

**Interreg**  
**Alpine Space**



## *Links4Soils project*

Linking Alpine Soil Knowledge for Sustainable  
Ecosystem Management and Capacity Building

Dorothea Palenberg  
blue! advancing european projects  
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Caring for Soils – Where Our Roots Grow.

# *Air, water and soil*

## *- three key environmental media*

- **Our environment** is defined by properties and availability of **three key media: air, water, and soil**
- Air and water are relatively ‘simple’:
  - air and water can relatively rapidly (ex)change
  - clean-up can be much faster
- Soil? – not that simple → difficulties we constantly face due to:
  - Very slow soil genesis (young soils: n x 10k years) → soil is a non-renewable (civilisation)
  - Soil, a perfect trap for contaminants
  - Soil is a property

# *Soil is ....*

- Complex to manage
- Cross-sectoral
- Not easy to communicate

# *Soil is a complex media*

- Again, in relation to air and water – the soil features extremely wide number of parameters that can be measured
- Simple and ‘simple’ chemical, physical, biotical parameters
- The combination of soil parameters → soil properties → variable soil suitability, capacities → that need different management...
- The complexity of soils ranges in a wide extent

# *Soil is a cross-sectoral topic*

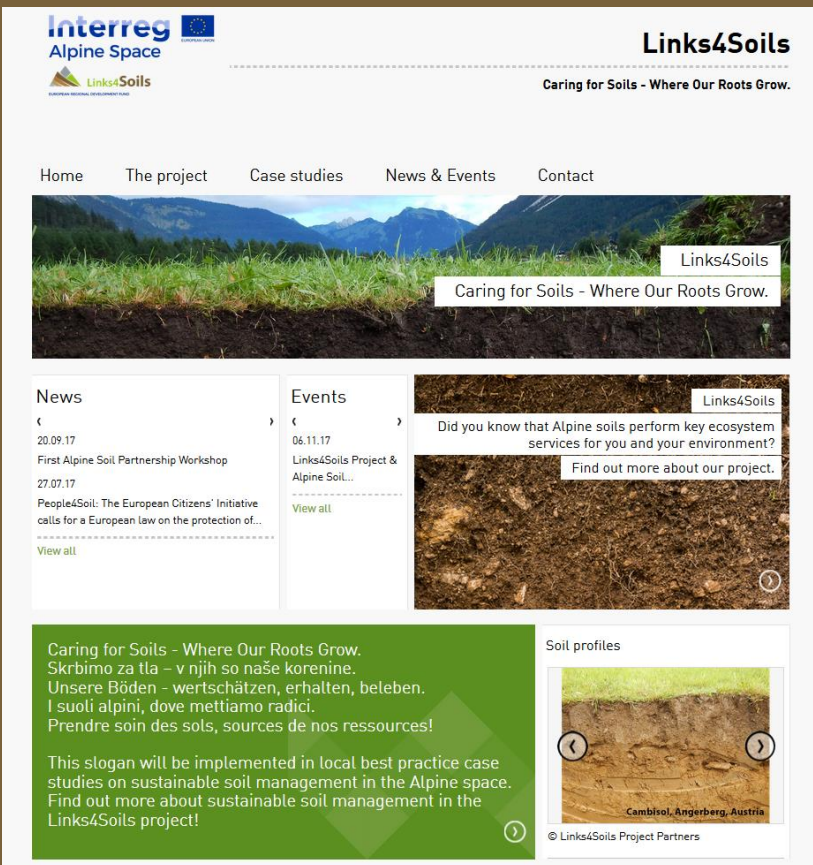
- **Agriculture** (food quantity & quality, energy crops, sustainability of agricultural production ....)
- **Forestry** (biomass/fibre/wood production forest ecosystem management...)
- **Water management** (water retention, filtration, quality, flood prevention & mitigation, ...)
- **Planning** – infrastructure development (soil bearing capacity, physics, waterlogging, ponding, mass stability...)
- **Natural disaster prevention** (land sliding, severe erosion...)
- **Nature conservation** (above ground and soil biodiversity, *gene pool* → *used in e.g. human medicine*)
- **Archaeology, paleontology** (from Vikings, Romans to Mammoths and Trilobites..)
- **Military** (e.g. land trafficability...)
  - .... + several others
- **Climate change mitigation** (CO<sub>2</sub> sink ↔ soil C budget, ...)

→ **Soil information needs**

# Resume

- There is no sustainable development, nature protection, climate mitigation, ... without a sustainable management of soils
- Alps, a specific region, where countries can benefit on cross border collaboration in soil protection and sustainable soil management
- Soil data & soil information needed: available, focused, applicable, and understandable...

→ **Alpine Convention Soil Conservation Protocol**



The screenshot shows the homepage of the Links4Soils website. At the top left is the Interreg Alpine Space logo and the Links4Soils logo. The main title 'Links4Soils' is centered at the top, with the tagline 'Caring for Soils - Where Our Roots Grow.' below it. A navigation menu includes 'Home', 'The project', 'Case studies', 'News & Events', and 'Contact'. The main content area features a large banner image of a mountain landscape with a soil profile overlay. Below the banner are sections for 'News' and 'Events'. The 'News' section lists two items: 'First Alpine Soil Partnership Workshop' (20.09.17) and 'People4Soil: The European Citizens' Initiative calls for a European law on the protection of...' (27.07.17). The 'Events' section lists 'Links4Soils Project & Alpine Soil...' (06.11.17) with a 'View all' link. A 'Soil profiles' section shows a cross-section of soil layers with the caption 'Cambisol, Angerberg, Austria' and a copyright notice '© Links4Soils Project Partners'. A green sidebar on the left contains the project slogan in multiple languages and a call to action to find out more about sustainable soil management.

**Interreg** Alpine Space

**Links4Soils**

**Links4Soils**  
Caring for Soils - Where Our Roots Grow.

Home The project Case studies News & Events Contact

Links4Soils  
Caring for Soils - Where Our Roots Grow.

**News**

20.09.17  
First Alpine Soil Partnership Workshop

27.07.17  
People4Soil: The European Citizens' Initiative calls for a European law on the protection of...

[View all](#)

**Events**

06.11.17  
Links4Soils Project & Alpine Soil...

[View all](#)

Links4Soils  
Did you know that Alpine soils perform key ecosystem services for you and your environment?  
Find out more about our project.

**Soil profiles**

Cambisol, Angerberg, Austria

© Links4Soils Project Partners

Caring for Soils - Where Our Roots Grow.  
Skrbimo za tla – v njih so naše korenine.  
Unsere Böden – wertschätzen, erhalten, beleben.  
I suoli alpini, dove mettiamo radici.  
Prendre soin des sols, sources de nos ressources!

This slogan will be implemented in local best practice case studies on sustainable soil management in the Alpine space. Find out more about sustainable soil management in the Links4Soils project!

## Caring for Soils – Where Our Roots Grow

# *The Links4Soils project*

# *The Links4Soil project*

Aims to contribute to the sustainable management and protection of soils and soil ecosystem services in Alps

Main goals:

- To review, develop and share **good soil management practices**
- To **link users and soil experts in a community** (Alpine Soil Partnership) committed to sustainable soil management
- To **support cross-border cooperation on soil protection and management** in Alps
- To **initiate comparable cross-border soil information**
- To **raise awareness on soils ...**



# Partners

## 10 Links4Soils partners

Kmetijski inštitut Slovenije

[www.kis.si](http://www.kis.si)  
([http://www.kis.si/en/Project\\_collection/Links4Soils](http://www.kis.si/en/Project_collection/Links4Soils))



Regione autonoma Valle d'Aosta

[www.regione.vda.it](http://www.regione.vda.it)  
([http://www.regione.vda.it/territorio/Progetti\\_europei\\_e\\_transfrontalieri/progetti\\_europei/progetti\\_2014\\_2020\\_i.aspx](http://www.regione.vda.it/territorio/Progetti_europei_e_transfrontalieri/progetti_europei/progetti_2014_2020_i.aspx))



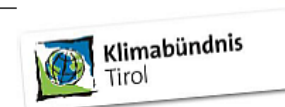
LAND-PLAN Büro für landschaftsökologische Gutachten und Planung

[www.land-plan.de](http://www.land-plan.de)  
(<http://www.land-plan.de/link4soils.html>)



Klimabündnis Tirol

[tirol.klimabuendnis.at](http://tirol.klimabuendnis.at)  
(<http://tirol.klimabuendnis.at/aktuelles/neues-boden-projekt>)



Universität Innsbruck - Institut für Geographie

[www.uibk.ac.at/geographie](https://www.uibk.ac.at/geographie)  
(<https://www.uibk.ac.at/geographie/bola/projekte/links4soils.html>)



Markt Kaufering

[www.kaufering.de](http://www.kaufering.de/?language=DE&kat=rathausleitbildzukunft)  
(<http://www.kaufering.de/?language=DE&kat=rathausleitbildzukunft>)



Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture, Grenoble

[m.irstea.fr](http://m.irstea.fr)  
(<http://m.irstea.fr/institut/nos-centres/grenoble/emgr/pier-protection-ingenierie-ecologique-restauration/prise-en>)



Amt der Tiroler Landesregierung

[www.tirol.gv.at](https://www.tirol.gv.at)  
(<https://www.tirol.gv.at/landwirtschaft-forstwirtschaft/agrar/boden-und-pflanzen/alpine-space-projekt>)



Zavod za gozdove Slovenije

[www.zgs.si](http://www.zgs.si)  
([http://www.zgs.si/slo/zavod/mednarodni\\_projekti/projekt\\_links4soils/index.html](http://www.zgs.si/slo/zavod/mednarodni_projekti/projekt_links4soils/index.html))



ZAVOD za GOZDOVE SLOVENIJE

Università degli Studi di Torino - Dipartimento di Scienze Agrarie, Forestali e Alimentari

[www.disafa.unito.it/do/progetti.pl/Show?id=7jjz](http://www.disafa.unito.it/do/progetti.pl/Show?id=7jjz)  
(<http://www.disafa.unito.it/do/progetti.pl/Show?id=7jjz>)



# *What makes us special?*

- 2 transnational outputs: Information Platform & Alpine Soil Partnership
- Good cross-sectoral case studies
- Intense cooperation between municipalities, authorities & research

# Links4Soils project activities, Wp's

- M – Project Management (*AIS, blue! advancing European projects*)
- T1 – Alpine Soil Partnership (*Office of the Tyrolean Provincial Government*)
- T2 – Strengthening Alpine Soil Management Information Sources (*Agricultural Institute of Slovenia*)
- T3 – Sustainable soil and ecosystem service management implementation in case studies (*Autonomous Region of Aosta Valley*)
- T4 – Capacity Building and Knowledge Transfer (*LAND-PLAN Bureau for Landscape Ecology*)
- C – Communication (*Climate Alliance Tyrol*)

*Two key project results:*

*1 the Alpine Soil Partnership  
&  
2 the Alpine Soil Platform*

Borut Vrščaj & Thomas Peham

Caring for Soils – Where Our Roots Grow.

Global Soil Partnership  
European Soil Partnership

1

# ***THE ALPINE SOIL PARTNERSHIP***

# Global Soil Partnership (GSP)



A global, FAO-lead initiative / programme towards better protection and sustainable management of world's soil resource.

The screenshot shows the FAO website's Global Soil Partnership section. At the top is the FAO logo and navigation links. Below is a menu for 'Global Soil Partnership' with options like Overview, Regional partnerships, and Intergovernmental Technical Panel. The main content area features a large image of a hand holding soil next to a document titled 'UNLOCKING THE POTENTIAL OF SOIL ORGANIC CARBON OUTCOME DOCUMENT'. Below this is a section titled 'The 5 pillars of action' with five icons representing different areas: Research, Information and data, and Harmonization.

Food and Agriculture Organization of the United Nations

Google Custom Search

About FAO | In Action | Countries | Themes | Media | Publications | Statistics | Partnerships

Global Soil Partnership

Overview Regional partnerships Intergovernmental Technical Panel Pillars of action World Soil Day Resources

UNLOCKING THE POTENTIAL OF SOIL ORGANIC CARBON OUTCOME DOCUMENT

ipcc itps usgip

Unleashing Soil Organic Carbon: Outcome document now available!

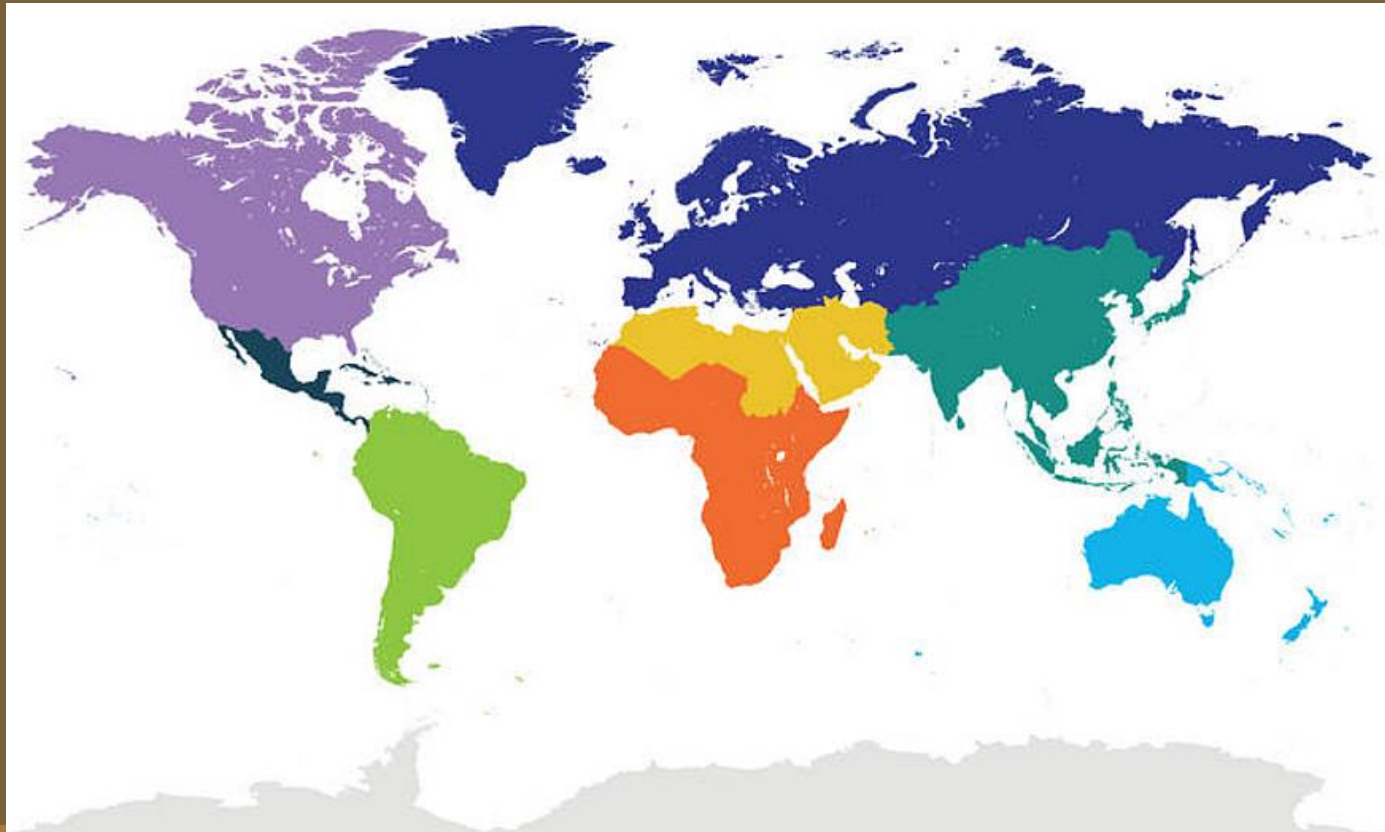
The 5 pillars of action

Research Information and data Harmonization



# Global Soil Partnership

- World regions: African, North, South, American, ... Asian, Australian and ...



# European Soil Partnership (ESP)



## A regional partnership initiative European and Eurasian

The screenshot shows the FAO website's 'Global Soil Partnership' section. The header includes the FAO logo and navigation links. The main content area features a sidebar with regional categories, a central article titled 'European Soil Partnership' with a world map highlighting Europe and Eurasia, and a right-hand column with links to 'Status of the World's Soil Resources' and 'European Implementation plan'.

**FAO Food and Agriculture Organization of the United Nations**

Google Custom Search

About FAO | In Action | Countries | Themes | Media | Publications | Statistics | Partnerships

العربية 中文 English Français Русский Español

**Global Soil Partnership**

Home Overview **Regional partnerships** Intergovernmental Technical Panel Pillars of action World Soil Day Resources

**Africa**  
Asia  
Central America  
**Europe**  
Eurasia  
South America  
Pacific  
Near East and North Africa  
North America

### European Soil Partnership

The aim of the **European Soil Partnership** is to bring together the various scattered networks and soil related activities into a common framework, open to all institutions and stakeholders willing to actively contribute to sustainable soil management in Europe.

In October 2013, taking the opportunity of the **second Global Soil Week**, the Global Soil Partnership (GSP) secretariat convened a workshop to launch the establishment of the European Soil Partnership. The **Berlin communiqué** consolidated the European Soil Partnership (ESP), whose Secretariat is hosted by the European Commission DG JRC in Ispra, Italy. The sub-regional Eurasian Soil Partnership is established within the European Soil Partnership and its Secretariat is based in Moscow, Russian Federation.

**Status of the World's Soil Resources**

Chapter 11: Regional Assessment of Soil Changes in Europe and Eurasia

**European Implementation plan**

The Regional implementation plan (RIP) defines the outcomes, actors, partners, time frame, potential resources



# Global & European Soil Partnership - Vision



The mandate of the GSP is to:

- improve governance of the limited soil resources of the planet in order to
  - assure healthy and productive soils for a food-secure world and
  - support the capacities to provide soil ecosystem services and functions
- all in accordance with the sovereign right of each State over its natural resources.
- The GSP should become an interactive and responsive partnership (FAO, 2017).

# Global / European Soil Partnership



- 5 pillars of action

## The 5 pillars of action



Soil management



Awareness raising



Research



Information and data



Harmonization

# *The Alpine Soil Partnership (ASP)*

- The Alpine Soil Partnership: a voluntary community committed to sustainable soil management and protection in Alps – a ‘bottom-up’ approach
- Alps: to a large extent specific area (mountain soils, vulnerable, increased threats, diverse mountain soil management practices; local adaptations, ‘fine-tuning’ ...)
- ASP follows the GSP/ESP activities in relation to sectoral needs (agriculture, planning, forestry, nat. disaster prevention, climate change adaptation & mitigation, ...)

# *The ASP mandate and activities*

- To cooperate on soil protection (national and intl. level) in Alps
- To practice and promote sustainable soil management and protection (in cont. 'SMP')
- To develop and exchange best SMP practices
- To give political support to widely introduce SMP practices on national and int.. level
- To support and act towards a better implementation of the [Soil Conservation Protocol](#) of the Alpine Convention
- To raise awareness on importance of soils in Alps
- ...

# *Alpine Soil Partnership Members*

- Authorities
  - Local and regional governments
  - Municipalities
  - National/regional agencies (e.g. environment protection, sectoral agencies, national data centres, etc.)
- Soil & soil-related Experts
  - National soil science societies and
  - Soil research institutions, universities
  - Individual soil experts
  - (Soil) consultancies and companies (e.g. soil remediation, planning...)
- NGOs
- Individuals
- ... other

2

‘The Platform’:

an information node / hub for Alpine soil information, knowledge exchange and cooperation

## ***THE ALPINE SOIL INFORMATION AND DECISION SUPPORT PLATFORM***

# Main functionalities of the Alpine Soil Platform

- Information on soils, soil ecosystems services, and soil functions



The screenshot shows the homepage of the Alpine Soil Platform. At the top, it features the title "The Alpine Soils Platform" and a navigation menu with options like "ABOUT SOILS", "SOIL INFO", "BEST PRACTICES", "ASK & DISCUSS", "SOIL EXPERTS", and "ASP". A large image of a mountain landscape with a soil profile is prominent. Below the navigation, there is a search bar and a section titled "The Alpine Soil Information & Decision Support Platform". This section describes the platform's purpose and lists its functionalities, including providing knowledge about soils, soil data, best management practices, workshops, training tools, and decision support tools. A sidebar on the left includes language options (AT, DE, FR, IT, SI, CH), a search bar, and a "RECENT" news section.

**The Alpine Soil Information & Decision Support Platform**

The web based Platform encourages stakeholders from cross-cutting sectors like forestry, agriculture, spatial planning to benefit from the first Alps-wide soil information system that includes an expert Soil Consultancy Service, sectoral best-case practices etc. in order to integrate them into local and regional management and planning. Alpine Soil Web-Platform disseminates:

- knowledge about soils and ecosystem services they provide
- soil data and tailored soil information
- best soil management practices
- workshops for authorities
- end-user training web-tool
- tools for decision support and capacity building
- other Links4Soils project results

# Main functionalities of the Alpine Soil Platform

- Access to national Alpine soil data and soil information systems



The screenshot displays the homepage of the Alpine Soils Platform. At the top, there is a navigation bar with links for "Soil Protection Partnerships", "Alpine organizations", and "Soil Awareness". The main header features the platform's logo and a large image of a mountain landscape with a soil profile in the foreground. Below the header is a navigation menu with dropdowns for "ABOUT SOILS", "SOIL INFO", "BEST PRACTICES", "ASK & DISCUSS", "SOIL EXPERTS", and "ASP".

On the left side, there is a section for "In national languages:" with links for AT, DE, FR, IT, SI, and CH. Below this is a search bar. Further down, it states "The Platform is a result of the" and lists the funding partners: Interreg Alpine Space and Links4Soils.

The main content area is titled "National soil web GIS" and lists several services:

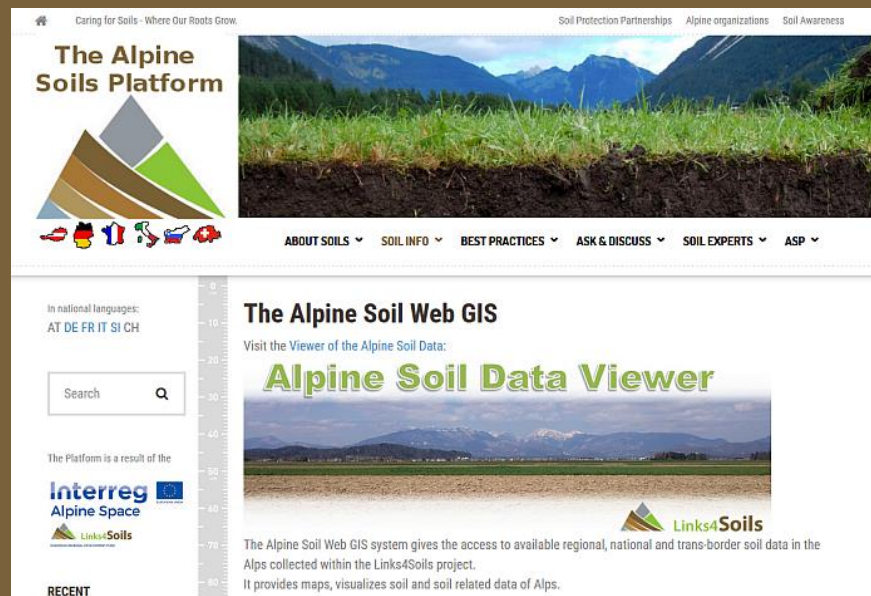
- Austrian Digital Soil Map – eBOD
- French Web GIS – GISSOIL (<https://www.gissol.fr>)
- Italian Soil Information system – SISI
- Slovenian Digital Soil Map – eTLA and eSOIL

At the bottom left, there is a "RECENT" section with a "NEW NEWS" entry dated August 7, 2017, titled "LINKS4SOILS PROJECT PARTNERS".



# Main functionalities of the Alpine Soil Platform

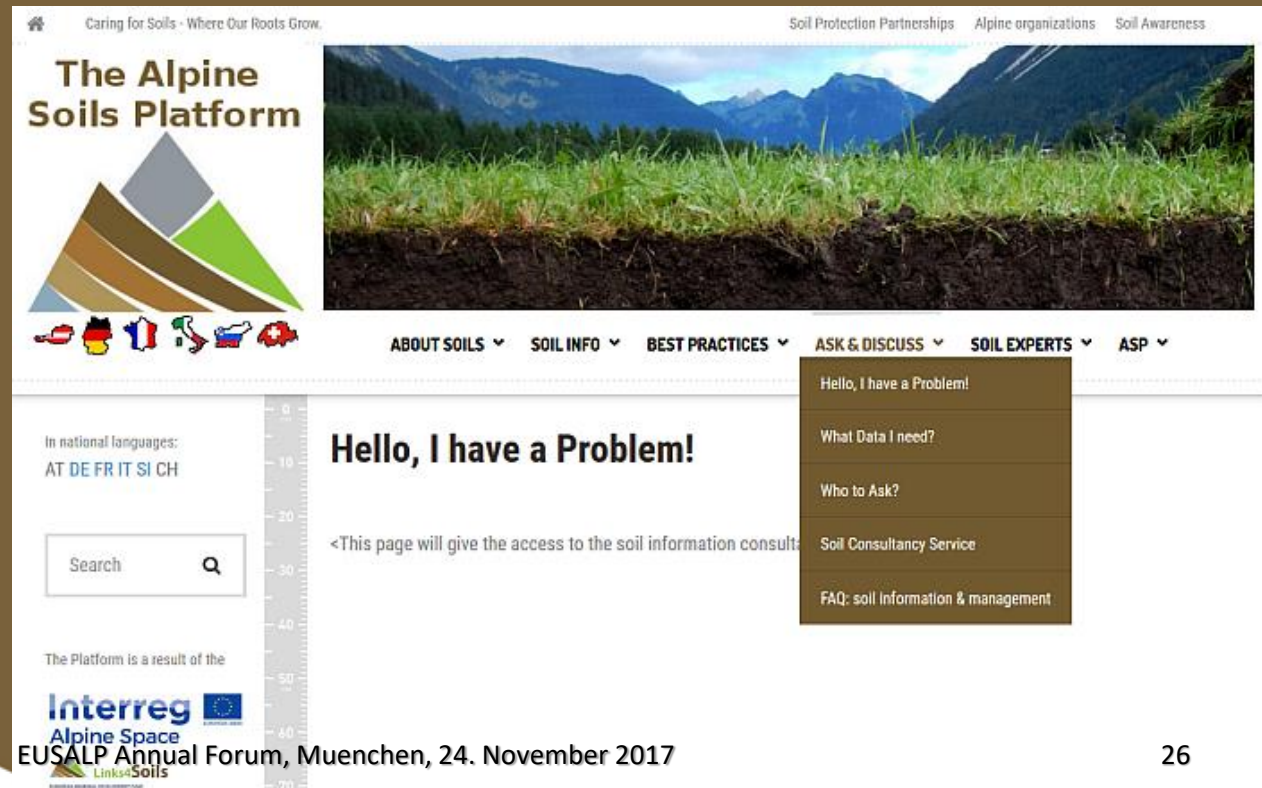
- Public Alpine soil data web GIS  
(a prototype, initial development at the time)



- → when L4S is completed – the web GIS is transferred to the [JRC European Soil Data Centre](#) to upgrade the [Alpine Soil Information System \(ALPSIS\)](#)

# Main functionalities of the Alpine Soil Platform

- **The Soil Consultancy Service** (how-to, who to ask-, where to find best practices, how to process the raw soil data.... ← moderated by soil experts)
- Frequently asked (FAQ)
- **Who to ask - experts**



The screenshot displays the homepage of the Alpine Soils Platform. At the top, it features the site's title 'The Alpine Soils Platform' and a navigation menu with options like 'ABOUT SOILS', 'SOIL INFO', 'BEST PRACTICES', 'ASK & DISCUSS', 'SOIL EXPERTS', and 'ASP'. A prominent dropdown menu is open under 'ASK & DISCUSS', listing options such as 'Hello, I have a Problem!', 'What Data I need?', 'Who to Ask?', 'Soil Consultancy Service', and 'FAQ: soil Information & management'. The page also includes a search bar, a language selection tool, and a vertical ruler on the left side.

# Main functionalities of the Alpine Soil Platform

## Best practices:

- Tools and methods
- Cross-border dissemination & exchange
- Sectoral approach,

mainly

- Planning
- Forestry
- Agriculture
- Nature protection
- Tourism
- ...?



Caring for Soils - Where Our Roots Grow.

Soil Protection Partnerships Alpine organizations Soil Awareness

## The Alpine Soils Platform

ABOUT SOILS ▾ SOIL INFO ▾ BEST PRACTICES ▾ ASK & DISCUSS ▾ SOIL EXPERTS ▾ ASP ▾

In national languages:  
AT DE FR IT SI CH

Search

The Platform is a result of the

**Interreg**  
Alpine Space

### Best soil management practices

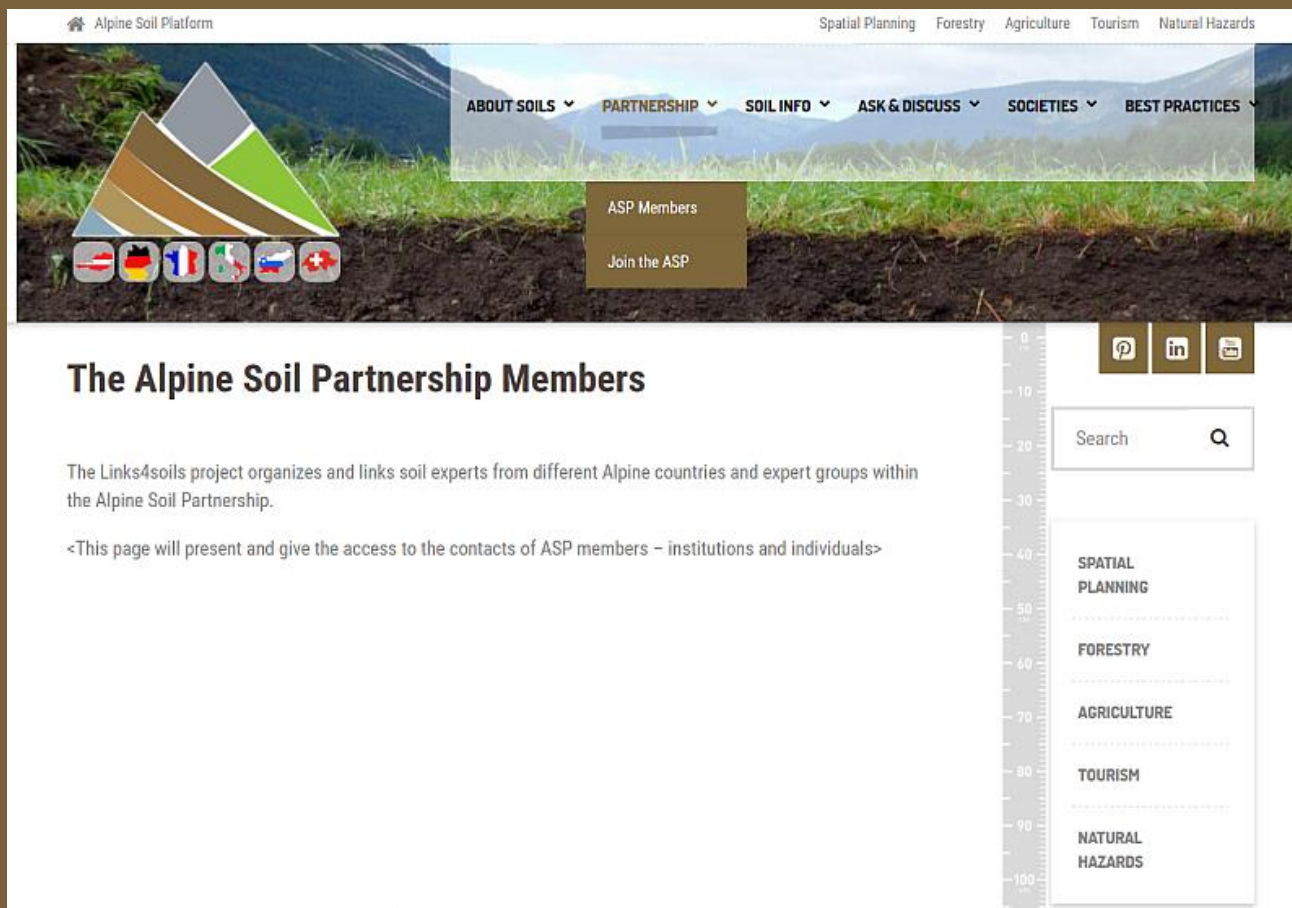
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Cu partem apparet his, sit laboramus similique signiferumque id. Ex his quem mundi, eum ei sale timeam convenire. Eu meis definiebas sea, vim regione sententiae delicatissimi et. Duo volumus platonem prodesset in. Eum libris iisque repudiare ex.

# Main functionalities of the Alpine Soil Platform

- The ASP member information node



The screenshot shows the website interface for the Alpine Soil Platform. At the top, there is a navigation bar with the following items: Spatial Planning, Forestry, Agriculture, Tourism, and Natural Hazards. Below this is a main menu with dropdown arrows for: ABOUT SOILS, PARTNERSHIP, SOIL INFO, ASK & DISCUSS, SOCIETIES, and BEST PRACTICES. A central banner features a stylized mountain logo with a soil profile and icons for Austria, Germany, France, Italy, Slovenia, and Switzerland. A 'PARTNERSHIP' dropdown menu is open, showing 'ASP Members' and 'Join the ASP'. Below the banner, the page title is 'The Alpine Soil Partnership Members'. The main text reads: 'The Links4soils project organizes and links soil experts from different Alpine countries and expert groups within the Alpine Soil Partnership.' Below this is a placeholder: '<This page will present and give the access to the contacts of ASP members – institutions and individuals>'. On the right side, there is a vertical navigation menu with a search bar and a list of categories: SPATIAL PLANNING, FORESTRY, AGRICULTURE, TOURISM, and NATURAL HAZARDS. Social media icons for Pinterest, LinkedIn, and YouTube are also visible.

# Main functionalities of the Alpine Soil Platform

- The possibility of development of national Alpine soil web pages
- Hopefully in national languages  
← source of data, information, how to... for regional/local authorities...



The screenshot shows the homepage of the Alpine Soils Platform. The header includes the tagline "Caring for Soils - Where Our Roots Grow." and navigation links for "Soil Protection Partnerships", "Alpine organizations", and "Soil Awareness". The main content area features a large image of a mountain landscape with a soil cross-section in the foreground. Below the image is a navigation menu with dropdowns for "ABOUT SOILS", "SOIL INFO", "BEST PRACTICES", "ASK & DISCUSS", "SOIL EXPERTS", and "ASP". The page is titled "Piattaforma Web Suoli Alpini" and contains a section titled "Realizzazione della Piattaforma Web Suoli Alpini per la condivisione delle informazioni sui Suoli delle Alpi con gli utilizzatori finali." This section lists several bullet points: offering tools and training to improve user competencies, disseminating knowledge and best practices, presenting data-sets and FAQs, and providing consulting services. A search bar and language selection options (AT, DE, FR, IT, SI, CH) are also visible.

- Many thanks for your attention!

Credits & thanks:



Borut.Vrscaj@kis.si