



ISRIC
World Soil Information



Opening Spring School 2018

Rik van den Bosch, Director







Hoogwater in de Rijn tussen Millingen en Lobith ANP





FOOD production



Climate Regulation



HABITAT





MOOIE VALLEI !
STRAKS VOORBIJ ?
www.parelduiker.wordpress.com

WATER Management

FIBRE Fuel



Building Material





SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD

<p>1 NO POVERTY</p>	<p>2 ZERO HUNGER</p>	<p>3 GOOD HEALTH AND WELL-BEING</p>	<p>4 QUALITY EDUCATION</p>	<p>5 GENDER EQUALITY</p>	<p>6 CLEAN WATER AND SANITATION</p>
<p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p>10 REDUCED INEQUALITIES</p>	<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	<p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>
<p>13 CLIMATE ACTION</p>	<p>14 LIFE BELOW WATER</p>	<p>15 LIFE ON LAND</p>	<p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p>	<p>17 PARTNERSHIPS FOR THE GOALS</p>	

Some features



- Founded in 1966, upon recommendation of UNESCO, FAO and the IUSS
- Independent foundation based in Wageningen
- Cooperation agreement with Wageningen University.
- 20 staff, plus guest employees, plus students
- Accredited as the World Data Centre for Soils (WDC – Soils) by the International Council for Science
- Participating Organisation of the Intergovernmental Group on Earth Observations (GEO)

Vision



A world where **reliable** and relevant soil information is **freely-available** and **properly used** to address global environmental and social challenges.

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.

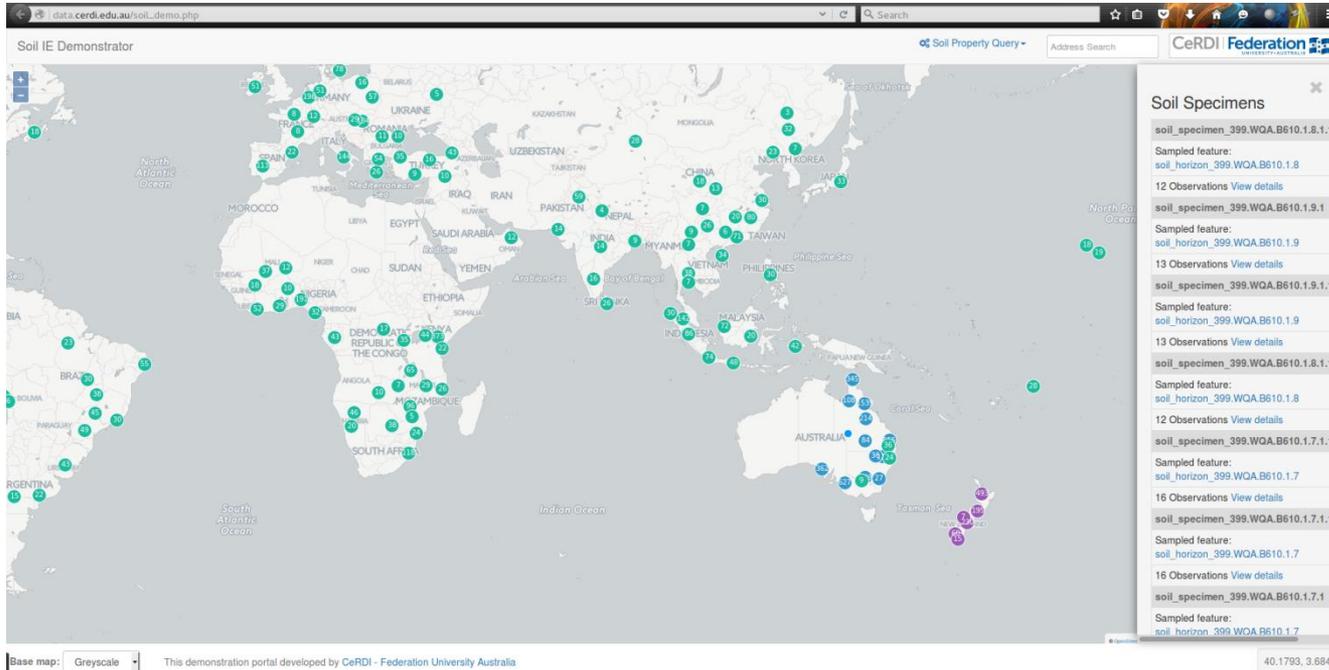


Work stream 1: Reference and Standard Setting (‘The Foundation’)

World Reference Base (WRB)



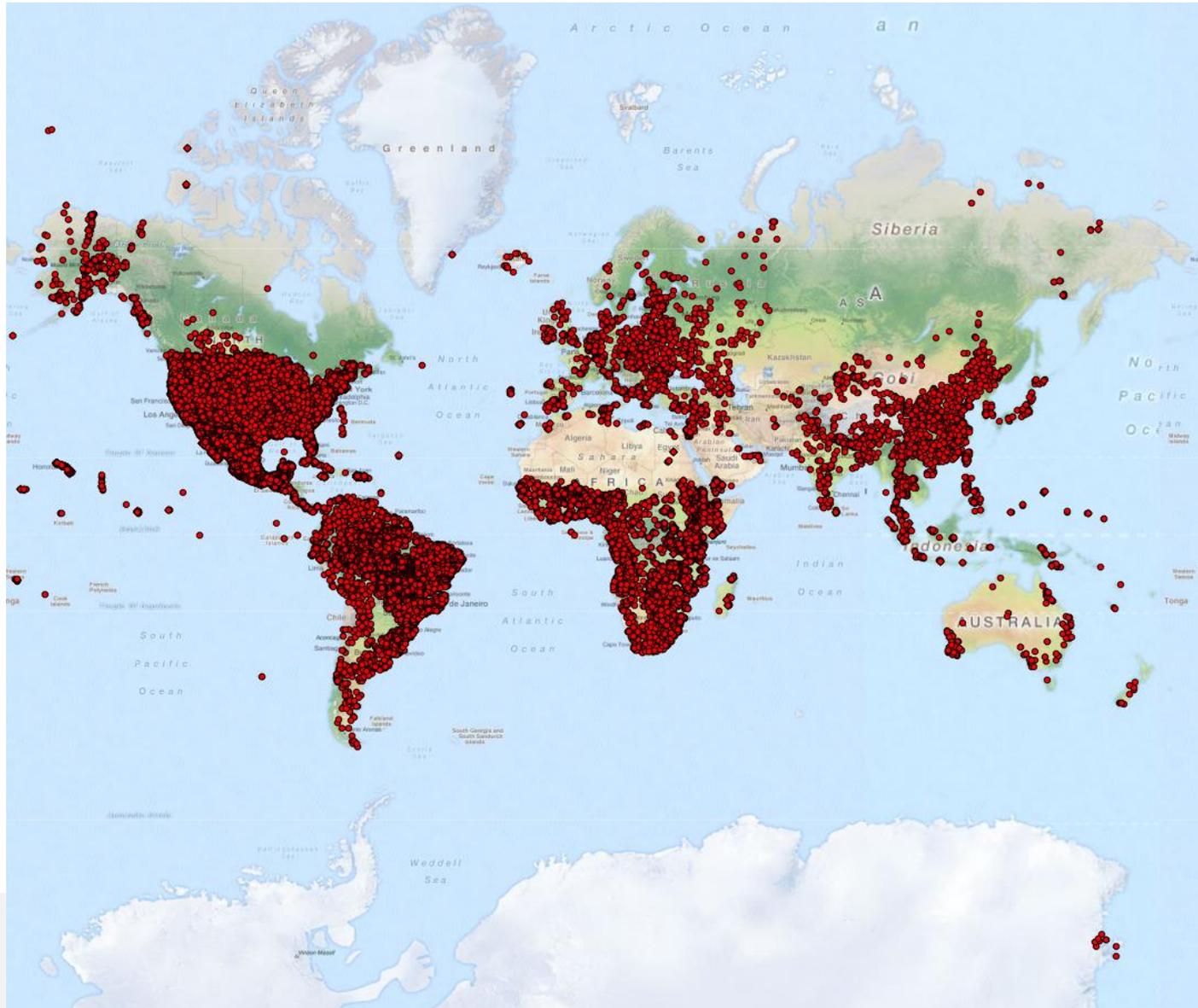
Soil Data Interoperability Experiment





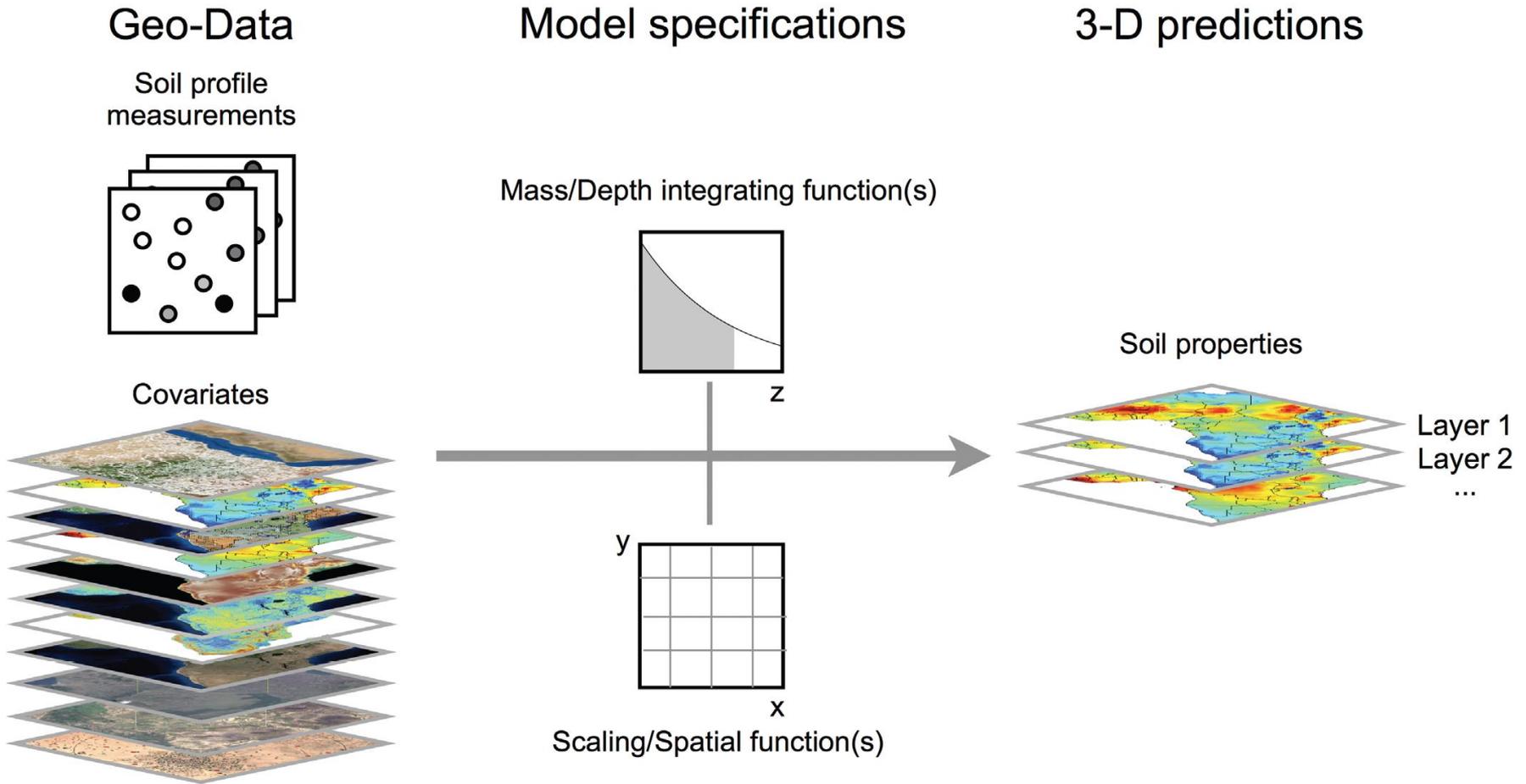
Work stream 2: Soil Information Brokering (‘Raison d’etre’)

World Soil Information System (WoSIS)



- Soil Profile database
- >150.000 profiles
- Ongoing process

From points to grids



SoilGrids

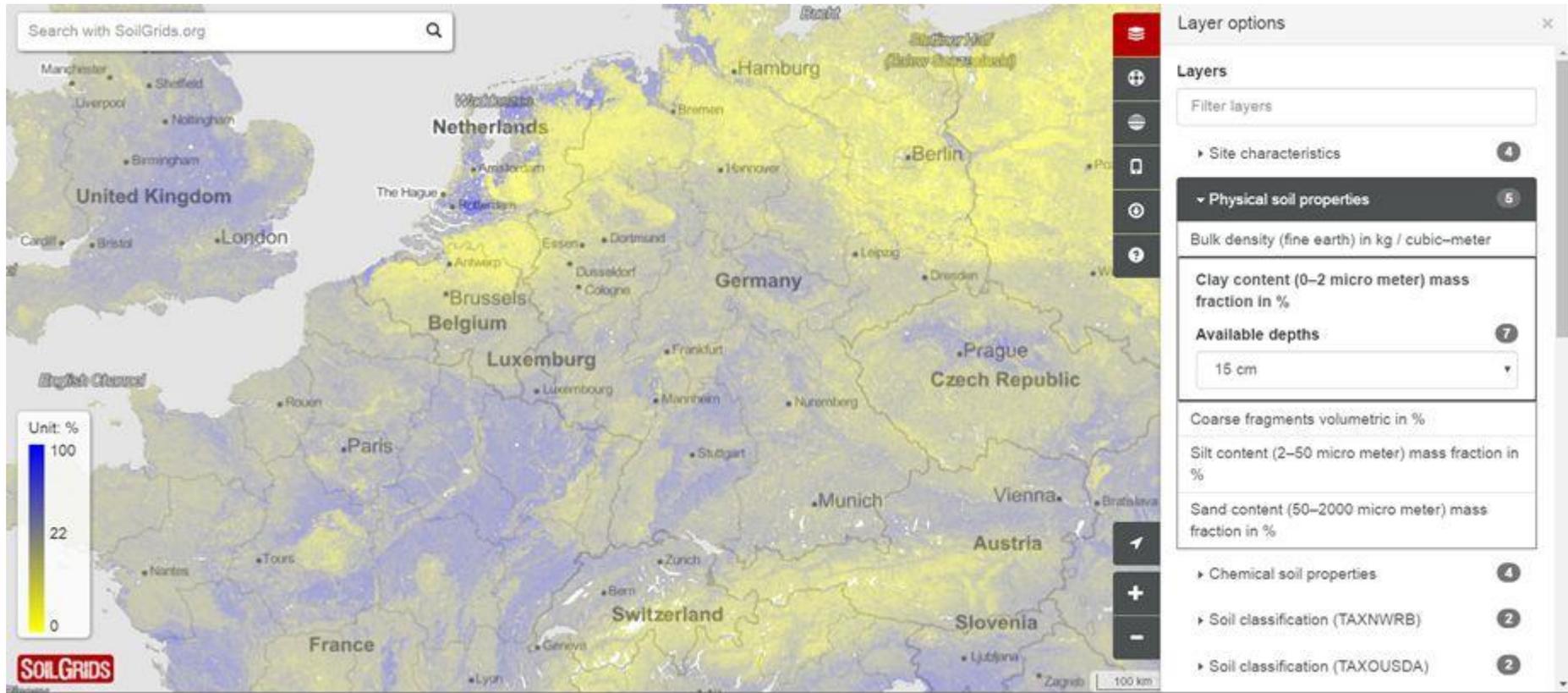


- **Automated** soil information system
- Using **profile** data and **spatial** information (covariates)
- **Machine learning** algorithms
- 250m * 250m **resolution**
- Accessible through **web service** and mobile phone **app**

- Updatable
- Open data
- Moving towards crowdsourcing



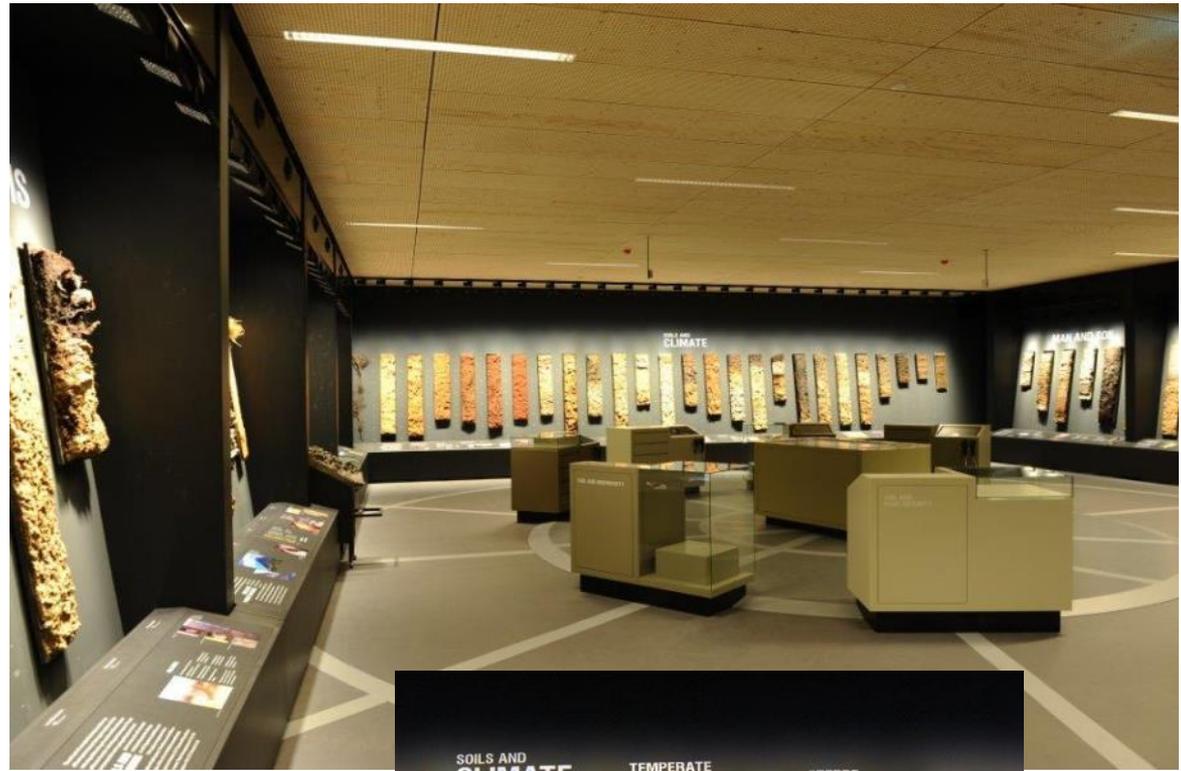
SoilGrids: clay content at -15 cm (%)





Work stream 3: Capacity Building and Advocacy (‘Competent user community’)

World Soil Museum



Virtual Soil Museum



- VISITS
- STAFF
- COLLECTION
- EDUCATION
- VIRTUAL TOUR
- EXPLORE COLLECTION
- SITES
- LINKS
- SOIL THEMES ▶

WORLD SOIL MUSEUM

OPEN: WEDNESDAYS 13.30H UNTIL 17.30H

GROUPS AND GUIDED TOURS: MONDAY TO FRIDAY BY APPOINTMENT, ON WORKING DAYS
(BETWEEN 9.00 17.00H)

LOCATION: WAGENINGEN CAMPUS (GAIA, BUILDING 101), THE NETHERLANDS



Yearly spring school



(Online) Library



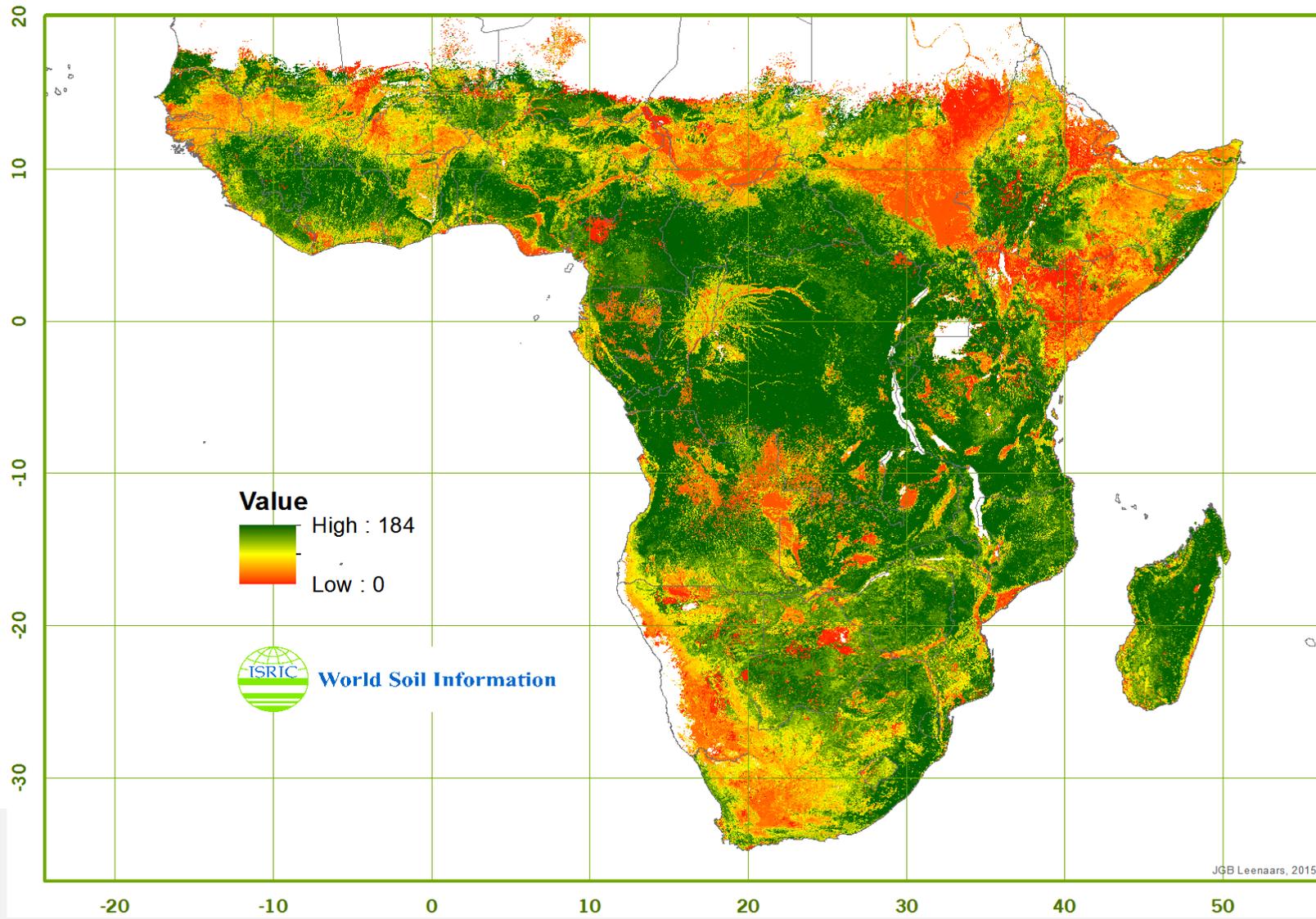
- Online catalogue
 - Books and reports (20,000)
 - Paper maps (10,000)
- Downloadable docs
 - Full-text reports (30%)
 - Scanned maps (80%)
- Average downloads per month:
 - ~850 different scanned maps
 - ~450 different full-text reports





Work stream 4: Developing derived Products (‘Boosting Impact’)

Plant-available water holding capacity (mm, maize)



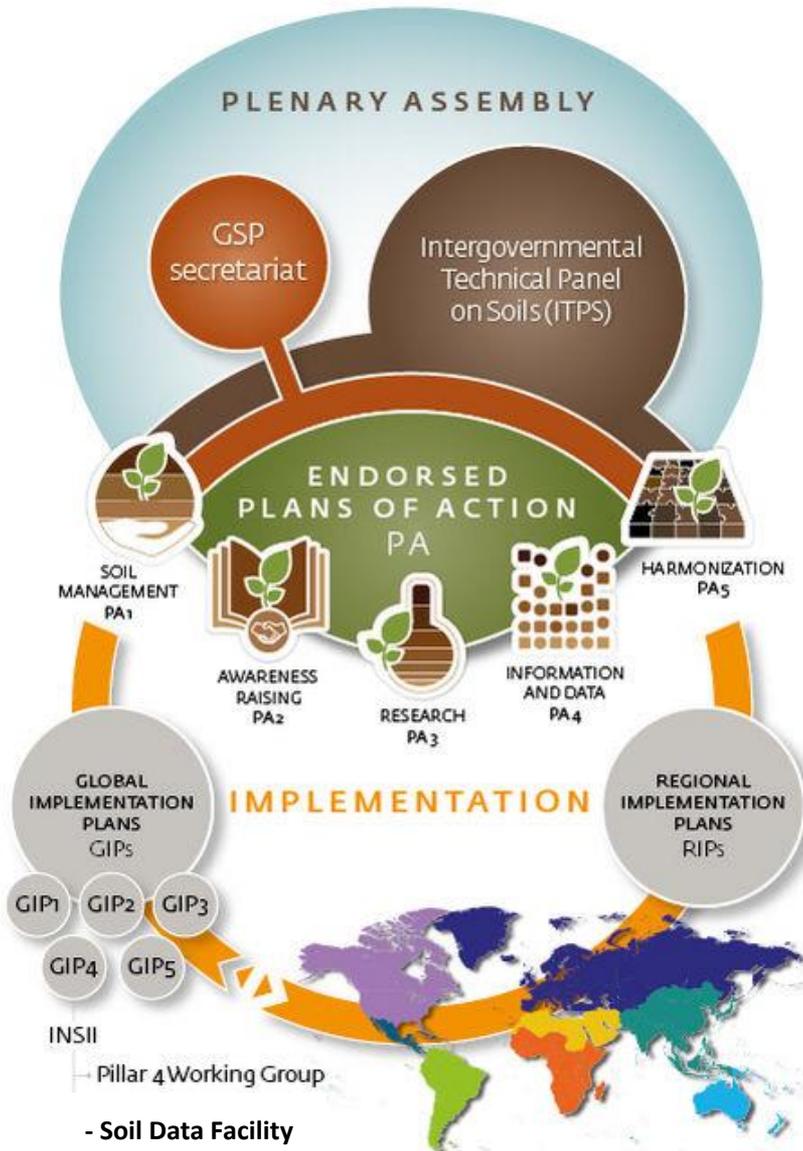
Information platform for production of site specific fertilisers





Relevant Developments

The Global Soil Partnership



- Partners: governments, knowledge institutions, NGOs
- Goal: enhance sustainable soil management
- Pillars 1-5 (thematic)
- Regional partnerships
- Global Implementation plans (per pillar)
- Regional Implementation plans (all pillars)
- ITPS (technical back-up)

Preferred supplier to UNCCD



Land Degradation Neutrality

- **SDG 15.3**
- **Three sub-indicators**
 - Land use change
 - Net Primary Production
 - Soil Organic Carbon (SOC)
- ISRIC provides baseline SOC data to all countries
- Challenge: monitoring



United Nations
Convention to Combat
Desertification



ISRIC
World Soil Information



More information:
rik.vandenbosch@isric.org
www.isric.org

