



# ISO 37120

## **Sustainable development of communities**

**Indicators for city services  
and quality of life**

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ISO/TC 268, *Sustainable development of communities*.

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## Executive summary

— ISO 37120 establishes definitions and methodologies for a set of city indicators to steer and measure delivery of city services and quality of life. As part of a new series of International Standards being developed for a holistic and integrated approach to sustainable development and resilience, this set of standardized indicators provides a uniform approach to what is measured, and how that measurement is to be undertaken.

— The requirements contained in this International Standard are applicable to any city, municipality or local government

that undertakes to measure its performance in a comparable and verifiable manner, irrespective of size and location.

— The indicators can be used to track and monitor a city's progress on city service performance and quality of life and assist cities in setting targets and monitoring achievements. In order to achieve sustainable development, the whole city system needs to be taken into consideration. Planning for future needs must take into consideration current use and efficiency of resources in order to better plan for tomorrow.

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

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO-specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 268, *Sustainable development in communities*.

## Introduction

Cities need indicators to measure their performance. Existing indicators are often not standardized, consistent, or comparable over time or across cities.

As part of a new series of International Standards being developed for a holistic and integrated approach to sustainable development and resilience, this set of standardized indicators provides a uniform approach to what is measured, and how that measurement is to be undertaken. As a list, it does not provide a value judgement, or threshold or a target numerical value for the indicators.

Conformance with this standard does not confer a status in this regard. A city which conforms to this standard in regards to measurement of indicators for city services and quality of life may only claim compliance to that effect.

These indicators can be used to track and monitor progress on city performance. In order to achieve sustainable development, the whole city system needs to be taken into consideration. Planning for future needs must take into consideration current use and efficiency of resources in order to better plan for tomorrow.

The indicators and associated test methods in this International Standard have been developed in order to help cities:

- a) measure performance management of city services and quality of life over time;
- b) learn from one another by allowing comparison across a wide range of performance measures; and,
- c) share best practices.

**NOTE** It is acknowledged that cities may not have direct influence or control over factors governing some of these indicators, but the reporting is important for meaningful comparison and provides a general indication of service delivery and quality of life within a city.

The indicators in this International Standard have been selected to make reporting as simple and inexpensive as possible, and therefore reflect an initial platform for reporting. Further development of indicators to support sustainable development and resilience in cities is on-going in TC268.

The indicators are structured around themes. Recognizing the differences in resources and capabilities of cities worldwide, the overall set of indicators for city performance has been divided into “core” indicators (those implementing this International Standard shall follow) and “supporting” indicators, (those implementing this International Standard should follow). Both core and supporting indicators are listed in [Annex A, Table A.1](#). In addition, profile indicators, which provide basic statistics and background information to help cities determine which cities are of interest for comparisons, are included in [Annex B, Table B.1](#), as a reference.

In this International Standard, the following verbal forms are used:

- “shall” indicates a requirement;
- “should” indicates a recommendation;
- “may” indicates a permission;
- “can” indicates a possibility or a capability.

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## 1 Scope

This International Standard defines and establishes methodologies for a set of indicators to steer and measure the performance of city services and quality of life. It follows the principles set out and can be used in conjunction with ISO 37101:—, *Sustainable development in communities — Management systems — General principles and requirements*, when published, and other strategic frameworks.

This International Standard is applicable to any city, municipality or local government that undertakes to measure its performance in a comparable and verifiable manner, irrespective of size and location.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 37101:—, *Sustainable development and resilience of communities — Management systems — General principles and requirements*

ISO 1996-2:—, *Acoustics Description, measurement and assessment of environmental noise — Part 2: Determination of environmental noise levels*

[ISO 37120:2014](https://standards.iteh.ai/catalog/standards/sist/bac67a3b-2a41-415b-810f-7d7777777777/iso-37120-2014)

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## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 37101, and the following apply.

### 3.1

#### **city**

urban community falling under a specific administrative boundary, commonly referred to as a city, municipality or local government

### 3.2

#### **indicator**

a quantitative, qualitative or descriptive measure

[SOURCE: ISO 15392:2008, 3.14]

Note 1 to entry: Indicators in this standard are divided into:

a) core indicators: indicators that are required to demonstrate performance in the delivery of city services and quality of life.

b) supporting indicators: indicators that are recommended to demonstrate performance in the delivery of city services and quality of life.

c) profile indicators: indicators that provide basic statistics and background information to help cities determine which cities are of interest for peer comparisons. Profile indicators are used as an informative reference.

### 3.3

#### **full-time enrolment**

enrolment in school for every full school day in a week over the entire school year

### 3.4

#### **natural disaster**

a natural event such as a flood, earthquake, or hurricane that causes great damage or loss of life

### 3.5

#### **part-time enrolment**

enrolment in school for at least every half-day in a week over the entire school year or equivalent on a weekly basis

**EXAMPLE** A student is counted as enrolled part-time if he/she is enrolled in school for every half-day in a week, but is not counted as enrolled if he/she is only enrolled for 0,25 of a day.

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### 3.6

#### **primary education**

elementary school

education that is considered to be the first stage of 'basic education'

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Note 1 to entry: Primary education typically covers six years of full-time schooling with the legal age of entrance normally being not younger than 5 years or older than 7 years. Primary education typically lasts until age 10 to 12. Primary education refers to children ages 5-12 years or 1st grade through 5th or 6th grade as defined by local education systems.

[SOURCE: UNESCO Institute for Statistics, UOE data collection on education systems, 10.1]

### 3.7

#### **secondary education**

education that is considered to be the second stage of basic education and marks the end of compulsory education where it exists

Note 1 to entry: Students usually enter between age 10 and 13 (age 12 being the most common). Secondary education usually ends 12 or 13 years after the beginning of primary education (or around age 18); however, systems can range between ending 11 to 14 years after beginning school (or around age 17 to 20). Secondary education also refers to 6<sup>th</sup> grade (or 7<sup>th</sup> grade) to 12<sup>th</sup> grade as defined by local education systems.

### 3.8

#### **tertiary education**

education provided by universities and other higher education institutions following secondary education

### 3.9

#### **hazardous waste**

waste that is potentially harmful to human beings, property or the environment

[SOURCE: ISO 18113-1:2009, 3.22]

### 3.10

#### **solid waste**

non-soluble, discarded solid materials, including sewage sludge, municipal garbage, industrial wastes, agricultural refuse, demolition wastes and mining residues

### 3.11

#### **vascular plants (tracheophytes)**

plants that can internally transport water and food

## 4 City indicators

This International Standard is designed to assist cities in steering and assessing the performance management of city services and all service provisions as well as quality of life. It considers sustainability as its general principle and resilience as a guiding concept in the development of cities. All indicators shall be compiled on an annual basis.

Those implementing this International Standard shall report on all core indicators listed in [Clauses 5 to 21](#) of this International Standard.

The core indicators described in this International Standard are considered essential for steering and assessing the performance management of city services and quality of life.

In order to promote best practice, cities should also report on the supporting indicators given in [Clauses 5 to 21](#) of this International Standard.

The core and supporting indicators are classified into themes according to the different sectors and services provided by a city. The classification structure is used solely to denote the services and area of application of each type of indicator when reported on by a city. This classification has no hierarchical significance and is organized alphabetically according to themes.

Indicators under each theme, where possible, were selected and paired on the basis of input and outcome indicators for further contextual analysis.

When interpreting the results of a particular service area, it is important to review the results of multiple types of indicators across themes; to focus on a single indicator can lead to a distorted or incomplete conclusion. Elements of aspiration must also be taken into consideration in the analysis.

Users may also consider the following aspects which shall be clearly stated in the report and justified: indicators can be aggregated to larger administrative areas (ex. region, metropolitan areas etc.); since some indicators are indirectly linked to sustainability, there is a need to consider the resource efficiency of a

city; indicators can be grouped together for analysis when taking into consideration holistic characteristics of a city; and, this set of indicators may be complemented by other indicator sets in order to have a more comprehensive holistic approach to analysis on sustainability.

Furthermore, it is also important to acknowledge potential antagonistic effects of the outcome of particular indicators, either positive or negative, when analysing results. For example, an increase in air connectivity and the number of automobiles per capita will potentially result in increased levels of PM10 and greenhouse gas emissions.

For data interpretation purposes cities shall take into consideration contextual analysis when interpreting results. The local institutional environment may affect the capacity to apply indicators. In some cases, services may be delivered by the private sector or the community itself.

[Table B.1](#) lists a series of profile indicators for reference purposes.

## 5 Economy

### 5.1 City's unemployment rate (core indicator)

#### 5.1.1 General (standards.iteh.ai)

Those implementing this International Standard shall report on this indicator in accordance with the following requirements:

**NOTE** The unemployment rate is considered one of the single, most informative labour market indicators reflecting the general performance of the labour market and the health of the economy as a whole. It is used to measure a city's unutilized labour supply and track business cycles. When economic growth is strong, unemployment rates tend to be low and when the economy is stagnating or in recession, unemployment rates tend to be higher.

#### 5.1.2 Core indicator requirements

A city's unemployment rate shall be calculated as the number of working-age city residents who during the survey reference period were not in paid employment or self-employment, but available for work, and seeking work (numerator) divided by the total labour force (denominator). The result shall be multiplied by 100 and expressed as a percentage.

Unemployment shall refer to individuals without work, actively seeking work in a recent past period (past four weeks), and currently available for work. Persons who did not look for work but have a future labour market stake (arrangements for a future job start) are counted as unemployed (International Labour Organization). Discouraged workers or hidden unemployed shall refer to persons who are not actively seeking work because they believe the prospects of finding it are extremely poor or they have restricted labour mobility, face discrimination, and/or structural, social, and cultural barriers – are not counted as