



**International
Standard**

ISO/IEC 25005-1

**Information technology — Data use
in smart cities —**

**Part 1:
Framework**

*Technologies de l'information — Utilisation des données dans les
villes intelligentes —*

Partie 1: Cadre général

**First edition
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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

A list of all parts in the ISO/IEC 25005 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

This document provides an integrated framework for data use that supports the multidimensional use of data as citywide strategic resources and assets. It aims to facilitate evidence-based decision making and enable data-based, data-driven and data-enabled smart cities development and applications.

Data use involves activities enabling data value realization for specific purposes in smart cities along the data value chain. This document is intended to assist in identifying problem-solving strategies and solutions for data use, data applications and data services citywide, including but not limited to data being not available when needed, data being not trusted when used, data not being easily used when available, data not being used securely and data value not being realized when in use.

This document provides a framework for data use in smart cities across five dimensions:

- data availability (ensuring data are accessible);
- data quality assurance (ensuring data are useful);
- ease of data use (ensuring data are easy to use);
- data use security (ensuring data are used securely);
- data-enabled innovation (ensuring data are used for enabling intelligent applications and services).

This document enhances the total capabilities of data use to support data-based, data-driven and data-enabled citywide information communication technology (ICT), big data and artificial intelligence (AI) applications and smart cities services. It is intended to fill the gaps in standards development for better collaboration and harmonization of sustainable data use considerations for smart cities from different standards development organizations (SDOs), to satisfy the maximized needs of multiple stakeholders from many views and various dimensions, e.g. effective, sustainable, comprehensive and innovative use of data as strategic resources and assets citywide.

This document can be used for citywide data use planning, deployment of design, implementation and management in smart cities development and applications.

The ISO/IEC 25005 series consists of three parts. This document provides foundations for standards collaboration on data use citywide and provides basic principles and core characteristics of considerations concerning the other parts in the series.

[Figure 1](#) provides the relations among this document, ISO/IEC TR 25005-2 and ISO/IEC TS 25005-3, describing guiding principles for data use in smart cities, core characteristics of considerations of data use in smart cities which are the basis for data use in smart cities standard series.

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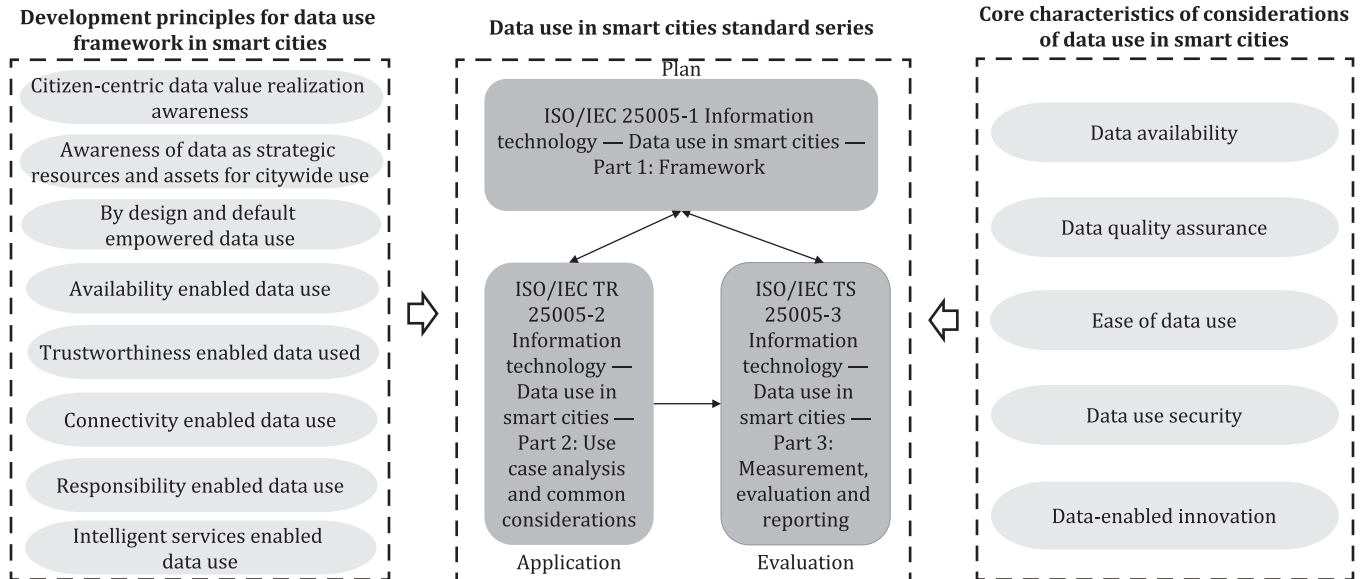


Figure 1 — ISO/IEC 25005 series

Information technology — Data use in smart cities —

Part 1: Framework

1 Scope

This document provides a framework for data use in smart cities, based on five dimensions:

- data availability (data are available);
- data quality assurance (data are useful);
- ease of data use (data are easy to use);
- data use security (data are used securely);
- data-enabled innovation (data are used for enabling intelligent applications and services).

This framework is intended to facilitate effective, sustainable, comprehensive and innovative use of data as citywide strategic resources and assets.

2 Normative references

There are no normative references in this document.

Bibliography

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1) Under preparation. Stage at the time of publication: ISO/IEC DTS 25005-3.