Policy Recommendations for Integrating Living Labs in Framework Programme 10 (F10)

The European Union is increasingly recognizing the value of Living Labs in its innovation strategies. In **Horizon Europe**[1], the EU's flagship research and innovation program, Living Labs are specifically mentioned as a key approach for developing and testing new technologies and solutions.

The European Commission has launched five ambitious **European Missions** to address critical global challenges, including A Soil Deal for Europe, Climate-Neutral and Smart Cities, Adaptation to Climate Change, Beating Cancer, and Healthy Oceans, Seas, Coastal and Inland Waters. Living labs, a collaborative approach that seamlessly integrates researchers, citizens, and stakeholders, have emerged as a pivotal tool for achieving the EU Missions. Living Labs are mentioned in each of the missions, but especially the **Mission 'A Soil Deal for Europe'** has the main goal of to establish 100 living labs and lighthouses to lead the transition towards healthy soils by 2030[2].

The **New European Innovation Agenda** mentions how living labs for green digital solutions and smart zero pollution under the Zero Pollution Action Plan will support engagement with regional and local authorities alongside stakeholders to develop local actions for green and digital transition, and identifies Living Labs, along with sand-boxes and test bed living labs as a way to facilitate the deployment of disruptive technologies through future calls and support policymakers and innovators in their approach to experimentation in the EU[3]. Moreover, states that the Commission will also support the creation of living labs and incubators for example, to connect innovators and public administrators to provide innovative solutions in areas of public need.

Based on the request in the Communication from The Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions '**Pathway to a Healthy Planet for All'**, especially in the statement in the **Flagship 7,** ENoLL together with the EC developed recommendations[4] on using Living Lab for a climate and environment-friendly use of digital solutions to accelerate zero pollution efforts, with a particular focus on citizen engagement, that have been adopted by the Stakeholder Platform Zero Pollution.

Living Labs Definition

Living Labs are open innovation ecosystems in real-life environments based on a systematic user co-creation approach that integrates research and innovation activities in communities and/or multi-stakeholder environments, placing citizens and other end-users at the centre of the innovation process.

[1] Living Labs have been explicitly and consistently mentioned in different Work Programmes since the beginning of Horizon Europe. In the WP 23/24only, Living Las have been cited in more than 20 topics across 5 Work Programmes.

[2] https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/soil-deal-europe_en

[3] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0332

[4] https://doi.org/10.5281/zenodo.14050384

As intermediaries, Living Labs connect citizens, research organizations, businesses, and government to co-create joint value, develop prototypes, and scale innovations. This collaborative framework engages all actors of the quadruple helix by implementing the 4P Public – Private – People – Partnerships approach.

By focusing on users—such as citizens, farmers, healthcare providers, other non-citizen users, companies, and different key stakeholders—Living Labs ensure direct engagement, making research and development responsive to diverse societal and sectoral needs.

Bridging the gap between research and market adoption

Living Labs (LLs) are dynamic ecosystems that bridge the gap between research and market adoption. By engaging end-users, researchers, industries, and communities in real-world settings, LLs de-risk innovation by aligning solutions with real-world requirements, accelerating their adoption and long-term viability. These environments extend innovation beyond traditional laboratory confines into public spaces, homes, workplaces, agricultural fields, and other community contexts. Their iterative experimentation enables the validation of products, services, policies, and regulatory frameworks, offering a platform for evidence-based policy-making and regulatory learning.

Through collaborative problem-solving, rapid prototyping, and innovation cycles grounded in the quadruple helix model, Living Labs tackle complex societal challenges and bolster Europe's competitiveness in the global market.

Living Labs as Research Infrastructures and Technology Research Infrastructures

LLs are integral components of Europe's evolving Research & Innovation infrastructure ecosystem, operating across all Technology Readiness Levels (TRLs) and supporting innovation at every stage, from early research to large-scale implementation. With their flexible approach, LLs also align with the characteristics of Research Infrastructures (RIs) for early-stage experimentation and Technology Infrastructures (TIs) for advanced development and regulatory learning.

Trust as foundation of long-term cooperation and tangible results

Living Labs function as "trust brokers" within the innovation ecosystem, fostering an environment of transparency, mutual accountability, and sustained stakeholder involvement. Through consistent, open communication, they build and reinforce trust across the spectrum of participants, including specific groups such as citizens, farmers, community organizations, and other end-users. This foundation of trust enables long-term cooperation, grounded in real-life operational settings.

Living Labs address today's challenge and tomorrow's sustainable and competitive future

Living Labs deliver solutions for today's urgent challenges through speed, agility, and de-risking, while building strategic foundations for tomorrow's sustainable and competitive future. They bridge immediate action and long-term vision, driving progress in the green and digital transitions and ensuring resilience in an ever-changing world.

Living labs are a global movement that foster the international cooperation in research, innovation and digitalization.

Europe is currently leading the Living Lab movement. This general-purpose social technology is reinforcing Nord to South, and East to West open cooperation between innovation ecosystems. The world is becoming an open Living Lab, and Living Lab practices and Living Labs diplomacy can support an open, bottom-up dialogue among Organisations and Countries.

POLICY RECOMMENDATIONS:

ENoLL Policy Recommendation align with the independent expert report "Align, act, accelerate: Research, technology and innovation to boost European competitiveness Publication metadata[5]" that provides strategic recommendations on maximising the impact of EU Research and Innovation programmes in the future, and with the "The future of European competitiveness"[6] or better known as Draghi report.

1. Prioritize Living Labs as Essential Actors in Co-Creation and User-Centric Innovation (ACCELERATE)

To strengthen Europe's innovation ecosystem, FP10 should prioritize Living Labs as integral partners in EU-funded projects. As collaborative environments that bring together citizens, industries, academia, and public bodies, Living Labs are uniquely positioned to drive user-centred, real-world testing of innovative solutions. Recognizing Living Labs as key project participants in FP10 will foster inclusive, agile, and efficient pathways to addressing societal challenges.

2. Integrate Living Labs in the EU's Green and Digital Transition Goals (ALIGN)

As Europe advances its Green Deal and Digital Transition, Living Labs should be positioned as key intermediaries to test, localize, and scale these innovations at the community level. Living Labs' real-world testing environments make them invaluable for translating EU goals into tangible, sustainable outcomes that meet local needs. Embedding Living Labs into Green and Digital Transition initiatives within F10 will drive localized impact, from renewable energy solutions to smart city infrastructure.

3. Promote Living Labs as Facilitators of Regional Innovation and Social Inclusion (ALIGN, ACCELERATE)

Living Labs act as key enablers of regional innovation, especially in underserved communities. By mobilizing local stakeholders and engaging diverse social groups, Living Labs foster inclusive co-creation processes and address disparities in access to innovation. FP10 should support Living Labs in economically disadvantaged and rural regions, ensuring equitable distribution of resources and fostering social inclusion through community-focused innovation.

[5] https://op.europa.eu/en/publication-detail/-/publication/2f9fc221-86bb-11ef-a67d-01aa75ed71a1/language-en

[6] https://commission.europa.eu/document/download/97e481fd-2dc3-412d-be4c-f152a8232961_en

4. Enhance Europe's innovation ecosystem by supporting Living Labs as Research and Technology Infrastructure (ACT, ACCELERATE)

To enhance Europe's innovation ecosystem, FP10 should recognize and support the dual function of Living Labs within the broader framework of Research Infrastructures (RIs) and Technology Infrastructures (TIs). Living Labs provide the services to support the whole innovation process, focusing on both early-stage experimentation and fundamental research (RIs) as well as to scaling and deploying innovations in real-world contexts (TIs). Expanding innovation vouchers to include access to Living Labs will enable SMEs and startups to leverage these unique capabilities across varying Technology Readiness Levels (TRLs). Additionally, supporting ENoLL's harmonization initiatives[7] will ensure consistent methodologies, making Living Labs more effective in bridging the gap between research outcomes and market-ready solutions.

5. Leverage Living Labs to Bridge Europe's Innovation Gap and Boost Competitiveness (ACT, ACCELERATE)

To address the innovation gap highlighted in the Draghi Report, FP10 could leverage the role of Living Labs as open innovation ecosystems that actively involve public, private, academic, and civil society actors. Living Labs contribute to closing this gap by providing collaborative environments for co-creating, testing, validating and scaling innovations in real-world settings, effectively bridging the divide between early-stage research and market deployment. By de-risking innovation and ensuring that solutions meet societal and market needs, Living Labs enhance Europe's ability to translate research into competitive advantages, supporting the EU's strategic goal of closing the innovation gap and strengthening global competitiveness.

4. Enhance Impact Measurement Tools for Living Labs within EU Projects (ACT)

FP10 should invest in developing robust impact measurement frameworks tailored to the unique contributions of Living Labs. Harmonized impact metrics, like the ones developed by ENoLL Harmonisation working group, would allow Living Labs to demonstrate the value they bring to EU-funded projects and support evidence-based policy-making at the EU level. A comprehensive toolkit for impact assessment, evolution of the actual value capturing tool developed by ENoLL, would also enhance transparency, helping Living Labs convey their value in addressing societal challenges.

5. Establish a Voucher Scheme to Leverage Living Labs for Experimentation and Innovation (ACCELERATE)

FP10 should include a voucher-based funding mechanism to enable startups, universities, and cities to utilize Living Labs for experimentation and innovation. This scheme, inspired by the European Innovation Council model, would support the operational capacity of Living Labs by providing resources for training, infrastructure, and digital tools. By offering vouchers, stakeholders can access Living Labs to test, prototype, and scale solutions while fostering collaboration across sectors. This approach would enhance the reach and effectiveness of

[7] Harmonisation aims to reconcile differences and promote coherence between multiple practices while allowing more flexibility compared to standardisation, which focuses on establishing a single set of specifications. Harmonized Living Lab services and processes across the ENoLL Network enable increased efficiency, productivity, improved quality, foster collaboration, scalability, and better risk management.
The Harmonisation Working Group has been established to define a Harmonization Framework with suggested processes, guidelines and recommendations on how Living Labs can perform their activities in a harmonized way that is widely accepted by the Living Lab community across the world. https://enoll.org/working-group/harmonization/

Living Labs, also under-resourced regions, allowing them to contribute more substantially to FP10 projects and drive EU-wide innovation.

6. Establish a Dedicated Funding Stream for Living Lab-Initiated Projects

FP10 should create a dedicated funding stream accessible directly to Living Labs, allowing them to initiate projects that reflect community-driven priorities. Currently, Living Labs often play a supporting role in larger projects, limiting their ability to lead on locally relevant innovations. A targeted funding stream will empower Living Labs to elevate local needs to the European stage, creating bottom-up solutions that leverage regional strengths and knowledge.

7. Foster Regulatory Innovation Through Living Labs (ALIGN)

Living Labs offer a unique platform for regulatory learning by providing real-world testing grounds for innovative solutions. By involving multiple stakeholders, including regulators, industry, and citizens, Living Labs can facilitate the co-creation of regulatory frameworks that are agile, adaptable, and aligned with societal needs. Through iterative experimentation and data-driven insights, Living Labs can identify and uncover regulatory barriers and opportunities, inform policy decisions, and accelerate the adoption of innovative technologies. Therefore, policymakers should actively support the development and scaling of Living Labs, together with the adoption of sandboxes, to foster a regulatory environment that is conducive to innovation and societal well-being.