



SYSTEMS REFERENCE DELIVERABLE



Smart city standards inventory and mapping – Part 4: Guidance on standards for public health emergencies

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 03.100.70; 13.020.20

ISBN 978-2-8322-8474-2

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms and definitions	6
4 PHE standards inventory	7
4.1 Standards identification.....	7
4.1.1 Guiding principles	7
4.1.2 Criteria for PHE standards	8
4.1.3 Using given methods to identify PHE standards	8
4.2 Structured catalogue of PHE standards.....	12
4.2.1 Structuring the standards catalogue.....	12
4.2.2 Vocabulary for classification of PHE standards	16
4.3 PHE standards inventory.....	16
5 Mapping PHE standards on PHE reference models	16
5.1 PHE standards map user and needs analysis.....	16
5.2 PHE reference model selection and mapping implementation	17
5.3 Visualized PHE standards map	18
Annex A (informative) Searching keywords and query combinations for PHE standards inventory.....	19
Annex B (informative) An example: Existing standards and projects relevant to Covid-19	22
Bibliography.....	26
Figure 1 – A basic structure for PHE standards inventory	8
Figure 2 – Extension of PHE standard catalogue structure from that of smart cities	15
Figure B.1 – Standards relation diagram	24
Table 1 – Stakeholders and their activities, concerns, and standardization areas.....	9
Table 2 – PHE standards catalogue structure	13
Table 3 – Alternative reference models for PHE standards mapping	17
Table A.1 – Keywords for inventory.....	19
Table A.2 – Query combinations	21
Table B.1 – Published and ongoing IEC, ISO, ITU-T and ETSI documents relevant to Covid-19	22
Table B.2 – SDOs list with PHE standardization.....	25

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SMART CITY STANDARDS INVENTORY AND MAPPING –**Part 4: Guidance on standards for public health emergencies**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

IEC SRD 63233-4 has been prepared by IEC systems committee Smart Cities: Electrotechnical aspects of Smart Cities. It is a Systems Reference Deliverable.

This document contains an attached file that is cited in Clause 4. This file can be downloaded from <https://www.iec.ch/syccsmartcities/supportingdocuments>.

The text of this Systems Reference Deliverable is based on the following documents:

Draft	Report on voting
SyCSmartCities/318/DTS	SyCSmartCities/330/RVDTS

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. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC SRD 63233 series, published under the general title *Smart city standards inventory and mapping*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

Public health emergencies (PHE) refer to major infectious disease outbreaks, mass diseases of unknown causes, major food and occupational poisonings, and other events that seriously affect public health that occur suddenly and cause or can cause serious damage to public health. The International Health Regulations came into force in 2007 to manage global health emergency measures. The purpose and scope of the "Regulations" is to prevent, resist and control the international spread of diseases, and to provide public health response measures in an appropriate way to address public health risks while avoiding unnecessary interference with international traffic and trade. At 20:30 local time on 30 January 2020, World Health Organization (WHO) Director-General Tan Desai announced in Geneva that a new coronavirus pneumonia epidemic constituted a "PHEIC" (Public Health Emergency of International Concern). This PHEIC impacted each aspect of cities and each person's life all over the world. Cities including managers and citizens took necessary actions to protect life and health and tried to carry on normal life and work. In this process, standards played an important role.

This document gives guidance on identifying and mapping standards for public health emergencies following the methodology of IEC SRD 63233-1:2022.

A database with structured PHE relevant standards (see 4.2) is given for easy view by users for epidemic prevention and control of public health emergencies, deployment of medical facilities and equipment and maintaining city service continuity. The PHE standard catalogue structure is aligned with that in IEC SRD 63233-2:2023.

SMART CITY STANDARDS INVENTORY AND MAPPING –

Part 4: Guidance on standards for public health emergencies

1 Scope

This part of IEC SRD 63233 provides guidance on public health emergencies (PHE) standards inventory and mapping following the methodology in IEC SRD 63233-1. It guides the identification and categorization of relevant standards for epidemic prevention and control, and a database with catalogued standards is also given for easy use by cities.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC SRD 63233-1:2022, *Smart city standards inventory and mapping – Part 1: Methodology*