

Shelter

Collaborative planning for building low-carbon systemic resilience: protocols, plans and guidelines for all the Disaster Risk Management phases

Main objective

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- To operationalize knowledge through the establishment of an **incremental data collection strategy (Resilience ID)**
- To facilitate the implementation of SHELTER operative knowledge framework by designing a **step-by-step guide for end-users**
- To develop **policy recommendations** to integrate cultural heritage within planning tools linking disaster risk management, climate change adaptation and heritage site management



Highlights

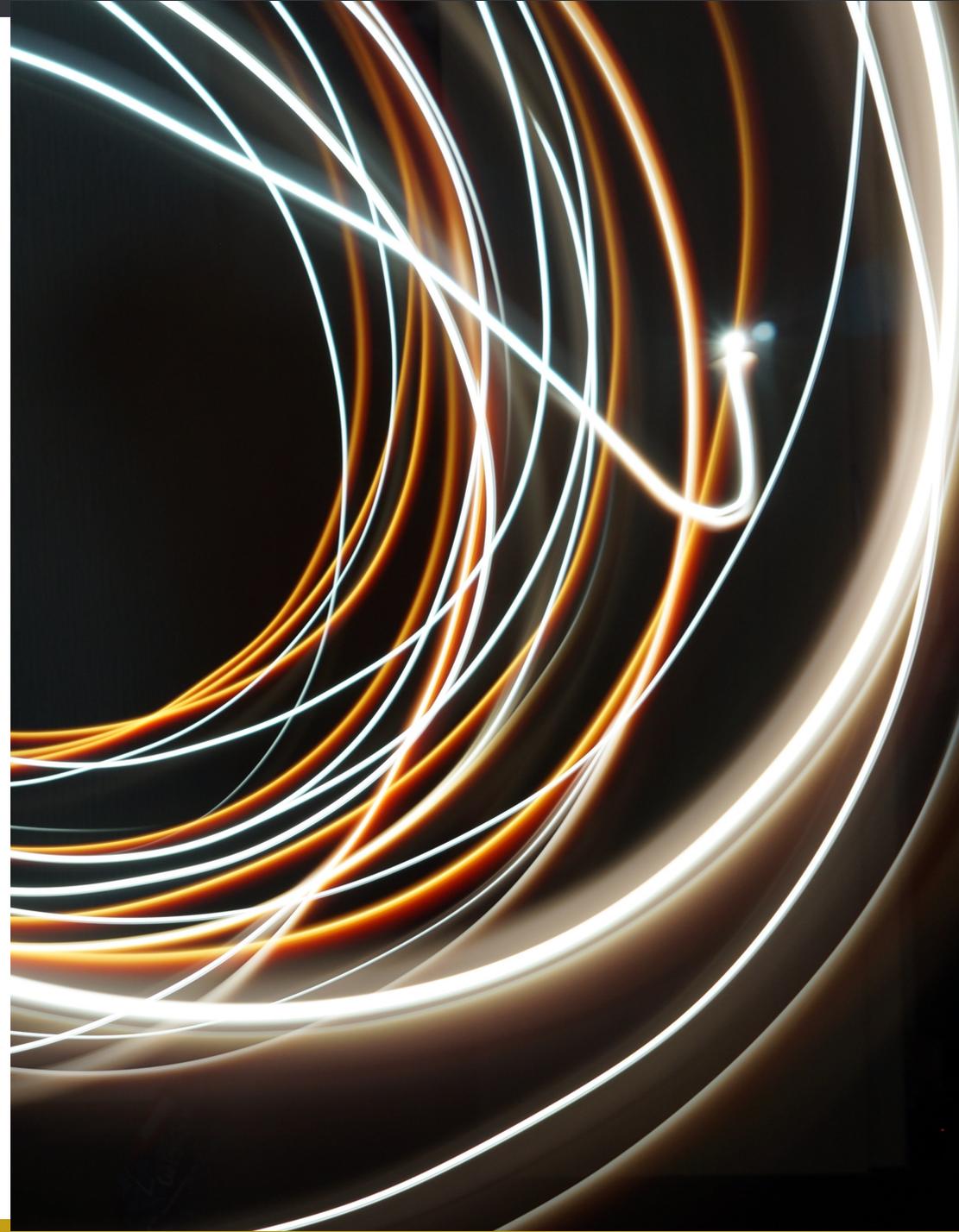


Highlights

6 Main activities (Tasks) performed by **18** project partners, both technical partners and Open Labs to **jointly bridge the gap between research and practice** towards resilience of historic areas through policy instruments.

113 policy instruments analysed, **16+** policy recommendations designed per Open Lab, tailored to their policy contexts.

5 steps towards the implementation of SHELTER operative knowledge framework, exploiting **34** project results.



Key challenges

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- To get into the policy framework for each Open Lab
 - **different scales, topics, languages**
- To frame the relevant steps to be performed to implement SHELTER framework. Steps and activities are designed to:
 - **support the end-user** towards the implementation path
 - improve the **accessibility of project results**



Main outputs

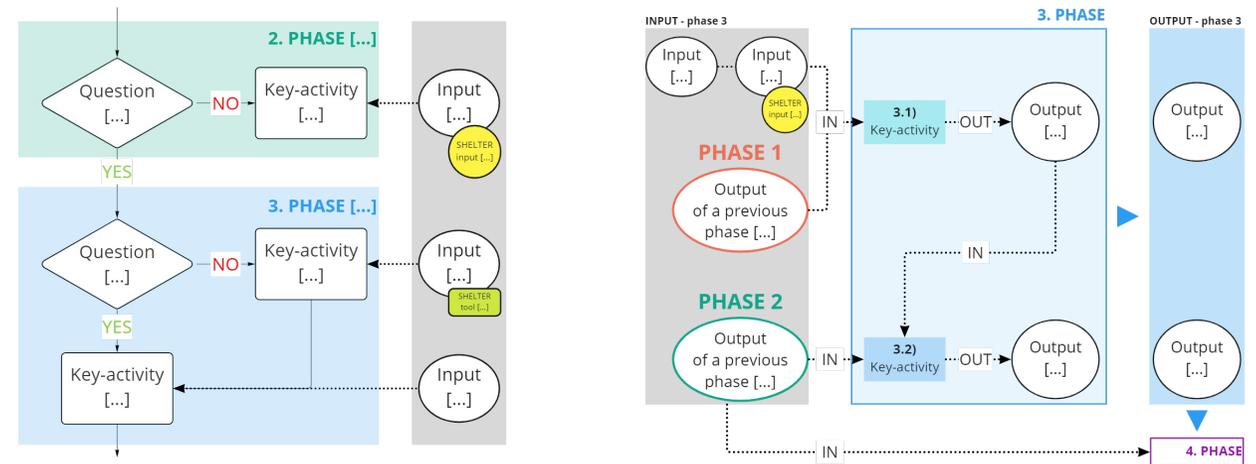
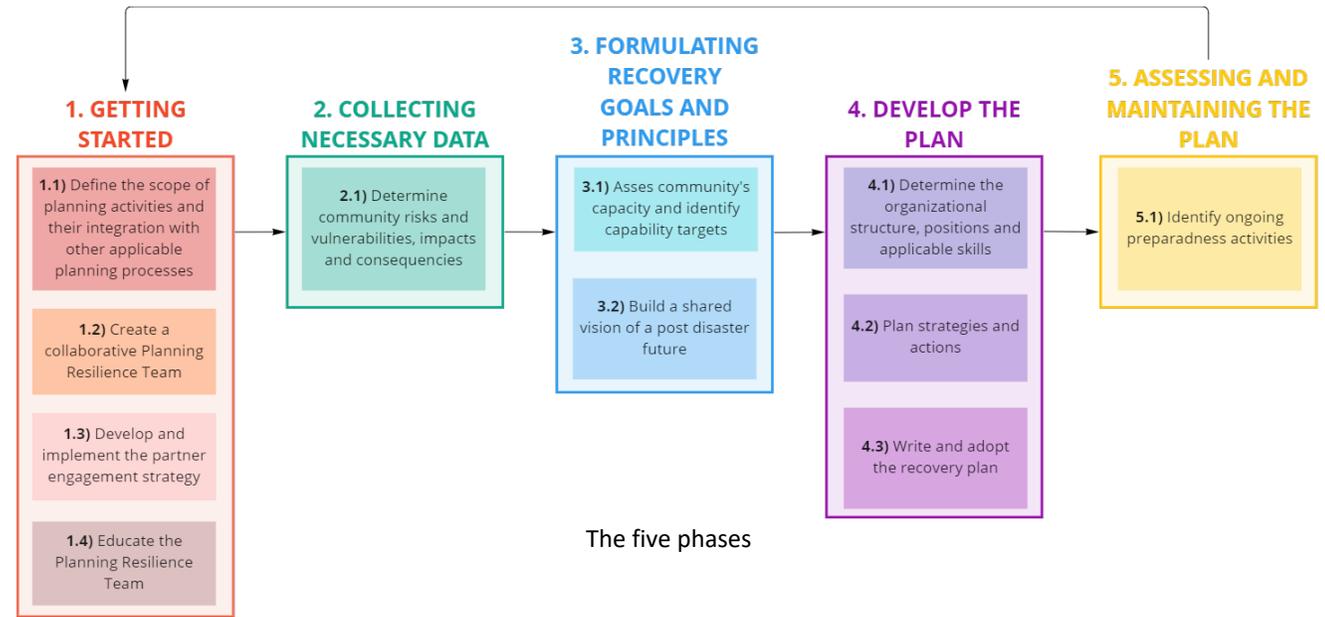


A strategy for early recovery roadmap

A guideline for identifying effective pre-planned strategies. It is a 5 steps operative tool to design a Pre-Disaster Recovery Plan to follow to improve the resilience of Historic Areas.

It focuses on the **prevention** and **preparedness** phases.

Five tailored Roadmaps, one per Open Lab.



Policy briefs

Five policy briefs, one per Open Lab.

Description of the policy context, the key policy instruments identified and the policy recommendations to address them.

Primarily addressed to public authorities at local, regional or national levels - depending on the territorial scale of the SHELTER Open Lab addressed.



The Dordrecht Open Lab

The Island of Dordrecht, located in the Rhine-Meuse delta, has long stretches outside the dike, including the historic harbor area, which is part of the city's historic center and includes nearly 800 listed buildings.

Due to climate change, the water level of the sea and rivers will be higher in the future, causing periodic flooding of the historic area as it lies in the lower zone, as well as the rest of the areas located outside the dams.

The aim of the SHELTER project for the Open Lab is to provide solutions for the design and implementation of measures to support flood risk management and participation of citizens and key stakeholders by building on existing local practices.

For whom?

This document is primarily addressed to public authorities at local, regional or national levels - depending on the territorial scale of the SHELTER Open Lab addressed - who are developing, implementing and/or monitoring and evaluating the policy and planning instruments addressing disaster risk in historical areas, as well as public authorities managing cultural heritage, and communities which are interested in enhancing resilience.

Importantly, these recommendations are relevant to experts and departments responsible for spatial and urban planning, heritage and culture, risk and protection, economy, business development, innovation and sustainable development.

Additionally, the information in this document can be of use to policy makers, entrepreneurs, heritage managers, universities and research institutions.



The policy context

The most relevant reference for the Dutch planning system is the new Environment and Planning Act, published in 2016. It seeks to modernise, harmonise and simplify current rules on land use planning, environmental protection, nature conservation, construction of buildings, protection of cultural heritage, water management, urban and rural development, development of major public and private works, integrating all these aspects into one legal framework. This Act calls for a different role for the government: the Dutch Spatial Planning system is basically decentralized, since the municipalities have the most direct influence on development, while the state focuses on subjects that are of importance to the entire country, as accessibility and land and water resources allocation, and the provinces focus on landscape management, urbanisation and the preservation of green spaces, adopting a more strategic perspective. The legislator makes an environmental vision mandatory for municipalities, asking the city council for indicating what the core qualities of the municipality are, what the ambitions are for the long term and what frameworks are in place for future developments in the physical living environment. In this new planning cycle, a large emphasis is given to public participation: citizens, companies and civil society organisations can influence the environmental vision, sharing its ambitions and objectives for making them to succeed.

Concerning disaster risk management, the leading authority is the Safety Region, a public body whose task is to facilitate regional cooperation in dealing with crises, disasters and disruptions of public order. In the Netherlands, there is a multi-layer safety approach, introduced in 2005 in the Dutch National Water Plan, to embody spatial planning and disaster risk management, especially to reduce flood risk. In fact, it integrates defense measures - layer 1 - resilient spatial planning measures - layer 2 - and effective disaster management measures - layer 3. The Safety Region has a crucial part in layer 3, even if the risk communication is done at local level.

Flood risk management is also strictly connected with climate change adaptation. The Delta Programme is

Towards better climate change adaptation plans

In place to protect the Netherlands from high water and flooding: to ensure a sufficient supply of fresh water, and to contribute to rendering the Netherlands climate-proof and water-resilient. Related to this national programme, preferential strategies are developed at regional level, in collaboration with water authorities, provinces, municipalities and private parties.

Starting from these considerations, the key tools selected among the existing planning instruments are the following:



Recommendations

Towards better climate change adaptation plans

- Identify specific measures to preserve and enhance cultural and natural heritage. Although preservation of cultural/historical values is identified as sub-goal, to focus the attention on local practices and the traditional knowledge is necessary to understand and rehabilitate the landscape and immovable heritage. The collective memory/experience notably for historic event/disaster should draw attention of the policymakers and practitioners and be integrated into local practices.
- Integrate more and more GIS-based inventory of cultural heritage within the risk scenarios and maps, to build a comprehensive knowledge to support decisions, and to provide reference to land use according to risk.
- Clarify roles and responsibilities within the existing governance framework is an essential step to enhance cooperation between the Dordrecht Municipality and the broad society. Further engage experts from the cultural and natural heritage sector and from disaster risk management sector in the definition of the policy vision and the implementation programme.
- Select relevant indicators and frameworks appropriate for measuring and monitoring the impact of climate change to cultural and natural heritage.

Towards better spatial planning tools

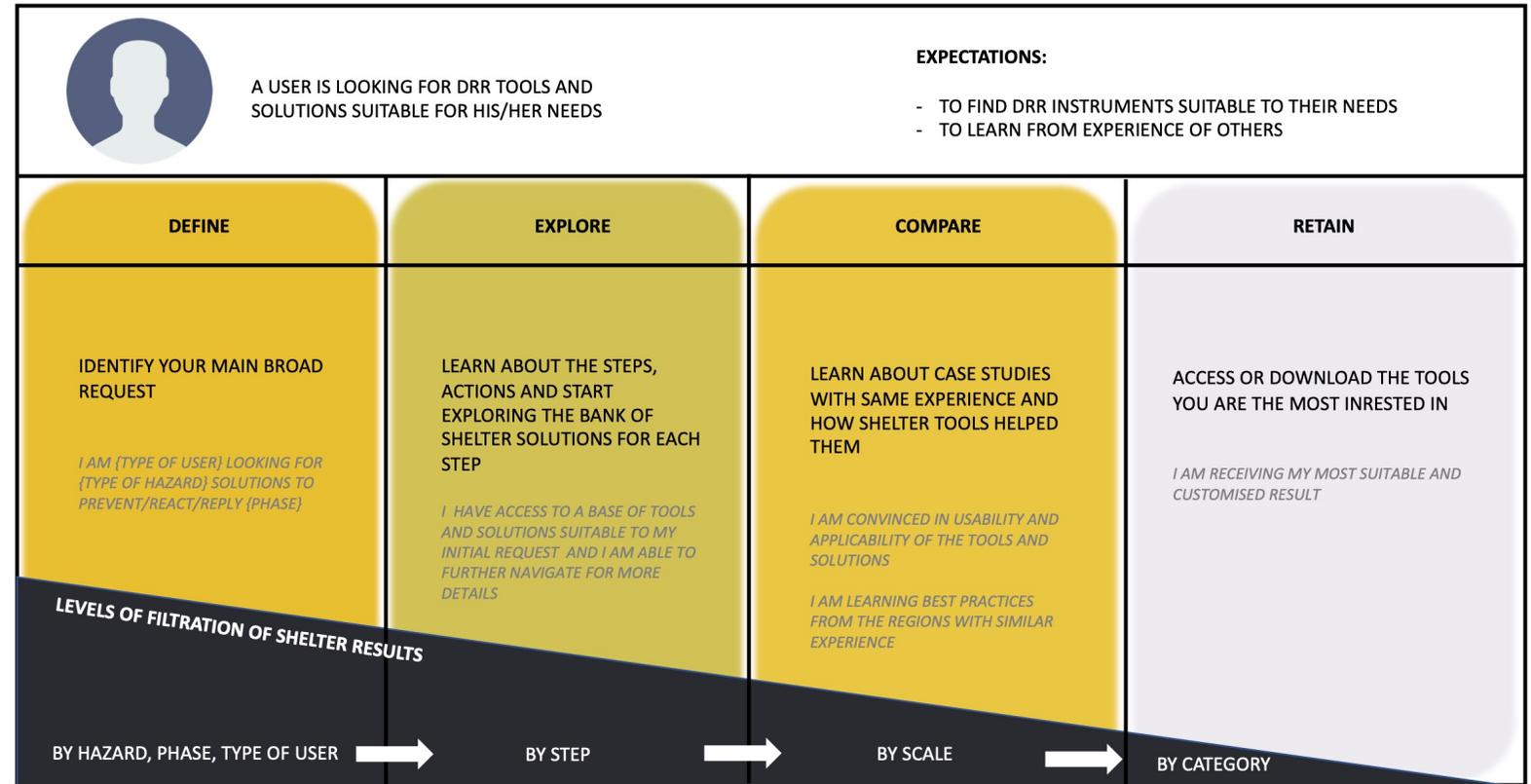
- Acknowledge the importance of cultural and natural heritage and to open the decision-making process to the stakeholders from cultural and natural heritage sector. The stakeholders traditionally involved in the planning process lack awareness of the complexity of the decisions and implications of the multiple options that may be followed in post-disaster recovery of cultural heritage.
- Provide risk maps and scenarios improves.
- Include strategies to manage cultural and natural heritage towards resilience in the policy vision improves the way cultural and natural heritage is perceived and the decision-making process in all the disaster risk management phases.

The step by step guide

To facilitate the implementation of SHELTER operative knowledge framework by guiding end-users across the whole process.

A **web-based guide** that includes all relevant steps.

USER JOURNEY MAPPING



Conclusions

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Diverse policy and planning frameworks, strengths, but **similar** weak points to be addressed through policy recommendations.

Many resources have been co-developed by Open Labs within SHELTER project to let them move a step forward.

The step by step guide will support **additional historic areas** to apply the SHELTER operative knowledge framework.



THANK YOU!

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