SMART MATURE RESILIENCE

D7.5 STAKEHOLDER DIALOGUE
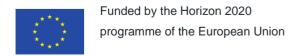
ICLEI European Secretariat | November 2017

	D7.5 Stakeholder Dialogue
Deliverable no.	D7.5
Work package	WP7
Dissemination Level	Public
Author (s)	Clara Grimes (ICLEI European Secretariat)
Co-author(s)	Serene Hannania (ICLEI European Secretariat), Veronica Rebollo (ICLEI European Secretariat) Vasileios Latinos (ICLEI European Secretariat)
Date	30/11/2017
File Name	D7.5_Stakeholder_Dialogue.pdf
Revision	15/11/2017 (CIEM, DIN)
Reviewed by (if applicable)	Saskia Maresch (DIN), Jaziar Radianti (CIEM), Mihoko Sakurai (CIEM), Tim A. Majchrzak (CIEM)

EXECUTIVE SUMMARY

This report was prepared in the framework of Work Package 7 of the SMR project, which is responsible for communication, dissemination and exploitation. It is the first activity in the series of events and online meetings aimed at equipping a new group of cities, dubbed "Tier 3", to use, test and validate the European Resilience Management Guideline, which is under development, and the project tools, to exchange with the project partner cities and to become multipliers of the project outputs for other cities.

The report summarises the initiation of the involvement of the Tier 3 cities in the project and their involvement in the Stakeholder Dialogue.

Representatives of 17 cities and municipalities met in Thessaloniki on 7th November for the Smart Mature Resilience project's Stakeholder Dialogue event. Nine cities became the newest members of the SMR project, joining the project's seven cities, which have been working with researchers for the last two years to develop tools to support cities in strategically developing their resilience. The cities to join the Tier 3 group were identified on the basis of experience and knowledge of resilience development. The event marked the launch of the project's third circle of cities aiming to build a backbone of resilient cities in Europe. In addition, two additional Greek municipalities were invited to the Stakeholder Dialogue (the cities of Pavlos Melas and Larissa), thereby comprising the first members of a fourth tier of cities informed about the project activities.

Four of the Tier 3 cities have developed this knowledge through membership of ICLEI: the Greater Amman Municipality (Jordan), Malmö (Sweden), Münster (Germany) and Rekjavik (Iceland), or participation in projects like the RESIN project[1], like in the case of Greater Manchester (United Kingdom) and Athens (Greece). Further cities were recommended by a project city on the basis of existing collaboration and partnership, in the case of Malaga (Spain), which was requested by Rome to join, and Stirling (United Kingdom), which was requested by Glasgow to join. Thessaloniki became interested in the Smart Mature Resilience project after a representative attended ICLEI Europe's third Open European Day at Bonn Resilient Cities in 2016. Amman, and Athens, Greater Manchester and Thessaloniki are also members of the 100 Resilient Cities of the Rockefeller Foundation network in addition to their membership and cooperation with ICLEI respectively.

---

[1] RESIN – Resilient Cities and Infrastructures (www.resin-cities.eu)

Contents

1. EVENT SUMMARY

Representatives of 17 cities and municipalities met in Thessaloniki on 7th November for the Smart Mature Resilience project's Stakeholder Dialogue event. 9 cities became the newest members of the SMR project, joining the project's 7 cities, which have been working with researchers for the last 2 years to develop tools to support cities in strategically developing their resilience. The cities to join the Tier 3 group were identified on the basis of experience and knowledge of resilience development. The event marked the launch of the project's third circle of cities aiming to build a backbone of resilient cities in Europe.

The cities are: the Greater Amman Municipality (Jordan), Malmö (Sweden), Münster (Germany), Reykjavik (Iceland), Greater Manchester (United Kingdom), Malaga (Spain), Stirling (United Kingdom), Athens (Greece) and Thessaloniki (Greece). The programme was a mixture of city-to-city dialogue sessions, named ''Cities in the Spotlight', facilitated by ICLEI Europe, and tool training sessions in groups, facilitated by the research partners and Tier 1 and Tier 2 city representatives. The latter group, having participated in the implementation process for all the 5 SMR tools, had the chance to themselves become the trainers and introduce the resilience tools to their fellow Tier 3 city representatives.

Following an official welcome by the City of Thessaloniki and a presentation on the city's resilience strategy, developed and published through the 100 Resilient Cities programme, the cities of Thessaloniki, Athens, Amman, Riga and Bristol engaged in a discussion titled "The Future of the Resilient City". Four out of five of the cities participating in the panel are members of the 100 Resilient Cities, and the panel was a good chance to point out the main axis of the Resilience Strategies they have in place and identify linkages to SMR Resilience Policies that exist in the Maturity Model and especially in the Leadership and Governance dimension.

The event proceeded with training on the SMR City Resilience Dynamics Model. Cities were divided into groups and used the project's simulation game to play in a simulation sandbox and experiment with the effects of budgeting for different sequences of resilience-related policies. As it is not possible to run experiments using actual municipal budgets in real life in cities, simulations provide a way for practitioners and decision-makers to try out different investment options in a safe environment. The game helps users to better understand the Resilience Maturity Model and to understand and see the

results of the significant benefit of implementing policies in the order laid out in the Resilience Maturity Model through trial and error playing.[2]

The cities participated in a training session on the SMR Risk Systemicity Questionnaire (RSQ)[3]. The participants were divided into five groups, with a mix of city representatives in each group. Each group was facilitated by a Tier 1 or 2 city representatives who had been involved in the development of the RSQ, with support from Strathclyde or an experienced user of the RSQ from the research partners. Each group addressed different topics in the RSQ: Public Unrest; Elderly; Social Cohesion; Critical Infrastructure; and Community Integration, Climate Change – air pollution. There was a high level of debate and involvement about risk scenarios and potential strategies that could be implemented to prepare for interconnected risks. The groups were able to experience focused discussion on risk scenarios in cities facilitated by use of the RSQ. The Tier 3 cities were able to quickly understand how the tool worked and were able to use it in a trial run in practice. Some Tier 3 cities were already confident in their plans to run RSQ-based workshops locally.

In the final ''Cities in the Spotlight'' session, the cities were introduced to approaches for communicating best practices for resilience in cities based on narrative methods. Effectively communicating projects and policies in story form is essential so that citizens, stakeholders, other departments of the municipality and the media can better understand and connect with a city's aims and progress. The cities of Stirling (UK), Malmö (Sweden), Glasgow (UK), Vejle (Denmark) and Rome (Italy) then applied these methods to tell the story of their local best practices to the cities and stakeholders present at the event, including community group activities in Stirling, crisis management in Malmö, and collaborative projects in Vejle between the municipality and the private sector. Further resilience stories are available for reference in the SMR Policies Tool. Researchers from the Centre for Integrated Emergency Management (CIEM), Norway presented on the SMR Resilience Information Portal and how cities can pick and choose functionalities from this portal toolbox to supplement their resilience management information infrastructure. Finally, the outcomes of the day were summarised in a panel discussion chaired by the project coordinator.

The Tier 3 programme will continue with a series of three online training webinars and a Stakeholder Dialogue event as part of ICLEI's *Breakfast at Sustainability's* event series in Brussels on 7th March.

---

[2] http://smr-project.eu/tools/maturity-model-guide/
[3] http://smr-project.eu/tools/risk-systemicity-questionnaire/

2. TIER 3

2.1. EXPANDING THE SMR RESILIENCE BACKBONE IN EUROPE

This report has been prepared in the framework of Work Package (WP7) 7, which is the work package responsible for spreading the SMR tools and knowledge with further cities and target groups around Europe and further abroad. The report lays out the process for identifying, recruiting and launching the participation of a new group of cities in the SMR project. The report summarises the feedback from the new CITIES about the Risk Systemicity Questionnaire and the City Resilience Dynamics Tool, on which they received training during the Stakeholder Dialogue.

According to the Grant Agreement, the Stakeholder Dialogue event was foreseen to involve approx. 30 stakeholders of the Tier 1 and Tier 2 cities. However, as these groups were already extensively reached and Tier 2 cities already holding independent localised sessions using the tools, the project was deemed ready to use the Stakeholder Dialogue as an opportunity to focus on exploitation of the tools among Tier 3 cities. Furthermore, the event was moved from the originally foreseen location of San Sebastian, where local stakeholders are already heavily involved in the project through the municipality as well as the coordinating partner Tecnun. The new location was identified as Thessaloniki in order to make the event more accessible to southern European cities and to benefit from the experience that Athens had gained from cooperating with ICLEI as a Tier 2 city of the RESIN project and the experience that both Athens and Thessaloniki already have with resilience through the 100 Resilient Cities network. Costs for the event were also saved, as the municipality of Thessaloniki offered the City Hall as a venue free of charge.

Once the event was organised, the additional Greek municipalities of Pavlos Melas and Larissa Municipality requested to join the event. They were hereby the first Tier 4 cities to become involved in the project. Further, the Resilient Regions Association of Sweden attended. This is a neutral arena where business, academia, government and a number of municipalities in South Sweden meet to solve regional challenges. The Association is financed by fees from members and has since 2012 had an office and staff in Malmö. Their participation in the project will effectively contribute to the dissemination of tools in Sweden. This is further enhanced by the fact that they are in the advisory steering committee for the project.

Each Tier 3 city and the reasons for their selection are listed below. Encouragement or invitation by an existing SMR city to invite a new city as a Tier 3 member was considered an additional driving factor to consider cities for the Tier 3 programme. The additional commitment of partnership and mentoring from an existing SMR city was considered to be an indicator for success in exploiting the SMR tools.

2.1.1.   GREATER AMMAN MUNICIPALITY (JORDAN)

Amman is a member of ICLEI and 100 Resilient Cities. Jordan is not an EU member state but belongs to ICLEI's Europe and Middle East region. As a municipality familiar with resilience processes, it provides an opportunity to test the SMR tools with a city outside of Europe without the need for additional training or briefing beyond the level of support the European cities require. As social cohesion challenges had been discussed in relation to immigration and refugees as a risk as part of application of the Risk Systemicity Questionnaire, Amman was considered to be able to share valuable knowledge with its European peers. The municipality has accepted a much higher number of refugees fleeing the war in Syria than any European city and are considered to have valuable insights to share with the European cities. SMR's contact in Amman is a Senior Architect of the Technical Support Division Head at Greater Amman Municipality.

2.1.2.   MALMÖ (SWEDEN)

Malmö has been an ICLEI member since 1998 and is a member of ICLEI's 'Cities for Climate Protection' Campaign. ICLEI has worked extensively with Malmö, including in the RELIEF research project and as host of the GREEN SURGE final conference in September 2017. The city was selected as a climate and sustainability leader. Malmö was shortlisted for the European Green Capital Award 2012 and 2013 and the city is signatory of the Covenant of Mayors. In 2009, the city received the 'United Nations' Habitat Scroll of Honour' for its efforts in sustainable development, and was awarded the 'United Nations World Habitat Award' for its work on revitalising the Augustenborg District. By 2020, the City of Malmo aims to be climate neutral and by 2030 the whole municipality aims to run on 100% renewable energy. Malmö has also worked with ICLEI on improving its sustainable public procurement and aims to serve 100% organic food in all of its public catering services by 2020. In working towards sustainable urban development, Malmö has cooperated widely with other cities, primarily in Europe. SMR's contacts at the Municipality of Malmö are Risk- and Security Manager at the City of Malmö and Disaster Risk Reduction (DRR) Coordinator at the City of Malmö.

2.1.3. MÜNSTER (GERMANY)

Münster has been an ICLEI member since 1995. Münster is a member of ICLEI's Cities for Climate Protection Campaign and is a signatory of the Global Covenant of Mayors for Climate and Energy. Münster institutionalised climate protection as a municipal office as early as 1992 and since then the city has fostered and grown its climate friendly reputation. In 2010, the city council put a strong emphasis on ongoing climate protection and passed an ambitious programme for the coming years. Münster has set the target of reducing CO_2 emissions by over 40 percent, by no later than 2020 (compared to 1990). Münster was shortlisted for the 'European Green Capital Award 2010/2011' and for the European Public Sector Award 2011. The city came third in the 'German Capital of Biodiversity Competition 2010/2011' and won a gold medal in the 'European Energy Award' in 2005 and 2009. Münster was also selected as there were previously no German cities in the project. Münster is also a twin city of Kristiansand, and city representatives from Kristiansand presented the SMR project to the municipality during a twin event in Münster in September 2017. SMR's contact people are a representative of the office for international exchange and of the office for geodata management. Münster was the only Tier 3 city unable to attend the Stakeholder Dialogue in person.

2.1.4. REKJAVIK (ICELAND)

Reykjavik has been an ICLEI member since 2002. ICLEI worked closely with the city in 2009 when Reykjavik hosted the EcoProcura conference[4]. More than 200 delegates from 41 countries attended the seventh EcoProcura conference. Reykjavik is also a member of the Procura+ Campaign[5]. Reykjavik was considered to have potentially interesting input on citizen engagement that could be shared with the other cities following their "Better Reykjavik Online Forum for Citizen Participation and Democratic Development". Reykjavik is also a part of the ICLEI Europe Adaptation community and is a Tier 2 city of the RESIN project. SMR's contacts in Reykjavik are Research Programme Manager at the city of Reykjavik and an officer of the Policy and Analysis Department of Environment and Planning at the city of Reykjavik.

2.1.5. GREATER MANCHESTER (UNITED KINGDOM)

ICLEI Europe has extensive experience working with Greater Manchester (GM) on resilience and critical infrastructure protection as a core city of the RESIN project. Greater Manchester also recently

---

[4] http://reykjavik2009.ecoprocura.eu/
[5] http://www.procuraplus.org/en/participants/iceland-reykjavik/

became a member of 100 Resilient Cities. As part of RESIN, ICLEI carried out a city assessment report of Manchester in 2016, analysing the city's climate change adaptation and resilience needs. Greater Manchester produced a self-assessment in 2017 in cooperation with the University of Manchester as a voluntary additional outcome of the RESIN project. There is ongoing local political commitment to climate resilience including Mayors Adapt, the global Covenant of Mayors for Climate and Energy and the UNISDR Resilient Cities programme, as well as the aforementioned recent participation in the 100 Resilient Cities initiative. Progress in these areas coupled with long running links to expert academic and research advice, development of conurbation wide spatial planning frameworks and an increasingly devolved level of control over budgets, present a very promising basis for the acceptance and adoption of SMR tools. Manchester has developed a Climate Change Strategy and has a Greater Manchester Local Resilience Forum (GMLRF) in place. The city has started to consider climate resilience alongside wider DRR and community risk and resilience issues. This has seen GM sign up as a role model city within the UNISDR's Resilient Cities campaign and participate in the EU funded U-SCORE project, which is developing a 'city resilience scorecard'. SMR's Greater Manchester partner is the Chair of the Greater Manchester Resilience Forum (Greater Manchester Combined Authority).

2.1.6.   MALAGA (SPAIN)

Malaga was selected on the request of Tier 2 city of Rome and as a city facing heat wave and earthquake challenges, as well as urban sprawl and gentrification. Malaga also has experience with urban resilience and sustainability through the TURAS project. TURAS was followed up by the Connecting Nature project, which launched in June 2017. Malaga and ICLEI Europe are partners of Connecting Nature, in which 11 European cities are investing in multi–million euro large-scale implementation of nature–based projects in urban settings. The project will measure the impact of these initiatives on climate change adaptation, health and well-being, social cohesion and sustainable economic development in these cities. As a city currently sitting at S (Starting)/ M (Moderate) level of the resilience maturity process, they are ready to learn and keen to share their journey in relation to resilience. The cities of San Sebastian and Rome will be Malaga's mentors in this journey for the city's involvement in the Tier 3 process. SMR's contact in Malaga is the Head of the International Programmes and Initiatives Department at Malaga City Council. Malaga has also been involved in projects including Green Screen Interreg and Interreg Mediterranean6.

---

[6] https://www.promalaga.es/en/european-projects/

2.1.7.   STIRLING (UNITED KINGDOM)

Stirling was selected on the request of Glasgow City Council. SMR's contact at Stirling Council previously worked for Glasgow City Council and therefore brings Glasgow's experience with resilience. The SMR contact is the Localities and Infrastructures Director at Stirling Council, who has also previously been involved in the 100 Resilient Cities programme for the City of Glasgow as Chief Resilience Officer. There were a number of reasons for including Stirling in the Tier 3 cities of the project. Firstly, Glasgow feels that Stirling is currently in an ideal position to join the SMR project team. As a city currently sitting at S (Starting)/ M (Moderate) level they are ready to learn and keen to share their journey in relation to resilience, not least due to the recent appointment of the previous Glasgow Chief Resilience Officer, as Director of Infrastructure and Environment. The city of Stirling, with a population of approximately 91,580, based in the Central/East Scotland region would benefit directly from wider mentor support from SMR city partners and closer mentor support from the City of Glasgow, based in the West of Scotland. The development of this mentor relationship would offer an excellent case study for the SMR project to demonstrate resilience dissemination at a regional and national level. Stirling already participates in a number of existing regional and national resilience networks:

1   Stirling participates in the East of Scotland Regional Resilience Partnership and chairs the Forth Valley Local Resilience Partnership. The SMR contact is respectively representative and chair of these networks which positions him to be integral in pushing the message across the East of Scotland that they need to move from incident management into recovery and longer term resilience – this includes reach into Edinburgh and Fife as well as Forth Valley area;

2   Stirling is active within the Scottish Cities Alliance (as is Glasgow). This network has been currently considering how to introduce resilience into some of the low carbon and sustainability workstreams;

3   Stirling and Glasgow have been invited to participate in a forthcoming network to support and progress a national resilience agenda and allow other communities to learn from the resilience journey that cities (especially Glasgow) have been on. Stirling is keen to use its influence (in the east) to make this a national discussion

4   The SMR contact has maintained links with the global 100 Resilient Cities network and has completed surveys and responded to other requests for info on behalf of the City of Stirling.

2.1.8. ATHENS (GREECE)

Athens was selected due to experience with resilience as a Tier 2 city of the RESIN project. Athens is also part of the 100 Resilient Cities, pioneered by the Rockefeller Foundation initiative and is part of ICLEI's Adaptation network through the Open European Day and the Bonn Resilient Cities conference. SMR's contact in Athens is Communications Manager at Resilient Athens (City of Athens). The Resilient Athens team is well positioned to implement the recently developed and published resilience strategy process and all relevant actions foreseen within it, while they are actively looking for funding opportunities across different funding schemes (i.e. Horizon, Interreg, and Life). In parallel, the City of Athens has adhered to the Global Covenant of Mayors for Climate and Energy (CoM), as well as to other global initiatives, committing to increase energy efficiency and reduce greenhouse gas emissions. Additionally, the city is developing a measurement and reporting system, which will not only be used to fulfill commitments of various initiatives but will provide a holistic view of the city's environmental status. The team is also supporting the development of an integrated Climate Action Plan (CAP), which will be the roadmap for the implementation of climate change mitigation and adaptation measures in the years to come and will be used to increase the city's resilience to climate risks. Looking into resilience from a holistic point of view, emphasis is given to energy conservation in public buildings, street lighting, and promotion of sustainable mobility among others. Although the city is not currently an ICLEI member, the City of Athens is a member of globally-recognized city networks such as C40 cities and EUROCITIES.

Both Athens and Thessaloniki have shown increasing efforts in managing the recent refugee crisis. Athens has worked to provide shelter and subsistence for refugees in the Pireaus port and in a variety of quickly organized shelters in the city (e.g. in ex-military camps). The Mayor of Athens has also initiated a solidarity pact supported by more than 30 mayors around Europe in countries that receive the majority of refugees.

2.1.9. THESSALONIKI (GREECE)

Thessaloniki was selected due to high interest in the SMR project following SMR's showcase and presentations by SMR cities at the 3rd Open European Day at Bonn Resilient Cities. ICLEI also has experience with working with Thessaloniki on resilience through URBACT. The city came forward with an offer to host the Stakeholder Dialogue and wishing to use the project's tools. The city has also

shown some interest in translating the SMR tools into the Greek language. SMR's contacts are Resilient Thessaloniki Project Manager and Deputy Mayor for Urban Resilience & Development Programmes at City of Thessaloniki. In addition to participating in the 100 Resilient Cities initiative, the city has made significant effort to improve its microclimate. Among other recent projects, Thessaloniki developed central, previously industrial squares, developed rain gardens in the 28th October Street and developed the waterfront in a large-scale project.

In terms of social resilience, and regarding the recent refugee crisis, the city of Thessaloniki has shown efforts in integrating migrants to everyday life, while many initiatives and NGOs are actively working on this field (Arsis, Praksis network). The municipality has established a Municipal Council for the integration of refugees and migrants (which is also working with the Decentralized Administration of Central Macedonia).

2.2. THE CITY RECRUITMENT PROCESS

The selection and recruitment process for the Tier 3 cities was carried out by ICLEI Europe in discussion with the Tier 1 and Tier 2 cities and took place between project Month 12 and 29 of the project. Each confirmed city signed and returned a Statement of Commitment, whereby they committed to participating in one 'Stakeholder Dialogue' with the Tier 2 cities; in Thessaloniki, Greece; one 'Stakeholder Workshop' with the Tier 2 cities; in Brussels, Belgium and participation in three webinars.

Following the return of the Statement of Commitment forms, ICLEI Europe briefed each Tier 3 city in more detail, to introduce the team and explain the process over the following six months. The cities were also directed to the website and to the supporting materials and videos. Finally, a month before the Stakeholder Dialogue, an introductory webinar was also conducted, in which ICLEI presented the tools and set out the detailed programme of the Tier 3 pilot process.

2.3. TIER 3 TIMELINE

The steps and dates of the Tier 3 programme are shown in the following table. All Tier 3 cities will be invited to each event.

ACTIVITY	DATE	LOCATION	RESPONSIBLE
Stakeholder Dialogue	07-11-2017	Thessaloniki	ICLEI
Webinar: Portal	12-12-2017 (TBC)	Online	ICLEI & CIEM
Webinar: Maturity Model and City Resilience Dynamics	17-01-2018 (TBC)	Online	ICLEI & Tecnun
Webinar: Policy Tool and Risk Systemicity Questionnaire	08-02-2018 (TBC)	Online	ICLEI & Strathclyde
Stakeholder Workshop	07-03-2018	Brussels	ICLEI

3. CITIES IN THE SPOTLIGHT

Tier 3 cities were active contributors to the event, and participated in dialogues with the project's Tier 1 and Tier 2 cities and research partners. The event opened with a presentation of host city Thessaloniki's resilience strategy and with two sessions focussing on resilience action in the Tier 1, 2 and 3 cities followed by questions and discussions. This chapter summarizes the presentations made in the "Cities in the Spotlight" sessions as well as the discussions that ensued.

3.1. THESSALONIKI 2030: CITY RESILIENCE STRATEGY

Resilient Thessaloniki's project manager presented Thessaloniki's Resilience Strategy and the city's general resilience goals: 'Shape a Thriving and Sustainable City', 'Co-create an Inclusive City', 'Build a Dynamic Urban Economy' and 'Responsive City and Re-discover the City's Relationship with the Sea'. Thessaloniki published a resilience assessment (which plans up to 2030), identifying shocks and stresses. Main shocks were listed as:

- Earthquakes

- Surface flooding

- Heat waves

- Atmospheric pollution incidents

- Fire in the peri-urban area

Main stresses include:

- Ageing infrastructure

- Unemployment

- Lack of access to affordable healthcare

- Insufficient involvement in planning procedures.

3.2. THE FUTURE OF THE RESILIENT CITY

The need for investment in resilience has been demonstrated in the project research and articulated by city partners, but cities are still faced with challenges in gaining political commitment to resilience. ICLEI Europe provided an overview of the need to invest in resilience:

- Resilience supports livelihoods and improves quality of life

- Enhances land use planning that integrates disaster risk assessment and consideration into existing processes

- Manages and protects (critical) infrastructure – connects to continuous productivity of other development investments

- Promotes education and capacity building

- Protects housing

ICLEI Europe also discussed the importance of having an integrated management system for resilience, which can be applied at city level and support the resilience building process by providing the cities that receive training on how to use it and implement it in their local context with a variety of benefits, that only some of them are listed here:

1   Increased awareness on climate change adaptation, resilience and sustainability;

2   Improved quality of management at local level and across the various municipal departments;

3   Enhanced transparency and advanced monitoring action;

4   Increased trust in local governance;

5   Increased number of engaged citizens through co-creation activities;

6   Contribution to a sustainable and resilient economy and, last but not least,

7   Provision of better perspectives for a bottom-up inclusive EU, something that cities nowadays tend to promote and seek, especially in the outset of austerity measures and increasingly limited resources.

Following this introduction, the SMR Tier-2 partner cities of Bristol and Riga presented a couple of case studies on planning for resilience and then Amman, Thessaloniki and Athens contributed to this session with a short case study each. Since all the Tier 3 cities are members of the 100 Resilient Cities, the session was a good chance to point out the main axis of the Resilience Strategies the cities have in place and to identify linkages to SMR Resilience Policies that exist in the Maturity Model and especially in the Leadership and Governance dimension[7]:

Bristol and Riga focused on the following two policies, but with different perspectives: Policy L1S1, "Establish a working team responsible for resilience issues in the city" and Policy L1S2, "Integrate resilience into visions, policies and strategies for city development plans". Bristol is a member of the 100 Resilient Cities, so they have done a lot of work on resilience already and the city is placed in advanced stages of resilience maturity. When Riga began the project, they positioned themselves in a starting stage. Bristol is at a more advanced stage. Each city shared their view of the future of the resilient city and actions they have undertaken to move in that direction. Riga, as a starting city in resilience, provided with some examples on how they are currently try to engage stakeholders in the process and how effective city-to-city exchange through the SMR project has been so far.

3.2.1.   TIER 2 CITY: RIGA

The SMR project has helped spread awareness of resilience in Riga. Three years ago, there was a lack of awareness of resilience and it has in the meantime become a buzzword. As a result of the SMR project, Riga is planning a stakeholder engagement platform where users will receive a resilience profile based on the Resilience Maturity Model.

Riga chose energy as a priority point for the SMR project. A new energy action plan is planned up to 2030. Before closing their part of the session, Riga touched upon a couple of case studies on (critical) infrastructure and resources as the city has done a lot of work in the field (RMM POLICY I2A4: Promote and provide incentives for the development of sustainable urban infrastructures)

3.2.2.   TIER 2 CITY: BRISTOL

Bristol shared the cross-departmental management structure they use for resilience work within the Bristol council: a resilience coordination group. In addition to this, Bristol uses a sounding board on project work around the topic of resilience to exchange on skills and knowledge. Across the four

---

[7] http://smr-project.eu/tools/maturity-model-guide/resilience-maturity-model/?dimension=L

unitary authorities, they formed a sustainability working group to develop joint evidence related to sustainability and resilience. This has helped to fit in preferences for policies with a stronger voice.

Bristol also engaged a large number of people through Bristol Day, reaching total of approx. 1600 people through a range of activities. Regarding challenges related to housing, an upcoming Joint Spatial Plan will form an overarching plan and individual plans will fit beneath this. A local nature partnership carries out ecosystem services mapping.

Regarding funding, Bristol has received funding from Horizon 2020 projects and 100 Resilient Cities. Traditional routes such as the environment agency are also an important source. Being European Green Capital allowed funding community groups and projects, including artistic projects that contributed to resilience.

Key quotes from discussions with Bristol:

➔ [before establishment of a sustainability working group] "We had heads of departments who didn't know each other."

3.2.3.   TIER 3 CITY: ATHENS

Athens has developed the Athens Partnership, which is a fund. The first funding came from the Stavos Niarchos Foundation. This helps bypass some bureaucratic barriers.

Athens shared the outline and main themes of the resilience strategy, which are:

1   Achieve effective, efficient governance and communicate and collaborate better with all residents by fostering data driven policy making.

2   The city of the future will meet our need for proximity to nature and be able to withstand climate change and environmental challenges.

3   Streamline and up-scale its best "survival" skills, and through planning and communication, create trust and a safe environment for people.

4   Nurture and develop its assets in order to promote well-being, creativity, entrepreneurship and a new, inclusive, and exciting identity.

Athens' main challenges were listed as:

- Climate Change
- Corruption
- Displaced Populations / Migrants
- Earthquake
- Environmental Degradation
- Extreme Heat
- Financial / Economic Crisis

- Insecure Municipal Finances
- Lack of Social Cohesion
- Pluvial Flooding
- Riot / Civil Unrest
- Shifting Macroeconomic Trends
- Terrorist Attacks
- Unemployment

Athens also referred to a project where they we worked with comic artists who design comics for engaging young university students. They had a partnership where they researched neighbourhoods and we also included input from artists.

Key quote from Athens:

➔ "Sometimes, people from different departments don't talk to one another, and when they do, they don't do this systematically."

3.2.4.   TIER 3 CITY: AMMAN

The Greater Amman Municipality, Jordan, shares challenges with some European cities, but at a scale unimaginable for its European peers. The population in the city has more than doubled in the last decade due to the war in neighbouring Syria, and the municipality has been working overtime to provide support to the new inhabitants and stretch the city's infrastructure and housing to accommodate the unprecedented population pressures.

Amman is the political, social and economical capital of Jordan. The city has doubled in size to almost 4.4m due to a large number of refugees arriving in the city in the recent years. The increased population has had impacts on already existing challenges related to infrastructure and water

shortages. There are social cohesion issues with so many diverse societies. It was urgent to start working on resilience. Amman's Resilience Strategy was launched in May 2017. It began with an assessment of the city's shocks and stresses. Involvement of youth was a central element in the development of the strategy. Amman's strategy has five pillars, as follows.

1	An integrated and smart city	**4**	A young and equal city
2	An environmentally proactive city	**5**	A united and proud city
3	An innovative and prosperous city		

Some of Amman's actions are already aligned with the city strategy. They are working with the UNISDR committee for refugees. Amman has involved stakeholders including from cultural, political, academia, youth, refugees sectors and assessed their needs and the challenges they are facing.

Key quotes from Amman:

➔ "We wanted [citizens] to feel ownership of this strategy. We made sure not to undervalue any of their suggestions, especially with the youth and refugees, which are a unique group for Amman."

3.2.5.   TIER 3 CITY: THESSALONIKI

The Deputy Mayor for Urban Resilience and Development Planning shared Thessaloniki's journey towards resilience amid intense challenges, including the financial crisis, the challenge of integrating refugees, and adverse weather effects from climate change. Steps by the city council have produced positive results in creating cooperative relationships with stakeholders, establishing a promising basis for achieving the city's goals, such as tackling unemployment and re-establishing a meaningful connection between the city and its coastline. The Deputy Mayor demonstrated how the city had successfully won support from the regional government to develop the coastline area in collaboration with neighbouring municipalities.

Establishing citizens' trust

Thessaloniki wanted to establish a connection to the citizens and give them a sense of engagement and empowerment, so that they have the feeling that voices are heard. The city is challenged by a

culture of mistrust between citizens and authorities, which is common to many Greek cities. Citizens blame the economic crisis on the local and national governments. One advantage for Thessaloniki's city administration is that it began as a ground-up citizens' initiative and not as a political party. In the first elections, the group achieved 16% of the vote. At this point, the backing of the socialist parties was achieved. This is a key narrative and foundation that gives Thessaloniki's city administration a way to connect more closely with citizens and overcome the usual mistrust of established political parties.

Mainstreaming resilience

The most difficult thing for the rest of the administration is to try to incorporate resilience into the municipal plans. This process is now supported by external advisors. This is a challenge as the city needs to work with opposition.

Funding sources

Thessaloniki is working with the World Bank, where the city is requesting services. The World Bank provides technical advisory services and prepares what the city wants and need for funding in the future. A further funding body, the Stavos Niarchos Foundation, is a source of direct investment and has made a donation of €10m of investment for social welfare, social cohesion and infrastructure.

Key quotes from the presentation by Thessaloniki:

➔ "In order to be resilient, we have to adapt. We have to adapt the way of operating in relation to the city plan."
➔ "We have to prove [to citizens] that there are things happening in the city in terms of teams working together to produce a result."

Cities in dialogue

Following the case studies, the cities engaged in a city-to-city panel discussion, facilitated by ICLEI Europe. To the question: "Apart from the funding that came through the 100 Resilient Cities programme, have you used any other creative mix of funding instruments, such as green bonds or crowd funding?" Bristol responded that: they would not really call it a "creative mix", but that they have looked into a variety of opportunities and funding schemes to ensure that the resilience team secures funding following the end of the 100 Resilient Cities programme funding. The city considers that the creation of a resilience culture has brought a lot of benefits for the city, especially in regard to stakeholder engagement and citizen participation in co-creation approaches, and that they would

definitely want to take this further. In discussions, the Deputy Mayor of Thessaloniki referred to a point that the city of Bristol had made in their presentation about interdepartmental meetings. Bristol then elaborated on their sustainability working group in response to his query and explained how representatives of different departments agree joint policy positions together. Previously to this, Bristol "had heads of departments that didn't know each other."

The city of Stirling asked Thessaloniki, "What is your plan regarding your connection to the sea?" Thessaloniki explained that they tried to persuade the regional government to fund a metropolitan plan for the waterfront and not let the cities work for it alone. Without a connected strategy between municipalities, the city will not be able to work on it, e.g. regarding development tourism. They city is working with the World Bank to develop a plan for the Thessaloniki waterfront and to deviate possible investment. The previous day, the regional governor had held a meeting and decided to invite the cities to come up with their own proposals.

3.3. COMMUNICATING BEST PRACTICES FOR RESILIENT CITIES

Understanding real-life resilience-building investments and projects and recognising the activities that are already going on in a city, or winning political support for resilience investment, requires effective communication of projects and best practices. Application of the Resilience Maturity Model requires cities to translate practice into high-level strategy. Similarly, replicating resilience development that has been successfully implemented in the other cities requires a flexible kind of thinking and self-analysis so that cities can consider projects in their own city comparable to projects already completed elsewhere. ICLEI Europe provided three methods that cities can apply to support them in this process.

3.3.1. APPROACH 1: CASE STUDIES

ICLEI Europe drew attention to the importance that rigorously factual background information or case studies are available for those who wish to understand resilience-related projects in greater detail. There are well-established formats and templates available for how to write a case study. When writing a case study, ICLEI Europe encouraged the cities present to include the details of where decisions were made because of local peculiarities (e.g. a green roof in Madrid was planted with cactuses, a community programme involved the local religious community or a project had to be

finished in 2 years to coincide with political terms) as part of the background information. This style can provide inspiration and details can be extracted. A number of relevant online case study platforms were mentioned for different topical areas: Climate-Adapt for adaptation, Eltis for mobility and Oppla for nature-based solutions. Case studies can be easily added to the SMR website through the wiki function. Each city will be provided with a username and password, or users can send a password reminder request through the SMR website.

3.3.2. APPROACH 2: HEADLINING

The second recommended approach is the summarizing of sometimes complicated and cross-cutting projects, policies and actions into generic headlines. This approach documents best practices generically and is a useful addition to full case study documentation. When headlining, a project is explained in terms of the generic problem it aimed to address, the internationally standard work processes involved (e.g. involvement of private companies, approval levels explained in a generic way, key milestones in the project) and the relative improvement or outcomes. Headlining is part of the application of the Resilience Maturity Model, where cities analyse the policies they have implemented in order to plan investment in resilience.

Headlining supports:

- Explaining projects to citizens

- Explaining projects to other departments and sectors

- Comparing practice to benchmarks and other cities

- Understanding overlaps and symbiosis between different projects across the municipality

- Taking a long-term planning perspective and build on previous work in the municipality.

Political terms are limited and it is important to different administrations to brand their activities as distinct from their predecessor.

An example was made of Bertolt Brecht, the German playwright, who kept a wooden donkey on his desk, which he would use as a reminder to simplify his language. He would revise his text until the donkey could understand. Participants were encouraged to translate their resilience policies until the donkey could understand. This can help locate and contextualize the project as part of a long-term progress arc.

3.3.3. APPROACH 3: STORYMAKING

ICLEI Europe reminded the cities present of the power of narrative. Stories connect with people emotionally, are memorable, are inclusive, and are replicable. Creating a narrative out of a best practice makes it a self-sustaining and self-replicating entity, that can leave a city's archives and reproduce itself in the media, citizens' anecdotes, colleagues' PowerPoint presentations, university teaching, info-boxes in reports and briefing documents and sometimes, in other cities. Five narrative techniques were presented.

Narrative techniques:

1   "Partnering up to solve problems"

For this approach, an immediate problem that citizens are concerned about is identified, and the benefits of a cooperation (e.g. with a local company or research institution) for solving this problem is demonstrated. For example, CIEM, University of Agder, communicated the SMR project to a regional television station in the context of severe local flooding. This helped to communicate that the municipality is using the university's expertise to solve tangible problems that citizens are worried about.

2   "Mayor superstar"

For this approach, a profile of the Mayor or responsible person in the municipality who has spearheaded the project is developed and matched with a narrative of how the project relates to this political figure's personal convictions and goals. This approach shows the people behind the decisions and fits the project into a narrative of that person's characteristics or biography.

3   "Eureka"

This approach is aimed at stories intended for mainstream media, where newness is crucial. Narratives focus on what is new or cutting edge about the project and the relevance of the project's new technology or new solution.

4   "People power"

An example of this approach was provided by Thessaloniki, where they focussed on the bottom-up history of the city council's administration to gain the trust of citizens. This approach attributes the project to demands from citizens or action by citizens, or as triggered or inspired by bottom-up engagement after finding an ally in the local administration. In this narrative the action comes from the community. The city's involvement is represented as a milestone in the citizens' story, rather than the local administration taking ownership of the project.

5   "Our shared history"

This approach locates the project in relation to the city's history or a unique or central aspect of the city's identity. This locates the project in the long-term story of the city and positions the project as a manifestation of the strength and integrity of the city's collective progress. For example, pre-existing or folk knowledge can be presented as solving new problems, e.g. a local company enlists retired gardeners with knowledge of local plants to help a green wall flourish, or experts in traditional building techniques are part of a construction project to help buildings blend in with the surroundings, or a traditional celebration is re-instated as a community event to boost integration of isolated people and refugees.

City best practices

The session continued with examples of best practices for resilience from Tier 1, 2 and 3 cities.

3.3.4.   TIER 3 CITY: MALMÖ

The DRR Coordinator, City of Malmö, presented on Malmö's approach to resilience. In terms of working beyond silos, she found that if you talk to different departments and citizens, you always need to revise and change your strategy. Malmö has a close connection to Copenhagen and a young population. A report by the World Health Organisation reported on the need to close the gap between generations. Malmö has done this on a local level and a lot of initiatives on resilience have been implemented. The city still needs to focus on coordination in the city and to identify the more relevant resilience practices to implement. The newly established office will give this coordination level, but the

city is also working with the Resilient Cities of Sweden Association to address local and regional challenges.

3.3.5. TIER 3 CITY: STIRLING

The representative of the city of Stirling referred to its process of undergoing an energy transition. Community energy has been a great success for Stirling. The emphasis is changing on what local communities can do and what they can do themselves in order to work together and co-develop energy initiatives. Stirling has a Community Empowerment Bank. Working together with the Bank of Scotland, the Scottish government and a housing association, the city is planning to build and has secured funding for building houses across the city. This will provide citizens with affordable housing to the citizens and will also support vulnerable populations. House prices and rents continue to rise in Scotland and the city has identified social housing as one of the main needs at the moment.

3.3.6. TIER 1 CITY: GLASGOW

Engaging city stakeholders in a discussion around resilience

The city of Glasgow shared two projects with the rest of the cities. In the first project, they engaged city stakeholders in regular discussion around resilience. Through this initiative Glasgow sought to embed resilience into decision making at a Community Planning level across the city and ensure that all city stakeholders were involved in the implementation of resilience. The goal was to promote procedures to involve stakeholders in the implementation of the resilience action plan. As part of the review of the Community Planning Process in Glasgow, three central focus themes have been established. These are:

- Economic Growth,

- A Fairer and more equal Glasgow

- Resilient Communities

The ethos is that it does not matter where you live, working or not, younger or older; everyone in the city can benefit by getting these things right.

Whilst city resilience is embedded across all of the focus themes, key delivery will be under the theme of Resilient Communities. This means that there will be a regular meeting framework, focused

discussion, action and learning around this theme. This process will involve several key city stakeholders including police, fire and rescue, housing associations and community representatives. Embedding resilience as a theme has been an important step in the city's resilience journey. This will now allow for more formal structured processes which will allow issues of resilience to be considered on a long term basis across the city. The full outcome of influencing this process has not yet been realised but the regular meeting structure, diversity of stakeholders and accountability for action in relation to community planning ensure that this will be part of a concerted effort amongst city stakeholders in the city.

Community Resilience Development Officer

A national role was created in Glasgow for a Community Resilience Development Officer. The role was intended to help ensure resilience thinking reaches schools and children. The Officer was to encourage a consistent approach across teachers across the country in this area and to share best practice by getting teachers together and to let them know about all the tools and approaches that are available to them.

This case study is of interest to all cities whether they wish to consider the full case study or to adopt something on a smaller scale. Although the work was funded at a national level by the Scottish Government, a city could undertake something similar on a smaller level by having a reduced resource but still focuses on liaising with the City Education service. Children are the future of the city, so getting them engaged at an early age is important. Children can also be a key route in engaging parents.

In Glasgow there is a great diversity of understanding of the term "resilience", ranging from very simple conceptualisations to those which are extremely complex. The project was designed to create better understanding nationally (Scotland) across school age children (age 11-17) about issues of community preparedness as well as to prompt teaching staff to design exercises to build skills in relation to community resilience and action.

The plan was to liaise nationally with schools and produce a defined outcome around resilience. This depended upon enhancing teachers understanding of resilience and so encouraging their schoolchildren to do activities around resilience. The focus was mainly on being prepared in case of emergencies as it was felt there was not sufficient prominence placed on this through the national Curriculum for Excellence in schools. However the scope did touch on wider resilience issues such as self-esteem, community empowerment and mental health.

The impact of that Community Resilience Development Officer role on adult stakeholders was evaluated in 2017 by an independent organisation - The James Hutton Institute - using qualitative and quantitative data.[8]

The city wants and needs to embed resilience into the general understanding of the citizens for everyday work. The language and terminology for resilience needs to be standardized as there is much confusion on terms and concepts.

The city of Glasgow still finds it difficult to coordinate on projects shared with other cities and which require the involvement of other departments as they still work in silos, this is also because of the large number of people working for the different departments of the Glasgow City Council – there is a coordination office that tries to connect them though – increased collaboration lately with other cities through the H2020 projects the city is involved in and also the 100 Resilient Cities network.

3.3.7.   TIER 2 CITY: VEJLE

VIFIN, Vejle Municipality presented two projects were the municipality of Vejle cooperated with the private sector.

The city of Vejle built a lock to decrease the risk of flooding while also improving the urban environment. This case study is relevant to cities seeking holistic solutions to future problems, in this case combining preventative measures for flooding with attractive urban design. Vejle is a town in Denmark of approximately 55000 inhabitants, and about 110000 inhabitants live throughout the municipality. The town of Vejle is a low-lying harbour town lying in a valley, and main resilience challenges therefore include rising sea levels and extreme rainfall.

A main objective of the project has been to make the city of Vejle more resistant to extreme events, such as flooding. When the seawater is pressed up in the rivers and / or when it rains heavily, the sluice and pump system can lower the water level in the stream and help reduce the flooding along the river. The sluice keeps the seawater out and pumps transfer water from one stream into another when the sluice is closed. The sluice and pumping mill is also an exciting urban space, which adds something extra to the city and the public. A holistic approach was required to combine law

---

[8] The full project has been evaluated: http://www.readyscotland.org/media/1390/crew_community-resilience-officer-evaluation-final.pdf

requirements, technical solutions, and the concept of developing urban spaces with other factors (flora, fauna etc.).

The building of the lock was completed in cooperation between Vejle Municipality and Vejle Spildevand A/S, a company providing waste- and rainwater treatment. The project was expected to prevent flooding and transform the city by establishing a new urban space. Integration the requirements of the technical design of the lock and ensuring the development of an attractive urban space was done by initially putting a lot of resources into the overall plan. Once this was settled more focus was put on the performance of the lock. However, there has been a parallelism between the different perspectives throughout the project. The lock is designed in a way that it is easy to understand the different functions it has and is also a symbol of the joint efforts between the Municipality and Vejle Spildevand, and how they have worked together work to secure the city.

First and foremost, the decrease of flooding since the lock was take into use has saved the Municipality as well as Vejle Spildevand A/S a lot of money (the project paid for itself already after a few months). Further, the citizens of Vejle have been provided an attractive area to relax in. The lock allows citizens to stay aware of the threat of flooding in Vejle city, and is designed in a way that offers people an understanding for the construction and function of the lock.

The project has been co-financed by Vejle Spildevand A / S (private company), Vejle Municipality and the Danish Government.

Vejle further summarized the "Design of Relationships" programme, whereby design students cooperated with a publicly-owned care centre to 'design' ways for severely disabled people to make meaningful friendships beyond their professional relationships with their carers[9]. The project was carried out in collaboration between Vejle Municipality and the Kolding design school to develop technical solutions for improving social life for individuals with physical and cognitive impairments. Through strong commitment from the municipality's care centre and involvement of the design school, volunteer groups and local schools, the goals of the project were achieved, facilitating social life for residents at the care centre.

The project was carried out at Skansebakken, a housing and care facility for 45 people with severe physical and mental handicap. An additional expected benefit was to free staff hours. The project had

---

[9] More information on the "Design of Relationships" project is available at http://smr-project.eu/tools/maturity-model-guide/resilience-maturity-model/c1a2.

three main phases. The first phase was led by Kolding design school in collaboration with staff and residents at Skansebakken. They utilized a variety of design methods to develop new and innovative solutions for the residents at the care home, including observations and workshop with stakeholders. Design solutions were iteratively evaluated with the participants and resulted in a digital tool. The designers further provided training for staff and residents to use the tool. Computer tablets were purchased for the residents to make it easier for them to present themselves and communicate with the outside world. In the next phase Skansebakken and Vejle municipality took lead on the project and the digital tool was tested and used in daily activities. The final phase of the project included an evaluation, which was further disseminated to other municipalities. The basis for the evaluation was a mapping of the residents' relationships in January 2012, 2013, and 2014.

The project was a collaboration between public and private sectors, including education, the municipalities' care centre and the design school. The collaboration was regarded a success, a main factor being that the senior management in the municipality's care centre was very committed to the project. Having leadership in the department backing the project up by personal involvement makes a difference.

The evaluation shows that the residents increased their level of social activity, strengthened bonds and made new friendships. The new friendships were mainly formed between the residents and volunteers from the local community, but also other people who took part in various activities at Skansebakken, visiting friends from the ULF (Development Disability Associations), Rødkilde Gymnasium (a local school) and former employees. Further, results from the project show that the organized activities resulted in improved relationships between residents at Skansebakken. The project was funded by the National Health Board, which also evaluated the outcomes.

3.3.8. TIER 2 CITY: ROME

One of the stakeholders that were invited by Rome was the Head of the Laboratory for the Analysis and Protection of Critical Infrastructures, ENEA Casaccia Research Centre, and he spoke in his capacity as a stakeholder of the City of Rome implements projects on risk and vulnerability assessment, as the city faces a variety of challenges, like fluvial flooding and ageing infrastructure to mention the most important ones. They are also looking into cascading effects and how to better communicate their efforts on managing extreme events and preventing the loss of lives or citizens set at risk. The city is implementing workshops on different topics (like they did in the case of the RSQ) and ENEA is also in partnership with the city in this.

Rome also joined a project called EISAC (European Infrastructures Simulation and Analysis Centre), formed by interconnecting national EISAC nodes devoted to support Critical Infrastructures (CI) Operators and Public Bodies committed to assets and citizens protection. The portfolio includes:

- Operational Risk Analysis on CI

- A Dashboard to analyse and control a city area with the possibility of accessing a large database

- Support to city Civil Protection for estimating lifelines vulnerability in case of crisis (for earthquakes)

- Tests of Resilience for inter-dependent infrastructures

- UAV (Unmanaged Aerial Vehicle) and Remote Sensing analysis of specific areas where vulnerable CI assets are located

- Remote Sensing analysis of specific areas (high density of strategic assets, large seismic or landslide propensity)

- Geoseismic analysis for design of new CI networks

- Support for the Organization of National CI Crisis Exercises

4. RESEARCH INPUT AND TRAININGS

4.1. TRAINING WORKSHOP 1: CITY RESILIENCE DYNAMICS

Facilitation: ICLEI Europe

Contributions and training: TECNUN University of Navarra, City of San Sebastian, City of Kristiansand

The session opened with an introduction by the project coordinator to the concept behind the Resilience Maturity Model and the City Resilience Dynamics tool, which is a supporting tool for the Maturity Model. He explained that the idea emerged from a combination of two independent PhD projects, one on Maturity Models and another on Resilience. The idea was to integrate these two concepts as a suggested path to work towards resilience and to create a common language for all of the involved stakeholders that would ensure the representation of every background.

As a brief introduction, an overview was presented as well as the four dimensions covered by the model, to each of which a colour is assigned:

1   Leadership and Governance: Orange.

2   Preparedness and organization: Blue.

3   Infrastructure and tangible resources: Grey.

4   Cooperation: Green.

Each dimension also has 2 sub dimensions.

The city that uses the tool could then figure out the stage in which they are situated, or at the stage in which they are situated each of these dimensions. There are 5 proposed stages, regarding the response to hazards or events:

S – Starting: different groups within the city may react after an emergency without coordination in between them.

M – Moderate: there is some degree of coordination in between the acting groups.

A – Advanced: there is coordination in between the acting group.

R - Robust: there is a solid coordination while acting to emergencies that may spread to an international level.

T – Vertebrate: the city is a reference point for resilience.

Relevant stakeholders become progressively involved in the process as a city progresses through the five different stages.

4.1.1.   CITIES IN DIALOGUE

The cities of Kristiansand, Greater Manchester and San Sebastian are, like Thessaloniki, coastal cities, and each city shared their experience with working with critical infrastructure providers, first responders and citizens to deal with crisis situations caused by flooding, and to develop preparedness and resilience to flooding as part of the cities' daily work. Kristiansand and San Sebastian are applying the tools of the SMR project to conduct self-assessment and audit of the city's policies and current levels of investment in resilience, as well as considering the interdependencies of risk using the Risk Systemicity Questionnaire (RSQ). These cities are now serving as guides and peer trainers to their Tier 3 partner cities to pass on the knowledge they have developed through the SMR project.

Kristiansand

The project representative of Kristiansand explained that a community Strategic Action Plan had already been planned before using the tool. Application of the Resilience Maturity Model returned a diagnosis that Kristiansand is already at a 'Robust' stage. Their aim is to work in communication to improve their response.

Donostia/San Sebastian

As the Donostia/San Sebastian representative demonstrated, seaside storms and flooding are a well-known risk in Donostia/San Sebastian. When such an event occurs, several groups respond independently and undertake some actions, such as rebuilding houses or dealing with environmental damage. There is an Action Plan and an Emergency Plan, but the coordination between the different groups involved still at a "starting" level.

The representative of San Sebastian noted that the city recognizes the need to avoid silos within the city and to include some groups of stakeholders that have been ignored or misrepresented. She also referred to ongoing environmental projects involving nature based solutions to adapt to climate change such as the Urumea riverside project, which aims to create riverbank buffer areas to prevent flooding.

Regarding the Resilience Maturity Model, San Sebastian considers that the Maturity Model is designed to help in the discussion on how to address the matter of resilience and that the tool can help indicate the city's relative position within a possible timeline towards achieving a vertebrate stage of resilience. In terms of the European Resilience Management Guideline, she mentioned that the tools could be used in isolation, but that its potential will be increased while used as a package. She found that this kind of application could help stakeholders to understand the whole process.

Greater Manchester

The representative of Greater Manchester referred first to the topic of water management. A variety of groups in Manchester take care of different aspects of the system. Drinking water and wastewater management is undertaken by private companies. Local authorities take care of the drainage and non-governmental organizations are responsible of the canals.

In this case, trying to achieve coordination between the different actors involved is the main challenge, reaching a common language and a homogenized working protocol. Like San Sebastian, Greater Manchester is working to overcome a culture of silo working.

Regarding the Resilience Maturity Model, Greater Manchester considered that the tool could be used as a complement of what the city already has and that it showed that the city needs to focus on co-creation. He also considered it a useful tool to engage the different parts in a discussion.

Malaga

The representative of Malaga drew attention to their principal challenge, which is to convince different stakeholders to work together as part of the city's response to climate change. Administrative processes were flagged as an ongoing challenge as well as the need to establish priority groups before introducing new tools. Malaga considered that the Maturity Model could be applicable to their context, but first, the capacities within the city council have to be assessed. The project coordinator offered the Maturity Model as one supporting tool for this kind of self-assessment.

City discussions

Rome responded to the discussion on the Resilience Maturity Model application with the remark that the Resilience Maturity Model could be used to show the people what to do to address a certain risk.

Glasgow commented on the European Resilience Management Guideline that the tools could be a good discussion enhancer, while, for example, drafting the city's Resilience Strategy. Bristol noted that the Maturity Model breaks down the elements of a Resilience Strategy and allows users to analyze different aspects. Kristiansand found that the Maturity Model facilitates long term planning with a holistic approach.

Cities were then divided into groups to test the City Resilience Dynamics tool. It was necessary to explain to the participants that the total budget for investment should encompass an approximate figure representing the whole investment and economic input into resilience activities in the city, including by the private sector. Identifying an exact figure is not possible without extensive desk research. As such the cities were directed in completing and running the simulation model, and they understood its functionality quickly.

4.2. TRAINING WORKSHOP 2: UNDERSTANDING THE RISK ENVIRONMENT

For the Risk Systemicity Questionnaire training, the participants were divided into 5 groups, with a mix of city representatives in each group. Each group was facilitated by a Tier 1 or 2 city representative who had been involved in the development of the RSQ, with support from Strathclyde or an experienced user of the RSQ from the research partners. Each group addressed different topics in the RSQ with an expectation that only one topic would be completed, given the time available. Group 1: Public Unrest; Group 2: Elderly; Group 3: Social Cohesion; Group 4: Critical Infrastructure; Group 5: Climate Change – air pollution.

Reports from each group

4.2.1. GROUP 1

Facilitators: Kristiansand, ICLEI

Participants: Thessaloniki

The first group completed the Community Integration and the Public Unrest themes.There was a high level of involvement with extensive notes being made in the comment boxes about some scenarios and potential strategies that could be implemented in Thessaloniki. The group regarded the RSQ as potentially usable in Thessaloniki.

Feedback

The participants were positive about the facility to adapt the wording in the questionnaire and were happy to know that they can change some of the lines of the scenarios without changing the back end of the tool. The Community Integration theme scenarios and casual chains seemed very real and to the point by the participants. They reflected the Public Unrest theme could have been of benefit in the recent years had this tool been available to them. The fact that the city has changed radically in the last years has been brought up many times during the training session

Discussions inspired by RSQ causal chains

Discussion developed around the role of mainstream media in modern Greece with regard to public unrest and the risks surrounding media trends and citizens' trust of political institutions.

4.2.2.   GROUP 2:

Facilitators: Bristol, Strathclyde

Participants: Bristol, Greater Manchester, Malmö, Reykjavik, Pavlos Melas

Group 2 completed the RSQ for the 'elderly' topic and partially completed the 'inequality' topic. Even within tight timeline of a demonstration the group experienced the role of focused discussion and being able to i) minor edit a scenario (without changing its intent), and ii) use the comment boxes to put a scenario in a local context.

Feedback

Participants suggested the option of allowing comments to be added from the Priorities tab and to allow for an additional column to the right of the priorities column where a group can present their final agreed priorities. One considered topic presents 'extreme politicians' which presents a potential issue when there are some extreme politicians in the group. In this case, these scenarios might need to be hidden in advance.

4.2.3. GROUP 3:

Facilitators: Rome, Donostia

Participants: Rome, Athens, Pavlos Melas, Resilient Regions Association, Larissa

Group 3 completed the entire Social Cohesion topic and were keen to complete a second topic (climate change – flooding) but time did not permit.

Feedback

The group was enthusiastic about the use of the RSQ in practice and viewed the prompted discussion as particularly valuable. The provision of "mitigation options" was also found useful. Athens aims to organise a RSQ workshop in the near future. The RSQ was considered time-consuming, and it was considered that a full day or half day session would be beneficial to explore discussions arising and arrive at a consensus on risk awareness and a deeper understanding of interdependencies of risk.

4.2.4. GROUP 4:

Facilitators: Glasgow, Strathclyde

Participants: Riga, Stirling, Pavlos Melas, Malmö, Larissa

Group 4 discussed the Critical Infrastructure and Social Alienation topics, where answers entered into the questionnaire were based on responses from Malmö for the CI tab and Larissa's responses for the Social Alienation tab.

Feedback

The ability to change wording in individual lines of scenarios was well received. Comments boxes were seen as very useful. It was suggested that it would be helpful to add further mitigation actions.

4.2.5. GROUP 5:

Facilitators: Vejle, Strathclyde

Participants: Vejle, Pavlos Melas, Malaga, Amman

Group 5 discussed Climate Change – air pollution.

Feedback

Overall, the group appeared convinced with the tool and they very quickly understood how it worked. The RSQ was deemed an "easy to use tool". The participants found the comments feature particularly helpful. There was a consensus that the RSQ would be useful in cities. Thessaloniki regarded the RSQ as potentially usable in the city and is considering an RSQ workshop in the next months

Discussions inspired by RSQ causal chains

- Political instability and the rise of the Syriza party

- The role of mainstream media in modern Greece with regard to public unrest

4.3. RESILIENCE INFORMATION PORTAL

Researchers from the Centre for Integrated Emergency Management provided an introduction to the Resilience Information Portal following the second 'Cities in the Spotlight' session. They explained that all stakeholders should be involved in the end of the process, however, the engagement of IT personnel and a communication department from a city council is necessary in setting up a portal.

1   Identify staff involvement

→ IT professionals

→ PR and Communications officers

→ Heads of departments and city decision makers

→ Emergency services

2   Assess which portal functionalities could be a good choice for you

- Evaluate existing information infrastructure and workflows to find what functionality is missing in building city resilience

- Compare emergency and everyday communication strategy in the city and try to combine those into one communication platform

4.3.1. BENEFITS OF USING THE RESILIENCE INFORMATION PORTAL

Direct benefits

- Provide a building block as one of the SMR tools

- Facilitate urban resilience with technological means

- Supporting communication and collaboration between

  → City and citizens (involving and engaging citizens)

  → City and stakeholders, (establishing and caring for relationships)

  → Cities (knowledge sharing)

- Enabling cities to empower their citizens

- Having an operationalized portal

Benefits from the process

- Being a major source of discussion between relevant stakeholders

- Realization as a toolbox is a source of additional versatility

The portal employs an editing function which easily is understood by non-technological person. The project will provide the user handbook as well as video tutorials. The CWA document will provide functional specification which helps cities to set up their own portal from scratch.

Feedback from Tier 3 cities

Amman expressed an interest in using the portal and requested bilateral support in this. A training webinar will be provided on the portal by CIEM and organised by ICLEI to provide further training on the use of the portal. Bristol has also requested support in developing a portal in advance of a City Council analysis of the city's web needs.

5. DISCUSSION: A HOLISTIC, INTEGRATED VIEW ON CITY RESILIENCE DEVELOPMENT

Facilitator: TECNUN, contributions by: DIN and Reykjavik

The final session was facilitated by the project coordinator and included input by DIN and by the Tier-3 city of Reykjavik. The project coordinator opened the session by pointing out that cities are doing a lot in terms of adaptation and risk management, but that a lot still remains to be done. The process is, in effect, a continuous process.

The project coordinator then invited input from Tier-3 representatives by asking the city of Reykjavik for their opinion on "the most efficient strategy to have impact?" The representative of Reykjavik replied that strategy-making is highly dependent on policy makers and their patience. Reykjavik also pointed out that they would be introducing SMR to a working group in which they are a member as well as in an upcoming meeting.

The coordinator then drew attention to the tools, which are open access, and requested that the cities contact the project in the case of the tools being applied. He then posed a question on next steps and what is the impression of Tier-3 cities on the tools, what do they need, and how can they get real value? To this, the city of Malmö responded by saying that there is a need to find a way to get different stakeholders involved, and asking if it is possible for project representatives to visit the cities and elaborate on that. In response to this, ICLEI suggested conducting open webinars where all relevant stakeholders can be invited and where the tools can be explained and stakeholders trained. A further idea was the production of training videos on the tools. The city of Reykjavik also noted that a kick-off meeting would be very valuable in such a process. A further interjection was by the city of Kristiansand who said that "we should be eager to continue dialogue and to be adaptable on how to use the tools as well as learn and get into dialogue with cities to exchange knowledge."

The conversation then moved on to the topic of standardization where DIN pointed out that "we standardize the context and not the tool". He also pointed out that implementation workshops are foreseen for the standards. The kick-off meeting of the standardization committees was to take place on the next day (07.11), so a very brief introduction to standardization was given in order to bridge both days.

The session concluded with announcing that the next stakeholder dialogue workshop is foreseen to take place on 07.03.2018 and that potential regional cluster workshops may follow. Some Tier 3 cities showed interest in hosting regional workshops (Malmö, Malaga, and Athens).

APPENDIX

APPENDIX I: Agenda

SMART MATURE RESILIENCE

STAKEHOLDER DIALOGUE

SOLUTIONS FOR RESILIENCE PLANNING IN EUROPEAN CITIES

Agenda

06-08 November 2017

THESSALONIKI, GREECE

AGENDA – 7TH NOVEMBER 2017

TIME	SESSION	
8.30-9.00	Registration	
9.00-09:10	**Official Welcome by the City of Thessaloniki**	Mayor of Thessaloniki
9:10 – 9:15	Introduction to the activities of the day	ICLEI
09:10–09:25	**THESSALONIKI 2030:** City Resilience Strategy	Resilient Thessaloniki, 100 Resilient Cities, pioneered by the Rockefeller Foundation
09.25-09.40	**The SMART MATURE RESILIENCE Project /** linking the project to a city resilience plan/strategy	TECNUN University of Navarra
09.40– 09.45	**Q&A**	
09.45-10.45	**CITIES IN THE SPOTLIGHT 1:** The Future of the Resilient City	Contributions by: City of Riga, Aphrodite Bouikidis (Resilient Thessaloniki), City of Glasgow, Tier 3 Cities

Facilitator: ICLEI |
| 10.45-11.15 | **COFFEE BREAK** | |

11:15 -12:45		**TRAINING WORKSHOP 1:** City Resilience Dynamics	Contributions and training by: Tecnun, City of San Sebastian, City of Kristiansand TECNUN University of Navarra Facilitator: ICLEI
12.45 – 13.00		**QUESTIONNAIRE:** Collecting city expertise for resilience strategy development	STRATHCLYDE, LIU, ICLEI
13.00 – 14.15		**LUNCH**	
14:15 – 15.30		**TRAINING WORKSHOP 2:** Understanding the risk environment	Contributions and training by: Strathclyde University, City of Rome, City of Glasgow, City of Kristiansand
15.30 – 16.45		**CITIES IN THE SPOTLIGHT 2:** Communicating best practices for Resilient Cities	Contributions by: CIEM, City of Vejle, City of Rome, Tier 3 Cities Facilitator: ICLEI, Tier 2 Cities
16.45 – 17.00		**COFFEE BREAK**	
17.00 – 17.55		**DISCUSSION:** A holistic, integrated view on city resilience development	Panelists: DIN, City of San Sebastian, Tier 2 Cities, Tier 3 Cities Facilitator: TECNUN
17.55 – 18.00		**Final Remarks and Q&A**	ICLEI – TECNUN

18.00 – end   RECEPTION

APPENDIX II: Stakeholder dialogue attendee list

Gender	Position	Category
Female	Senior Architect - Technical Support Division Head at Greater Amman Municipality	Tier 3 city representative: Amman
Female	Communications Manager at Resilient Athens (City of Athens)	Tier 3 city representative: Athens
Female	Sustainability Manager at Bristol City Council	Tier 2 city representative: Bristol
Female	Sustainability Project Manager at Bristol City Council	Tier 2 city representative: Bristol
Male	Project Manager at DIN	Project partner: DIN
Male	Operational Planning & Monitoring Development Programmes (Municipality of Thessaloniki)	Tier 3 city representative: Thessaloniki
Female	Head of Road Safety and Security Laboratory at CERTH/HIT	DRS 7 network contact: RESOLUTE project
Male	Post-doctoral Research Fellow at the Centre for Research and Technology Hellas	Community of Users: BeAWARE project
Female	Resilient Thessaloniki Project Manager	Tier 3 city representative: Thessaloniki
Male	Scientific Consultant at the Municipality of	Tier 4 city representative: Pavlos

	Pavlos Melas	Melas
Female	Project Manager at the Metropolitan Development Agency of Thessaloniki	Tier 3 city stakeholder: Thessaloniki
Male	PhD Student at University of Warwick	Student
Female	Employee at the Municipality of Larissa	Tier 4 city representative: Larissa
Male	Head of Department of Operational Planning of the Municipality of Larissa	Tier 4 city representative: Larissa
Male	Secretary General/CEO at Resilient Regions Association	Tier 4 network representative: Resilient Regions Association
Female	Risk- and Security manager at the City of Malmö	Tier 3 city representative: Malmö
Female	Coordinator DRR at the City of Malmö	Tier 3 city representative: Malmö
Male	Professor at Linköping University	Project partner: LiU
Male	Sustainability and Resilience Officer at Glasgow City Council	Tier 1 city representative: Glasgow
Male	Professor at Strathclyde Business School	Project partner: Strathclyde
Female	Professor at Strathclyde Business School	Project partner: Strathclyde
Male	Researcher at Strathclyde Business School	Project partner: Strathclyde
Male	Crisis Manager at the City of Kristiansand	Tier 1 city representative:

		Kristiansand
Female	Associate Professor at CIEM	Project partner: CIEM
Female	Head of CIEM lab at CIEM	Project partner: CIEM
Male	Sustainable Resources, Climate and Resilience Officer at ICLEI	Project partner: ICLEI
Female	Sustainable Resources, Climate and Resilience Assistant at ICLEI	Project partner: ICLEI
Female	Sustainable Resources, Climate and Resilience Officer at ICLEI	Project partner: ICLEI
Female	Communications and Member Relations Officer at ICLEI	Project partner: ICLEI
Male	Head of department at Malaga City Council	Tier 3 city representative: Malaga
Male	Chair of the Greater Manchester Resilience Forum (Greater Manchester Combined Authority)	Tier 3 city representative: Greater Manchester
Female	Senior Technician at Donostia Strategic Office	Tier 1 city representative: Donostia / San Sebastian
Female	Doctoral Candidate at Tecnun	Project partner: TECNUN
Male	Director at Stirling Council	Tier 3 city representative: Stirling
Female	Policy and Analysis Department of	Tier 3 city representative:

	Environment and Planning at the City of Reykjavik	Reykjavik
Male	Project Manager at Riga Energy Agency	Tier 2 city representative: Riga
Male	Project Manager at Riga Energy Agency	Tier 2 city representative: Riga
Male	Head of the Laboratory for the Analysis and Protection of Critical Infrastructures at ENEA Casaccia Research Centre	Tier 2 city stakeholder: Rome
Male	Project Manager at Risorse per Roma S.p.A.	Tier 2 city representative: Rome
Male	Consultant at Vejle Municipality (VIFIN)	Tier 2 city representative: Vejle
Male	Consultant at the City of Vejle	Tier 2 city representative: Vejle