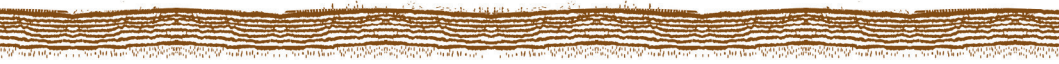


SPADES

spatial planning and design with soil

RURAL AND PERI-URBAN SOIL CHALLENGES



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



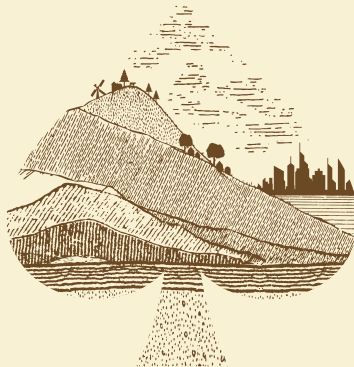
Test sites:

17 Pilots across Europe



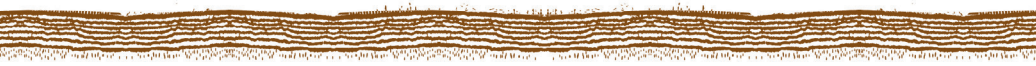
EU-funded:

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.



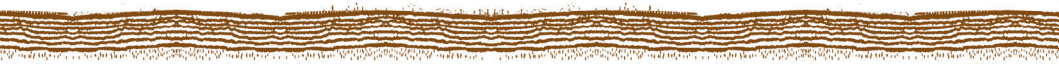
URBAN AND PERI-URBAN PILOTS

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.



FLANDERS, Belgium

Focus challenges in SPADES:



In Flanders, high land prices, urbanisation pressure, and environmental challenges make farmland access increasingly difficult. The SPADES pilot explores how public land can support sustainable farming transitions, testing new allocation models and building knowledge for a future Flemish agricultural land policy.

Contact: Hans Vandermaelen (Hans.Vandermaelen@ilvo.vlaanderen.be)

GRENZELOOS BOCAGELAND, Belgium

Focus challenges in SPADES:



The transboundary Grenzeloos Bocageland landscape faces pressure on traditional farming systems and natural grasslands. Through SPADES, the pilot explores agroecological dairy farming models and spatial planning tools to preserve the region's unique landscape and strengthen climate and economic resilience.

Contact: Glenn Willems (Glenn.Willems@ilvo.vlaanderen.be)

LOMBARDY, Italy

Focus challenges in SPADES:



The Brebemi highway corridor in Lombardy highlights the impact of infrastructure on soils, land use, and ecosystems. The SPADES pilot analyses land consumption, soil sealing, and compensation measures, aiming to align regional development with ecological protection and sustainable planning.

Contact: Georgia Alice Terno (giorgiaalice.terno@mail.polimi.it)

MECKLENBURG-VORPOMMERN, Germany

Focus challenges in SPADES:



In northern Germany, drained peatlands emit massive greenhouse gases while facing land-use conflicts. The SPADES pilot co-develops pathways for rewetting with farmers and stakeholders, combining climate action with viable farming models and ecological restoration.

Contact: Augustin Berghöfer (augustin.berghoefer@ufz.de)

MONTPELLIER METROPOLITAN AREA, France

Focus challenges in SPADES:   

Montpellier's rapid growth and climate risks call for new approaches to open space management. The SPADES pilot co-designs agroecological plans for public lands, integrating food production, biodiversity, and climate adaptation into spatial planning.

Contact: Coline Perrin (coline.perrin@inrae.fr)

PAYS CŒUR D'HÉRAULT, France

Focus challenges in SPADES:   

In the rural hinterland of Montpellier, thousands of hectares of fallow land hold potential for diversified farming and climate adaptation. The SPADES pilot maps soil quality and co-creates a strategy for sustainable land use under the national Zero Net Land Take framework.

Contact: Coline Perrin (coline.perrin@inrae.fr)

TRANSYLVANIA, Romania

Focus challenges in SPADES:  

The Țara Călatei region in Romania faces soil degradation, land abandonment, and loss of communal stewardship. Through SPADES, local actors test agroecological practices, community-based land governance, and soil restoration to revitalize rural landscapes and livelihoods.

Contact: Attila Szocs (attila@alpa.land)



CHALLENGES



Urban Expansion/Land Take



Soil Sealing



Soil Health & Degradation



Climate Resilience



Ecosystem Fragmentation



Peatland & Water-Soil Imbalance



Agricultural Transition & Pressure

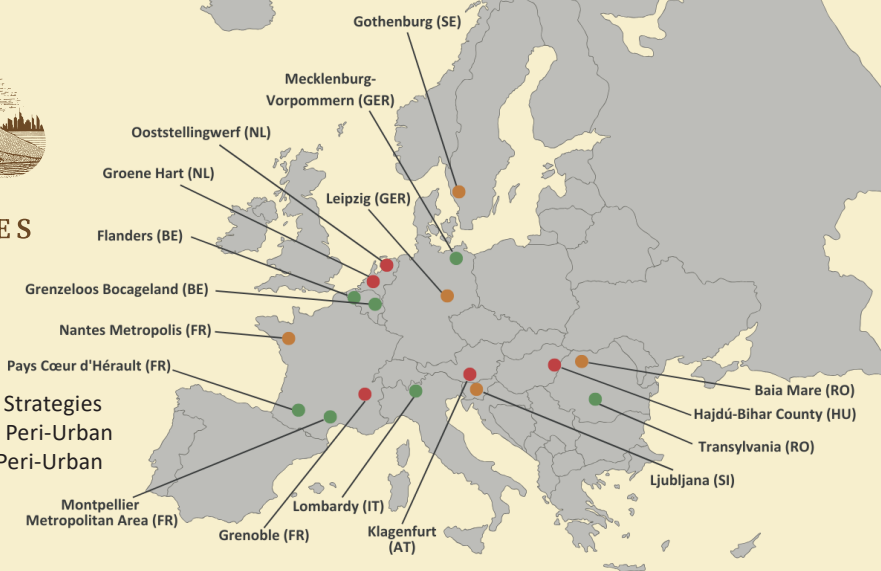


Land Abandonment & Governance



SPADES

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



CONTACT
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the European Union

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