



SMART MATURE RESILIENCE

POLICY BRIEF: CO-CREATION FOR RESILIENT CITIES

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**SMART
MATURE
RESILIENCE**



FOR MORE
RESILIENT
CITIES IN
EUROPE

POLICY BRIEF
**CO-CREATION FOR
RESILIENT CITIES**

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EXECUTIVE SUMMARY

This policy brief summarizes the outcomes of the SMR project related to co-creation approaches to city resilience for urban policymakers.

Decision-makers and practitioners working for municipal authorities and city councils are facing rapid environmental, social, technological and, in some cases, political changes. Responding to these changes and urban planning in this context of complex systems requires collaboration and communication between authorities and sectors that previously worked with little overlap. Furthermore, governments at the local and regional level are seeking better cooperation with their equivalents in other cities and have much to gain from sharing approaches and cooperating with one another.

Urban resilience requires cross-sectoral and inter-departmental cooperation within local governments and between local governments and their stakeholders. Many local governments in Europe have established methods of public consul-

tation and public engagement, as well as established relationships and cooperation with e.g. regional governments and research institutions. However, methods and structures for cross-departmental work outside of these established frameworks are not well developed, their effectiveness not extensively proven and standardized methods not available to local government practitioners. The Smart Mature Resilience project applied a particularly ambitious co-creation process to develop tools and operationalise concepts, whose methodology finally proved to be applicable and effective to inform not only tool development, but also for policy development and implementation.

This policy brief aims to share the replicable or transferable aspects and lessons learned from this outstanding co-creation process to present the benefits and co-benefits of using the co-creation approach and to guide practitioners or decision-makers working for local governments in planning and implementing a new co-creation process for urban resilience building.

The results of this project have been produced directly by and with the local governments of three core cities; **Donostia/San Sebastian, Glasgow, and Kristiansand**, (henceforth Tier-1 cities); and consolidated closely with a second group of cities; **Rome, Riga, Bristol, and Vejle** (henceforth Tier-2 cities); and with a further group of cities that was engaged as a sounding board. Those cities (henceforth Tier-3 cities) are: **Amman, Athens, Malaga, Malmö, Manchester, Reykjavik, Stirling, and Thessaloniki**. The co-creation process can provide a pathway for cities to begin mainstreaming resilience into local action in the context of a European and global resilience-building effort.

PROJECT CONTEXT

Smart Mature Resilience is a multi-disciplinary practice-based research project, funded under the Horizon 2020 programme of the European Union and working for more resilient cities in Europe. As Europe's cities continue to grow, there is an urgent need for far-reaching and holistic approaches to enhance cities' capacity to resist, absorb, adapt to and recover from the potentially critical effects of hazards, respond to the need to safeguard and protect their critical infrastructures and assets, and deal with chronic stresses related to societal issues. Interconnectedness and interdependencies among cities and their systems may lead

to cascading effects and crisis escalation across scales. For this reason, cities should not be considered as isolated entities in the resilience building process. Supporting and building key resilient cities across Europe can create a strong resilience backbone for Europe's cities to support one another in overcoming challenges to come.

Researchers and cities came together in Smart Mature Resilience to develop, implement and validate a European (City) Resilience Management Guideline. The European Resilience Management Guideline defines an operational fra-

framework for cities that provides guidance on local resilience planning and supports their efforts in building resilience. The European Resilience Management Guideline aims to direct available resources towards defined goals, while securing transparency and the democratic principles of decision-making for city resilience development and planning. This framework makes use of five strategic resilience-building tools, placed within its steps, thus forming an iterative and systematic resilience-building process where cities may have different starting points and where they position

themselves into different stages of resilience maturity.

Between early 2016 and early 2018, three tiers of cities engaged in a facilitated, iterative pilot implementation process that aimed to test, validate and peer-review the European Resilience Management Guideline and its five resilience tools that were introduced together with local stakeholders into an integrated management system for resilience planning that can be transferred to the local context of other cities and regions.

The European Resilience Management Guideline is intended to be used by:

- policy and decision-makers at city level
- city councillors and practitioners working on social welfare, civil protection, climate adaptation and urban resilience
- other city stakeholders working on resilience, like: critical infrastructure managers, service providers, emergency services, the media, civil society associations, non-governmental organizations, academic and research institutions as well as private sector consultancies
- Enhancement of bottom-up inclusive governance

The project ran a series of stakeholder events and built a community of practice with strong representation and growing interest as the project developed. As the community grows, the portfolio of case studies, examples and lessons learned, and the number of alternative methods in which the cities have to share and tell these stories grows with it. The tools were user led and developed iteratively, starting with discussion-based workshops to establish the cities' needs, repeatedly revised, improved, translated, enhanced,

used, reused and upgraded cooperatively with intensive discussion and revisions collaboratively in cross-disciplinary groups. The tools are finally all online, they are approachable and easy to use, they are supported by attractive and freely available video, online and print instructional material and the tools are already in use by local governments with active interest from cities planning and committed to use them in the future.

DEFINING THE RESILIENT CITY

- ➔ A city that is prepared to identify, resist, absorb, adapt to and recover from any shock or chronic stress while maintaining its essential functions;
- ➔ A city that involves stakeholders and especially citizens in disaster risk reduction through co-creation and participatory processes;
- ➔ A city that manages to be reflective, flexible and transformative when dealing with uncertainties, a city that reduces vulnerability and exposure to natural and man-made disasters and manages to thrive despite increasing complexities;
- ➔ A city that increases its capacity to respond to climate change challenges, disasters, shocks, socio-economic challenges and other unforeseen chronic stresses, through enhanced emergency preparedness.

WHY CO-CREATE FOR RESILIENT CITIES

“Co-creation” means engaging citizens, users, academia, social partners, public authorities, businesses including SMEs, creative sectors and social entrepreneurs in open innovation processes that could identify problems or deliver solutions. In the public sector, this can mean the involvement of stakeholders in the design, production and delivery phases to integrate user knowledge and insights into the tools they are intended to use, to allow them to re-define their operational processes and to create new working relationships beyond established departments and silos.

Benefits of co-creation in a research project context

- Tailoring of outputs to cities’ needs
- Support of exploitation of results
- End-user focus
- Real-time and flexible application
- Increased transparency and enhanced trust in local/regional governance
- Enhancement of bottom-up inclusive governance

POLICY CONTEXT

In relation and response to international agreements and initiatives (like the Paris Agreement for Climate 2015, the Sendai Framework for Disaster Risk Reduction etc.), cities and local governments must work on resilience collectively as a coordinated action with the ultimate goal of co-creating a resilient city. The opportunity is ahead: cities can benefit from a paradigm shift from civil protection to secure societies and resilience; a move from risk management to resilience management, as well as achieving a balance between legislation and elective efforts by local, national and international actors to enhance resilience.¹

Employing a co-creation approach in resilience management enables gathering and understanding cities’ expectations when it comes to local strategic planning. Significant value is added by including considerations of environmental, economic, societal and individual interests and relevant good practices within existing resilience networks as part of planning and implementing the co-creation process.

CO-CREATION BETWEEN RESEARCHERS AND LOCAL GOVERNMENTS

The Smart Mature Resilience project carried out a process of co-development, pilot testing, feedback and re-development in order to co-create five tools and an over-arching European (City) Resilience Management Guideline. Cities were active co-developers of the project’s research and practice-focused outputs. The following practices were identified as beneficial contributory elements to the co-creation process:

- Involvement of the project cities in proposal writing
- Aligning project planning with foreseen political and strategic developments in the cities
- Flexibility of tools and research to accommodate cities’ needs
- Understanding among cities that tools are developed not only for their individual circumstance but for generic use by other cities



Figure 1: The SMR co-creation feedback loop

The project went beyond developing prototypes and inviting criticism and feedback from cities. The content of the tools (incl. policies, case studies, risk scenarios and communication practices) were collected in in-person workshops facilitated by ICLEI Europe. Input from scientific literature comprised a secondary source of content for the tools.

Close involvement of the cities led to the cities' independent use of the tools and subsequent self-directed adaptation and revision of the tools for their local applications. The city of Bristol revised the policy contents for the [Resilience Maturity Model](#) and the city of Donostia/San Sebastian translated the content of elements of the tools for local use. The city of Rome held workshops on their own initiative, translating elements of the [Risk Systemicity Questionnaire](#) into Italian. The city of Kristiansand reviewed and included the co-creation element into their new strategic action plan for 2030.

CO-CREATION IN SMR CITIES

DONOSTIA/SAN SEBASTIAN LEARNT THE LANGUAGE OF RESILIENCE

The Strategy Office in Donostia/San Sebastian works together with Tecnalia and the Basque Government on the development and implementation of the KLIMA 2050 Strategic plan on integrating mitigation, adaptation, resilience and nature based solutions. In this sense, the SMR tools proved to be effective in bringing together stakeholders from a variety of backgrounds and fields of expertise, and enhancing discussion among them, making concepts such as „cascading effects“ and „transversal relationships“ accessible and easy to under-

stand. Originally, some of the challenges the city faced while testing the tools involved the lack of stakeholders' familiarity with the concept of urban resilience itself and the complexity of processes that it implies. SMR tools helped stakeholders to better visualize these processes (risks, interconnections, areas of action) and build a culture of resilience. The language barrier and the need for translation as a dedicated activity in order to facilitate dissemination and exploitation was emphasised.

ROME'S MUNICIPAL STAFF WENT BACK TO THE ROOTS TO INVOLVE CITIZENS

The city of Rome is currently engaged in the creation of urban gardens, a good practice that is perceived as an overarching solution for a variety of issues, including the soil sealing and the consequent increased risk of flooding, the degradation of abandoned areas and the marginalization of social groups,

while developing a sense of belonging of the inhabitants to the territory, contributing to the security of citizens and also addressing the issue of loneliness and alienation of the elderly population.

KRISTIANSAND BOUNCED FORWARD BY WORKING TOGETHER

Through the SMR project, Kristiansand learned to take a holistic approach to resilience. Now, municipal staff and stakeholders understand that resilience is a state to be reached through a process of cooperation and collaboration among stakeholders both from inside and outside of the municipality.

„When you work together and cooperate together, the outcome is resilient“. And it is not a mere process of recovery after a disturbance or an event, but to bounce forward, achieving a new state of preparedness and improvement.

CO-CREATION BETWEEN LOCAL GOVERNMENTS AND THEIR STAKEHOLDERS

While researchers in the project referred to feedback from the city representatives as the primary co-creation activity, city representatives were found to understand co-creation as involvement of local stakeholders in the resilience-building process. Stakeholders from various sectors participated in project acti-

vities and provided advice and input. This led to better internal communication between municipal departments and between the city and private-sector stakeholders, leading to a range of co-benefits, increased trust and transparency and improved intra-city relationships.

Benefits

- ✓ Improved relationships between local governments and their stakeholders
- ✓ Increase of citizens' trust and participation in local governance
- ✓ Better transfer of data and knowledge
- ✓ Improved relationships and increased cooperation between cities and local research institutes
- ✓ Capacity building due to involvement in work outside participants' areas of expertise

CO-CREATION BETWEEN PROJECTS

In addition to co-creation with and within the project cities, the Smart Mature Resilience project fed its outputs into a process of co-creation with external projects. In a co-writing process between the coordinators and dissemination managers of the European-funded projects [Smart Mature Resilience](#), [RESOLU-TE](#), [RESILENS](#), [DARWIN](#) and [IMPROVER](#), a [White Paper on](#)

[Resilience Management Guidelines for Critical Infrastructures](#) was collaboratively published. This cooperative process led to the establishment of a pathway towards integrating the diverse research and perspectives across city resilience and critical infrastructure resilience research and development and provided a framework for future collaboration.

CO-CREATION THROUGH STANDARDIZATION

Through involvement of German standardization institute DIN, the project developed three CEN Workshop Agreements based on the project outputs. The standardization process brought external participants into the process of documenting their tools and benefits. The outcomes of these workshops

were reported back to the project's co-creation process. The CEN Workshop Agreement Series on City Resilience Development intends to support cities in building resilience to various kinds of threats. The series consists of:

- [CWA 37100](#) City Resilience Development – Operational Guidance;
- [CWA 37101](#) City Resilience Development – Maturity Model;
- [CWA 37102](#) City Resilience Development – Information Portal.

The European Resilience Management Guideline and the Resilience Maturity Model underwent significant revisions following advice from project-external participants of the standardization process. The activities included in the various operational steps of the European Resilience Management Guideline were specifically co-designed and included in each step, following consultation with participants that ensured

relevance and applicability to local governments and their stakeholders across Europe. The standardization activities in the project made it possible to make the research results available to a wider public and to ensure the alignment of similar city resilience related initiatives. Currently the uptake of these standards to international level is foreseen by the ISO/TC 268 Sustainable Cities and Communities.

TRANSFERABILITY OF KNOWLEDGE AND POLICY RECOMMENDATIONS

Local governments are, of course, political institutions. They need to regularly plan their activities and they need to engage and provide public services to their citizens. Resilience building tools and guidelines can be a powerful instrument for mainstreaming local innovation in the field, incorporating resilience into traditional practices and advancing strategic planning across a range of sectors and governance levels.

- awareness raising on city resilience among key stakeholders
- activation and mobilization of citizens and stakeholders through co-creation activities;
- better perspectives for a bottom-up inclusive resource governance at local level;
- mainstreaming processes of resilience strategies into local plans;

Through participatory processes and governance, exchange of experiences through projects and initiatives, European cities shape collective approaches and bring up necessary precon-

It is therefore necessary that local, regional and national governments and their leaders become aware of the importance to integrate strategic resilience tools and practices into decision-making and management. By using the European Resilience Management Guideline and its supporting resilience-building tools the benefits are multiple:

- prioritization of interventions evaluating potential impacts and integrating uncertainty
- improved decision support at local level in cities;
- increased transparency and advanced monitoring action;
- enhanced trust in local and regional governance;

ditions that identify and explore opportunities to overcome bottlenecks in how we can co-create resilient cities. Following are some practical recommendations:

For local government leaders and city stakeholders/practitioners:

- Cities should stay close and active throughout **grant proposal preparation** to ensure engagement during the funding and implementation period;
- **Prior preparation and support** is needed to align cities' needs and political cycles with the project's time schedule and to anticipate potential political developments;
- **Understanding of the legal context** of each city, governance, leadership and management analysis is much needed to maximize efficiency of the process;
- Both local leaders and stakeholders should seek to organise regular in-person meetings that include a detailed facilitation structure that is flexible and adapted to local needs; especially with regard to **cross-sectoral meetings and cross-silo collaboration**;
- **Exploitation planning** should be built into the co-creation process and possible adopters and multipliers be engaged in the process;
- **Sharing of good practices** with other cities and local governments is needed, by participating in stakeholder dialogue events and workshops; city twinning activities can also ensure that representatives from smaller cities are brought up to speed with current development on resilience projects and initiatives

For policy and decision-makers at city level

- **Involvement of the civil society** should be emphasized: in-person meetings are needed;
- There is need to seek for options that will **mainstream** resilience into wider municipal processes;
- Investment in **translation and localisation** of project results and studies is needed;
- Opportunities for **consolidating mutually complementary goals** (e.g. flood risk management with recreational space development) should be considered
- There is need for policies, ideas and processes that involve and **engage with all societal groups** including vulnerable populations, while the **factors that capture special needs** of citizens should be understood and prioritized.



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