



EUROPEAN POLICY BRIEF



TRANSITION LABS FOR REGIONAL ENERGY TRANSITION

The policy brief presents first evidence for transformative R&I policy making for energy transition collected by the RIPEET project. It showcases some key policy barriers for an inclusive and responsible energy transition and points out some avenues for overcoming them via the RIPEET tested experimentation methodology of Transition Labs.

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INTRODUCTION

The Responsible Research and Innovation (RRI) approach aims to encourage societal actors to work together during the whole research and innovation (R&I) process to better align R&I and its outcomes with the values, needs and expectations of society. Experience shows that strategies and practices based on RRI can open up R&I to all relevant actors, and improve co-operation between science and society, fostering the recruitment of new talent, and pairing scientific excellence with social awareness and responsibility.

Territories have a specific advantage to address the complexity of the challenges set by the interplay between science and society. Indeed local actors have an intimate knowledge of the physical territorial setting, and local ecology, i.e. the status quo of the complex relationships between cultural, social, economic and political actors, of the local dynamics, history, expectations and requirements as well as specific concerns. Territories can work towards the establishment of self-sustaining R&I ecosystems that are characterised by a high degree of openness, democratic accountability, and responsiveness to need by taking action to promote all parts of RRI (i.e. gender equality, science education, open access/open data, public engagement, and ethics).

This requires them to bring relevant R&I actors together, for instance citizens and civil society organisations (CSOs), universities, research institutions, formal and informal education institutions (including primary and secondary schools), governments and public authorities (including regional and local administrations and science policy institutions), businesses (including industry, the service sector and social entrepreneurs) and science mediators. New R&I working methods within and between organisations, including novel and transparent governance relations, would promote greater sustainability and inclusiveness at local, national, EU and global levels.

Consortia are expected to elaborate and implement a more open, transparent and democratic R&I system in their defined territories. Consortia are expected to evaluate their activities and provide evidence of societal, democratic, environmental, economic and scientific impacts. Involvement in the project should have a

measurable transformative and opening effect on organisations involved; this should be sustainable (i.e. last beyond the lifetime of funding), for instance through the introduction of new forms of decision making, development of business plans or co-operation agreements, and institutional changes in participating organisations.

EVIDENCE AND ANALYSIS

The RIPEET project is experimenting with inclusive and transformative approaches towards regional energy transitions that are based in societal needs in the three EU regions of Extremadura (ES), Outer Hebrides Highlands and Islands of Scotland (UK) and Ostrobothnia (FI). To do this the project implements Transition Labs in

these regions that lead to the elaboration of a) common regional energy transition visions; b) energy transition pathways with clear change targets; c) a needs based call for energy innovation solutions and d) the co-creation of energy innovation solutions answering these needs. The project aims to initiate niche (policy) experimentation via the establishment of these Labs, putting regions on their envisioned sustainable energy trajectories.

Fulfilling societal demands is put at the core of this process by interweaving RRI principles in the project itself as well as its policy recommendations. In order to elaborate key policy barriers that hinder the regions on their envisioned trajectories and in achieving societal goals the project organised a dedicated face-to-face workshop including all partners from the pilot regions. The workshop was intended to discuss the findings and learnings from the first year of project implementation, reflecting specifically on the policy embedding of the implemented Transition Labs and the different tasks associated with it (Mapping, Vision building, Transition pathway building). In the following, we want to focus on the evidence and lessons learned during these phases of the Transition Lab.

All RIPEET regions have plans and measures in place that try to facilitate a sustainable transition in the energy sector. In many cases the policies mainly focus on large organisations and projects to implement these plans. However, at the same time there is much potential to support the smaller scale as well, which is often also more socially inclusive and engages the larger public in the energy transition. This shortcoming in regional innovation policy can be dissected into two interlinked policy challenges that:

- I. Main focus on large projects and organisations by policy makers
- II. Lack of legislative support for small and local actors in the regional energy system

The policy barriers that became tangible during the first phase of the project are each highlighted along the lines of the two identified policy challenges. While not every specific challenge is equally relevant in all of the regions, the validation workshop showed that aspects or variations of these main trends are in effect to some extent in all of the regions. Therefore, below we present the challenges and the associated barriers in order to build a basis for evidence-based policy recommendations for creating more inclusive and open energy transition frameworks.

i. Main focus on large projects/organisations

Only big demonstration funding available or accessible: Small scale renewable energy projects are often not adequately funded as the focus remains on large demonstration projects and centralised solutions. Where funding support for small scale projects is available (e.g. Scottish Community and Renewable Energy Scheme) complementary measures are faded out, threatening the business models of small scale, community energy projects.

Centralised land use planning benefits the big international actors: In many regions there is a long standing tradition of centralised energy production that still influences energy policy making. This results in land use policies that focus on large centralised energy production and profits. As a consequence, there is not much room for smaller and community based land use initiatives.

ii. Lack of legislative support for small local actors in regional energy system

Legislation does not recognise energy communities: As a consequence of the centralised energy production tradition in the regions, there is a lack of policies in place to support local small scale energy communities. This inhibits the development of an open, democratic and inclusive energy transition process that is built from the bottom-up.

There are prohibitive costs to establish local energy supply companies: In line with the previous point the regions find that there are still a lot of prohibitive costs related to establishing local energy supply. Currently it is too expensive to put local energy supply in place or it is non-economical to run it. Also, the policy and legal framework is not yet flexible for these initiatives, like for instance providing opportunity for hybrid solutions (partly local supply, partly centralised supply).

Higher energy efficiency standards are set without adequate training for delivery or support for the local supply chain: In some regions energy efficiency standards are implemented to improve efficiency of the regional system. However, these efficiency requirements make it problematic for local delivery organisations to participate in implementing e.g. fuel poverty solutions, as these regionally based providers cannot easily access the necessary training to deliver these solutions. This problem calls for a more differentiated approach that recognises local differences.

POLICY IMPLICATIONS AND RECOMMENDATIONS

Based on the experiences made in the vision- and transition pathway building of the RIPEET Transition Lab, the following aspects should be taken into account when trying to design and implement inclusive and open regional energy transition processes:

Build-up and connect the regional ecosystem. An inclusive energy transition encompassing models of decentralised energy production and consumption needs to be based in strong regional ecosystem that engages and interacts. Creating these practices via e.g. the establishment of Transition Labs, helps to base the transformation in regional needs and motivates stakeholders to engage, going beyond the "usual suspects" of energy transition.

Generate regional capacities. Moving towards small scale energy transition process means also generating institutional capacities for their support. This could be done by creating clear access and info points for self-organisation in energy production and consumption e.g. by regionally anchored information offices.

Invest in community education. This could for example mean more community education as regards organisations of energy communities or concrete technological solutions for satisfying decentral energy demand. Building up skills in society will also help to create demand for legislator change enabling small scale actors to take up role in energy transition.

Ensure a place-based process. Each region has a different development path, actor and network constellation, cultural, normative and regulatory institutions, and so the governance and process models applied should be tailored to the specific conditions in a region.

Combine funding instruments. The focus on big demonstrators in national policies opens up a niche for different funding instruments supporting small scale energy solutions. Alternative solutions could include provisions by angel investors and grants from the EU and regional level, as well as the local government.

The Transition Lab provides an inclusive approach that can support regions in pursuing these different aspects in their specific context.

SUSTAINABILITY AND LEGACY

Highlighting the evidence introduced above and contributing to some of the recommendations made the RIPEET project developed different outputs that are relevant for setting up place based energy transition processes. More specifically, the following key output documents can be useful to design and implement inclusive and open regional energy transition processes:

RIPEET Handbook: https://ripeet.eu/sites/default/files/2022-08/D3.2_RIPEET_Handbook.pdf

RIPEET Toolbox: <https://ripeet.eu/toolbox>

As the project develops, other reports will be elaborated that specifically take up the policy relevant aspects of the findings during the different implemented tasks.

PROJECT OBJECTIVES AND METHODOLOGY

Responsible research and Innovation Policy Experimentations for Energy Transition (RIPEET) is a Horizon 2020 project aiming to support Responsible Research and Innovation (RRI) policy experimentations for energy transition in three European territories - Extremadura (ES), Highlands and Islands of Scotland (UK) and Ostrobothnia (FI). The project methodology builds on RRI, transformative innovation, transition management and the Multi-Level-Perspective. RIPEET brings together quintuple helix actors of the territorial socio-technical energy regime in [Transition Labs](#) in order to envisage and implement a place-based energy transition process.

Building on this evolutionary model of socio-technical transitions, RIPEET will use existing landscape and regime-level pressures to facilitate the development of territorial socio-technical futures based on RRI actions. The governance and agency in this transformative process will be organised within the Transition Labs. These Labs will bring together stakeholders to co-create common visions based on the potentials and priorities of territorial eco-systems (mapping and visioning), generate transition pathways and innovation needs, launching a call for immediate bottom-up solutions to these (pathways and piloting) and anchor the process on organisational as well as policy level (sustainability and exploitation). The framework conditions, processes and outcomes of these experiments will be mapped, monitored and evaluated. This constitutes an evidence-base for the revision of sectoral policies, strategies and research and innovation (R&I) instruments as well as for establishing a [European RIPEET community](#). Therefore, RIPEET will support territories in establishing experimental spaces to address the territorial dimensions of the European Green Deal.

The core objectives of the project are to:

- Conduct transformative R&I policy experiments aiming to identify niches and to co-create sustainable energy transition pathways with territorial quintuple helix stakeholders which results in more open, transparent and democratic territorial R&I systems.
- Establish novel, self-sustaining and transparent governance relations within territorial energy R&I eco-systems that are based on open and democratic process of niche and transition management and creates positive societal, democratic, environmental, economic and scientific impacts.
- Create transformative R&I working methods within and between actors, that promote greater sustainability and inclusiveness, initiating transformation processes of the organisations involved at the level of territories and beyond.

PROJECT IDENTITY

PROJECT NAME Responsible research and Innovation Policy Experimentations for Energy Transition – “RIPEET”

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DURATION List the dates (month and year) when a project began and will be ended, then the total number of months of its duration (in parentheses).

Example: February 2021 – January 2024 (36 months).

BUDGET EU contribution: 1 999 831.25 €

WEBSITE <https://ripeet.eu/>

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FURTHER READING RIPEET Handbook: https://ripeet.eu/sites/default/files/2022-08/D3.2_RIPEET_Handbook.pdf
RIPEET Toolbox: https://ripeet.eu/sites/default/files/2022-04/RIPEET_Deliverable_3.1.pdf
RIPEET Synthesis report on ecosystems, reflection and territorial priorities: <https://ripeet.eu/our-resources>
RIPEET Territorial perspectives: R&I energy transition ecosystems in Extremadura, Ostorbothnia and Outer Hebrides: <https://ripeet.eu/sites/default/files/2022-04/RIPEET%20D2.1%20Extremadura.pdf>