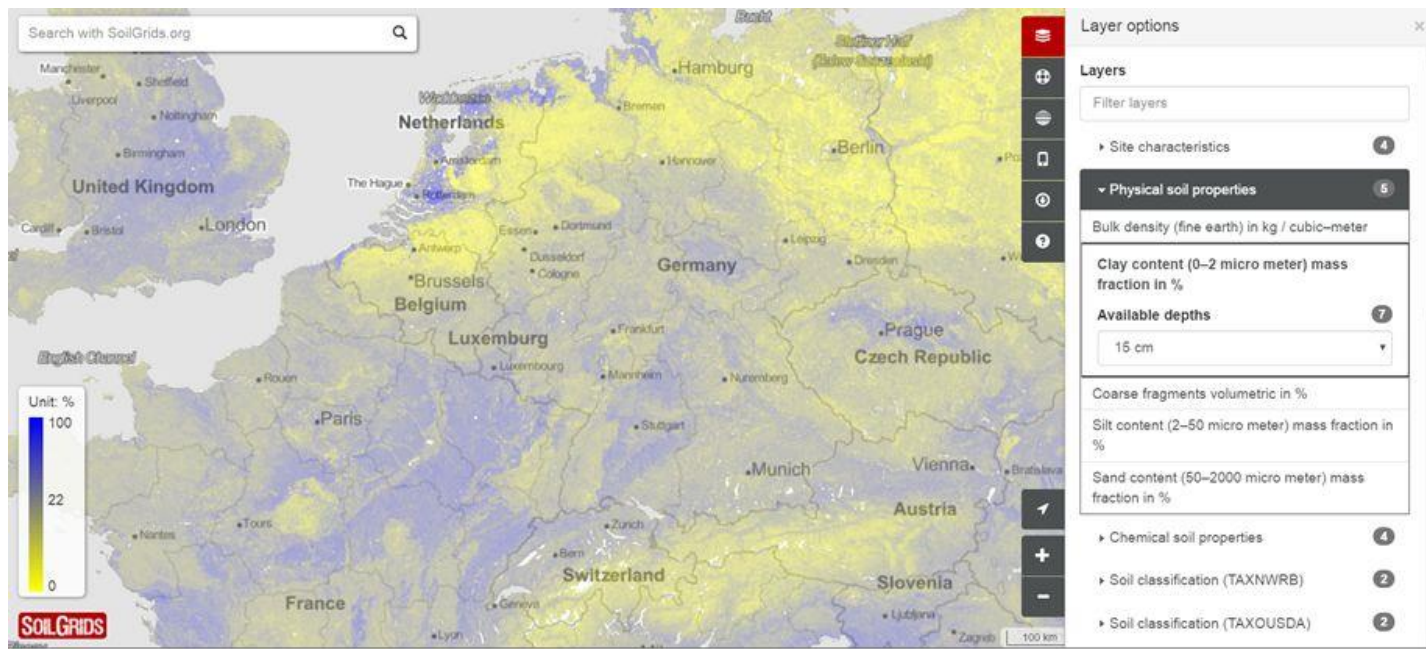
- We produce and serve **quality-assured soil information** together with our partners at global, national and regional levels.
- We stimulate the use of this information to address global challenges through **capacity building, awareness raising** and direct **cooperation** with users and clients.



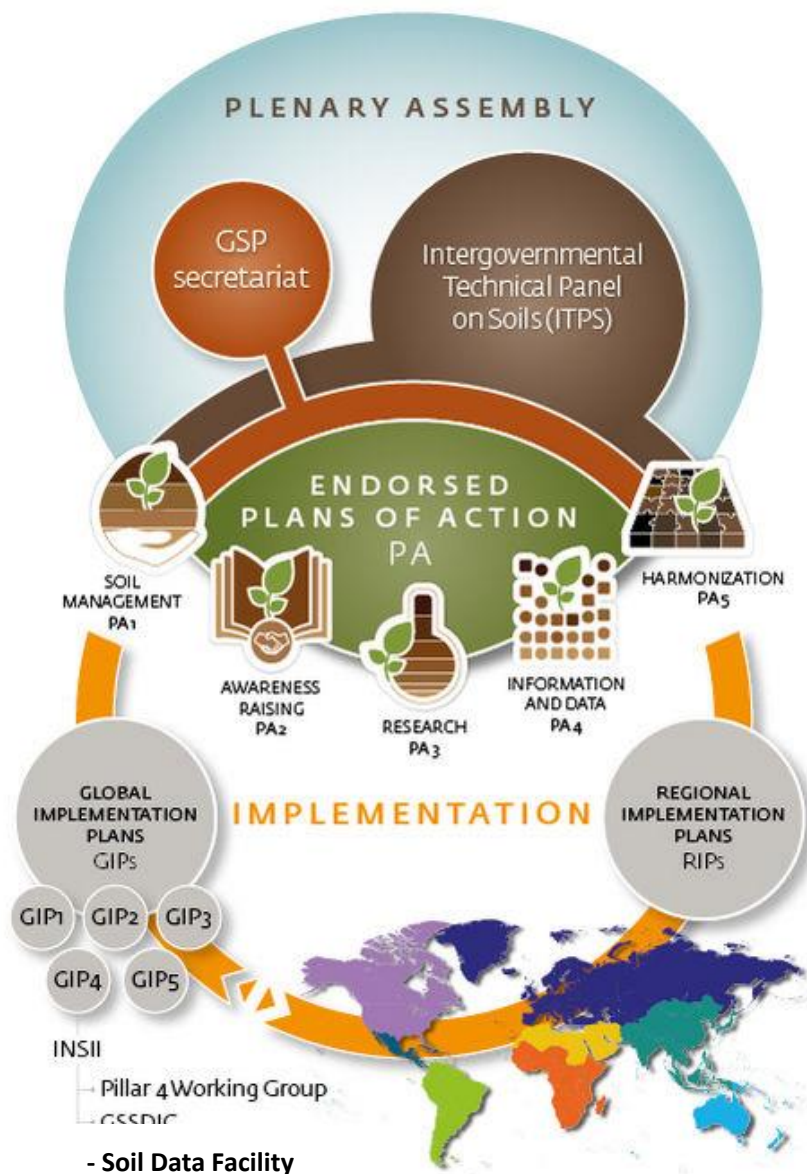
ISRICs Workstreams



- Reference and Standard Setting ('The Foundation')
- Soil Information Brokering ('Raison d'être')
- Capacity Building and Advocacy ('Competent user community')
- Developing derived Products ('Boosting Impact')



The Global Soil Partnership



- Partners: governments, knowledge institutions, NGOs
- Goal: enhance sustainable soil management
- **Pillar 4:** Global Soil Information System
- **Pillar 5:** Harmonisation of soil information



ISRICs hosts the GSP Soil Data Facility



- Support the development of the various soil databases
- Design, host and maintain a spatial infrastructure
- Develop web services (WMS, WFS, WCS)
- Connect to GEOSS





The *societal agenda* for soil
science has
changed dramatically....



SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



ISRIC
World Soil Information



The *societal agenda* for the soil sciences has dramatically changed...

and this asks for ***new and more diverse*** soil information



Towards a Global Soil Information System

Great challenges:

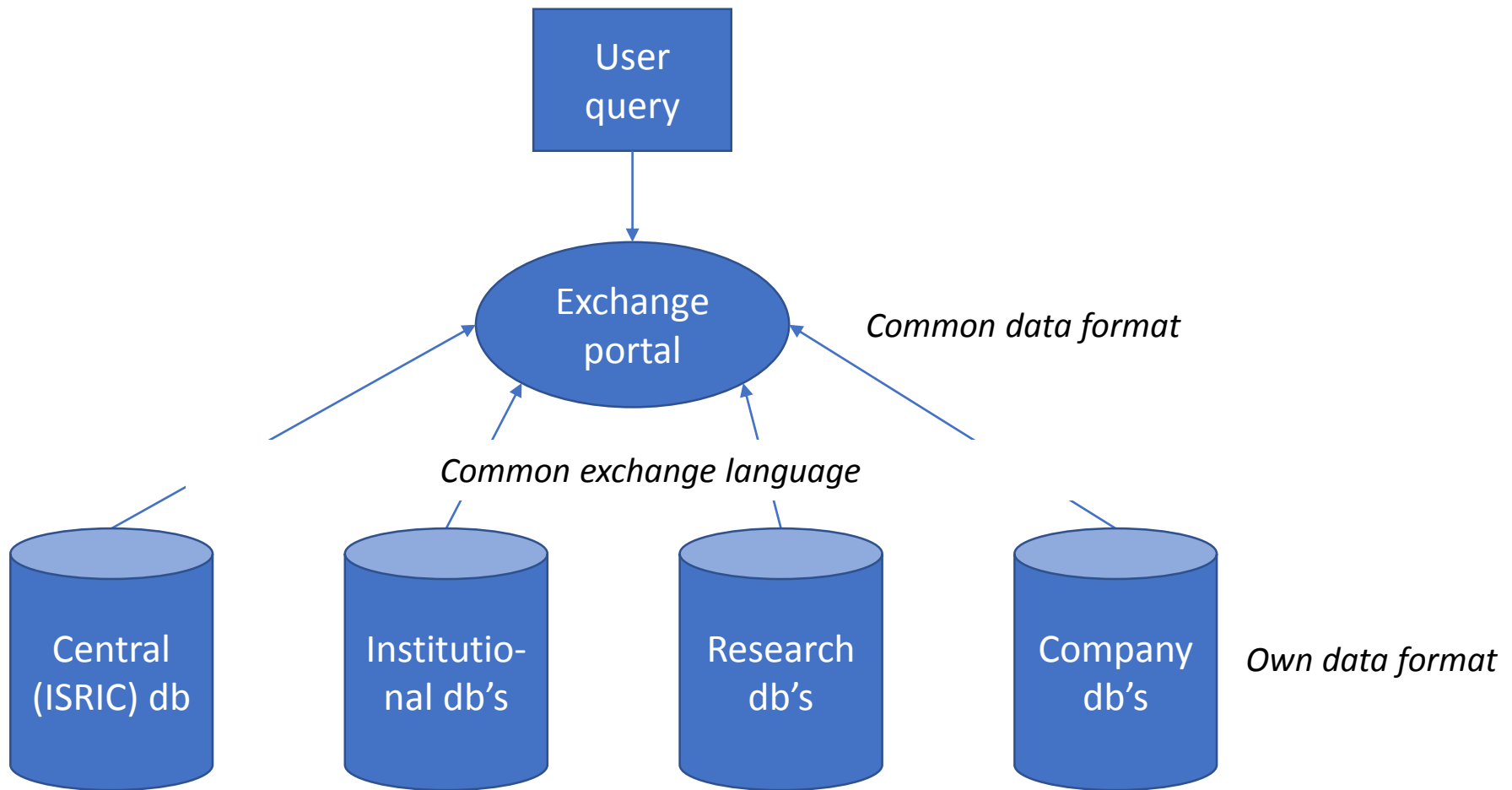
- Many 'dormant' data repositories (silos)
- Soil data is often specialized, user unfriendly
- Much field data lack quality assurance and validation
- Lack of technical capacity (data processing, Web-GIS)
- Lack of commonly agreed soil data exchange standard

The ingredients



gODAN
Global Open Data
for Agriculture & Nutrition

The solution



GODAN Working Group on Soil Data



Initiatives:



IUSS WG - SIS



Partners:



Food and Agriculture Organization
of the United Nations



ISRIC
World Soil Information



LANDCARE RESEARCH
MANAAKI WHENUA



Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture
Consultative Group on International Agricultural Research



Your organisation?



CGIAR
Science for a food-secure future



BONARES



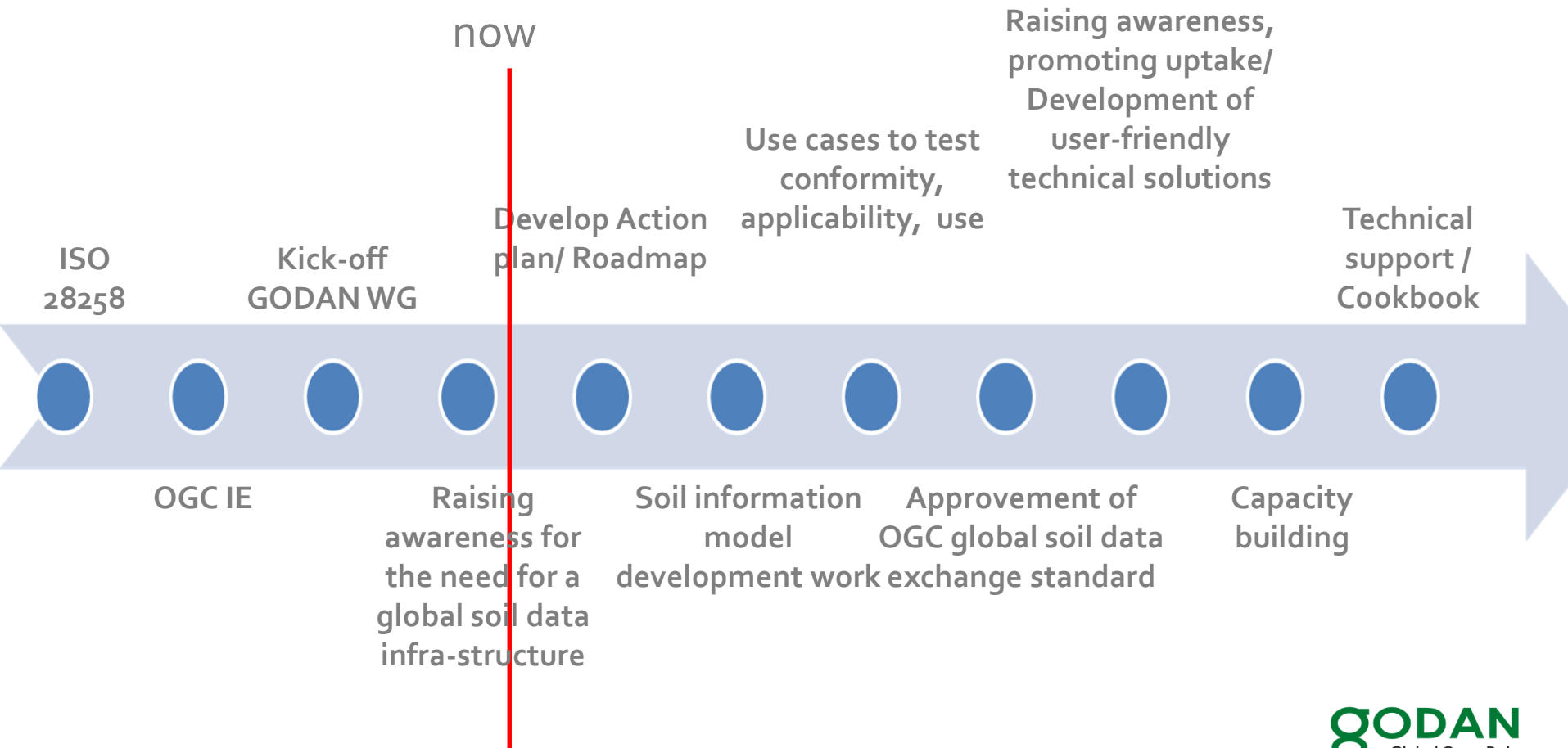
**ROTHAMSTED
RESEARCH**

Objectives WG on Soil Data



- to agree on a global soil data structure (SoilML) incl. ontologies, vocabularies to support the development of global interoperable standards.
- to define use cases to prove added value and assist in identifying key data set and user oriented information products.
- capacity building to support the development and implementation of shared open soil

Timeline



Current situation



- Pressing data need for global challenges on SLM, Climate Change, Food Security etc.
- Proof of concept ready
- Various concepts available (SoilML, OGC, INSPIRE, ISO, etc.). Need for generic and accepted model
- Scattered ongoing initiatives
- Lack of funding for combined action leading to global accepted format and infrastructure

What can you do?



- **Join** the GODAN Soil Data Working Group
- Act as an **advocate** for an open soil data infrastructure within your organisation
- Contribute with **use cases** and soil data exchange testing
- **Invest** in the development and implementation of the action plan, including capacity building
- Provide **test beds** (e.g. ongoing projects) for the Soil Data WG

Next actions



- Independent technical evaluation of current conceptual models -> lessons learned
- Event in autumn 2018 to bring together experts and organisations
- Website page 1: soil data exchange standards
- Website page 2: needs for open soil data
- Questionnaire on needs for open data and exchange formats for soil and perhaps beyond
- Vision concept note & GODAN position paper

Contact data



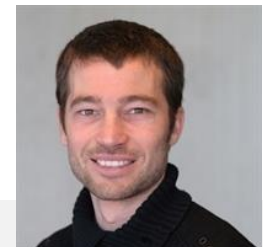
Chair GODAN Soil Data WG: GSP/EEA/FAO Rainer Baritz
Rainer.Baritz@eea.europa.eu



Co-Chair GODAN Soil Data WG: ISRIC Rik van den Bosch/
Fenny van Egmond Fenny.vanEgmond@wur.nl



GODAN Secretariat: Ben Schaap Ben.Schaap@godan.info
<http://www.godan.info/working-groups/soil-data>





ISRIC
World Soil Information



Rik van den Bosch
(rik.vandenbosch@wur.nl)

www.isric.org



Goals of the Working Group on Soil Data



- The Soil Data Working Group will promote the sharing of soil-related data through web services. It will advocate for targeted open soil data, building on defined use cases by GODAN stakeholders and members.
- Kick-off during IGAD pre-RDA meeting April 2017 Barcelona
- <http://www.godan.info/working-groups/soil-data>

GODAN WG on Soil Data: Why?



Use cases for private and public sector on:

- Sustainable Land Management
- Food Security
- Land Degradation (Neutrality)
- Soil Organic Carbon (SOC)



International Initiatives:

- Global Soil Partnership
- Sustainable Development Goals
- Paris Agreement
- 4p1000
- Green Climate Fund



United Nations
Framework Convention on
Climate Change





Godan

- Bottom up approach
 - Private - public
 - Global network
-
- <http://www.godan.info/working-groups/soil-data>



GODAN Working Group on Soil Data



- 'Three organizations providing data using the same standard (Soil-IE-ML) in an interoperable manner'
- Global studies need data from multiple data sources in 1 format, currently that's hardly available:
- SoilML enables that by proposing a new core model (incl GML/XML schema);

The IE experiment
proves that it works:
Next step is v2.0

