

# SYSTEMS REFERENCE DELIVERABLE



Smart city standards inventory and mapping –  
Part 1: Methodology



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# SYSTEMS REFERENCE DELIVERABLE



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**Smart city standards inventory and mapping –  
Part 1: Methodology**

INTERNATIONAL  
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COMMISSION

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**SMART CITY STANDARDS INVENTORY AND MAPPING –****Part 1: Methodology**

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Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Systems Reference Deliverable is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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## INTRODUCTION

International, and regional standards development organizations (SDOs), as well as consortia and national standardization institutions, have been vigorously promoting the development of smart city standards. But different organizations focus on standards at different levels of smart cities and the effective coordination in the standards development process needs to be strengthened. At present, there is no overall architectural understanding of standards of smart cities.

The smart city standards inventory and mapping project was initiated to provide a systematic approach to retrieve and map the standards of smart cities on smart city reference architectures, models or frameworks and provide fundamental support for the collaborative work of standard-setters and users. Standards maps are the practical base for helping SDOs and users to identify directly and instantly the standards that are needed for any aspects of smart cities (citizen services, city infrastructure, governance, etc.). Standards maps also help in identifying the standardization gap in the ecosystem.

# SMART CITY STANDARDS INVENTORY AND MAPPING –

## Part 1: Methodology

### 1 Scope

This part of IEC SRD 63233, which is a Systems Reference Deliverable, describes a systematic approach to carry out smart city standards analysis based on the IEC systems approach. It gives methods for developing smart city standards inventory and mapping.

### 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.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1

##### **domain**

field of special knowledge

[SOURCE: ISO 10241-1:2011, 3.3.1]

#### 3.2

##### **stakeholder**

individual or organization having a right, share, claim or interest in a system or in its possession of characteristics that meet their needs and expectations

[SOURCE: ISO/IEC 12207:2017, 3.1.59]

#### 3.3

##### **use case**

specification of a set of actions performed by a system, which yields an observable result that is, typically, of value for one or more actors or other stakeholders of the system

[SOURCE: ISO/IEC 19505-2:2012, 16.3.6]

#### 3.4

##### **standard**

deliverable, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context

[SOURCE: IEC 60050-901:2013, 901-02-02, modified – In the definition, "document" has been replaced by "deliverable".]