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Climate Adaptation in European Coastal Cities

Joint Policy Recommendations

Outcomes of the
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BACKGROUND

The SCORE International Workshop "Lessons learned from the Living Labs established to tackle Climate Change and Ocean Literacy" was organised on 22 September 2023 in Barcelona during the Open Living Lab Days (OLLD) event.

During this workshop, **ten distinct living labs** presented their case studies, with the primary objective being to derive policy briefs from these case studies.

To this aim, this document serves as a valuable resource, offering a collection of policy statements from living labs present at the workshop. It illuminates the potential for resilient and sustainable coastal communities, underlining the significance of interdisciplinary collaboration in addressing climate change challenges and preserving the well-being of coastal populations.

CONTEXT

Coastal regions are extremely vulnerable to climate change risks such as floods, storms, erosion, sea-level rise, as well as other socioeconomic challenges. While in urban coastal cities, climate risks can cause billions in economic damage, in rural coastal areas, climate risks can impact important sectors such as fisheries, tourism, housing, transportation and severely affect the community's livelihoods and quality of life. In this context, finding solutions that are interdisciplinary, multi-dimensional and effective can be a difficult task.

A key component to addressing these challenges is ensuring stakeholder and community engagement, which can be support through the establishment of participatory structures such as the 'living lab' that aid collaborative governance.

The SCORE International Workshop included talks by ten living labs established in different parts of Europe: Romania, Norway, Spain, Ireland, Turkey, Poland, and Portugal.

While each living lab has different objectives and unique local contexts, they are united in their goal to build sustainable and climate resilient cities/regions through effective community engagement. Each living lab has experimented with and implemented a diverse range of solutions, which are shared in this policy brief. Some of the common solutions include smart technology, citizen science, ecosystem-based adaptation, ocean literacy, collaborative governance, whilst there are other solutions unique to living labs, such as development of an open-information hub, empowerment of fisher communities, blue economy, artist-in-residence projects etc.

This policy brief highlights the most important policy recommendations from each of the ten living labs, based on years of research, experimentation, and collaboration, in order to build sustainable and resilient cities/regions across Europe.

This policy brief helps showcase the extensive reach of the research being conducted within SCORE and partner projects across ten diverse European regions, indicating the scalability of this research model. Since climate adaptation is usually very context-specific, ensuring the replicability of all below-mentioned cases across all European contexts is difficult. However, these studies have been grouped into cases that share common elements and themes, which could be replicable across diverse contexts and regions of Europe, that face similar challenges or have similar needs.

RECOMMENDATIONS

Policy statements from ten living labs are stated in three different categories: Blue Economy, Addressing Climate risks and Co-Creation and citizen engagement:

BLUE ECONOMY:

1. Ocean literacy with and for fishers and empowering fishers to become agents of change through collaboration, knowledge transfer, and development of long-term strategies for sustainable ocean governance in the Cap de Creus Natural Park, Spain.
2. Establish a dedicated study program focused on the blue economy and promote engagement between academia and the community to promote sustainability in water in Timisoara, Romania.

ADDRESSING CLIMATE RISKS:

3. Preventing coastal erosion and flooding (of up to 3metres) through construction of a vegetated dune on the promenade and monitoring its effects through low-cost sensors and citizen science in Benidorm, Spain.
4. Creation of an open-information hub through sensor-deployment, stakeholder mapping and development of platforms to increase resilience to climate risks like heavy rainfall and sea-level rise in Gdansk, Poland.
5. Establishment of a Coastal City Living Lab to prevent floods and erosion and its impacts on agricultural and local heritage through planned studies, such as ecosystem-based adaptation (EBA) pilots, installation of sensors, and engagement of citizens in Samsun, Turkey.
6. Addressing climate risks such as heatwaves, floods, and landslides through strategic and technical planning of EBA deployment, data collection through installed sensors in local schools, and improving stakeholder relationships in Oarsoaldea, Basque, Spain.

CO-CREATION AND CITIZEN ENGAGEMENT:

7. Building a climate action community by bringing together all agents of change (municipality, community, academia), raising awareness about climate risks, fostering valuable territory improvements, densification of local sensor-network, involvement of citizens in co-monitoring hazards, and establishing an open network for collaborative governance in Oeiras, Portugal.
8. Co-creation and citizen engagement for effective EBA, climate modelling, building digital twins, and citizen science in Sligo, Ireland.
9. Engaging small-communities in living labs to co-create solutions such as renewable energy, electric vehicles, beach cleanups, artist-in-residence projects and more to address complex socioeconomic challenges including outmigration, housing, transport in Traena, Lofoten, Norway.
10. Using citizen engagement networks, cross-sector collaboration, sustainable governance, ecosystem-based adaptation, and the living lab structure to make a more human-centred, democratic, and sustainable city, in Vilanova i la Geltru, Barcelona, Spain

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