

**CEN**

**CWA 17301**

**WORKSHOP**

August 2018

**AGREEMENT**

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English version

## City Resilience Development - Maturity Model

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Ref. No.:CWA 17301:2018 E

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## European foreword

CWA 17301 was developed in accordance with CEN-CENELEC Guide 29 'CEN/CENELEC Workshop Agreements – The way to rapid agreement' and with the relevant provision of CEN/CENELEC Internal Regulations – Part 2. It was agreed on 2017-11-08 in a workshop by representatives of interested parties, approved and supported by CEN following a public call for participation made 2017-09-15. It does not necessarily reflect the views of all stakeholders that might have an interest in its subject matter.

The research leading to these results has funding from the European Union's HORIZON 2020 Programme under the grant agreement numbers 653569 (SMR), 700174 (RESCCUE) and 700621 (Smart Resilience).

The final text of CWA 17301 was submitted to CEN for publication on 2018-07-18. It was developed and approved by:

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## Introduction

This CEN Workshop Agreement (CWA) is based on the results of the Smart Mature Resilience project (SMR). SMR project was initiated through the European Union's HORIZON 2020 framework programme, because European cities are facing an increasing frequency and intensity of hazards and disasters which are exacerbated by climate change and social issues. As Europe's cities continue to grow, there is an urgent need for far-reaching and holistic approaches to enhance their ability to resist, absorb, adapt to and recover from the potentially critical effects of hazards.

Today's high level of interconnectedness and interdependencies among cities and their systems may lead to cascading effects and crisis escalation from local level to regional, national or even international level. This is the main reason that cities should not be considered as isolated entities in the resilience building process. Building key resilient cities throughout Europe will create a strong resilience backbone for all of Europe, allowing cities to support each other in overcoming the challenges arising from the risks ahead.

The concept of the *European Resilience Backbone* consists of mutually supporting and networking cities. It enables the use of effective substitution processes in a crisis or disaster, for dealing with a lack of materials, technologies, human resources or capacities. Cities can be directly or indirectly affected by disasters. Indirect effects can arise from geographic proximity, through interdependencies or due to cascading effects, or even from facing the same class of major threats (e.g. sea level rise in Rotterdam and Vejle). Common approaches and collaborative arrangements could be the solution for facing disasters more efficiently. By sharing interests and responsibilities within formal and informal networks, and by taking a multi-level governance perspective, European cities can form a resilient "backbone" for Europe.

This CEN Workshop Agreement describes a Maturity Model, which presents a holistic approach where cities are not considered as isolated entities, but rather as interconnected and interdependent units. The Maturity Model is one of the five tools developed by the SMR project. Inputs from other European Union's HORIZON 2020 framework programme projects, like RESCCUE and Smart Resilience, were taken into account when developing this CWA.

### CWA series - City Resilience Development

This CEN Workshop Agreement is part of the *City Resilience Development* series, which intends to support cities in becoming more resilient against various kinds of threats. The series consists of the following other two CWAs:

- CWA 17300 City Resilience Development – Operational Guidance;
- CWA 17302 City Resilience Development – Information Portal.

The CWA on Operational Guidance is the overarching document that refers to the *CWA 17301 City Resilience Development - Maturity Model*, *CWA 17302 City Resilience Development – Information Portal*, as well as to other supporting tools.

### Goal

The Maturity Model is a strategic tool that provides a theoretical roadmap describing a possible resilience-building process for a city. It will enable cities to assess their current maturity stage and to identify the policies, which should be implemented in order for the city to evolve and move to the next maturity stage. The Maturity Model can be used to assess and re-assess a city's policies to diagnose the resilience maturity stage.

Cities have been performing specific actions towards resilience in different ways. Some of them have been working for several years on the concept of resilience while others have just started. Therefore, the requirements of the cities are not the same. In fact, a city that has been developing resilience-

building activities for several years will require different activities than a city that has just started the path of developing this concept. Thus, the end users of the Maturity Model can use the model, both to identify areas that need to be improved and to assess their corresponding maturity stage based on efforts already made in the resilience-building process. The policies of the Maturity Model can be compared to the policies and projects a city has already implemented or currently has in place to evaluate the level of resilience maturity.

Once a city has identified its corresponding maturity stage, the Maturity Model will help them through its policies to guide along their path in the resilience-building process considering their future resilience demands and capacities. Thus, the Maturity Model can be used to plan and implement a long-term resilience journey, which goal is to strengthen cities in dealing with shocks and long-term stresses.

The Maturity Model:

- helps cities to assess their current resilience maturity stage;
- helps cities prioritize resilience policy implementation actions according to the available funding;
- helps to attract new funding opportunities for specific measures;
- articulates the benefits and the added value of policies;
- helps cities to identify suitable policies to develop and implement resilience based on diagnosis and assessment;
- provides a point of reference for self-assessing the effectiveness of resilience developments; and
- is a useful component of strategic planning.

## 1 Scope

This CEN Workshop Agreement provides a framework for describing the ideal path in the resilience-building process of a city. This framework is based on the maturity stages through which a city should proceed.

This document is intended to be used by policy and decision-makers at city level and councilors working for resilience in their city, as well as by any other city stakeholders working on resilience (for example, but not limited to: critical infrastructure providers, service providers, emergency services, individuals, the media, non-governmental organizations, academic and research institutions as well as consultancies).

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **best practice**

action that increases the resilience level against an issue, according to specific indicators

### 3.2

#### **cascading effect**

failure in one system causes failures in another system

Note 1 to entry: This failure is due to interdependencies between different urban technical networks considered to be critical in the risk context.

### 3.3

#### **case study**

description of an actual situation, commonly involving a decision, a challenge, an opportunity, a problem or an issue

### 3.4

#### **chronic stress**

slow moving disasters that weaken the fabric of a city

EXAMPLE High unemployment, overtaxed or inefficient public transportation system, endemic violence or electric and water shortages.

### 3.5

#### **city**

local unit based on administrative boundaries within a metropolitan area

### 3.6

#### **CITY**

human settlement formed by a central area, neighborhoods and suburbs reciprocally connected but not necessarily coincident with administrative boundaries, and inclusive of all the city operators that play key roles in its functioning