



# SMART MATURE RESILIENCE

D6.4 PROPOSAL FOR CEN WORKSHOP AGREEMENTS

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## EXECUTIVE SUMMARY

The deliverable D6.4 'Proposals for CEN Workshop Agreements' is the pre-last deliverable within Work Package 6 of the SMR project. It is based on the two previous deliverables – D6.2 'Summary of Standardization Potentials' and D6.3 'European Workshop Report' – and gives an overview of the initiated CEN Workshops based on the SMR results.

The process for developing a CEN Workshop Agreement (CWA) is described in Chapter 2. It can be summarized that a CEN Workshop is a flexible platform to define for example a specification that will have as a final outcome a CEN Workshop Agreement. The respective project plan builds the basis for each CEN Workshop.

The chapter 3 is illustrating the strategy for the standardization activities within the SMR project. This is based on the outcomes of the previous identified standardization potentials. The conclusions of this strategy are 1) Decision on which SMR tools should be transferred into a standard, 2) Invite other research projects to the project related standardization activities, 3) Efficient planning of the CEN Workshops meetings, 4) Support the development of the CWAs by assessment at city level, and 5) Active dissemination of the CEN Workshop Agreements.

The following chapter is listing the three CEN Workshops that have been initiated within the SMR project, including the involvement of external organizations and cities. The CEN Workshops are titled:

- City Resilience Development – Information Portal
- City Resilience Development – Maturity Model
- City Resilience Development – Operational Guidance

The background of each of these standardization activities has been listed accordingly, including the initiation of the CEN Workshop, the scope of the CEN Workshop as well as its contributors and current status. The CEN Workshop on the Information Portal started in June 2017, while the other two CEN Workshops have been established in November 2017. It is envisaged that the draft documents of the CEN Workshop Agreements will be ready by February/March 2018, and the final version by the end of the project in May 2018.



# TABLE OF CONTENTS

- Executive Summary .....3**
- Table of Contents .....4**
- List of Figures.....6**
- List of Tables .....6**
- 1. Introduction.....7**
- 2. Development Process of a CEN Workshop Agreement.....8**
- 3. Strategy for Standardization .....9**
- 4. CEN Workshop on 'City Resilience Development – Information Portal' .....13**
  - 4.1. Initiation.....13
  - 4.2. Scope of the CEN Workshop .....13
  - 4.3. Contributors.....14
  - 4.4. Current status.....15
- 5. CEN Workshop on 'City Resilience Development – Maturity Model'.....15**
  - 5.1. Initiation.....15
  - 5.2. Scope of the CEN Workshop .....16
  - 5.3. Contributors.....16
  - 5.4. Current status.....18
- 6. CEN Workshop on 'City Resilience Development – Operational Guidance' .....18**
  - 6.1. Initiation.....18
  - 6.2. Scope of the CEN Workshop .....19
  - 6.3. Contributors.....19
  - 6.4. Current status.....21
- 7. Conclusion and Outlook .....21**
- Annex A Project Plan of the Information Portal CWA.....23**



**Annex B Project Plan of the Maturity Model CWA .....31**

**Annex C Project Plan of the Operational Guidance CWA .....38**



# LIST OF FIGURES

Figure 1 - Timeframe of the three SMR CWAs ..... 11

# LIST OF TABLES

Table 1 - CEN Workshop Agreement development process ..... 9

Table 2 - Members of CEN Workshop Information Portal..... 14

Table 3 - Members of CEN Workshop Maturity Model..... 17

Table 4 - Members of CEN Workshop Operational Guidance ..... 20

# 1. INTRODUCTION

The pre-last deliverable of Work Package 6 'Standardization' of the SMR project deliverable D6.4 'Proposals for CEN Workshop Agreements' focuses on the description of the different CEN Workshops being established and the strategy for standardization behind it. The basis for this deliverable arises mainly from the deliverable D6.2 'Summary of Standardization Potentials' and deliverable D6.3 'European Workshop Report'.

The goal for this deliverable is to show the path between the identified standardization potentials of the project to the initiation, development and finalization of the envisaged standards. The deliverable D6.2 assessed each of the SMR tools according to several criteria. As a result a few results have been judged by the project partners as appropriate to transfer into standards. In order to receive thoughts and valuable input from outside the project, the deliverable D6.3 supported the identification of potential participants to the foreseen CEN Workshops that will have as a final outcome; a CEN Workshop Agreement. The European Workshop also helped to bring the relevant stakeholders such as the other DRS-7 research projects and other cities outside the SMR project together. The basis was built to establish formally the standardization items.

In this deliverable the following is presented to show the path for standardization within the SMR project:

- the background of the process for developing a CEN Workshop Agreement (Chapter 2)
- the strategy for conducting the standardization activities within the project (Chapter 3)
- the background information of the three initiated CEN Workshops and their current status (Chapter 4 to chapter 6)
- the short final conclusion and an outlook (Chapter 7)

This pre-last deliverable of the Work Package 6 will be completed along with the final deliverable that will show the respective drafts of the initiated CEN Workshop Agreements – deliverable D6.5 'Draft of the aspired CWA(s)' due to March 2018.

## 2. DEVELOPMENT PROCESS OF A CEN WORKSHOP AGREEMENT

A CEN/CENELEC Workshop Agreement (CWA) is described in the CEN-CENELEC Guide 29 (<https://www.cencenelec.eu/standards/Guides/Pages/default.aspx>). The guide details the characteristics and the development process of a CEN/CENELEC Workshop Agreement. A CEN/CENELEC Workshop is basically a working platform open to the participation of any interested parties for elaboration of the CEN/CENELEC Workshop Agreement. The proposal of a new CWA leads to the creation of a new Workshop. Next, the proposer of a CWA shall prepare a draft project plan, a self-assessment and undertake an analysis of the degree of interest in the subject across different European countries and amongst different stakeholders. In case of a CWA development out of a research project, like SMR, the latter one was done by including the different project partners from all over Europe.

The Project Plan of a CEN Workshop Agreement contains the Workshop background, a description of the scope, the objectives, the time schedule of development and the contact persons. After one month of publication of the Project Plan on the CEN website, a Kick-off Meeting needs to be organized (<https://www.cen.eu/news/workshops>). During the Kick-off Meeting of the CEN Workshop the Project Plan is confirmed and the chairperson as well as the secretariat elected. The role of the Workshop participants is to provide comments and input on draft documents and the approval of the CEN Workshop Agreement (organisations approving CWA will be listed in CWA foreword). For participation in the CEN Workshop the interested organisations need to fulfill the following conditions:

- signing the Registration Form,
- agreeing to assign exploitation rights of their contributions to Workshop deliverables to CEN, and
- registering to the Workshop can be done at any time until the end of the drafting phase.

Next, will be the development phase of the Workshop. In order to finalize the CWA the Workshop participants need to agree on the final document. Public consultation is mandatory, if the CWA deals with safety aspect (the draft CWA will be posted on the CEN website for a minimum of 60 days). For any other workshop it is recommended, but not mandatory.



The CWA is valid for 3 years, after which the participants are asked to make a choice to:

- reconfirm,
- revise,
- upgrade into a standard/ technical specification or
- withdraw the CWA.

Table 1 summarises the development process of a CEN Workshop Agreement.

**Table 1 - CEN Workshop Agreement development process**

Project Plan	Kick-off Meeting	Development	Publication of CWA
<b>Describing</b>	<b>Confirming</b>	<b>Consensus Process</b>	<b>Validity of 3 years</b>
<ul style="list-style-type: none"> <li>• Scope</li> <li>• Objectives</li> <li>• Schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Project Plan</li> <li>• Rules of the WS</li> <li>• Chairperson</li> <li>• Secretariat</li> </ul>	<ul style="list-style-type: none"> <li>• Consensus between WS participants envisaged</li> <li>• public consultation where required</li> </ul>	<ul style="list-style-type: none"> <li>• Re-confirmation is only possible once for another three years</li> </ul>

### 3. STRATEGY FOR STANDARDIZATION

Within the SMR project the initiation of the standardization activities depended mainly on the outcome of the previous deliverables of WP6, i.e. deliverable D6.2 'Summary of Standardization Potentials' and deliverable D6.3 'European Workshop Report'. Both deliverables built the basis for the decision on which standardization activities should be conducted in the SMR project. In D6.2 the standardization potentials of each SMR project developed tools was assessed against a few criteria and as a result of this summary it was decided in the consortia to develop in total three CEN Workshop Agreements. The SMR tools that have been considered as most practical to transfer into a standard were the Maturity Model, the Information Portal and the Management Guideline.

Afterwards the appropriated titles of the standards had to be defined. As an outcome of various discussions during project meetings and especially at the one on 21<sup>st</sup> June 2017 in Brussels it was decided that the standards series of the SMR project should have the general title of 'City Resilience

Development' – as all project activities are referring to resilience building activities of cities – and as a subtitle of each CEN Workshop Agreement the corresponding tool.

In summary the following three standardization activities have been initiated.

- City Resilience Development – Information Portal
- City Resilience Development – Maturity Model
- City Resilience Development – Operational Guidance

The CEN Workshop on the Information Portal and the Maturity Model are focusing on the respective tools of the SMR project, while the CEN Workshop on the Operational Guidance is based on the European Resilience Management Guideline. It has been decided to not give the latter standard the title of the Guideline since it is envisaged to have two different documents with a partly different content approach.

### ***Conclusion 1: Decision on which SMR tools should be transferred into a standard***

As DIN is the only standardization body within the funded projects under the same call (DRS-7 – DARWIN, RESOLUTE, RESILIENS, IMPROVER), it was agreed with the funding authority that SMR will serve as a focal point for the other DRS-7 projects. This was already approved and initially fostered by the SMR consortia within the European Workshop on Resilience in Cities and Communities that took place on 4<sup>th</sup> April 2017 at DIN in Berlin (see also deliverable D6.3). The sister projects as well as other projects have been invited to this event. Additionally all of these projects and cities that attended were actively invited to join the development process of the standardization activities of the SMR project.

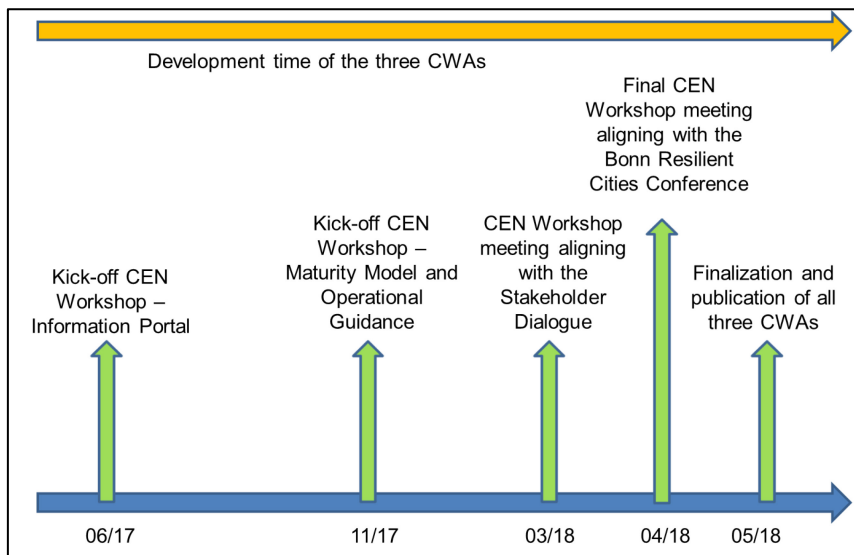
### ***Conclusion 2: Invite other research projects to the project related standardization activities***

Another important factor within task T6.3 'Initiation of standardization activities' is the limited time frame available for developing the three CWAs and also the limited resources available from project partners. Therefore it is intended that all meetings of the CEN Workshops will take place in alignment with the other SMR project meetings (e.g. WP7 activities such as Stakeholder Workshop in Brussels in March 2018 and the joint final conference in April 2018). In particular the content for the CEN Workshop on the Operational Guidance needs to be developed almost within the same time as the European Resilience Management Guideline. Thus the development of this CWA will depend heavily on the progress of the respective project results. This offers opportunities but could also lead to some difficul-

ties as the Guideline is planned to be tested and validated by an external tier of cities that are in resilience networks.

As mentioned above, the CEN Workshop on the Information Portal was already established in June 2017 – in conjunction with the 2<sup>nd</sup> review meeting of the project – and a first draft will be ready by beginning of 2018. The joint kick-off of the other two CEN Workshops was taking place on 8<sup>th</sup> November 2017, one day after the Stakeholder Dialogue of WP7.

The following figure shows the time schedule of the development and the envisaged meetings of the three CWAs.



**Figure 1 - Timeframe of the three SMR CWAs**

**Conclusion 3: Efficient planning of the CEN Workshops meetings**

As the envisaged CWAs are targeted mainly towards city stakeholders, it is important to receive as much feedback as possible from them during the development phase of the CWAs. Thus it is foreseen that during some of the CEN Workshops participating cities will assess the content of the draft CWAs, which are due to be ready by February 2018. Here the focus will be mainly upon the draft CWA on the Operational Guidance and on the possible implementation of the standard at city level.

This activity will take place with the, under consideration, Regional Cluster Workshops of WP7, during which the SMR Resilience Guideline will be implemented and validated with the invited tier 3 cities. These meetings are intended to take place mainly in February 2018, thus exactly within the time

schedule of CEN Workshop on the Operational Guidance. These activities will not only support the development of the CEN Workshops but also build the basis for fast future uptakes of the CWA by cities.

***Conclusion 4: Support the development of the CWAs by assessment at city level***

When the three CWAs are finalized, it is proposed to actively advertise these standards within the relevant standardization committees and beyond (e.g. within the final conference of the SMR project or other resilience related conferences) and to consider the possibility to adopt it on different national levels (e.g. in Germany as DIN SPEC (CWA)). In particular the promotion of the CWAs within the technical committees of ISO/TC 268 'Sustainable Cities and Communities' and ISO/TC 292 'Security and Resilience' is envisaged. In this regard, DIN has already presented the CWAs at the ISO/TC 268 meeting in June 2017 the SMR project and the planned standardization activities. Additionally it is of great benefit that ICLEI is involved in this technical committee, which supports a possible further uptake of the standards after the project for example at an international level.

The dissemination of the CWAs could also be supported by the cities involved in the development process. If they are willing to adopt these standards within their cities then other cities will receive knowledge of this and might be interested in taking part. In addition to all of the above, it is proposed to present the results of the CWAs at the Bonn Resilient Cities Conference in April 2018; this is a well-attended conference with over 450 participants taking part in 2017. The dissemination of the CWAs is a key activity that will close the WP6 actions within the SMR project.

***Conclusion 5: Active dissemination of the CEN Workshop Agreements***

## 4. CEN WORKSHOP ON 'CITY RESILIENCE DEVELOPMENT – INFORMATION PORTAL'

### 4.1. INITIATION

The CEN Workshop 'City Resilience Development – Information Portal' was initiated in May 2017 by the preparation of the corresponding project plan. The proposer of this workshop was the University of Agder, specifically the Centre for Integrated Emergency Management (CIEM; Kristiansand, Norway). CIEM have been responsible for Work Package 4 of the SMR project, and thereby the development of the Resilience Information Portal. The initiation was supported by TECNUN, Universidad de Navarra (San Sebastian, Spain), who co-developed the portal prototype, and by ICLEI (Freiburg, Germany), who lead the SMR Work Package 5 and were responsible for the implementation of information portals in partner cities.

The basis of this Workshop were two deliverables from Work Package 4 that focused on

- a prototype of an Integrated Resilience Information Portal (D4.4), and
- Design Principles for the use of Social Networking Services (D4.3).

The draft project plan was published on the CEN website for one month with the kick-off taking place on 21<sup>st</sup> June 2017 in Brussels.

The complete project plan that was agreed upon in the Kick-off Meeting in June 2017 can be found in Annex A.

### 4.2. SCOPE OF THE CEN WORKSHOP

The scope of the CEN workshop is to develop a CEN Workshop Agreement (CWA) that defines a list of requirements on how municipalities will equip an information system. This information system should facilitate building up resilience through collaboration, communication, and engagement. This CWA represents the functional specification for a Resilience Information Portal. This portal is a communication platform for the exchange of information within a municipality, between a municipality and

its stakeholders, and between a municipality with its citizens. The requirement is to produce a broad-purpose, easy-to-use platform that provides versatility and flexibility.

The envisaged CWA is directed towards IT professionals and IT decision-makers and it provides them with support in planning municipal IT as well as operative help for the development process. The functional specification does not impose certain paradigms, technological frameworks or third-party programs. The specification takes into account existing IT infrastructure and following the recommendations can complement it. The specification provides great levels of freedom respectively; room for customization to facilitate a technological solution that aligns with non-technological decisions, particularly deriving from a municipality's IT strategy.

### 4.3. CONTRIBUTORS

The organizations that are members of the CEN Workshop on 'City Resilience Development - Information Portal' are listed in Table 2.

Additionally the organizations were categorized as followed:

- Administration (city representatives),
- Academia (researchers), and
- Consultancy.

In total nine organizations from five different countries are participating in the development of the corresponding CWA.

**Table 2 - Members of CEN Workshop Information Portal**

No.	Organization	Country	Type of Organization	Gender
1	CIEM - University of Agder (Kristiansand)	Norway	Academia	Male and Female
2	Tecnun - University of Navarra (San Sebastian)	Spain	Academia	Female
3	ICLEI	Germany	Consultancy	Female
4	Municipality of Kristiansand	Norway	Administration	Male
5	Glasgow City Council	Scotland	Administration	Female

No.	Organization	Country	Type of Organization	Gender
6	San Sebastian City Council	Spain	Administration	Female
7	Fraunhofer IAO	Germany	Academia	Male
8	University of Florence	Italy	Academia	Male
9	OptiCits	Spain	Consultancy	Male

## 4.4. CURRENT STATUS

The kick-off meeting of the CEN Workshop took place in June 2017. In addition to academia and SMR project city partners there were representatives from the RESOLUTE and RESCCUE project who joined the development group – one result of their participation in the European Workshop in April 2017. The Workshop Chairman has been elected as Dr. Tim Majchrzak from the University of Agder; and vice chairwoman as Dr. Josune Hernantes from TECNUN, University of Navarra (San Sebastian, Spain). After the kick-off event several web conferences were conducted to elaborate the further content of the envisaged CWA. The two main parts of the standard are for now the design goals and principles of an Information Portal as well as the Functional Specification of an Information Portal itself. It is envisaged that a first draft of the document will be ready by January 2018 and the finalization is due in April 2018.

# 5. CEN WORKSHOP ON 'CITY RESILIENCE DEVELOPMENT – MATURITY MODEL'

## 5.1. INITIATION

The CEN Workshop 'City Resilience Development – Maturity Model' was initiated in September 2017 by the preparation of the corresponding project plan. The proposer of this workshop was TECNUN, University of Navarra (San Sebastian, Spain), which is the SMR project coordinator and responsible for Work Package 2, including the task T2.6 'Development of a preliminary version of the Resilience Maturity Model'. The initiation of the workshop was supported by several other members of the SMR



project that gave their commitment to the development of the standard (e.g. University of Strathclyde, University of Agder, ICLEI, and the municipalities of Kristiansand, San Sebastian, Glasgow, Vejle, Bristol, Rome and Riga).

The basis of this Workshop were two deliverables from Work Package 2 and 3 that focused on the Resilience Maturity Model – deliverable D2.6 'Preliminary Resilience Maturity Model' and deliverable D3.1 'Revised Resilience Maturity Model'.

The draft project plan was published on the CEN website for approx. two months and the kick-off was taking place on 8<sup>th</sup> November 2017 in Thessaloniki.

The complete project plan can be found in Annex B.

## 5.2. SCOPE OF THE CEN WORKSHOP

The scope of the CEN workshop is to develop a CEN Workshop Agreement (CWA) that defines a framework to show the ideal path in the resilience building process of a city. This framework will be based on maturity stages a city should go through.

The standard is primarily targeted towards policy and decision makers at city level and councilors working for resilience in their city, as well as any other city stakeholders working on resilience (e.g. - examples but not limited to - critical infrastructures providers, service providers, emergency services, citizens, individuals, media, non-governmental organizations, academic and research institutions, consultancies).

## 5.3. CONTRIBUTORS

The organizations that are members of the CEN Workshop on 'City Resilience Development – Maturity Model' are listed in the Table 3.

Additionally the organizations were categorized as followed:

- Administration (city representatives),
- Academia (researchers),
- Consultancy, and
- Others.



In total 23 organizations from 11 different countries are participating in the development of the corresponding CWA.

**Table 3 - Members of CEN Workshop Maturity Model**

No.	Organization	Country	Type of Organization	Gender
1	TECNUN – University of Navarra (San Sebastian)	Spain	Academia	Male and Female
2	University of Linköping	Sweden	Academia	Male
3	University of Strathclyde Glasgow	Scotland	Academia	Male and Female
4	CIEM - University of Agder (Kristiansand)	Norway	Academia	Female
6	ICLEI	Germany	Consultancy	Female
7	City of Bristol	England	Administration	Female
8	City of Vejle	Denmark	Administration	Male
9	City of Riga	Latvia	Administration	Male
10	City of San Sebastian	Spain	Administration	Female
11	City of Kristiansand	Norway	Administration	Male
12	City of Rome	Italy	Administration	Male
13	City Of Glasgow	Scotland	Administration	Female
14	City of Athens	Greece	Administration	Female
15	City of Reykjavik	Island	Administration	Male
16	City of Malaga	Spain	Administration	Male
17	City of Malmö	Sweden	Administration	Female
18	CERTH Thessaloniki	Greece	Academia	Female
19	University of Trondheim	Norway	Academia	Female
20	Resilient Regions Assoc.	Sweden	Other	Male
21	Steinbeis R-TECH	Germany	Consultancy	Male

No.	Organization	Country	Type of Organization	Gender
22	EC JRC	Italy	Other	Female
23	Opticits	Spain	Consultancy	Female

## 5.4. CURRENT STATUS

The kick-off meeting of the CEN Workshop took place on 8<sup>th</sup> November 2017 in Thessaloniki in conjunction with the kick-off on the Operational Guidance. The meeting was a huge success which reflects also the amount and diversity of participants. Besides academia and city partners of the SMR project representatives from several other European research projects (e.g. DARWIN, IMPROVER, RESOLUTE, RESILENS, RESCCUE and SMARTRESILIENCE) as well as 11 representatives from other European cities were present. Mr. Jose Maria Sarriegi from TECNUN, University of Navarra (San Sebastian, Spain) was elected as chairman and Mr. Henrik Eriksson from the Linköping University (Sweden) was elected as vice chairman.

Before the end of December 2017 a web conference will be scheduled to discuss the first inputs from the Workshop members to the envisaged standard. It is foreseen that a first draft of the document will be ready by February 2018 and the finalization of the standard by April 2018.

# 6. CEN WORKSHOP ON 'CITY RESILIENCE DEVELOPMENT – OPERATIONAL GUIDANCE'

## 6.1. INITIATION

Similar to the Workshop on the Maturity Model, the CEN Workshop on the 'City Resilience Development – Operational Guidance' was initiated in September 2017 by the preparation of the corresponding project plan. The proposer of this workshop was ICLEI, Local Governments for Sustainability, European Secretariat (Freiburg, Germany), which is the Work Package 5 and 7 leader within the SMR



project. The initiation of the workshop was also supported by several other members of the SMR project who want to be involved in the development of the standard (e.g. University of Strathclyde, University of Agder, ICLEI, and the municipalities of Kristiansand, San Sebastian, Glasgow, Vejle, Bristol, Rome and Riga).

The basis for this Workshop are the project related activities within Work Package 5 and 7 for the development of the European Resilience Management Guideline, which is currently under development and will be finalized and published in April 2018.

The draft project plan was also published on the CEN website for approx. two months and the kick-off took place on 8<sup>th</sup> November 2017 in Thessaloniki.

The complete project plan can be found in annex C.

## 6.2. SCOPE OF THE CEN WORKSHOP

The envisaged CEN Workshop Agreement (CWA) defines an operational framework for cities that provides guidance on local resilience planning and supports their efforts in building resilience.

The standard is primarily targeted towards policy and decision makers at city level and councilors working for climate adaptation and urban resilience, as well as to other city stakeholders working on resilience in their cities, (e.g. - examples but not limited to - critical infrastructure managers, service providers, emergency services, individuals, media, non-governmental organizations, academic and research institutions, consultancies).

## 6.3. CONTRIBUTORS

The organizations that are member of the CEN Workshop on 'City Resilience Development – Operational Guidance' are listed in the Table 4.

Additionally the organizations were categorized as followed:

- Administration (city representatives),
- Academia (researchers),
- Consultancy, and
- Others.

In total 22 organizations from 12 different countries are participating in the development of the corresponding CWA.

**Table 4 - Members of CEN Workshop Operational Guidance**

No.	Organization	Country	Type of Organization	Gender
1	ICLEI	Germany	Consultancy	Male and Female
2	University of Strathclyde	Scotland	Academia	Male and Female
3	TECNUN – University of Navarra (San Sebastian)	Spain	Academia	Female
4	CIEM - University of Agder (Kristiansand)	Norway	Academia	Female
5	City of Bristol	England	Administration	Female
6	City of Vejle	Denmark	Administration	Male
7	City of Riga	Latvia	Administration	Male
8	City of San Sebastian	Spain	Administration	Female
9	City of Kristiansand	Norway	Administration	Male
10	City of Rome	Italy	Administration	Male
11	City Of Glasgow	Scotland	Administration	Female
12	City of Athens	Greece	Administration	Female
13	City of Reykjavik	Island	Administration	Male
14	City of Malmö	Sweden	Administration	Female
15	Greater Manchester	England	Administration	Male
16	City of Amman	Jordan	Administration	Female
17	CERTH Thessaloniki	Greece	Academia	Female
18	Resilient Regions Assoc.	Sweden	Other	Male
19	University of Warwick	England	Academia	Male
20	Steinbeis R-TECH	Germany	Consultancy	Male

No.	Organization	Country	Type of Organization	Gender
21	EC JRC	Italy	Other	Female
22	Opticits	Spain	Consultancy	Male

## 6.4. CURRENT STATUS

The kick-off meeting of the CEN Workshop took place in conjunction with the kick-off of the Maturity Model CWA on 8<sup>th</sup> November 2017 in Thessaloniki. In particular the wide and varied distribution of different interested parties (research organizations, city representatives, consultancies) has to be mentioned and commended. The different activities for drafting the CWA content are currently being developed. Mr. Vasileios Latinos from ICLEI was elected as chairman and Ms. Susan Howick from the University of Strathclyde was elected as vice chairwoman.

In December 2017 a web conference will be scheduled to discuss with the Workshop members the potential content of the envisaged standard. It is foreseen that a first draft of the document will be ready by February 2018 and the finalization is planned for April 2018.

## 7. CONCLUSION AND OUTLOOK

The task T6.3 'Initiation of standardization activities' was successfully started with the establishment of the three CEN Workshops, i.e. 'City Resilience Development – Information Portal', 'City Resilience Development – Maturity Model' and 'City Resilience Development – Operational Guidance'. In addition to the involvement of the SMR project partners within these workshops there are a number of other external research organizations and cities actively taking part. Thus a broader variety of interested parties is going to support the transfer of the SMR results into standardization. This enhances possible adaptations of the developed tools as well as the future uptakes of these tools.

The timescale of the CEN Workshops follows mainly the progress of the European Resilience Management Guideline, even if the CEN Workshops on the Information Portal and Maturity Model are not directly related to the envisaged Guideline. As most of the meetings will take place via web conference or in conjunction with SMR related events such as the Stakeholder Workshop in Brussels. The Open



European Day2018 and the Final Conference of WP7, it can be presumed that almost all registered participants will be able to support the development of the CWAs within their limited resources.

The last deliverable of WP6 will consist of the draft CWAs which are due to be available by February 2018. Thus it can be concluded that the time allocated for the development of the three standards can and will be kept on schedule.

## ANNEX A

### PROJECT PLAN OF THE INFORMATION PORTAL CWA

#### BACKGROUND TO THE WORKSHOP

Municipalities are required to become more resilient. They face an increasing number of threats and they need to withstand actual disasters. Resilience is not only required with regard to short-term shocks, e. g. to recover from a natural disaster but also to deal with long-term stresses, such as migratory movements and societal developments.

Resilience is an extremely complex topic. European cities face an increasing frequency and intensity of hazards and disasters, which are exacerbated by climate change and social dynamics, such as demographic change and an ageing population. 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, accommodate and recover from the potentially critical effects of hazards. Supporting and building on the nexus of key resilient cities across Europe can create a strong backbone for all of Europe's cities to support one another in overcoming the challenges arising from risks ahead.

Building a backbone required collaboration and the constant and timely exchange of information. This leads to extensive requirements towards IT systems that support such activities. However, it is not possible to build resilience into a society the same way as an information system can be designed with resilient functionality in mind. Rather, municipal resilience can be reached through a many-step process in which a wide variety of actions are taken. The Smart Mature Resilience EU Horizon 2020 project seeks to support such a process by providing a comprehensive Resilience Management Guideline.

Despite the technological dimension being relatively straightforward, decision makers in municipal resilience typically have no profound IT background. In fact, due to the great reliance of resilience efforts on information systems support, a municipal IT strategy must go hand-in-hand with activities such as the implementation of resilience-related policies. The functional specification provides decision support and tools for IT staff as well as for the alignment of IT and non-IT activities. Managerial support alone is not enough, though. It is the mere starting point to a societal transformation and extensive work with resilience-related stakeholders. In particular, it can be ascertained that the people of a city need to be involved. Resilience ought to become mainstreamed into citizens' behaviour; if the municipality can rely on informed citizens, being able to master shocks and stresses becomes much

more likely. Consequently, communicating with citizens (and other stakeholders), and engaging the people of a municipality are key elements of a resilience strategy.

Adequate IT support is key to follow such a strategy. Resilience-related activities require the processing of large amounts of data and qualitative analysis of critical data and information. A typical example is the analysis of water levels of streams in conjunction with the interpretation of weather forecasts. Moreover, IT can provide effective means for engaging citizens. Therefore, a Resilience Information Portal is proposed as a socio-technical artefact that supports the resilience-related activities of a city. Specifically, it means to make communication within a municipality, between a municipality and its resilience-related stakeholder, and between a municipality and its citizens more effective and more efficient.

While there are profound differences in how such a portal can be integrated into a municipality's communication and IT strategies, the technical requirements are rather uniform. Since they can be presented in a straightforward way, the SMR consortium decided to prepare them as a functional specification following a standardised format. The functional specification can be used

- as a starting point to discuss the implementation of an IT strategy that leads to a municipal portal,
- to seek for internal resources when creating a portal,
- to procure external contractors, and
- to kick-start an agile development process.

The basis of the workshop and main source for discussion will be the functional specification that has been prepared within the framework of the aforementioned SMR project. As an extension of the main output of the SMR project, the Resilience Management Guideline, the functional specification should provide additional help to cities.

To our knowledge, no similar specifications exist. Standards with regard to all aspects of the project have been assessed within the project with much detail. The following standards and standardization activities have been identified to be relevant for the CEN Workshop:

- ISO/TR 22351 Societal security – Emergency management – Message structure for exchange of information
- ISO/AWI 22396 Security and resilience – Community Resilience – Guidelines for information exchange between organizations





- ISO/DIS 37153 Smart community infrastructures – Maturity model for assessment and improvement
- ISO 37120 Sustainable development of communities – Indicators for city services and quality of life
- Upcoming work of the ISO/TC 268/SC 1/AHG 3 Data exchange and sharing for smart community infrastructures

To meet a favourable legal environment, the functional specification takes into account a host of international standards related to information technology, especially to system development. Employing these well-acknowledged standards help to provide a sound framework for development. Security and accessibility are particular requirements towards publicly available Web-based systems that may process sensitive and/or personal data. Although rules and regulations typically derive from national law (and, to some degree, from European directives), the envisaged CWA will provide some related advice. For this purpose, the functional specification includes references of standards (particularly regarding security in software) as well as comments concerning accessibility. Thereby, municipalities are supported in establishing a level of security and accessibility that satisfies laws and local requirements.

### WORKSHOP PROPOSERS AND WORKSHOP PARTICIPANTS

The proposer of the Workshop is the University of Agder, specifically the Centre for Integrated Emergency Management, Kristiansand, Norway, which has been responsible for Work Package 4 of the SMR project, and thereby the development of the Resilience Information Portal. The proposal is supported by TECNUN, Universidad de Navarra, San Sebastian, Spain, who co-developed the portal prototype, and by ICLEI- Local Governments for sustainability, Freiburg, Germany, who lead the SMR Work Package 5 and are thereby responsible for the implementation of actual portals in partner cities.

Several members of the SMR consortium will take part in the development of the workshop and contribute to the preparation of the deliverable. In particular, due to the involvement of seven cities a realistic assessment of the standard is possible.

Participation in the Workshop is open to anyone, and the opportunity to participate is widely advertised prior to the kick-off meeting by its proposers.



### WORKSHOP SCOPE AND OBJECTIVE

The Workshop will develop a CEN Workshop Agreement (CWA) defining a list of requirements on how municipalities will equip an information system that facilitates building up resilience through collaboration, communication, and engagement. This marks the functional specification for a Resilience Information Portal. This portal is a communication platform for the exchange within a municipality, of a municipality and its stakeholders, and of a municipality with its citizens. Requirements aim towards a broad-purpose, easy-to-use platform that provides versatility and flexibility.

The CWA is directed towards IT professionals and IT decision-makers and it provides them with support in planning municipal IT as well as operative help for the development process. The functional specification does not impose certain paradigms or technological frameworks or third-party programs. The specification takes into account existing IT infrastructure and following the recommendations can complement it. The specification provides great levels of freedom respectively room for customization to facilitate a technological solution that aligns with non-technological decisions, particularly deriving from a municipality's IT strategy.

### WORKSHOP PROGRAMME

The CWA will be drafted and published in English. The kick-off meeting will be held on 21 June in Brussels. The estimated duration of this workshop is 5 months. The Workshop activities will close no later than November 2017. During the Workshop lifetime several meetings, mainly web meetings, are foreseen to draft the CEN Workshop Agreement.

Anyone can comment on this Project Plan of the envisaged CWA. All comments received will be considered by the chairperson preliminary to the kick-off meeting. At the workshop, each comment received shall be presented, discussed and resolved. Any meeting except for the Kick-off and the final meeting can be organized as virtual meetings. The time schedule for the Workshop is being influenced by the runtime of the SMR project.

The table provides an overview of the planned work schedule.

Activity \ Time	2017							
	May	Jun	July	Aug	Sept	Oct	Nov	Dec
Public availability of project plan								
Kick-Off Meeting								
Elaboration of Draft CWA								
Finalization and Approval								
Publication of CWA								

Note: The time schedule was adjusted, so that the 'Finalization and Approval' of the CWA will be in January.

## WORK ALREADY DELIVERED

- Serrano, N. (2016): *A prototype of an Integrated Resilience Information Portal that Provides a Coherent Framework to Support Communication and Engagement in Resilience Building Activities*, Public Deliverable, SMR Project (H2020-DRS-2014 653569), November 2016
- Majchrzak, T. A. and Sakurai, M. (2016a): *Design Principles for the Use of Social Network Services to Promote Citizen Engagement*, Public Deliverable, SMR Project (H2020-DRS-2014 653569), November 2016
- Majchrzak, T. A. and Sakurai, M. (2016b): *Design Principles for the Use of Social Networking Services to Promote Transdisciplinary Collaboration*, Public Deliverable, SMR Project (H2020-DRS-2014 653569), May 2016

- Majchrzak, T. A. and Sakurai, M. (2015): *A Communication Platform That Facilitates Different Levels of Communication and Engagement as a Shared Resource in the Project*, Public Deliverable, SMR Project (H2020-DRS-2014 653569), November 2015

Particularly notable is Majchrzak and Sakurai (2016), which contains the specification to be proposed a first draft CWA. This document contains of 111 pages; its high-level table of contents is reproduced here:

1. Introduction
2. Context and Background
3. Method
4. Social Media for Citizen engagement
5. Design Goals and Principles
6. Functional Specification
7. Testing Scenarios
8. Summary, Conclusion, and Outlook
9. References
10. Appendix: Interview Materials

The chapters 6 and 7 of the ‘Design Principles for the Use of Social Networking Services to Promote Transdisciplinary Collaboration’ document will be the basic input for the CWA draft. However, especially chapters 4 and 5 facilitate the understanding of the rationale of the proposed requirements and will therefore also be taken into account.

### WORKSHOP STRUCTURE

This Workshop shall be led by a chairperson and in case of absence or unavailability, by a vice-chair. The Workshop secretariat shall be responsible for the management of the Workshop.

### CEN WORKSHOP CHAIRPERSON

A proposal for the chairperson will be made by the Workshop proposers; he/she or any other candidate nominated during the period of announcement of this Project Plan. He/she will be formally appointed at the Kick-off meeting by the parties present. His / her responsibilities include:

- Chairing the CEN Workshop meetings,

- Be responsible for ensuring that the development of the CWA is in accordance with the agreed Project Plan,
- Representing the CEN Workshop in outside meetings in cooperation with CCMC and with the Workshop secretariat,
- Monitoring the progress of the CWA and seek out consensus among the parties,
- Interface with CCMC regarding strategic directions, problems arising, external relationships, etc.

### CEN WORKSHOP VICE-CHAIR

The Workshop vice-chair shall be appointed in the Kick-off meeting. The vice-chair shall support and assist in all responsibilities outlined for the chairperson. In the absence of the chairperson, the vice-chair will represent the CEN Workshop at outside meetings in cooperation with CCMC and will interface with CCMC regarding strategic directions, problems arising, external relationships, etc.

### CEN WORKSHOP SECRETARIAT

The CEN Workshop Secretariat is providing the formal link to the CEN system. The following main activities will be carried out by the Workshop Secretariat:

- Organizing CEN Workshop plenary meetings,
- Producing CEN Workshop minutes and action lists,
- Forming the administrative contact point for CWA project,
- Managing CEN Workshop attendance lists,
- Managing CEN Workshop document registers,
- Following-up action lists,
- Assisting Chairperson in monitoring and following-up of electronic discussions – in case the CEN Workshop is mainly working by electronic means,
- Administrating the liaison with relevant CEN/TCs, if applicable.

The CEN Workshop Secretariat provides a professional management support in the form of administrative and operational. DIN will provide the Workshop secretariat subject to formal approval of the Project plan at the kick-off meeting.

## COSTS OF THE CEN WORKSHOP SECRETARIAT

The administrative costs of CEN Workshop Secretariat will be covered by resources from the SMR project. The copyright of the CWA shall be with CEN.

## PARTICIPATION AND REGISTRATION FEE

The registration and participation at this CEN Workshop is free of charge. Each participant shall bear his/her own cost for travel and subsistence. Participation to this workshop is open to all interested parties. All physical meetings will be located in Europe. Use of electronic meetings will be encouraged as much as possible.

## RELATED ACTIVITIES, LIASONS, ETC.

The topic of the CWA can be referred mainly to two different European committees:

- CEN-CENELEC-ETSI Sector Forum on Smart and Sustainable Cities and Communities
- CEN/TC 391 Societal and Citizen Security WG3 Crisis management/civil protection

However, the main work within these committees is conducted on international level and therefore the activities of ISO/TC 268 'Sustainable cities and communities' (and mainly the SC 1/AHG 3 Data exchange and sharing for smart community infrastructures) as well as ISO/TC 292 'Security and resilience' need to be taken into account.

## CONTACT POINTS

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## ANNEX B

### PROJECT PLAN OF THE MATURITY MODEL CWA

#### BACKGROUND TO THE WORKSHOP

European cities face an increasing frequency and intensity of hazards and disasters. These challenges, triggered by climate change, social disruptions and poor performance of critical infrastructures, are interconnected. Against this background, city resilience is becoming more and more important. One reason for that is the provision of an integrated answer to the mentioned challenges. But the resilience of a city is hard to operationalize, as its implementation involves a significant amount of stakeholders, actions and resources.

As a consequence, municipalities are required to become more resilient. This is not only required with regard to short-term shocks, e.g. to recover from a natural disaster, but also to deal with long-term stresses, such as migratory movements and societal developments. Since Europe's cities continue to grow, there is also an urgent need for far-reaching and holistic approaches to enhance cities' capacity to resist, absorb, accommodate and recover from the potentially critical effects of hazards. Supporting and building a connection of key resilient cities across Europe can be of advantage for everyone. This would mean to build up a strong backbone, because all European cities would support one another in overcoming the challenges arising from risks.

The Smart Mature Resilience (SMR) research project, which is funded by the EU Horizon 2020 program, seeks to support such a process by providing a comprehensive resilience management guideline. This guideline includes a maturity model to support the implementation of city resilience by providing a suggested roadmap through several maturity stages and including actions in some complementary dimensions. The maturity model defines actions to be implemented through five different maturity stages and in four dimensions.

The CEN Workshop will support the validation of the project results with externals and other related research projects from the Horizon 2020 program; e.g. DRS-7-2014 (DARWIN, IMPROVER, RESOLUTE and RESILENS project), DRS-9-2015 (RESIN and RESCCUE project) and DRS-14-2015 (SMARTRESILIENCE). Additionally, the workshop supports future exploitation and dissemination activities.

Currently there is some legislation that regulates aspects closely related to resilience, such as legislation defining critical infrastructure behaviour, legislation about responsibilities concerning climate change or legislation determining the role of social services.

To our knowledge no specification of an overall inclusive city resilience maturity model exists. Standards with regard to all aspects of the project have been assessed within the SMR project with much detail. The following standards and standardization activities have been identified as the most relevant ones for the CEN Workshop. The Table provides a list of identified relevant standards:

Number	Title
ANSI/ASIS SPC.2	Auditing Management Systems - Risk, Resilience, Security and Continuity - Guidance for application
ANSI/ASIS SPC.4	Maturity Model for the Phased Implementation of the Organizational Resilience Management System
BS 11200:2014	Crisis management. Guidance and good practice
BS 65000:2014	Guidance on organizational resilience
CEN/TS 16595	CBRN - Vulnerability assessment and protection of people at risk
DIN SPEC 35810	Stakeholder Engagement - Guidelines for decision making processes dealing with climate change
DIN SPEC 35811	Scenario Planning - Guidelines for decision making processes dealing with climate change
DS 3001	Organizational resilience: Security, preparedness, and continuity management systems - Requirements with guidance for use
ISO 22320	Societal security - Emergency management - Requirements for incident response
ISO 22325	Societal security - Emergency management - Guidelines for emergency management capability assessment
ISO 31000:2009	Risk Management - Principles and guidelines
ISO/TR 31004:2013	Risk Management - Guidance for the implementation of ISO 31000
ISO/DIS 31000:2017	Risk Management - Guidelines
ISO 37101	Sustainable development of communities - Management systems for sustainable development - Requirements with guidance for use





Furthermore it has to be mentioned that there is a companioning workshop, which is also based on the research results of the SMR project. The workshop on ‘City Resilience Development – Operational Guidance’ will develop a CEN Workshop Agreement (CWA), which will define an operational framework for cities that focuses on the operational steps for the city resilience development. The scope of the two workshops is different, but since both are based on the same research project, it is planned that the face-to-face meetings will be organized collaboratively.

### WORKSHOP PROPOSERS AND WORKSHOP PARTICIPANTS

The proposer of the workshop is TECNUN (University of Navarra), which has been the SMR project coordinator. Several other members of the SMR project will take part in the progression of the workshop results (University of Strathclyde, University of Agder, ICLEI, and the municipalities of Kristiansand, San Sebastian, Glasgow, Vejle, Bristol, Rome and Riga). Moreover research institutions and organizations from other analogous projects (e.g. DARWIN, IMPROVER, RESIN, RESCCUE, RESOLUTE, RESILENS, SMARTRESILIENCE) and other cities will be invited to join the development of the CWA. Participation in the Workshop is open to anyone, and the opportunity to participate is widely advertised prior to the kick-off meeting by its proposers.

### WORKSHOP SCOPE AND OBJECTIVE

This Workshop will develop a CEN Workshop Agreement (CWA) defining a framework to show the ideal path in the resilience building process of a city. This framework will be based on maturity stages a city should go through.

The standard is primarily targeted to policy and decision makers at city level and councillors working for resilience in their city, as well as to any other city stakeholders working on resilience (e.g. (examples but not limited to) critical infrastructures, service providers, emergency services, individuals, media, non-governmental organizations, academic and research institutions, consultancies).

The potential content of the CWA will be:

- Definition of City Resilience and the ‘CITY’ concept
- Framework on city challenges (risks/ shocks/stresses related to climate change, demographics, migration-inclusion, social issues, digitalization etc.)
- Definitions of different maturity stages

- Indicators for the assessment of the maturity level at city level (including indicators proposed in D3.1 from SMR project, and also the methodology associated to the indicators)
- List of the different resilience dimensions and sub-dimensions
- Examples for related resilience activities (e.g. good practices)

## WORKSHOP PROGRAMME

The CWA will be drafted and published in English. The estimated duration of this workshop is seven months, no later than May 2018. During the Workshop lifetime, several meetings, mainly web meetings, are foreseen to draft the CEN Workshop Agreement.

Anyone can comment on this Project Plan of the envisaged CWA. All comments received will be considered by the chairperson preliminary to the kick-off meeting. At the workshop, each comment received shall be presented, discussed and resolved. Any meeting except for the Kick-off and the final meeting can be organized as virtual meetings. The time schedule for the Workshop is being influenced by the runtime of the SMR project.

The table provides an overview of the planned work schedule.

Activity \ Time	2017				2018				
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Public availability of the Project Plan									
Kick-Off Meeting									
Elaboration of Draft CWA									
Finalization and Approval									
Publication of CWA									

## WORK ALREADY DELIVERED

- Josune Hernantes, Maider Sainz, Leire Labaka, Raquel Gimenez, Jose Mari Sarriegi, Patricia Maraña and Iker Zubizarreta. University of Navarra (2016). *D2.6 Preliminary Resilience Maturity Model*.
- Josune Hernantes, Leire Labaka, Raquel Gimenez and Patricia Maraña. University of Navarra (2016). *Revised Resilience Maturity Model*.

## WORKSHOP STRUCTURE

This Workshop shall be led by a chairperson and in case of absence or unavailability, by a vice-chair. The Workshop secretariat shall be responsible for the management of the Workshop.

## CEN WORKSHOP CHAIRPERSON

A proposal for the chairperson will be made by the Workshop proposers; he/she or any other candidate nominated during the period of announcement of this Project Plan. He/she will be formally appointed at the Kick-off meeting by the parties present.

His/her responsibilities include:

- Chairing the CEN Workshop meetings,
- Be responsible for ensuring that the development of the CWA is in accordance with the agreed Project Plan,
- Representing the CEN Workshop in outside meetings in cooperation with CCMC and with the Workshop secretariat,
- Monitoring the progress of the CWA and seek out consensus among the parties,
- Interface with CCMC regarding strategic directions, problems arising, external relationships, etc.

## CEN WORKSHOP VICE-CHAIR

The Workshop vice-chair shall be appointed in the Kick-off meeting. The vice-chair shall support and assist in all responsibilities outlined for the chairperson. In the absence of the chairperson, the vice-chair will represent the CEN Workshop at outside meetings in cooperation with CCMC and will interface with CCMC regarding strategic directions, problems arising, external relationships, etc.

### CEN WORKSHOP SECRETARIAT

The CEN Workshop Secretariat is providing the formal link to the CEN system. The following main activities will be carried out by the Workshop Secretariat:

- Organizing CEN Workshop plenary meetings,
- Producing CEN Workshop minutes and action lists,
- Forming the administrative contact point for CWA project,
- Managing CEN Workshop attendance lists,
- Managing CEN Workshop document registers,
- Following-up action lists,
- Assisting Chairperson in monitoring and following-up of electronic discussions – in case the CEN Workshop is mainly working by electronic means,
- Administrating the liaison with relevant CEN/TCs, if applicable.

The CEN Workshop Secretariat provides a professional management support in the form of administrative and operational. DIN will provide the Workshop secretariat subject to formal approval of the Project plan at the kick-off meeting.

### COSTS OF THE CEN WORKSHOP SECRETARIAT

The administrative costs of CEN Workshop Secretariat will be covered by resources from the SMR project. The copyright of the CWA shall be with CEN.

### PARTICIPATION AND REGISTRATION FEE

The registration and participation at this CEN Workshop is free of charge. Each participant shall bear his/her own cost for travel and subsistence. Participation to this workshop is open to all interested parties. All physical meetings will be located in Europe. Use of electronic meetings will be encouraged as much as possible.

### RELATED ACTIVITIES, LIASONS, ETC.

The topic of the CWA can be referred to the following two European committees:

- CEN-CENELEC-ETSI Sector Forum on Smart and Sustainable Cities and Communities

- CEN/TC 391/WG3 Crisis Management/Civil Protection

On international level the following technical committees are the most relevant ones:

- ISO/TC 268 Sustainable Cities and Communities (mainly ISO/TC 268/SC 1 Smart community infrastructures) as well as
- ISO/TC 292 Security and Resilience.

Relevant national activities with relation to the CEN Workshop:

- BSI activities on City Resilience

## CONTACT POINTS

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## ANNEX C

### PROJECT PLAN OF THE OPERATIONAL GUIDANCE CWA

#### BACKGROUND TO THE WORKSHOP

Nowadays, climate change and rapid urbanization put European cities at risk towards extreme events like flooding, heat waves, earthquakes etc., while other challenges connected to social dynamics and critical infrastructure failure may jeopardise the security of societies and citizen well-being. City resilience not only means preparing cities to better respond to natural and man-made disasters, but also building solid structures and creating robust and flexible communities that can actually prevent these disasters and continue develop and thrive towards sustainability.

Municipalities play an integral part in the road to building resilient societies. A resilient municipality is not only prepared for short-term shocks, such as natural disasters but also becomes successful in mastering long-term stresses, such as profound increases or decreases of population, migration, inequality and other societal challenges. Nevertheless, widespread operationalization and assessment of city resilience is still lacking. Similarly, in the area of social dynamics and resilience, there are not many practical examples of implementation and operationalization, as this involves a significant amount of stakeholders, actions and resources. This is where cities are mainly failing. Experiences from city level research show that the public sector of a city tends to rely on sectoral approaches and fails to involve relative stakeholders, and that cross-sector collaboration is the key for cities to overcome such challenges.

The Smart Mature Resilience (SMR) project is funded under the Horizon2020 program of the European Union and seeks to support cities in their resilience planning process. In the project, researchers and cities come together to enhance cities' capacity to resist, absorb and recover from the hazardous effects of climate change. A Resilience Management Guideline and a set of practical tools are piloted in a core group of cities and shared with a wider group of cities, strengthening the nexus of Europe's resilient cities. The guideline on resilience management includes a systemic, cyclical approach to resilience management, together with policies and indicators that support resilience building activities in cities and communities against climate, disaster and societal risks.

With this awareness of the interconnectedness of urban development issues, cities and policy makers should continue to work on fostering and mainstreaming resilience globally and through local action. Also, as resilience and risk involve and affect a broad range of city stakeholders, a holistic approach is

crucial. The SMR project is developing tools for use as part of multi-sectoral approaches to assess and build cities' resilience. The SMR Guideline, together with the developed tools can advise and support holistic decision-making towards enhanced resilience with a particular focus on critical infrastructure, climate change and social dynamics.

The CEN Workshop will support the validation of the project results with external participants, at national and international level, with city representatives from the SMR partner cities and partners from related research projects of the Horizon2020 program e.g. DRS-7-2014 (DARWIN, IMPROVER project, RESILENS and RESOLUTE project), DRS-9-2015 (RESIN and RESCCUE project), DRS-14-2015 (SMARTRESILIENCE). Potentially, the workshop can support further dissemination activities and the exploitation of project results, like the Resilience Management Guideline. The developed framework will be initially based on the user journey of the European Resilience Management Guideline that has been co-created with all SMR project partners during four workshops in the period March-June 2017 and it will provide with support and guidance for local resilience planning; based on the use of all five SMR resilience tools.

The development of resilience related standards is an important tool that is able to bring cities and their relevant stakeholders together, to share experiences and to replicate best practices. Thus one of the project objectives is the development of a European standard on resilience management, to create more resilient cities and communities in Europe and to fulfil the core goals of international agreements (UN SDGs, UNISDR, SENDAI framework for disaster risk reduction) with regard to resilience to climate change and societal challenges. The following standards and standardization activities have been identified as being likely to be relevant for the CEN Workshop:

Number	Title
ISO/NP 37123	Sustainable development in communities - Indicators for resilient cities (Current status: Under development)
ISO 37101	Sustainable development in communities - Management system for sustainable development - Requirements with guidance for use
ISO/AWI 37104	Sustainable development in communities - Guidance for practical implementation in cities (Current status: Under development)

Furthermore it has to be mentioned that there is a companioning workshop, which is also based on the research results of the SMR project. The workshop on 'City Resilience Development – Maturity Model' will develop a CEN Workshop Agreement (CWA), which defines a framework to show the ideal path in the resilience building process of a city. This framework will be based on maturity stages a city should



go through. The scope of the two workshops is different, but since both are based on the same research project, it is planned that the face-to-face meetings will be organized collaboratively.

### WORKSHOP PROPOSERS AND WORKSHOP PARTICIPANTS

The proposer of the workshop is ICLEI (Local Governments for Sustainability, European Secretariat), which has been the WP5 and WP7 leader within the SMR project. Several other members of the SMR project will take part in the progression of the workshop results (University of Strathclyde, University of Agder, TECNUN University of Navarra, and the municipalities of Kristiansand, San Sebastian, Glasgow, Vejle, Bristol, Rome and Riga). Moreover research institutions and organizations from other analogous projects (e.g. DARWIN, IMPROVER, RESIN, RESCCUE, RESILENS and RESOLUTE, SMARTRESILIENCE) and other cities will be invited to join the development of the CWA.

Participation in the Workshop is open to everyone, and the opportunity to participate is widely advertised prior to the kick-off meeting by its proposers, making use of ICLEI's large network of cities, municipalities, national and EU organizations and research institutions.

### WORKSHOP SCOPE AND OBJECTIVE

This Workshop will develop a CEN Workshop Agreement (CWA), which will define an operational framework for cities that provides guidance on local resilience planning and supports their efforts in building resilience.

The standard is primarily targeted to policy and decision makers at city level and councillors working for climate adaptation and urban resilience, as well as to other city stakeholders working on resilience in their cities, (e.g. (examples but not limited to) critical infrastructure managers, service providers, emergency services, media, civil society associations, non-governmental organizations, academic and research institutions, consultancies).

The potential content of the CWA will be:

- Definition of City Resilience
- Definition of the 'CITY' context and its systems (including references to ISO standards like ISO 37104)
- Reference to different sectors (critical infrastructure, climate change and social dynamics)
- Description of steps to practical implementation and operationalization of city resilience at local level



- Description of tools used to support each operational step
- Capacity development package for local authorities and trainers on resilience
- Resilience related activities (e.g. good practices), including complimentary approaches and exercises for resilience building activities

## WORKSHOP PROGRAMME

The CWA will be drafted and published in English. The estimated duration of this workshop is 7 months, no later than May 2018. During the Workshop lifetime, several meetings, mainly web meetings, are foreseen to draft the CEN Workshop Agreement.

Anyone can comment on this Project Plan of the envisaged CWA. All comments received will be considered by the chairperson preliminary to the kick-off meeting. At the workshop, each comment received shall be presented, discussed and resolved. Any meeting except for the Kick-off and the final meeting can be organized as virtual meetings. The time schedule for the Workshop is being influenced by the runtime of the SMR project.

The table provides an overview of the planned work schedule.

Activity \ Time	2017				2018				
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Public availability of the Project Plan									
Kick-Off Meeting									
Elaboration of Draft CWA									
Finalization and Approval									
Publication of CWA									

### WORK ALREADY DELIVERED

- Grimes, Clara and Hanania, Serene. ICLEI Europe. *D7.3 SMR Policy Brief*
- Lindner, René and Kempen, Bernhard. DIN e. V. *D6.1 Existing Standards and Standardization Activities Report*

### WORKSHOP STRUCTURE

This Workshop shall be led by a chairperson and in case of absence or unavailability, by a vice-chair. The Workshop secretariat shall be responsible for the management of the Workshop.

### CEN WORKSHOP CHAIRPERSON

A proposal for the chairperson will be made by the Workshop proposers; he/she or any other candidate nominated during the period of announcement of this Project Plan. He/she will be formally appointed at the Kick-off meeting by the parties present.

His / her responsibilities include:

- Chairing the CEN Workshop meetings,
- Be responsible for ensuring that the development of the CWA is in accordance with the agreed Project Plan,
- Representing the CEN Workshop in outside meetings in cooperation with CCMC and with the Workshop secretariat,
- Monitoring the progress of the CWA and seek out consensus among the parties,
- Interface with CCMC regarding strategic directions, problems arising, external relationships, etc.

### CEN WORKSHOP VICE-CHAIR

The Workshop vice-chair shall be appointed in the Kick-off meeting. The vice-chair shall support and assist in all responsibilities outlined for the chairperson. In the absence of the chairperson, the vice-chair will represent the CEN Workshop at outside meetings in cooperation with CCMC and will interface with CCMC regarding strategic directions, problems arising, external relationships, etc.

### CEN WORKSHOP SECRETARIAT

The CEN Workshop Secretariat is providing the formal link to the CEN system. The following main activities will be carried out by the Workshop Secretariat:

- Organizing CEN Workshop plenary meetings,
- Producing CEN Workshop minutes and action lists,
- Forming the administrative contact point for CWA project,
- Managing CEN Workshop attendance lists,
- Managing CEN Workshop document registers,
- Following-up action lists,
- Assisting Chairperson in monitoring and following-up of electronic discussions – in case the CEN Workshop is mainly working by electronic means,
- Administrating the liaison with relevant CEN/TCs, if applicable.

The CEN Workshop Secretariat provides a professional management support in the form of administrative and operational. DIN will provide the Workshop secretariat subject to formal approval of the Project plan at the kick-off meeting.

### COSTS OF THE CEN WORKSHOP SECRETARIAT

The administrative costs of CEN Workshop Secretariat will be covered by resources from the SMR project. The copyright of the CWA shall be with CEN.

### PARTICIPATION AND REGISTRATION FEE

The registration and participation at this CEN Workshop is free of charge. Each participant shall bear his/her own cost for travel and subsistence. Participation to this workshop is open to all interested parties. All physical meetings will be located in Europe. Use of electronic meetings will be encouraged as much as possible.

### RELATED ACTIVITIES, LIASONS, ETC.

The topic of the CWA can be referred to the following two European committees:

- CEN-CENELEC-ETSI Sector Forum on Smart and Sustainable Cities and Communities

- CEN/TC 391/WG3 Crisis Management/Civil Protection

On international level the following technical committees are the most relevant ones:

- ISO/TC 268 Sustainable Cities and Communities as well as
- ISO/TC 292 Security and Resilience.

Relevant national activities with relation to the CEN Workshop:

- BSI activities on City Resilience

## CONTACT POINTS

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