

ISO/~~DIS~~ PRF 37125:2023(~~E~~)

ISO-/TC-268/~~WG-2~~

Secretariat:-AFNOR

Date: 2024-~~04~~08-28

**Sustainable cities and communities—— Environmental, social, and governance (ESG) indicators for cities**

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ISO/PRF 37125

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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 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](http://www.iso.org/directives)).

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

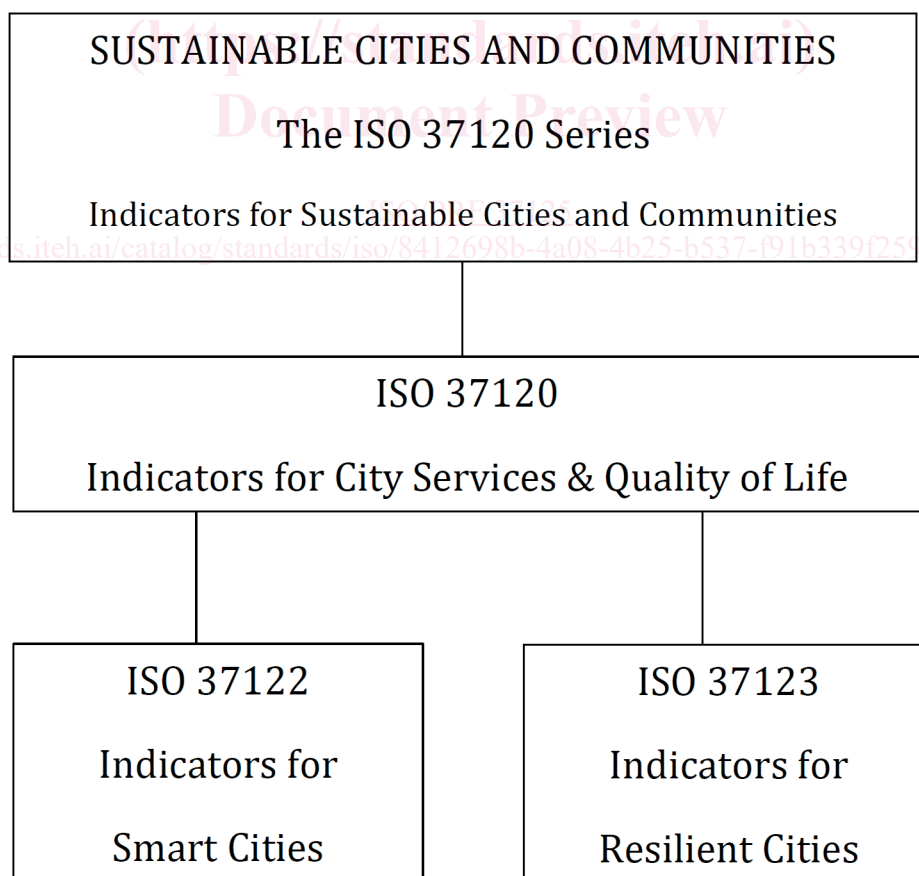
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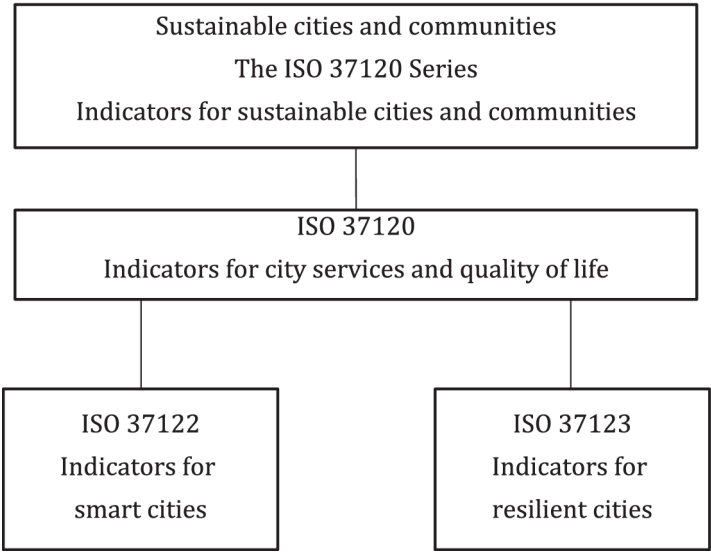
## Introduction

On a global scale, ~~environmental, social~~environmental, social and governance (ESG) principles are at the core of the discussion on responsible leadership in governments and private industries alike. Cities can leverage these principles to foster a more sustainable and inclusive prosperity for their citizens guided by data-driven management for sound governance into the future. However, a critical weakness has been identified in this field: a lack of standards and codes on how to measure ESG with comparable data, governed by standardized criteria and a trusted measurement platform. This lack of standardization has created a sense of skepticism in ESG assessments and organizations are seeking new guidance on how best to measure ESG performance.

It is within this global context of an evolving ESG ecosystem that cities are stepping up – understanding the need for standardization across ESG principles to ensure much-needed successes in municipal programming, planning and service delivery. To be successful in adopting ESG programs and strategies, city leaders need to be equipped with standardized criteria to build trusted measurement platforms. With standardized city-level data, city managers, planners, mayors and sector leaders will be better able to assess and track advances in a city's ESG profile. A subset of these key performance indicators (KPIs) can also be applied to measure results in regions, counties, provinces, states, countries, and other geographic levels.

Worldwide, cities are already utilizing ~~the~~ ISO 37120, ISO 37122, and ISO 37123 ~~standards~~ for cities – to build standardized data sets to support their work in delivering services to their residents, in advancing quality of life, and in building smarter and more resilient futures for their cities. These municipal leaders recognize the importance of standardized data to support and validate their commitments to ESG. ~~Figure 4~~Figure 1 shows the relationship between the ISO 37120, ISO 37122 and ISO 37123 standards for cities.





**Figure 1 — Sustainable cities and communities — Relationship between the ISO 37120, ISO 37122 and ISO 37123 standards for cities**

While KPIs (252 in total plus a set of -profile indicators) exist across ~~the~~ ISO 37120, ISO 37122, and ISO 37123 ~~standards~~ for cities that can support ESG measurements in cities, there are also gaps within these indicators. This document is designed to draw on both a sub-set of KPIs in ~~the~~ ISO 37120, ISO 37122, and ISO 37123 ~~standards~~ for cities (see ~~Annex A~~)Annex A) and also to include new KPIs developed with full definitions and methodologies to fill these critical gaps, making this document a comprehensive ESG measurement platform for cities. This document includes a core set of fully numeric KPIs that will help city leaders worldwide to direct ESG-informed and ESG-driven municipal programming, planning and service delivery. This document, in conjunction with ISO 37120, ISO 37122 and ISO 37123 is intended to provide a complete set of indicators to better assess and track advances in a city’s ESG profile.

Cities of all sizes and in line with their own purposes can use their ESG profile for setting benchmarks and milestones for their growth and development. Cities, ~~governments~~governments and ~~researchers~~researchers can also make use of the ESG profiles for inter-city comparison. This document is a flexible tool designed to support cities across objectives. Furthermore, indicators can be useful tools for other levels of government, including regional and other upper-tier governments when considering ESG objectives.

This document is developed with the understanding that cities are increasingly on the frontline in delivering services that improve quality of life for citizens, that protect the environment, consider equity and social needs, and prioritize social responsibility, underpinned by a strong model of governance and enduring legislation. This document will equip city leaders with data to nurture prosperous, inclusive, and liveable cities, with a high quality of life for residents, now, and ~~into~~in the future.

# Sustainable cities and communities — Environmental, social, and governance (ESG) indicators for cities

## 1 Scope

This document specifies and establishes definitions and methodologies for a set of indicators to inform an ~~environmental, social~~environmental, social and governance (ESG) profile for cities.

## 2 Normative references

There are no normative references in this document.

## 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>

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

### 3.21

#### city

municipality

local government

urban or rural community falling under a specific administrative boundary

### 3.32

#### city population

number of residents living in a particular city or municipality, typically determined by census every 5 or 10 years

Note 1 to entry: City populations determined by census exclude temporary residents but include residents temporarily absent.

### 3.43

#### community

group of people with an arrangement of responsibilities, activities and relationships

Note 1 to entry: In many, but not all, contexts, a community has a defined geographical boundary.

Note 2 to entry: A city is a type of community.

**3.64****disaster**

serious disruption to a city or community due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to human, material, economic and/or environmental losses and impacts

Note\_1\_to\_entry:-Disasters can be frequent or infrequent, depending on the probability of occurrence and the return period of the relevant hazard.~~3.7~~

**3.5****drinking water**

water intended for human consumption

Note\_1\_to\_entry:-The term "potable water" is used instead of "drinking water" in ISO 37120 because it was published before ISO 24513. Both terms can be used interchangeably, but "potable water" is deprecated according to ISO 24513.

[SOURCE: ISO 24513:2019, 3.2.2.1, modified — Note 1 to entry replaced.]

**3.86****full-time enrolment**

enrolment in an education programme whose intended study load amounts to at least 75 % of the normal full-time annual study load

**3.97****gigajoule**

measure of the energy that is equivalent to  $10^9$  Joules (J), where 1 J is the amount of energy required to send an electrical current of one ampere through a resistance of one ohm for one second

Note\_1\_to\_entry:-One gigajoule (GJ) is equivalent to 277,8 kilowatt hours (kWh).

**3.108****hazard**

phenomenon, human activity or process that can cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation

Note\_1\_to\_entry:-Hazards include biological, environmental, geological, hydro-meteorological and technological processes and phenomena. Biological hazards include pathogenic microorganisms, toxins and bioactive substances (e.g. bacteria, viruses, parasites, venomous wildlife and insects, poisonous plants, mosquitoes carrying disease-causing agents). Environmental hazards can be chemical, natural, radiological or biological, and are created by environmental degradation, physical or chemical pollution in the air, water and soil. However, many of the processes and phenomena that fall into this category can be "drivers" of hazard and risk rather than hazards themselves (e.g. soil degradation, deforestation, biodiversity loss, sea level rise). With respect to drinking water, 'hazard' can be understood as a microbiological, chemical, physical or radiological agent that causes harm to human health. Geological or geophysical hazards originate from internal earth processes (e.g. earthquakes, volcanic activity, landslides, rockslides, mud flows). Hydro-meteorological hazards are of atmospheric, hydrological or oceanographic origin (e.g. cyclones, typhoons, hurricanes, floods, drought, heatwaves, cold spells, coastal storm surges). Hydro-meteorological conditions can also be a factor in other hazards such as landslides, wildland fires and epidemics. Technological hazards originate from industrial or technological conditions, dangerous procedures, infrastructure failures or specific human activities (e.g. industrial pollution, nuclear radiation, toxic waste, dam failures, transport accidents, factory explosions, fires, chemical spills).

**3.119****hazard map**

map developed to illuminate areas that are affected or vulnerable to a particular hazard (e.g. earthquakes, landslides, rockslides)