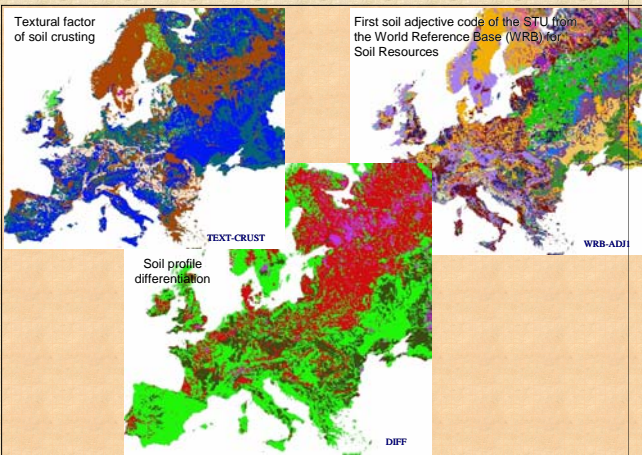


The European Soil Portal: Networking Soil Information in Europe

Marc Van Liedekerke, Panos Panagos, Luca Montanarella

Raster archive 10km x 10km

The "European Soil Database Raster Archive" contains raster (grid) data files with cell sizes of 10km x 10km for a large number of soil related parameters. Each grid is aligned with the INSPIRE reference grid recommended in the 1st Workshop on European Reference Grids. These rasters are in the public domain and allow expert users to use the data for instance to run soil, water and air related models. The 10km x 10km grids fit with ideas from INSPIRE to develop "nested" systems for reporting and updating European soil data at different scales, according to a hierarchy of grids with a common point of origin and standardized location and size of grid cells.



The European Soil Database has four components:

- Soil Geographical Database of Eurasia at scale 1:1,000,000 (SGDBE)
- Pedotransfer Rules Database (PTRDB)
- Soil Profile Analytical Database of Europe (SPADBE)
- Database of Hydraulic Properties of European Soils (HYPRES)

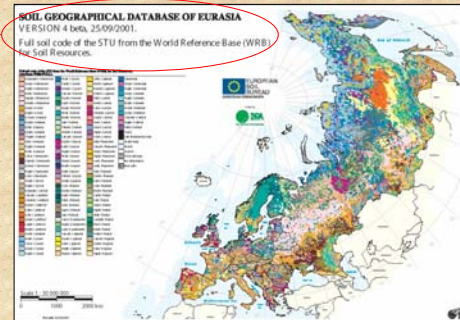
The European Soil Database is the main source of information from which most other data information and services are derived.

The European Soil Database is the central dissemination point for data related to soils and is the main data reference for all soil data collected at European level during the last 20 years.

The major part of the information, products, maps, services and research documents are derived from this single data reference. The European Soil Database raw data in itself are not available for free to the general public due to ownership and copyright issues.

Eurasian Soil Database Map Archive

Based on the attributes which are present in the Soil Geographical Database of Eurasia at scale 1:1,000,000, a number of Static maps (PDF Format, A3 length) have been created which allow the user to have an overview of the distribution of soil characteristics in a spatial way

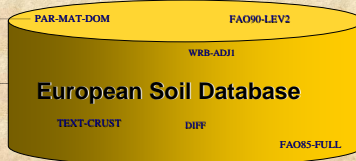


Documents Repository

The European Soil Bureau Research Reports and Other Research Reports and Papers is the electronic library (Soil Documents Repository) of the Soil portal. The European Soil Bureau research reports reflect the research work and the scientific studies being carried out in the network



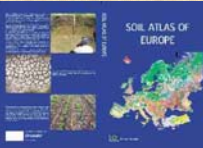
73 Layers derived from the Database fields



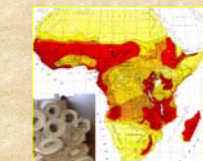
Projects



Eco-ecological map for the Alpine Territory
Implementation of an Information System that can offer data and information to operational end users, land managers that operate at different levels and soil scientists together with experts of other disciplines. The ECALP information system will set-up a shared soil database for the Alps.



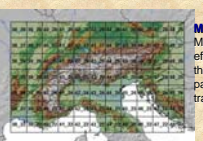
Soil Atlas of Europe
Based on soil data and information collected within the European Soil Information System (EUSIS) developed by the Joint Research Centre, the atlas illustrates in 128 pages of maps, tables, figures and graphs, the richness of European soil resources.
Register your order!



European Digital Archive on Soil Maps of the World
The immediate objective of this project is to transfer soil information into digital format, with the maximum resolution possible, to preserve the information of paper maps that are vulnerable to deterioration.



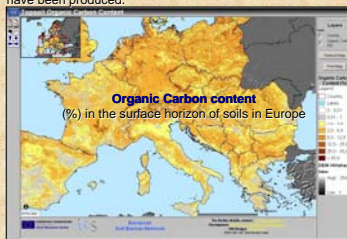
INSEA: Integrated Sink Enhancement Assessment
Leader for a specific workpackage devoted to "Data and Database Strategy"



Meusis: Multi-scale European Soil Information System
Much efforts still have to be conducted to establish an efficient workflow for updating and maintaining grid based thematic layers with highly detailed information, more particularly in a participatory approach, involving bottom-up transfer of spatial information from local to global level.

Themes

Soil Themes: The Soil Portal has exploited in depth some soil themes for which studies, maps, documentation and services have been produced.



Soil erosion
Estimates (t/ha/yr) by applying the PESERA GRID model at 1km, using the European Soil Database, CORINE land cover, climate data.



Applications

SOMIS (SOIL Map Internet Server): Standalone web-based application for the navigation of soil related maps:

- ✓ Dynamic Internet application to European Soil Database.
- ✓ Presentation of all attributes (73) as map layers, grouped in 14 categories.
- ✓ Dynamically Expanded Tree Menus (on the right side) in order to host the 73 different Layers.
- ✓ Interactive Map operations: Zooming, Panning, Querying, Layering, Identify, Select features, Advanced printing.
- ✓ User can view, navigate & inspect soil data but cannot download.
- ✓ User friendly application like a GIS Tool – No need for specific S/W (only web browser).
- ✓ The data contents are fully documented.
- ✓ Runs as a server and distribute maps to Web Mapping Service (WMS) clients.
- ✓ Integrates map layers residing on multiple spatial servers all around the World.
- ✓ OGC (Open Geospatial Consortium) Standards compliant

