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Sustainable cities and communities — Recommendations and requirements for project developers — Meeting ISO 37101 framework principles

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National foreword

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Villes et communautés territoriales durables — Recommandations et exigences pour les développeurs de projets — Répondre aux principes du cadre ISO 37101

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 ISO documents 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee Technical Committee ISO/TC 268, *Sustainable cities and communities*.

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.

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Introduction

This document is intended for project developers carrying out urban building and construction projects within the holistic sustainability management framework of sustainable development in communities (the subject of ISO 37101), where a local government either has implemented the standard or has not implemented the standard but intends to do so. It also gives guidelines to decision-makers and managers responsible for authorising, promoting, financing, planning, designing, procuring, managing, reviewing, and implementing a project or programme.

For details on key terms and concepts of sustainable cities see the Bibliography at the end of this document, in particular "The ABC for Sustainable Cities", Reference [20] and "Rethink cities" Reference [19].

This document:

— supports a top-down approach where a specific project or programme is required to meet a community's ISO 37101 management system requirements and both a community and a developer need to be guided in the way in which the project or programme would be expected to meet the requirements;

— supports a bottom-up approach where a community does or does not have a formal ISO 37101 framework in place and developers can face several types of situations, for example:

  — where a community has adopted the ISO 37101 management system framework with accompanying procedures which place requirements on urban project stakeholders;

  — where a community has not adopted ISO 37101, but intends to align projects with the standard's holistic approach for ensuring that action in different areas contributes to the purposes of sustainable development;

  — where a community does not have an authority charged with implementing an ISO 37101 framework, but nonetheless, projects initiated and planned by private, public or mixed entities aim for alignment with ISO 37101 principles and procedures without formal reference to an ISO 37101 management system.

The context, within which the ISO 37101 approach is implemented, is as follows:

— Sustainable development is considered as an international consensus formalized in the Sustainable Development Goals (SDGs);

— Engagement at the community level is a major issue for the sustainable development of society since issues such as climate change, biodiversity, job creation, and health are often more effective and relevant at the local level;

— Local authorities face a wide and complex variety of related issues (economic, social, cultural, financial and environmental), and sustainability needs a holistic approach;

— A relevant and effective sustainability strategy for communities needs to imply a wide diversity of interested parties and these interested parties expect accountability for the issues arising and the actions undertaken;

— A wide set of standards already exists, at the local, national or international level, that responds to regulations and to voluntary undertakings such as certifications and ratings prescribed by project owners;

— Integrating sustainable development in community strategies and management systems is a real management challenge; it needs leadership and a strong management system framework;

— Sustainability strategy requires a long-term and a life cycle approach and needs to be assessed using a "total cost" approach which takes into account, in the long term, both positive and negative impacts; monitoring systems need to be designed in that context.

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To help implement the management system standard, this document is consistent with the various management methods and tools, including strategy analysis; gap analysis; materiality assessment; capacity projection; stakeholder management; change management; maturity analysis; performance monitoring; reporting.

These tools are compatible with ISO quality management systems (QMSs) for quality or environmental management (e.g. ISO 9001 and ISO 14001) and the Plan-Do-Check-Act (PDCA) cycle based on ISO 9001.

The structure of this document is shown in Table 1.

Table 1 — ISO 37109 (this document) structure

<table>
<tr><th colspan="2">Document structure</th><th colspan="3">Integration of sustainability in community principles in the Project Management stages and processes throughout the project life cycle</th></tr>
<tr><th>Scope</th><th>Clause in this document</th><th>Initiating and planning</th><th>Implementation and follow-up</th><th>Monitoring controlling closing</th></tr>
<tr><td rowspan="3">A. General</td><td>1. Scope</td><td colspan="3" rowspan="10">A summary of each main generic tool functionality is presented in the clauses of the main document, while a detailed overview is detailed in A.4 or Annex B.
NOTE: This document covers the stages of the project until its closing stage, which includes the transfer of its deliverables to future stakeholders.</td></tr>
<tr><td>2. Normative references</td></tr>
<tr><td>3. Terms and definitions</td></tr>
<tr><td rowspan="2">B. Context</td><td>4. Context of the organization</td></tr>
<tr><td>5. Leadership</td></tr>
<tr><td rowspan="3">C. Implementation</td><td>6. Planning</td></tr>
<tr><td>7. Support</td></tr>
<tr><td>8. Operations</td></tr>
<tr><td rowspan="2">D. Operation</td><td>9. Performance and evaluation</td></tr>
<tr><td>10. Improvement</td></tr>
</table>

Tools described in this document:

— Mapping of the territory actors: Clause 4 and details in Annex B;

— Relevance analysis of a project (relevance analysis, updated relevance analysis, performance assessment): Clause 4 and details in B.2; for an example of relevance analysis methodology, see Reference [22] in the Bibliography.

— Method to align a project: Clause 6 and details in B.3;

— Project governance and management (e.g. project management, resource management, ensuring changing situations, commissioning): Clause 7 and details in A.4;

— Transfer of the project: Clause 8 and details in B.4.

Each type of tool is presented according the following headings:

a) Tool description

— Purpose?

— Nature?

— What is the benefit?

— Who can take advantage of the tool?

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b) Tool action (the process for using the tool):

— What are the inputs?

— What are the outputs, deliverables, and output use?

— What is the process for using the tools?

— At what point in the project cycle can the tool be applied?

— What capabilities are needed to implement the tool?

This document is consistent with the World Bank "Urban Sustainability Framework" (USF). See Reference [24] and A.2.

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Sustainable cities and communities — Recommendations and requirements for project developers — Meeting ISO 37101 framework principles

1 Scope

This document provides recommendations and requirements to project developers, decision-makers and managers responsible for authorising, promoting, financing, planning, designing, procuring, managing, reviewing and implementing a project or programme. The recommendations and requirements aim to ensure that a project or programme adds value by aligning its development and implementation with a community's own or externally directed sustainability strategies and objectives and the requirements of ISO 37101.

This document supports both a top-down approach, where the community has implemented ISO 37101 and expects the developers to meet the standard's requirements, as well as a bottom-up approach, where the developer wants to meet the ISO 37101 framework principles whether the community has or has not implemented the standard. In both situations, it is recognised that implementing this document ensures that the project will contribute holistically to the sustainability of the community.

This document:

— recognises that there are several types of communities and stakeholder organisations that are charged with implementing ISO 37101;

— offers practical guidelines to all types of developers on initiating, planning, implementing, monitoring, managing and continually improving sustainable development activities for a specific project or programme at all its stages in a way that is both inclusive and holistic and in accordance with ISO 37101;

— in referencing the six sustainable development goals (SDGs) of ISO 37101, establishes a framework for the evaluation of the relevance of a project or programme in the context of the sustainable development of a community, the community's strategy and objectives, its management capacity, and its management systems for quality, the environment, health and safety, and governance;

— supports mainstreaming the actions and interactions of a multitude of independent decision makers to enhance the global impact on sustainable urban development that results from a wide variety of urban strategies, plans and programmes.

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.

ISO 37101:2016, *Sustainable development in communities — Management system for sustainable development — Requirements with guidance for use*

3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp

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— IEC Electropedia: available at https://www.electropedia.org/

3.1
contractor
professional in charge of providing the deliverables of a project

3.2
design
stage where the client's and/or the end users' ambitions, requirements, and applicable regulatory requirements are transformed into the specification for building the asset, to be agreed before its construction

Note 1 to entry: The design includes the following sub stages described in CSN 16310:

— Conceptual design;

— Preliminary design;

— Developed design;

— Technical design

Note 2 to entry: Sub-stages can also include "As Built design".

[SOURCE: CSN EN 16310]

3.3
designer
professional in charge of a built asset's design

Note 1 to entry: Examples of designers are architects, engineers, town planners.

3.4
inception
origin of a project from its starting condition

3.5
management principles
fundamental beliefs, norms, rules and values that can be accepted as true, and which can be used for management

Note 1 to entry: In this document, sustainability management and *project management* (3.9) principles refer to ISO 37101 principles.

3.6
programme
functional requirements which define the purposes to be achieved

3.7
project
temporary endeavour to achieve one or more defined objectives

Note 1 to entry: In this document, "project" is specific to "urban and rural space, and ground planning projects" which encompasses all urban components, e.g. buildings, infrastructure (bridges or networks, public transport systems, open public space, urban services). Achievement of the project objectives requires the provision of deliverables conforming to specific requirements.

[SOURCE: ISO 21502:2020, 3.20, modified — Note 1 to entry added.]

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3.8
project developer
person, group of persons or organisations, whatever their statute, private, publicly owned or mixed entity, developing urban projects and all, or part of, related activities, e.g. designing, buying land, financing projects, managing and implementing projects

3.9
project management
coordinated activities to direct and control the accomplishment of agreed objectives

[SOURCE: ISO 21502:2020, 3.24]

3.10
territory actor
organization or person developing an activity on the territory of the community

3.11
tool
instrument that helps the *project developer* (3.8) to meet ISO 37101 framework principles

Note 1 to entry: A tool can be in a variety of forms, e.g. a dashboard, a procedure manual, a digital platform or device, methodology.

4 Context of the project

4.1 General

The development or construction of projects or programmes in a city involves various actors in the different stages of these projects or programmes.

4.2 Requirements for a project inception

4.2.1 General

The components of a baseline review are described in 4.2.2 to 4.2.4.

4.2.2 Project rationale (initial definition of the project scope)

A project rationale shall be provided, which gives a scope to the project in terms of its applicable internal and external factors. This should also include an assessment of the needs and expectations of any interested parties, appropriate to the project.

4.2.3 Situation (baseline review)

Regional mapping in terms of sustainable development (current and envisaged) should consider:

— Level of performance for each of the ISO 37101 SDGs.

— Analysis of the contributions of each action area and other projects to a community's purposes of sustainability.

— Analysis of applicable requirements, regulations and standards, the needs and expectations of interested parties and the identification of other organisations and governing bodies that are active:

  — during the inception and production stages;

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— over the long term after the start of operation.

— Analysis of project risk during the three project stages (inception, implementation, long-term operation): impact assessment and potential contributions.

4.2.4 Definition of the project's operational management system within the region

The definition shall take into account:

— recognition of the system dimensions, the multi-actor approach and the multi-project/multi-action context;

— ensuring coherence with existing management systems and reference frameworks.

4.3 Tools

4.3.1 General

To support an efficient inception of the project, two main tools should be combined, the mapping tool key and the relevance tool key.

4.3.2 Stakeholders mapping tool

The aim of this tool is to collect all of the information that can improve the decision-making process. The tool shall cover:

— the figures on the territory at different scales;

— the data on the community and the various scope of decision including identification of stakeholders' expectations and potential contributions to the project;

— the steady state level of interaction between the project stakeholders and the territory.

Functionalities that tools shall integrate are detailed in Annex B.

4.3.3 Relevance tool

— Objective: evaluating the contribution of a construction or development project to the city or community's sustainable development. The purposes that shall be considered are at least those described by ISO 37101:2016, 4.5. The contribution can be positive or negative depending on the purpose, the scope, or the horizon considered.

— Scope: covers at least the territory of the community in which the project is located. The horizon to consider (short-, medium- or long-term) shall be adapted to each project, but at least it covers the lifecycle of the project.

— The relevance analysis is based on a prior analysis of the existing context. The project is relevant if it upgrades the territory profile. It is intended for all stakeholders identified in the context analysis.

Functionalities that tools shall integrate are detailed in B.2.

5 Leadership within the project context

5.1 General

The following ISO 37101 principles or implementation requirements for avoiding silo approaches are described in this clause:

— the management of urban projects;

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