



DECARBONISING SLOVENIA

The Deep Demonstration of a Circular, Regenerative and Low-Carbon Economy



Co-funded by the European Union

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The transition to a circular, regenerative, sustainable economy is no longer a choice, but a condition for successfully resolving the climate crisis. Slovenia, along with other EU Member States, needs to significantly step up its efforts to meet the goal of net zero emissions by mid-century. This requires crucial structural, transformational and exponential changes, both rapidly and on multiple fronts simultaneously.

Slovenia has realised that this transition can only come fast enough and be successful if it happens at the systemic level, by bringing together all key stakeholders, taking into account local challenges and objectives, and by upgrading and connecting previously developed, tested innovative solutions.

In response to this urgent need, the Slovenian government has been working with EIT Climate-KIC on the Deep Demonstration of a Circular, Regenerative and Low-Carbon Economy in Slovenia to develop pathways for a more radical transition to climate neutrality through a circular, regenerative and low-carbon economy, using a systems innovation approach. This partnership aims to catalyse rapid decarbonisation and drive climate action and resilience through circular economy approaches, while having a prosperous society by applying the Deep Demonstration method, which is a tool for systemic change in complex landscapes.

A pivotal shift towards circularity



The Slovenian government is embarking on a transformative journey, embracing innovative approaches and adopting new strategies to achieve this goal.



Slovenia's transition to circular economy is being facilitated by the Deep Demonstration programme, showcasing the country's commitment to a paradigm shift and systems innovation.



Slovenian long-term Climate Strategy aims at achieving net zero by 2050 bringing it in line with the EU-wide target of reducing emissions by 55% by 2030.



Deep Demonstration programme's vision

Slovenia becoming a European leader in transforming and decarbonising its economy and society and promoting the circular transition of all communities through a national approach based on regional and local needs. The result will be a resilient and prosperous Slovenian society where well-being is enhanced and greenhouse gas emissions are significantly reduced.

The Deep Demonstration process in Slovenia entails designing and promoting the circular transition of key value chains and economic sectors through a coordinated and coherent national approach based on international best practice. The aim is to achieve a cohesive transition to a resilient circular model in Slovenia that can reduce future economic, environmental and social costs while creating local added value. Mission oriented, inclusive and sustainable innovation can only be developed under the right conditions. To create these conditions, government action is crucial.

CHALLENGES

- The complexity and multifaceted nature of climate change
- The interconnectedness of the elements of our world
- Little time to act
- Disjointed and uncoordinated activity of change / transformation agents
- Trapped in existing patterns of working that are outdated

GOALS

Where are we leading Slovenia?

By year **2030** we will be contributing to the EU goal of reducing emissions by **55 %**

By year **2050** we will reach net zero emissions **0 %**



PARTNERSHIPS

With whom and for who?

- Private sector
- Educational and research system
- Public administration
- Non-governmental organizations
- Local communities and regions
- Citizens

ACTIVITIES

- Identification of system innovative solutions with a portfolio approach
- Learning through continuous sensemaking
- Support for circular business practises
- Changes in educational processes
- Funding for transition
- Capacity building

Main Programme Goals

By applying a portfolio approach, the Deep Demonstration programme aims to provide the following added value to Slovenian stakeholders:

1

Establish a common reference framework for the 'Circular Economy' portfolio in Slovenia, building on initiatives already underway to make informed and coherent decisions on ongoing efforts, new initiatives and innovation opportunities.

2

Support the decarbonisation of the key value chains of the Slovenian economy (built environment, mobility, food, forest-based & wood and manufacturing).

3

Spark innovation and the development of new systemic solutions in entrepreneurship, education, policy and finance. Empower local stakeholders through practical skills development and application of systems thinking tools to support the implementation of decarbonisation, climate resilience and circular economy policies.

4

Enable cross-sectoral collaboration to overcome organisational silos and identify interlinked priority areas in public administration and beyond including more systemic engagement of a wider range of stakeholders. Develop sensemaking capability to support decision-making based on feedback loops generated through reflection and learning.

Systems innovation in practice

The Deep Demonstration Programme was developed to support the Slovenian government in reaching climate neutrality by focusing on a circular economy. It was deliberately chosen due to the complexity associated with transforming whole systems (not only technical but also social systems) and at the pace that the transformation needs to happen. This pace stems from the fact that achieving net zero by 2050 requires critical structural and exponential changes on multiple fronts simultaneously.

The Deep Demonstration Process:



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based on the specific needs of Slovenian stakeholders and builds on existing initiatives and processes.



INVOLVES MULTIPLE INTERVENTIONS

acting on different levers of change (from policy, education, entrepreneurship, SME support, financial innovation to science, research and technology) based on jointly created portfolios of innovation actions.



LEARNING BY DOING AT THE HEART OF THE PROCESS

(rapid evaluation and sharing of what works and what does not) at the heart of the process to support decision-making and find ways to accelerate the transition to a circular economy.



IS DONE IN COLLABORATION WITH ALL STAKEHOLDERS

and enables cross-sectoral collaboration to overcome organisational silos and identify opportunities for collective action that trigger change across the system.

Orchestrating a portfolio

At the heart of the Deep Demonstration programme in Slovenia is the development of a 'Circular Economy' portfolio of integrated interventions. Co-created with local stakeholders this portfolio aims to accelerate Slovenia's national transformation towards a circular economy by taking an integrated view of initiatives, supporting extraction of learnings and finally deciding which activities to continue, start, stop or combine to accelerate the transition.

The portfolio approach also provides a powerful framework for fostering system innovation through co-creation, experimentation and enhanced learning by breaking down silos and considering interdependencies between different parts of the system.

"All the activities are based on existing collaborations, initiatives and networks. A systemic approach is achieved by mutually engaging multiple programmes simultaneously."

Key Value Chains

A portfolio approach involves the development and dynamic management of a collection of projects, initiatives or innovation actions in a coordinated and holistic way to achieve a more significant and transformative impact on the whole system and across the five value chains selected for the Deep Demonstration programme in Slovenia:

BUILT ENVIRONMENT:

The built environment offers some of the greatest challenges for circularity and at the same time one of the greatest potentials for the bioeconomy based on wood as a carbon stocking material. In Slovenia, construction waste accounts for the largest share of material waste. Therefore, more attention needs to be paid to resource efficiency and the circular economy.

FOOD:

Agriculture is one of the sectors most affected and vulnerable to the impacts of climate change, while being critical to food security. The programme recognises the challenge of increasing national food production capacity to support diversified dietary behaviour, strengthen the local value chain and promote the adoption of sustainable practises such as regenerative farming and smart agriculture.

FORESTRY & WOOD:

Forestry, as a geographically dispersed industry, has the potential to boost regional economies and promote the preservation of local communities by creating jobs and investment in rural areas while reducing urban sprawl and transport emissions. There is a need to facilitate a just and cohesive transition to a more skills- and knowledge-based forestry sector.

MOBILITY:

Transport is the key sector for emission reduction in Slovenia. The long-term strategic sectoral targets to reduce emissions by 2050 include a 90% reduction in transport sector emissions. Over the next decade, it is crucial to gradually reduce energy consumption by increasing energy efficiency and switching to low-emission vehicles.

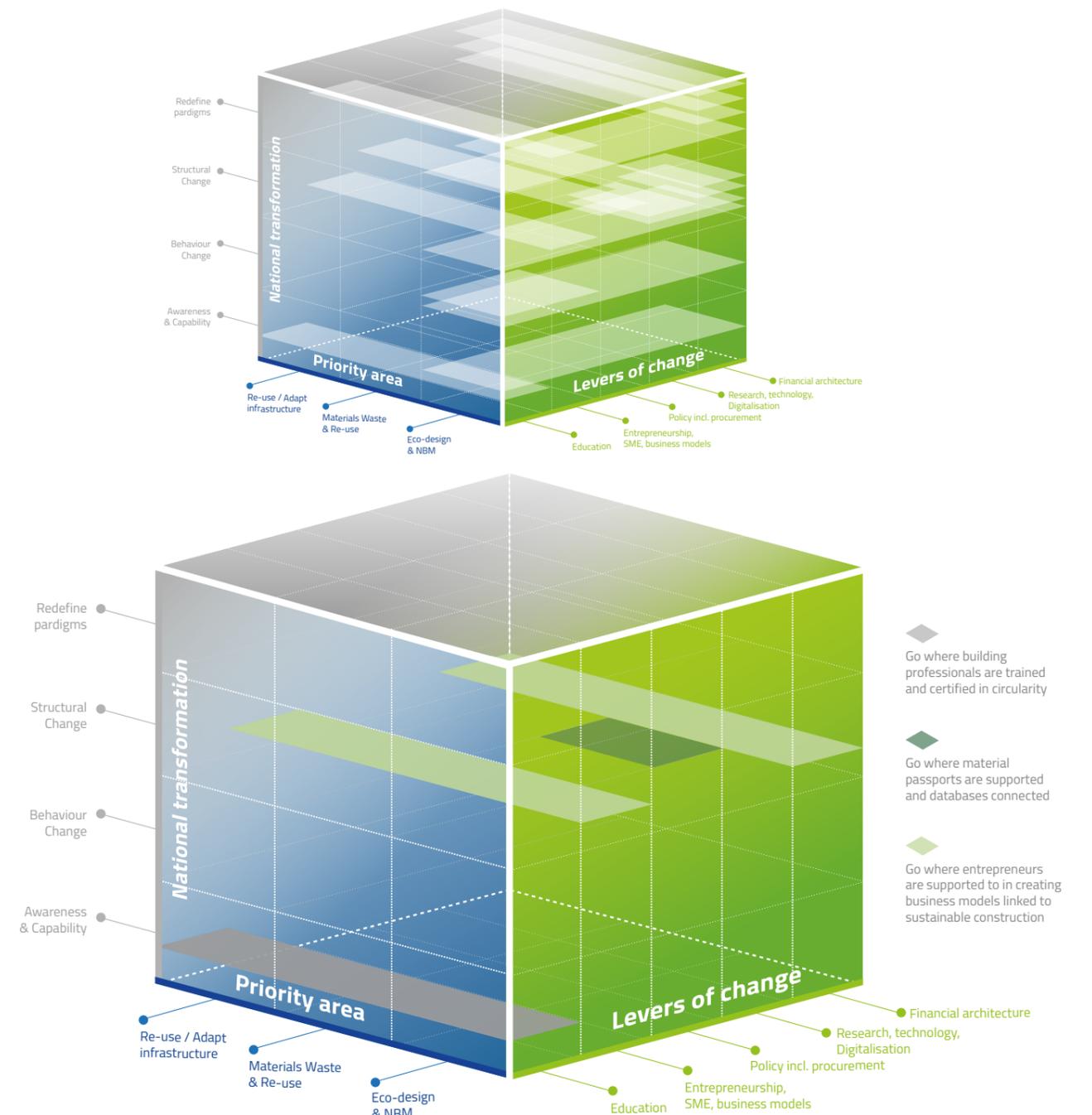
MANUFACTURING:

Manufacturing is at the heart of the circular economy, as the transformation of resources into products takes place there, making it a focal point for the implementation of sustainable and circular practises. By rethinking how products are made and used, manufacturers can reduce waste, conserve resources and contribute to a more sustainable and environmentally friendly economic model.

How to read the portfolio heuristics?

The following visual shows the space in which the portfolio of innovation actions has been positioned to transform the Built Environment sector. There are three different axes with elements that are part of this innovation space.

This space helps to define areas to be explored for their interconnectedness and/or innovation potential and helps in assessing potential gaps where intervention is needed.



Involving stakeholders in the transition

Deeply rooted in collaboration across multiple stakeholders, systems innovation efforts in this programme seek to bring about positive changes in the functioning of the whole system by bringing together a diversity of perspectives and expertise that, in turn, add value to each stakeholder group and contribute to the Deep Demonstration programme:



SLOVENIAN GOVERNMENT:

using actionable intelligence extracted from the portfolio to inform decision-making and the development of new ways to address social, economic and environmental challenges, and help create more inclusive and effective governance systems and policies.



LOCAL BUSINESSES, BUSINESS ORGANISATIONS AND CHAMPIONS (START-UPS, SMES, INDUSTRY):

accessing insights, learning and capability to enable the development of new business models and services that better meet the needs of citizens and local stakeholders while reducing environmental impacts.



RESEARCH AND ACADEMIA:

assessing or acting on/launching new opportunities for the development of knowledge and research application to real-world problems through collaboration with government or business partners.



CITIZENS AND BROADER COMMUNITY:

better access to public services, sustainable products and services, increased citizen engagement and participation in decision-making at the local level (regions/cities/local communities).

Transformation areas

In order to effectively carry out the transformation of the Slovenian system, the Deep Demonstration process identified five key areas that need to be addressed across all value chains. These areas are highly interconnected fields that have a strong impact on the structure and mechanisms of the system, as well as on the conditions that determine the enabling foreground for action of all stakeholders, institutions and actors:



POLICY:

Enable policy innovation and experimentation through the establishment of a Policy Lab, including its structure and processes, to pilot targeted experiments in the selected value chains and leveraging learning from initiatives already ongoing in collaboration with the Ministry of Public Administration.



ENTREPRENEURSHIP:

Enable the Slovenian start-up and enterprise community to develop a strong network of partners and climate-positive entrepreneurs. This will be done through a series of ecosystem development activities in each value chain in cooperation with the Ministry of Economy, Tourism and Sport, the Slovenian Enterprise Fund and SPIRIT Slovenia Business Development Agency, as well as through a strong supporting network of accelerators, knowledge transfer offices and VC capital funds.



EDUCATION AND SCIENCE:

Support the transformation of the education system by integrating the circular economy dimension at both levels - curriculum and organisational - to co-design pilot actions with the Ministry of Higher Education, Science and Innovation and the Ministry of Education, as well as local universities and research institutions.



FINANCE:

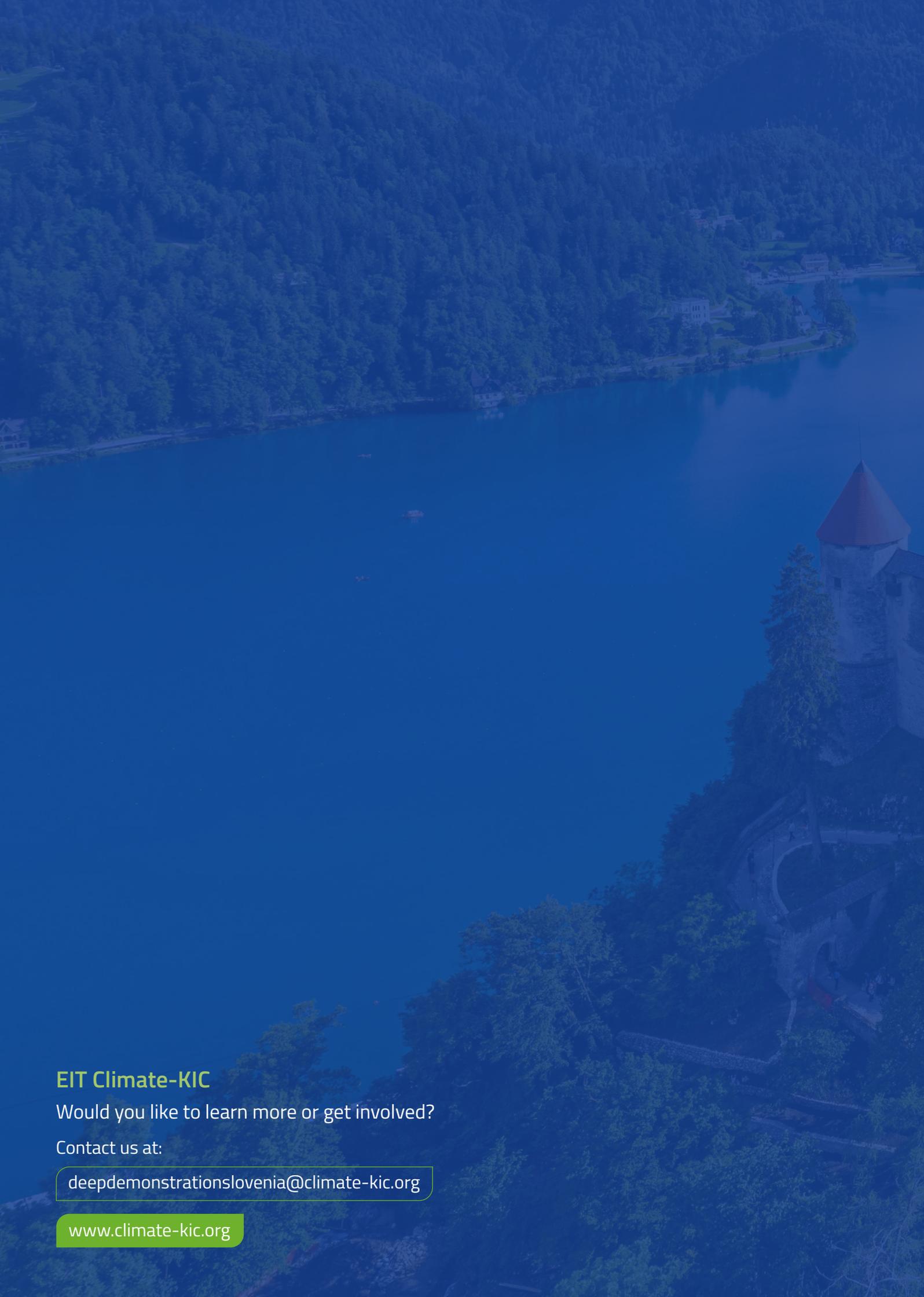
Develop a funding strategy and capital and investment plan for the 'Circular Economy' portfolio by mapping available private and public funding opportunities and matching them with emerging innovation actions, identifying interlinks and potential gaps and opportunities to combine different funding instruments and mechanisms.



CAPABILITY DEVELOPMENT:

Develop deeper systems thinking capabilities across a spectrum of organisations, stakeholders and communities and further enhance knowledge and skills in practicing systems innovation beyond the Deep Demonstration programme.

Implementing the Deep Demonstration for the systemic transition into a circular economy will create the foundations for long-term well-being and prosperity for all citizens of Slovenia, and contribute to a significant reduction of greenhouse gas emissions; consequently helping achieve environmental and climate goals.

An aerial photograph of a large, calm lake surrounded by dense green forests. In the foreground, a stone castle with a prominent red-tiled conical roof sits on a steep, wooded hillside. The entire image is overlaid with a semi-transparent blue filter.

EIT Climate-KIC

Would you like to learn more or get involved?

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