



SPADE 2 : The Soil Profile Analytical Database for Europe



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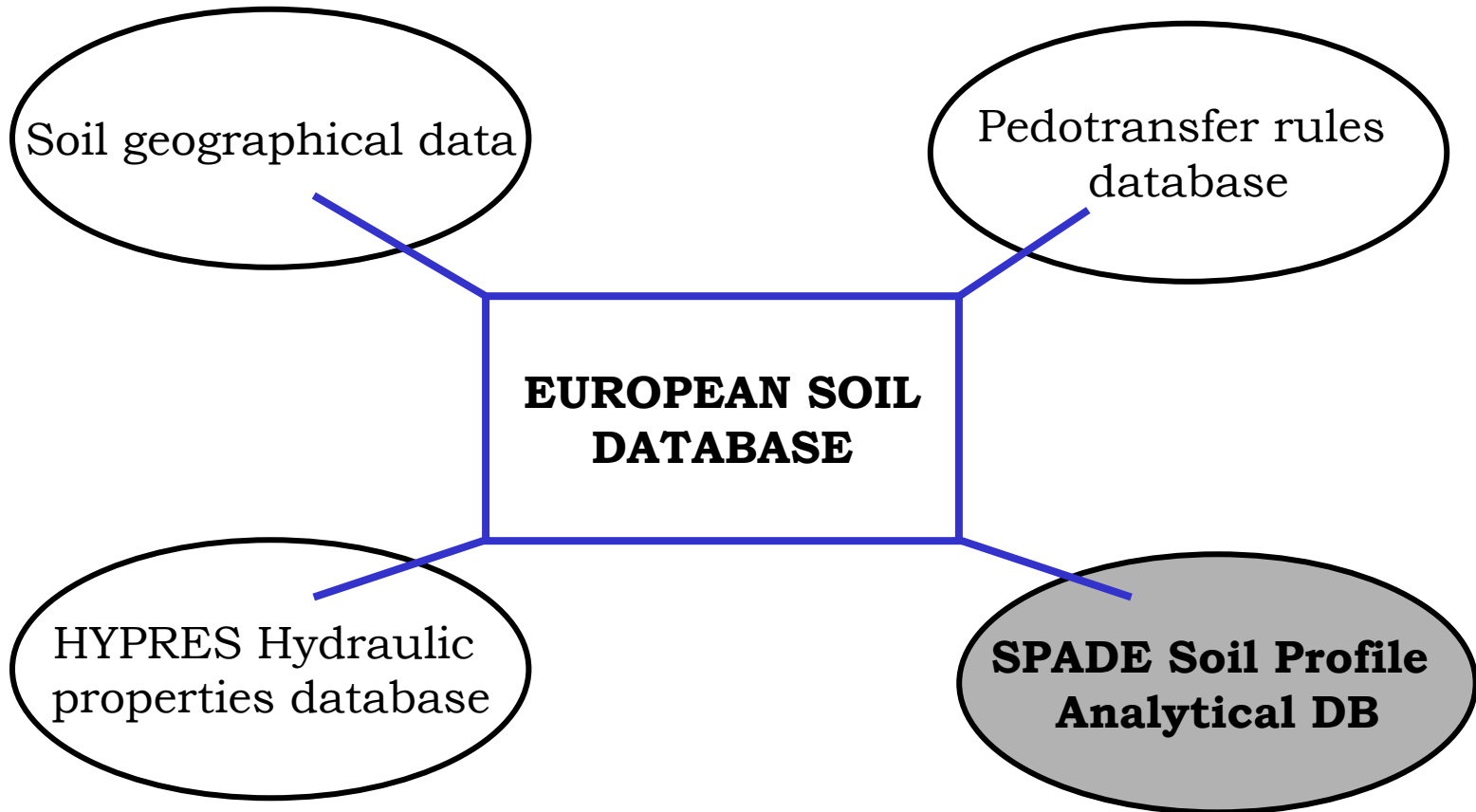
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SPADE 1 Summary

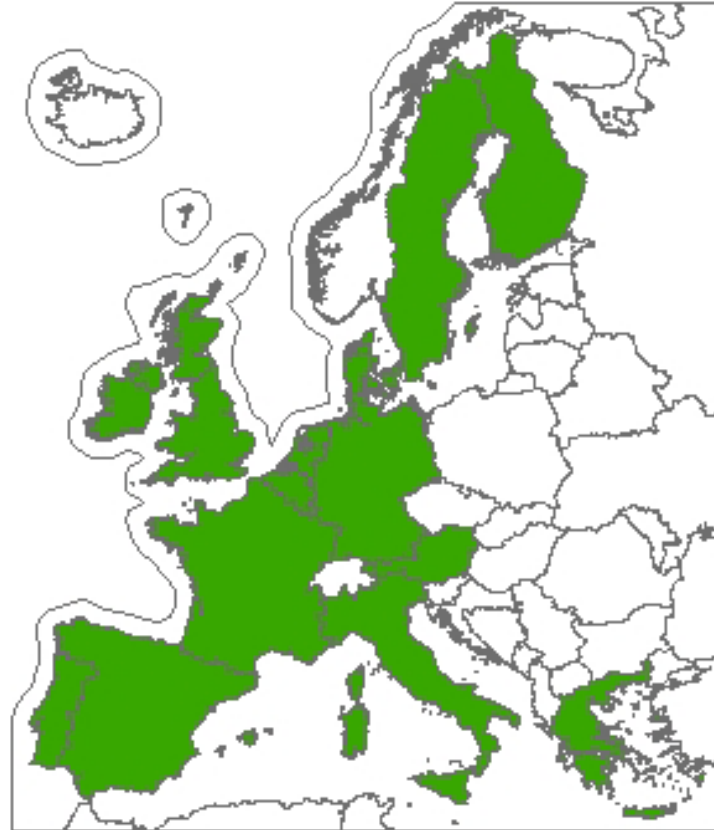
A component of the Soil Database for Europe version 1.0





SPADE -1 (EC-funded)

EU '15' data suppliers for SPADE-1





SPADE 2 (2003-)

- **Characterisation of key properties for lead STUs in MS's under arable, grassland, forest and natural vegetation**
- **Actual or representative profile data**



Data provided – How compatible?

Country	Clay mm	Silt mm	Sand 1 mm	Sand 2 mm	Sand 3 mm	Org. Carbon	pH
B & L	0.002	0.05	0.2	0.5	2	WB	H ₂ O
DK	0.002	0.05	0.2		2	WB	H ₂ O
FI	0.002	0.06	0.2	0.6	2	WB / Dr C	H ₂ O
DE	0.002	0.06	0.2	0.6	2	WB / Dr C	H ₂ O
I	0.002	0.05	0.25	0.5	2	WB	H ₂ O
NL	0.002	0.05	0.105	0.21	2	WB	KCl
P	0.002	0.05	0.2		2	WB	H ₂ O
E,W,NI	0.002	0.06	0.2		2	WB / Dr C	H ₂ O
Scot	0.002	0.05			2	CHN	H ₂ O

WB Walkley Black method
 Dr C Dry combustion (Loss on Ignition)
 CHN CHN Analyzer

+ Bd, moisture release



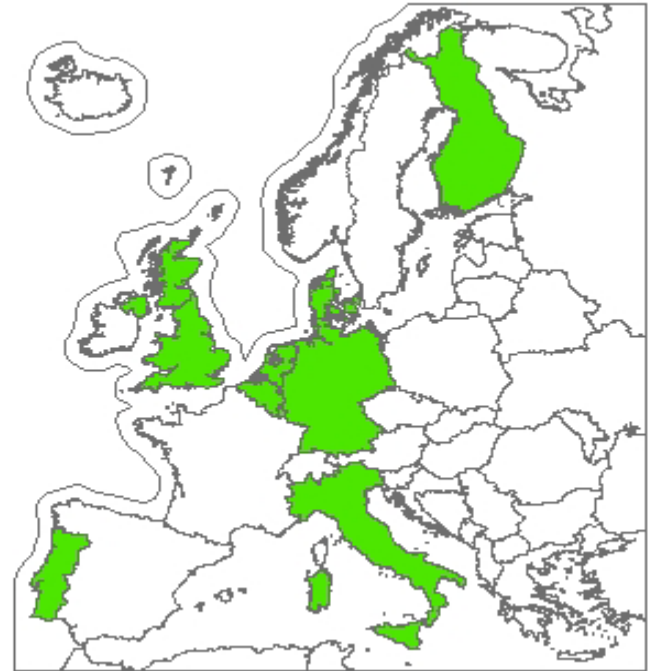
Data Validation

- **Particle size data checked for errors (Sum of all values = $100\% \pm 1\%$).**
- **An automated curve fitting routine used to harmonise the particle size data points at 0.002, 0.05, 0.1, 0.2, 0.5, 2 mm.**
- **Organic carbon content, pH and bulk density checked against soil type-land use combinations and population distributions plotted to identify ‘outliers’.**



SPADE 2 coverage

- Profile data for virtually all STUs
- 1807 soil profiles linked directly with 1077 STUs (35% STU for the 15 countries)
- Although represents significant improvement still some gaps at EU level





SPADE 2.1 – Extension (2005)

- Expand the ‘Estimated’ soil profile database to include ‘primary’ soil properties for ALL STU’s.
- **Primary Soil Properties are:**
clay%, silt%, fine sand%, medium sand%, coarse sand%, organic carbon%, pH, Bulk density.
- For a further 12 countries – Balkans, SE Europe, Central Europe and Baltic states



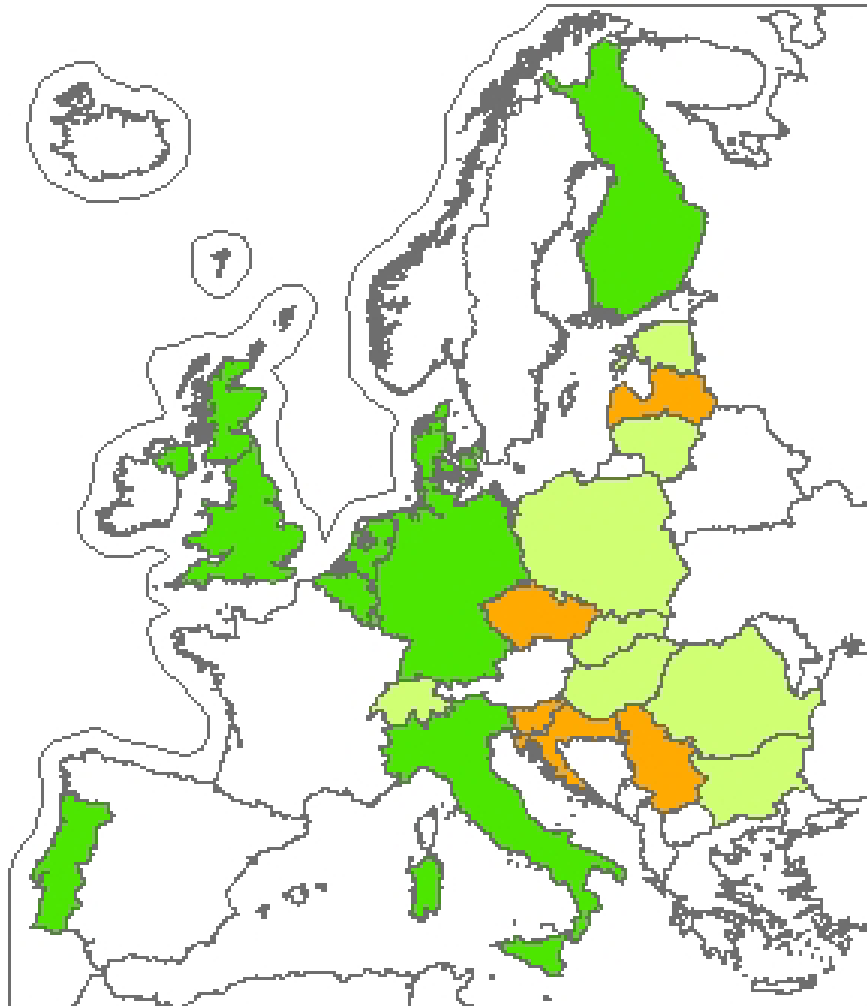
SPADE 2 extension current status

Contracts signed:

- Bulgaria
- Estonia
- Hungary
- Lithuania
- Romania
- Slovakia
- Switzerland

Awaiting response:

- Croatia
- Czech Republic
- Latvia
- Serbia
- Slovenia





SPADE 2.1-Extension Project & DB administration

- **Funded by ECPA.**
- **Sub-contracts to National data providers from all 12 participant countries (who continue to own their data)**
- **All partners (JRC, ECPA members & data providers) hold a full copy of the data set and are entitled to use but not pass on the data)**
- **Data set will not be released until it is complete**
- **Co-ordinated by National Soil Resources Institute, Cranfield University, UK**
(Project manager: John M. Hollis j.hollis@cranfield.ac.uk Support: Bob Jones r.jones@cranfield.ac.uk and Jack Hannam j.a.hannam@cranfield.ac.uk).