

A conceptual framework for designing Healthy Soil Living Labs (HSL) in urban environments

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This proposal presents a conceptual framework for designing Healthy Soil Living Labs (HSL) in urban environments, addressing the critical need to integrate soil health considerations into urban governance systems for resilient cities and sustainable urban ecosystems. While the EU Soil Mission advocates for sustainable soil management through Living Labs, significant gaps remain in integrating soil health, land use, and ecosystem services into them. Too often, soil is undervalued as merely a surface for development rather than recognized as a dynamic resource vital for ecological and urban resilience.

To address these gaps, this study introduces a comprehensive framework for healthy urban soil governance, informed by the NATI00S Horizon Europe project and developed for testing as a scientific framework within the ongoing URSOILL Horizon project. The framework comprises two key components: (1) ten considerations for cultivating soil-conscious mindsets among stakeholders—including policymakers, urban planners, and community members—and (2) ten design parameters that provide practical guidelines for establishing and operating future Urban Living Labs focused on soil health.

This framework aims to provide reflective and actionable tools to co-create urban ecosystems that prioritize and collaborate around healthy urban soils as essential infrastructure for sustainable urban development.