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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Sustainable cities and communities - Descriptive framework for
cities and communities**

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foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents"

drafted:

This document is equivalent to ISO 37105:2019 "Cities and Communities Descriptive Urban Descriptive Framework for Sustainable Development":

The following minimal editorial changes have been made to this document:

--- Added the note of 3:2 ontology:

Please note that some content of this document may be patented: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

This document details the urban descriptive framework used to provide a common language for city stakeholders to describe cities:

This framework facilitates the sharing of concepts, data and problem solutions within and between cities: The urban descriptive framework can also be referred to as the urban solution

Anatomy, as a city-based model, is used to assist in the integration of the city's inner workings systems and services: Furthermore, this descriptive framework can be used as a form

The basic or knowledge model of the ontology: Ontologies can be used to help plan and implement urban operational scenarios (especially those that may require digital machine-readable information):

A city is a collection of systems composed of multiple systems and multiple interactions, which nurture new human behaviors, and are also driven by emerging human behaviors:

behavior evolves: It can be seen as an arrangement and set of relationships between multiple system layers in permanent human settlements, the administrative and judicial

It is legally supported and universally recognized around the world: The city is not a static single entity, on the contrary, its internal political, economic, environmental

Environmental and social boundaries are blurred and interpenetrate over time, so they are difficult to describe clearly: Structure, Interaction and Society in the City

The meeting element also goes beyond the city boundary and is an important part of the multi-system collection of the city: More than half of the world's population lives in

Cities, yet many of the long-standing human challenges also occur in cities: For cities, a common descriptive framework is a necessary tool

tools, both for sharing knowledge and for finding solutions to common problems facing cities on a global scale:

Solutions to urban problems should improve the quality of life of urban residents and follow the principles of sustainable development: This principle requires that

Solve current urban problems while endangering future generations and meeting their own needs: The UN Sustainable Development Goals released in:2015

The original abstract concept is embodied: Among them, Goal 11 [10] proposes 10 goals for cities to improve the quality of life of residents and urban resilience:

Specific goals, while defining the impact of human behavior on the environment: Many standards, such as GB/T 40763-2021 and GB/T 36749-

In:2018, it can help urban planning, regulation, and achieve sustainable development goals at the same time: The purpose of this document is to provide a description of the city

The common language of the city to achieve sustainable development goals and promote the sharing of urban solutions:

The Urban Descriptive Framework was developed based on the Urban Draft Treaty Association's approach, through a cross-temporal, cross-cultural, scalable and accessible

The description method used is based on the analogy of human anatomy and its dynamic physiology to describe cities of all scales: this document

This descriptive framework divides cities into three main basic systems: a set of physical structures (structure), the living entities that make up urban society (social

society), the transfer (interaction) of interactions between social and physical structures: These three basic systems can be further decomposed into different

level: These tiers encompass all activities important to the city (regardless of whether they transcend the city's boundaries), as well as all activities within the city

natural environment and human settlement space:

GB/T 40758-2021 contains a series of related terms and definitions that help to understand the descriptive framework of this document:

Urban Descriptive Framework for Sustainable Development in Cities and Communities

1 Scope

This document details a descriptive framework for a city, and the underlying ontology associated with its anatomy: Among them, descriptive

The framework is designed to include the following characteristics:

- Trans-temporal, compatible with human settlements at any time in history;
- intercultural, applicable to any culture and any type of city;
- Scalable, suitable for both megacities as well as small and medium-sized cities, towns and villages;
- Universal, applicable to all places that can be defined as "human settlements", such as "smart cities":

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to

this document:

GB/T 40758-2021 Urban and Community Sustainability Terminology (GB/T 40758-2021, ISO 37100:2016, IDT)

3 Terms and Definitions

The terms and definitions defined in GB/T 40758-2021 and the following apply to this document:

3:1

descriptiveframework

A logical structure used to describe the classification of key entities in a specific domain in

order to show the relationship between them:

Note: The term "substance" refers not only to tangible substances, but also applies to any important independent existence, such as: basic customs, principles, practices, strategies, policies, decisions

policies and responsibilities:

3:2

ontology

A description of concrete or abstract things and their interrelationships within a specified range of knowledge:

Note: Ontology is a special type of term set, which has the characteristics of structure: It is a formalized representation of a set of concepts in a specific field and the relationship between them:

It is suitable for computer systems and information science, and can be used for reasoning and modeling of attributes in a certain field:

3:3

urbanism

Urban life and the environment:

4 Urban Descriptive Framework

4:1 General description of the city

Figure 1 shows the three primary logical elements of an urban ecosystem: Among them, structure refers to the overall collection of physical structures; society refers to

are the people who inhabit this physical structure and use its functions; interaction refers to the interaction between society and the physical structure: