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Sustainable mobility and transportation — Digital governance — Strategic needs regarding ISO 37101 purposes of sustainability

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Foreword

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This document was prepared by Technical Committee ISO/TC 268, *Sustainable cities and communities*, Subcommittee SC 2, *Sustainable mobility and transportation*.

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.

Introduction

0.1 General

This document aims at structuring the needs and specifying the digital governance capabilities on a mobility system to make it more sustainable.

It supports mobility stakeholders and especially transport authorities in the emergence and the realization of contributive solutions to the objectives of sustainability described in ISO 37101.

This document is the first of an intended set composed of the following documents:

— ISO 16481: to build a vision about the functional and environmental needs on systems composing the mobility system;

— ISO 16483: to identify and standardize the metrics that will help define strategic goals and quantify the evolution of the sustainable mobility system;

— and a forthcoming document dealing with mobility data framework.

A sustainable mobility system is a complex system combining multiple mobility systems. Mobility data governance is the cornerstone of the capabilities of such a system: standardizing data semantics, data services and data exploitation rules are among the key topics of the proposal.

This set of International Standards contributes directly to reducing energy consumption and air pollution from mobility. It introduces a systemic approach on sustainable mobility of a city or a territory.

This is unprecedented and complements the numerous standard initiatives that contribute to specific aspects of mobility solutions. These International Standards can guide transport authorities to translate sustainability ambitions into concrete plans, helping to define the associated mobility policies. It also defines the common rules among the co-existing systems of the mobility system. Once defined, this allows the systemic governance of the mobility system to implement strategic choices. For example, all measures creating directly or indirectly energy savings and air pollution, as well as improving resilience of the solutions, are described and leverages are given for decision makers to make well-based choices.

From the guidance of the purposes of sustainable cities and territories, especially "Preservation and improvement of environment", "Resilience" and "Responsible resource use", the contribution of mobility is analysed and associated needs are identified. Relevant actions levers are used to specify mechanisms and behaviours on the systems composing the mobility system.

Thus, the use of this International Standard set, starting with ISO 16481, aims at helping transport authorities in implementing their sustainability strategies and implement a governance able to handle the complexity of a mobility system.

This document deals with the strategic needs of digital governance for sustainable mobility. It is organized in two parts.

0.2 Use-case of part 1

The first part presents the links between the sustainability purposes and issues of the ISO 37101 and mobility needs:

It introduces the high-level needs of a sustainable mobility system.

This part of the document supports the transport authorities of an urban area to build a vision about the functional, social and environmental needs on the systems composing the mobility system to develop sustainability. Examples of users of this standard are detailed in Annex B.

— First, the users of this standard should apply the recommendations described in 4.1 to prepare the assessment and evolution plans of the mobility system. In later stages, this document also aims at providing support to the organizations adapting their governance to a mobility becoming more digital.