

Necessitat d'Informació de sòls a la Comunitat Europea



Luca Montanarella
European Commission

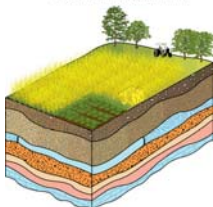
EU Thematic Strategy for Soil Protection adopted by the European Commission on the 22nd of September 2006

- COMMUNICATION COM(2006) 231 on the Thematic Strategy for Soil Protection
- DIRECTIVE COM(2006) 232 establishing a framework for the protection of soil and amending Directive 2004/35/EC
- IMPACT ASSESSMENT SEC(2006) 620 of the Thematic Strategy for Soil Protection

<http://ec.europa.eu/environment/soil/index.htm>

Recognizing soil multi-functionality

Basis for biomass production



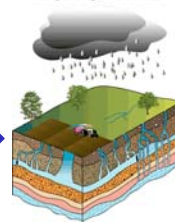
Foundation for Buildings



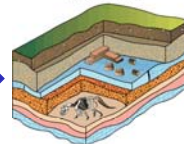
Source of raw materials



Filtration, buffering and transformation



Historical medium

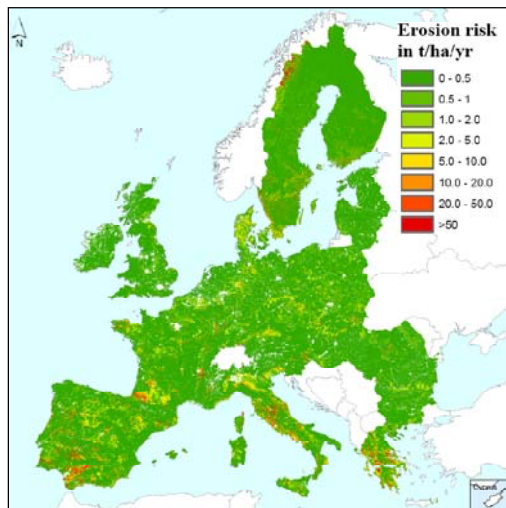


Habitat and gene reservoir



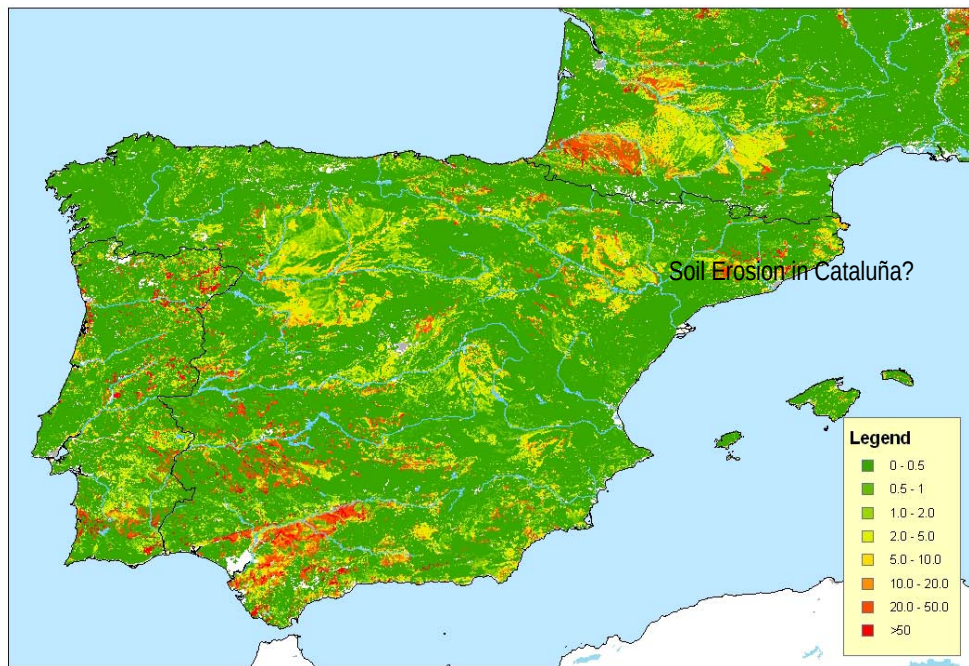
- Still to be implemented:
 - Framework legislation with protection and sustainable use of soil as its principal aim;
- Already in the implementation phase:
 - Integration of soil protection in the formulation and implementation of national and Community policies;
 - Research supported by Community and national research programmes;
 - Public awareness of the need to protect soil.

- Common Agricultural Policy (CAP)
- Climate Change Policy
- Water Protection Policy
- Biodiversity Protection Policy
- Forest Protection Policy
- Regional Policies
- Food Safety (EFSA)
- Energy Policy
- Development Policy
-

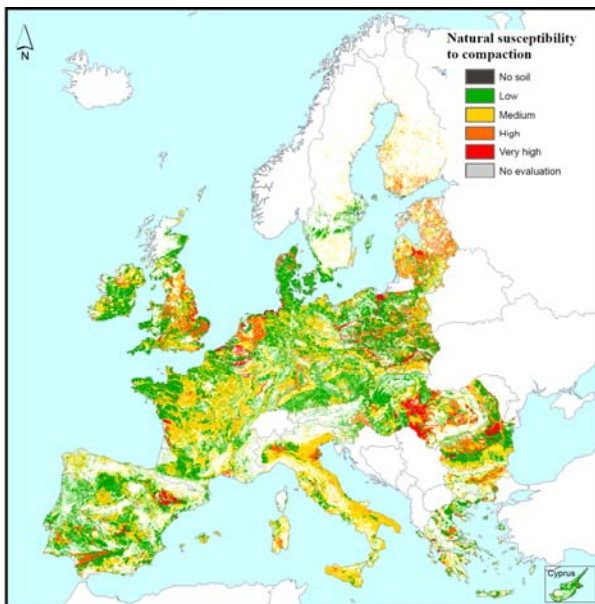


Examples of rill erosion and re-deposition of sediment at the base of the slope

Map showing the risk of water erosion in the 27 Member States of the European Union



Soil compaction in Europe



Map of the natural susceptibility of soils to compaction in the 27 member states of the European Union.

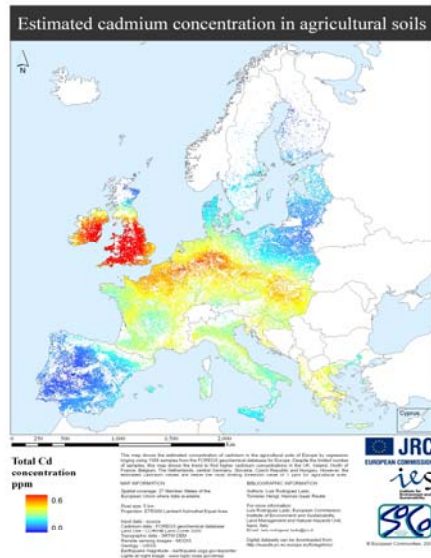
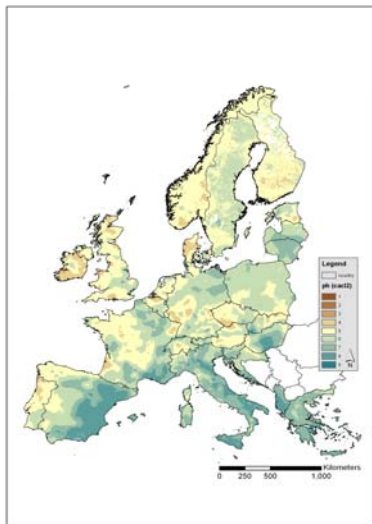


Harvester for sugar beet (above)
and compacted soil (below)



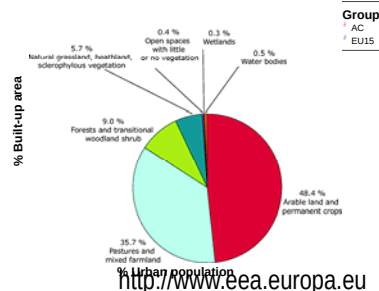
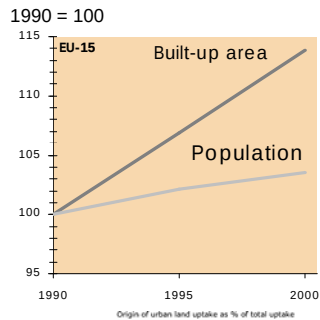
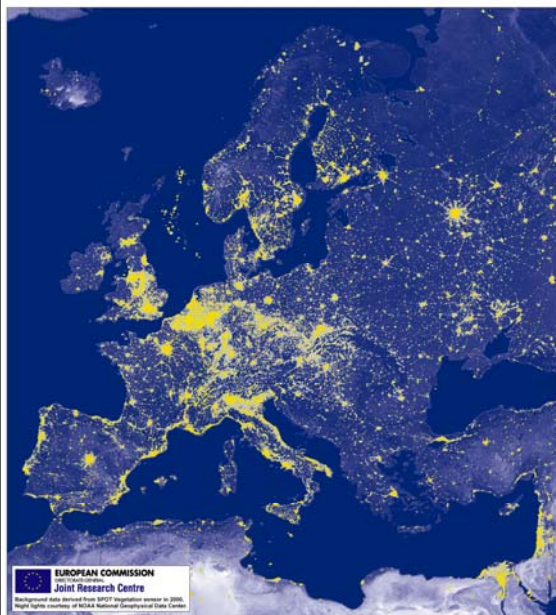
Soil compaction in Cataluña?

Acidification and heavy metals



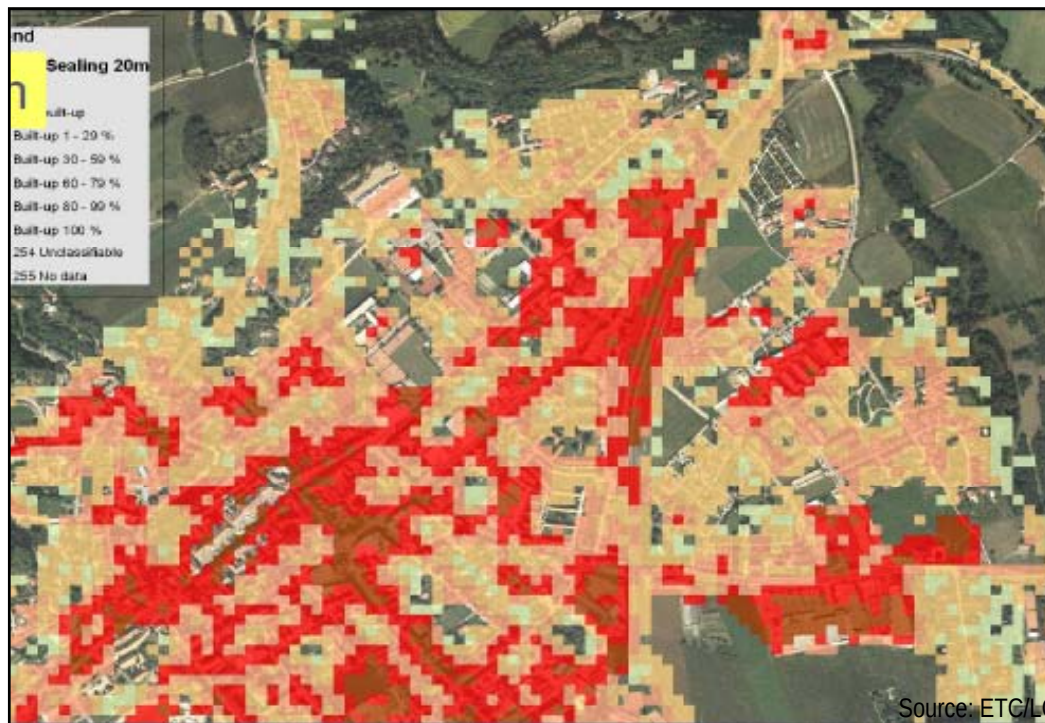
Human Impact in Europe

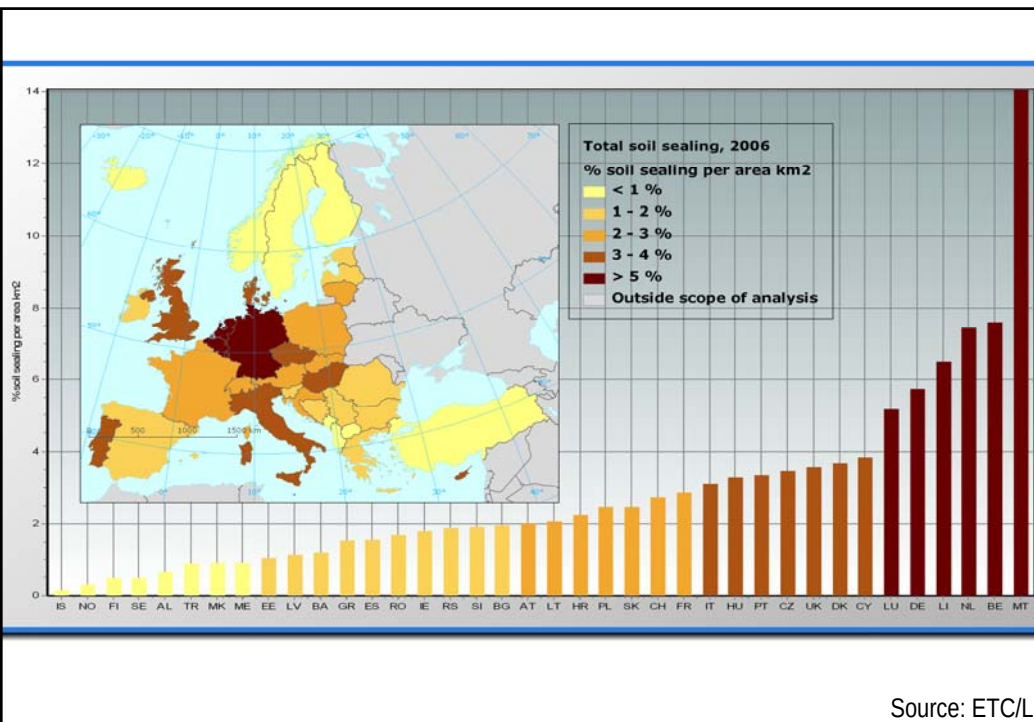
Rapid urbanization of the rural population

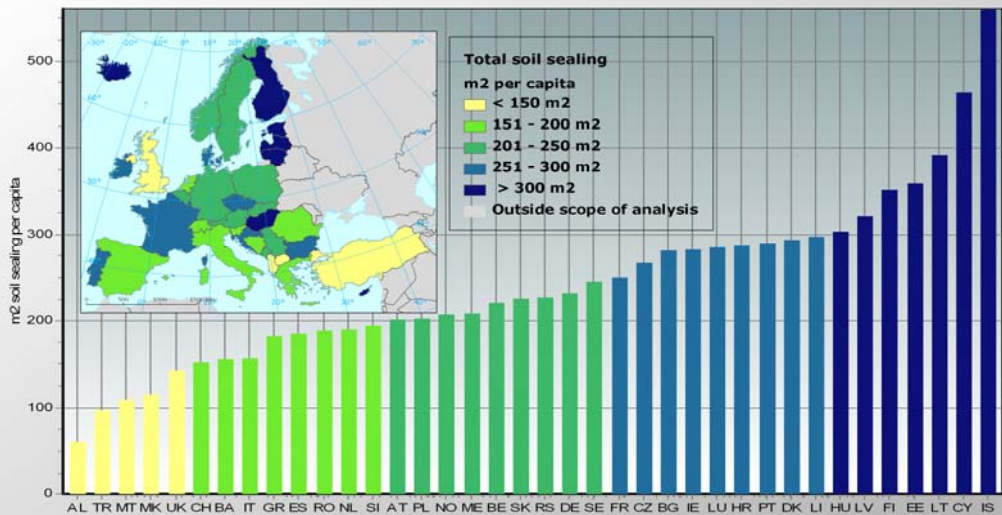




Source: ETC/L

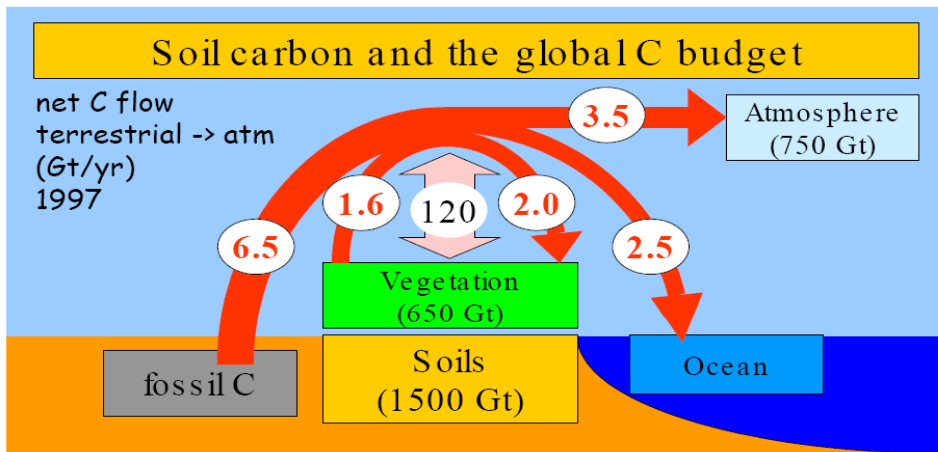




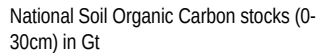
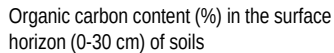


Source: ETC/LC

The role of the terrestrial carbon pool within the global carbon geochemical cycle



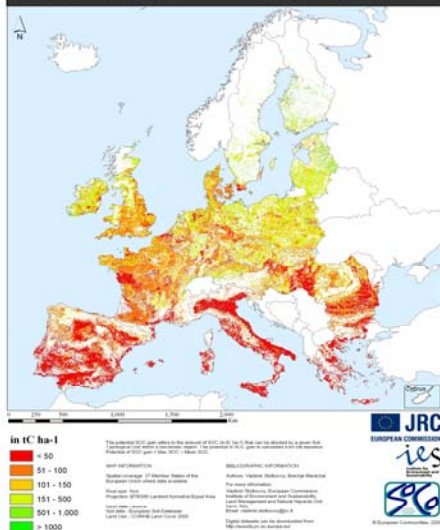
Aggregated results



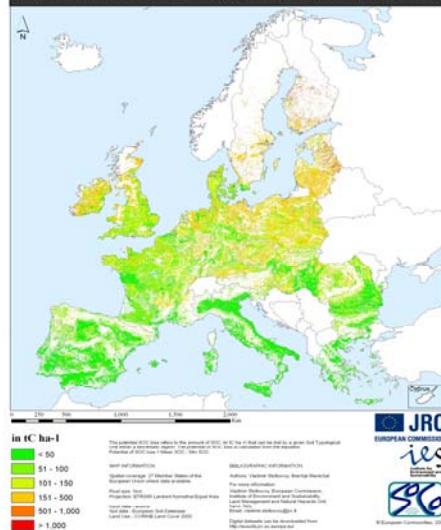
What is the soil organic carbon stock of Cataluña?

Where can we lose or gain SOC in Europe?

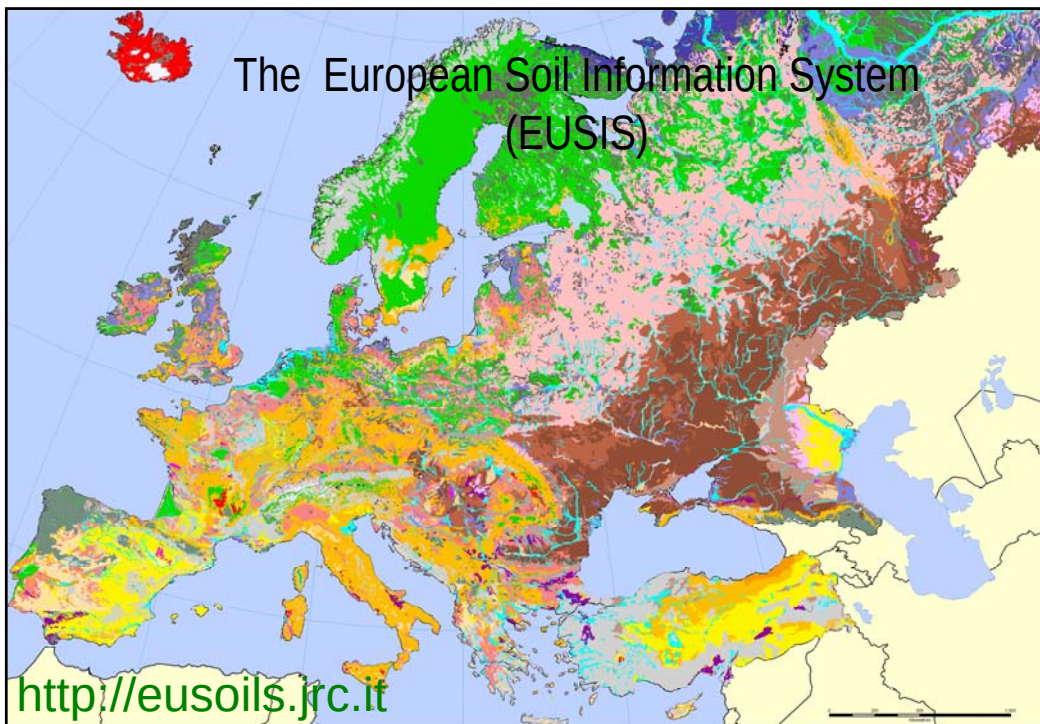
The potential of agricultural soils to gain organic carbon



The potential of agricultural soils to lose organic carbon



The European Soil Information System (EUSIS)



Soil mapping and monitoring in Europe

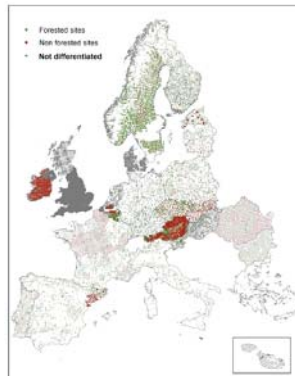
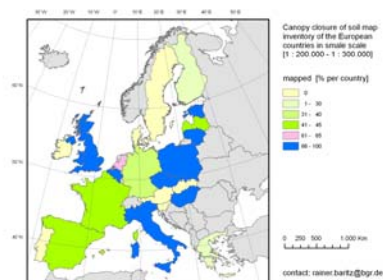
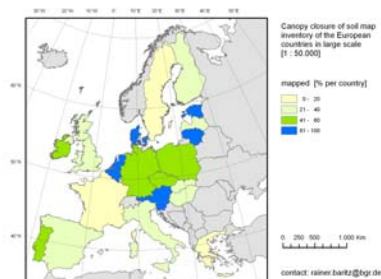


Figure 3: Distribution of soil monitoring sites in Europe

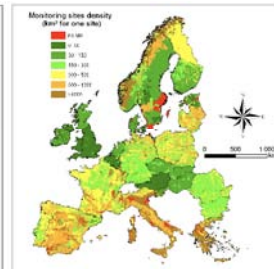
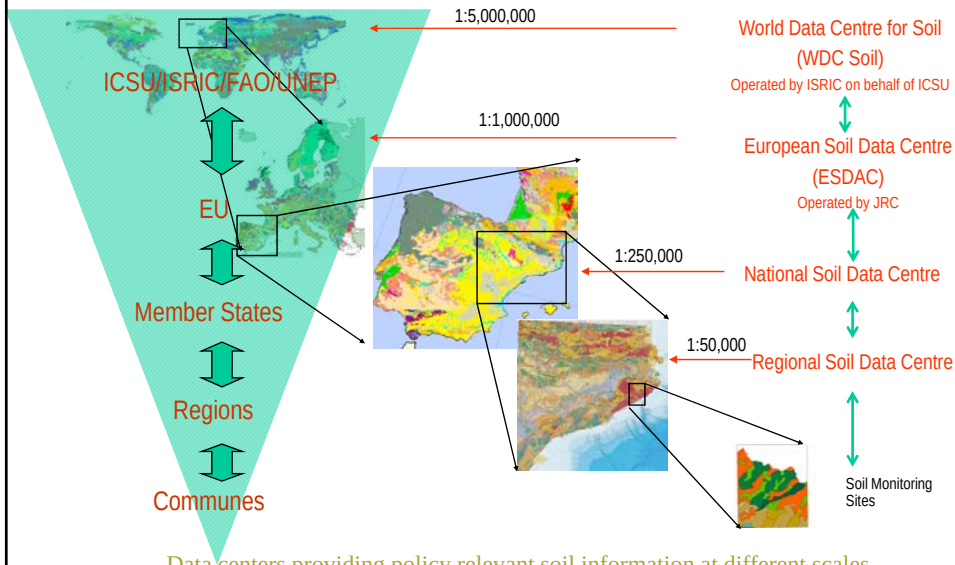


Figure4: Density of sites in soil mapping units of Europe

Figure 1 and 2 are derived from the data provided in Jones et al. (2005). Exact data about the mapping status were not presented for all countries (information gaps were filled using Bullock et al. 1999). For this reason, the results presented here do not necessarily represent the latest update.



Thank you for your attention!

“Unity in Diversity”



<http://ies.jrc.ec.europa.eu>

<http://eusoils.jrc.it>