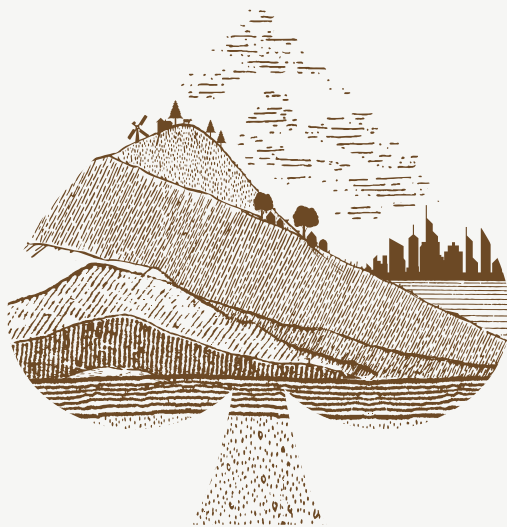
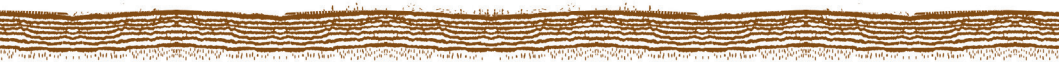




SPADES

spatial planning and design with soil

COMPREHENSIVE LONG-TERM SPATIAL STRATEGIES



DISCOVER SPADES

SPADES is a European initiative that **tackles the soil crisis by integrating soil health into spatial planning**. Soils are vital for climate resilience, biodiversity and human well-being, yet they are under threat from unsustainable development.



Running time:

01.09.2024 - 31.08.2028



Consortium:

19 Partners from 10 EU member states



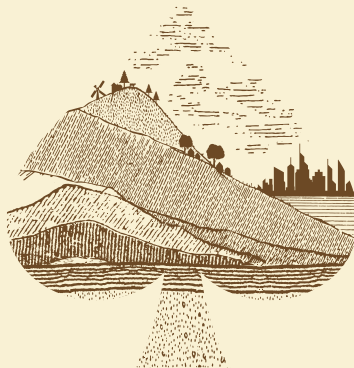
Test sites:

17 Pilots across Europe



EU-funded:

Horizon Europe - Soil Mission
(HORIZON-MISS-2023-SOIL-01-06)



By **linking soil science with planning**, SPADES supports **resilient ecosystems, sustainable urbanisation, and healthier living spaces**. Activities include toolkits like the SPADES Navigator, hands-on capacity building, and aligning with EU policies such as the European Green Deal.

Our vision: A Europe where soil and planning work hand-in-hand for a sustainable future.

PILOT FAMILIES



COMPREHENSIVE LONG-TERM SPATIAL STRATEGIES

These pilots focus on integrating soil and water systems into long-term regional planning. They address a wide range of challenges - such as climate adaptation, biodiversity restoration, and land degradation - through cooperative, future-oriented strategies. By linking long-term visions with short-term actions, the pilots aim to build a strong foundation for regional and local policies.



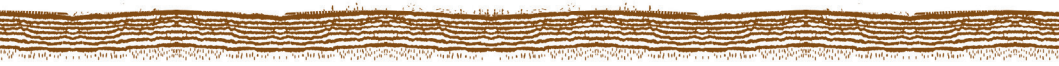
URBAN AND PERI-URBAN PILOTS

These pilots tackle soil-related challenges in densely built areas, where space is limited and soils often face sealing, contamination, or degradation. Located in five European countries, the pilots work to integrate soil health into urban development and planning processes. They promote better knowledge and use of urban soils, linking them to goals like climate resilience, ecological connectivity, and sustainable redevelopment.



RURAL AND PERI-URBAN SOIL CHALLENGES

These pilots explore how to better integrate soil concerns into rural and peri-urban planning, where limited planning power and competing land uses often collide. They address challenges like land take, erosion, and soil fertility, while emphasizing the broader role of soils in biodiversity, climate buffering, and food production. Innovation pathways include improving planning visions, reforming land-use rights, and aligning legal tools to promote soil-inclusive development.





GRENOBLE, France

Grenoble-Alpes Métropole is pioneering a “soil-smart” approach to urban planning, integrating soil intelligence into land-use decisions to balance ecological resilience with sustainable growth. As part of the SPADES project, the Métropole is revising key planning tools and building a local soil observatory to guide future development.

Contact: Yann Kohler (yann.kohler@grenoblealpesmetropole.fr)

Focus challenges in SPADES:



GROENE HART, Netherlands

The Green Heart balances water, soil, and land use to sustain a vital rural area amid the Dutch Randstad’s urban centers. Collaborating with regional authorities, the pilot supports long-term strategies that integrate natural resources into spatial planning for a resilient and sustainable future.

Contact: Mark Niesten, Deltares (mark.niستن@deltares.nl)

Focus challenges in SPADES:



Luchtfoto bij Harmelen

HAJDÚ-BIHAR COUNTY, Hungary

Hajdú-Bihar County focuses on sustainable soil and land management to build resilient landscapes, using a living lab approach to integrate science-based solutions into long-term spatial planning across its diverse agricultural and natural regions.

Contact: Balazs Kozak (balazs.kozak@burstgroup.eu)

Focus challenges in SPADES:



KLAGENFURT, Austria

Klagenfurt focuses on improving land use efficiency by promoting densification and repurposing vacant areas, protecting soils and undeveloped land while supporting sustainable urban development in collaboration with key local stakeholders.

Contact: Gundula Prokop
(gundula.prokop@umweltbundesamt.at)

Focus challenges in SPADES:



Dreamstime / Wessel Cirkel



Rechtenvrij van Michel

OOSTSTELLINGWERF, Netherlands

Ooststellingwerf focuses on integrating soil and water knowledge into spatial planning to support sustainable land use and guide the transition from dairy to arable farming near sensitive nature reserves, ensuring a resilient rural future.

Contact: Mark Niesten, Deltares (mark.niesten@deltares.nl)
Focus challenges in SPADES:



CHALLENGES



Urban Expansion/Land Take



Soil Sealing



Soil Health & Degradation



Climate Resilience



Soil Pollution



Community Involvement



Ecosystem Fragmentation



Agricultural Transition & Pressure



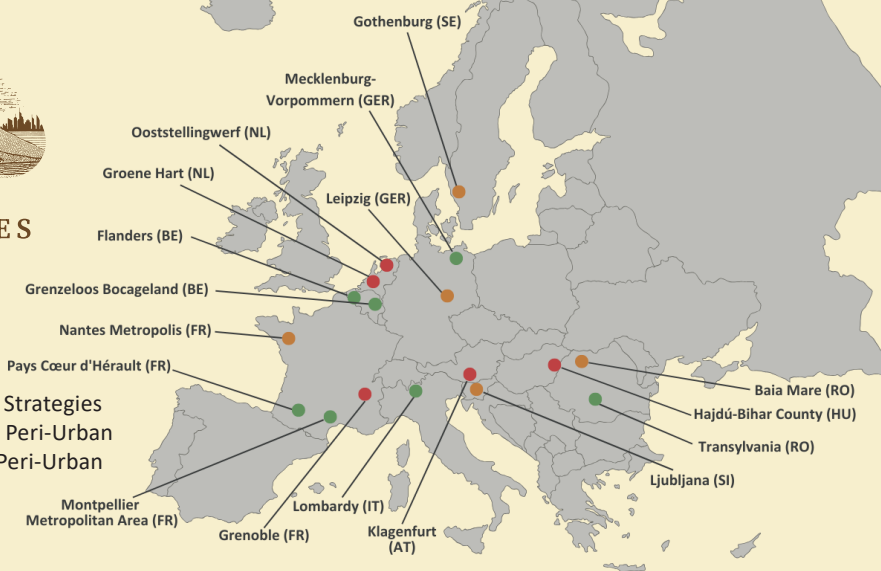
Peatland & Water-Soil Imbalance





SPADES

- Long Term Strategies
- Urban and Peri-Urban
- Rural and Peri-Urban



CONTACT
SPADES



www.spades4soils.eu
[linkedin.com/spades4soils](https://www.linkedin.com/company/spades4soils)
hello@spades4soils.eu



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