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Sustainable cities and communities — Vocabulary

Aménagement durable des villes et des collectivités — Vocabulaire

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Foreword

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The committee responsible for this document is Technical Committee ISO/TC 268, *Sustainable cities and communities*.

Sustainable cities and communities — Vocabulary

1 Scope

This document defines terms relating to sustainable development in communities, smart community infrastructure and related subjects.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

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

3.1 Terms relating to sustainable development, resilience and smartness

3.1.1
sustainability
state of the global system, including environmental, social and economic aspects, in which the needs of the present are met without compromising the ability of future generations to meet their own needs

Note 1 to entry: The environmental, social and economic aspects interact, are interdependent and are often referred to as the three dimensions of sustainability.

Note 2 to entry: Sustainability is the goal of sustainable development.

[SOURCE: ISO Guide 82:2014, 3.1]

3.1.2
sustainable development
development that meets the environmental, social and economic needs of the present without compromising the ability of future generations to meet their own needs

Note 1 to entry: Derived from the Brundtland Report.

Note 2 to entry: The Aalborg Charter provides further information on sustainable development in communities.

[SOURCE: ISO Guide 82:2014, 3.2, modified — Note 2 to entry has been added.]

3.1.3
resilience
adaptive capacity of an organization in a complex and changing environment

Note 1 to entry: The Intergovernmental Panel on Climate Change (IPCC) defines resilience as "the ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions".

Note 2 to entry: Resilience is the ability of an organization to resist being affected by an event or the ability to return to an acceptable level of performance in an acceptable period of time after being affected by an event.

Note 3 to entry: Resilience is the capability of a system to maintain its functions and structure in the face of internal and external change and to degrade gracefully when this is necessary.

[SOURCE: ISO Guide 73:2009, 3.8.1.7, modified — Notes 1, 2 and 3 to entry have been added.]

3.1.4
smartness
quality of contributing to sustainable development and resilience, through soundly based decision making and the adoption of a long- and short-term perspective

Note 1 to entry: Smartness is embedded in the process of sustainable development, i.e. sustainable development is the overarching process, while smartness is a characteristic. It implies a holistic approach, including good governance and adequate organization, processes and behaviours, and appropriate innovative use of techniques, technologies and natural resources.

Note 2 to entry: Smartness is addressed in terms of performance, relevant to technologically implementable solutions.

3.1.5
accountability
state of being answerable for decisions and activities to the interested parties of an organization

3.1.6
ecosystem
system of complex interactions between plants, animals, microorganisms and their environment, which functions as a unit

[SOURCE: ISO 13065:2015, 3.14, modified — The words "communities of" have been deleted before the word "plants".]

3.1.7
ecosystem services
benefits provided by ecosystems that contribute to the viability and quality of human life

[SOURCE: ISO 13065:2015, 3.15, modified — Definition adapted to the context of sustainable development in communities]

3.1.8
environment
surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and their interrelations

[SOURCE: ISO 13065:2015, 3.16]

3.1.9
environmental impact
change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects

[SOURCE: ISO 14001:2015, 3.2.4]

3.1.10
hazardous waste
waste that is potentially harmful to human beings, property or the environment

[SOURCE: ISO 18113-1:2009, 3.22, modified — Notes 1 and 2 to entry and examples have been removed.]

3.1.11
impact
positive or negative change to society, economy or the environment, wholly or partially resulting from an organization's past and present decisions and activities

[SOURCE: ISO 26000:2010, 2.9]

3.1.12
life cycle
consecutive and interlinked stages of a product (or service) system, from raw material acquisition or generation from natural resources to final disposal

Note 1 to entry: The life cycle stages include acquisition of raw materials, design, production, transportation/delivery, use, end-of-life treatment and final disposal.

[SOURCE: ISO 14001:2015, 3.3.3]

3.1.13
life cycle cost
total investment in product development, manufacturing, test, distribution, operation, support, training, and disposal

[SOURCE: ISO/IEC/IEEE 24765:2010, 3.1590]

3.1.14
natural disaster
natural event such as a flood, earthquake, or hurricane that causes great damage or loss of life

3.1.15
pro-poor growth
economic growth for the benefit of poor people (primarily in the economic sense of poverty)

Note 1 to entry: Pro-poor growth can be defined as absolute, where the benefits are from overall growth in the economy, or relative, which refers to targeted efforts to increase the growth specifically among poor people.

EXAMPLE   A pace and pattern of economic growth that helps poor women and men to participate in, contribute to and benefit from that growth.

[SOURCE: OECD, Natural Resources and Pro-Poor Growth: The Economics and Politics, 2008]

3.1.16
solid waste
non-soluble, discarded solid materials, including sewage sludge, municipal garbage, industrial wastes, agricultural refuse, demolition wastes and mining residues

3.1.17
vascular plants
plants that can internally transport water and food

3.2   Terms relating to organization, city and community

3.2.1
city
urban community falling under a specific administrative boundary

Note 1 to entry: A city is sometimes referred to as a municipality or a local government.

Note 2 to entry: Cities can help to alleviate increasing pressure on the environment and natural resources caused by global urbanization through the development of holistic and integrated policies.

3.2.2
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.

3.2.3
organization
person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives

Note 1 to entry: to entry. The concept of organization includes, but is not limited to sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

Note 2 to entry: In this document, the concept of organization refers to an entity/institution inside the community that is tasked with implementing the management system, e.g. the local government. The community identifies an organization that it entrusts with the implementation of this document.

3.2.4
buyer
person who aims to get possession of goods, services and/or rights through providing an acceptable equivalent value, usually in money, to the person providing such goods, services and/or rights

[SOURCE: ISO/IEC 15944-1:2011, 3.8, modified — The words "goods", "services" and "rights" have been made into the plural form.]

3.2.5
interested party (preferred term)
stakeholder (admitted term)
person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity

3.2.6
provider
person or organization involved in or associated with the delivery of products and/or services

[SOURCE: ISO/TR 12773-1:2009, 2.40, modified — Definition adapted to the context of smart community infrastructures.]

3.3   Terms relating to management

3.3.1
management system
set of interrelated or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives

Note 1 to entry: A management system can address a single discipline or several disciplines.

Note 2 to entry: The system elements include an organization's structure, roles and responsibilities, planning and operation.

Note 3 to entry: The scope of a management system may include the whole organization, specific and identified functions of the organization, specific and identified sections of the organization, or one or more functions across a group of organizations.

3.3.2
top management
person or group of people who directs and controls an organization at the highest level

Note 1 to entry: Top management has the power to delegate authority and to provide resources within the organization.

Note 2 to entry: Top management is to be understood as the decision-making body of the organization formally or informally entrusted by the relevant community to implement the management system.

Note 3 to entry: If the scope of the management system covers only part of an organization, then top management refers to those who direct and control that part of the organization.

3.3.3
continual improvement
recurring activity to enhance performance

3.3.4
documented information
information required to be controlled and maintained by an organization and the medium on which it is contained

Note 1 to entry: Documented information can be in any format and media, and from any source.

Note 2 to entry: Documented information can refer to:

— the management system, including related processes;

— information created in order for the organization to operate (documentation);

— evidence of results achieved (records).

3.3.5
effectiveness
extent to which planned activities are realized and planned results achieved

3.3.6
impact
positive or negative change to society, economy or the environment, wholly or partially resulting from an organization's past and present decisions and activities

[SOURCE: ISO 26000:2010, 2.9]

3.3.7
objective
result to be achieved

Note 1 to entry: An objective can be strategic, tactical, or operational.

Note 2 to entry: Objectives can relate to different disciplines (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process).

Note 3 to entry: An objective can be expressed in other ways, e.g. as an intended outcome, a purpose, an operational criterion, as an objective of sustainable development in communities, or by the use of other words with similar meaning (e.g. aim, goal or target).

Note 4 to entry: In the context of management systems for sustainable development in communities, objectives for sustainable development in communities are set by the organization, consistent with the policy for sustainable development in communities, to achieve specific results.

3.3.8
outsource (verb)
make an arrangement where an external organization performs part of an organization's function or process

Note 1 to entry: An external organization is outside the scope of the management system, although the outsourced function or process is within the scope.

3.3.9
policy
intentions and direction of an organization, as formally expressed by its top management

3.3.10
process
set of interrelated or interacting activities which transforms inputs into outputs

3.4   Terms relating to quality and conformity

3.4.1
competence
ability to apply knowledge and skills to achieve intended results

3.4.2
compliance obligations (preferred term)
legal requirements and other requirements (admitted term)
legal requirements that an organization has to comply with and other requirements that an organization has to or chooses to comply with

Note 1 to entry: Compliance obligations are related to the management system for sustainable development in communities.

Note 2 to entry: Compliance obligations can arise from mandatory requirements, such as applicable laws and regulations, or voluntary commitments, such as organizational and industry standards, contractual relationships, principles of good governance and community and ethical standards.

3.4.3
conformity
fulfilment of a requirement

3.4.4
audit
systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled

Note 1 to entry: An audit can be an internal audit (first party) or an external audit (second party or third party), and it can be a combined audit (combining two or more disciplines).

Note 2 to entry: An internal audit is conducted by the organization itself, or by an external party on its behalf.

Note 3 to entry: "Audit evidence" and "audit criteria" are defined in ISO 19011.

3.4.5
corrective action
action to eliminate the cause of a nonconformity and to prevent recurrence

3.4.6
evaluation
systematic process of determining how well individuals, procedures, systems or programmes have met formally agreed objectives and requirements

[SOURCE: ISO 10795:2011, 1.90]

3.4.7
measurement
process to determine a value

3.4.8
monitoring
determining the status of a system, a process or an activity

Note 1 to entry: To determine the status, there may be a need to check, supervise or critically observe.

3.4.9
nonconformity
non-fulfilment of a requirement

3.4.10
performance
measurable result

Note 1 to entry: Performance can relate either to quantitative or qualitative findings.

Note 2 to entry: Performance can relate to the management of activities, processes, products (including strategies, programmes, projects, plans and services), systems or organizations.

3.4.11
requirement
need or expectation that is stated, generally implied or obligatory

Note 1 to entry: "Generally implied" means that it is custom or common practice for the organization and interested parties that the need or expectation under consideration is implied.

Note 2 to entry: A specified requirement is one that is stated, for example in documented information.

3.4.12
risk
effect of uncertainty on objectives

Note 1 to entry: An effect is a deviation from the expected — positive or negative.

Note 2 to entry: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood.

Note 3 to entry: Risk is often characterized by reference to potential "events" (as defined in ISO Guide 73:2009, 3.5.1.3) and "consequence" (as defined in ISO Guide 73:2009, 3.6.1.3), or a combination of these.

Note 4 to entry: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated "likelihood" (as defined in ISO Guide 73:2009, 3.6.1.1) of occurrence.

3.4.13
safety
freedom from unacceptable risk

[SOURCE: ISO/IEC Guide 51:2014, 3.14, modified — The words "risk which is not tolerable" have been changed to "unacceptable risk".]

3.4.14
snapshot
capture of the status of a data resource at a given moment in time

[SOURCE: ISO 12620:2009, 3.6.2]

3.5   Terms relating to indicators and metrics

3.5.1
indicator
quantitative, qualitative or descriptive measure

[SOURCE: ISO 15392:2008, 3.14]

3.5.2
metric
defined measurement method and measurement scale

[SOURCE: ISO/IEC 14102:2008, 3.4]

3.5.3
full-time enrolment
enrolment in school for every full school day in a week over the entire school year

3.5.4
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.

3.5.5
greenhouse gas emission
total mass of a greenhouse gas released to the atmosphere over a specified period of time

[SOURCE: ISO 14064-1:2006, 2.5]

3.6   Terms relating to infrastructure and services

3.6.1
community infrastructure
system of facilities, equipment and services that support the operations and activities of communities

Note 1 to entry: Such community infrastructures include, but are not limited to, energy, water, transportation, waste and information and communication technologies (ICT).

[SOURCE: ISO 9000:2015, 3.5.3, modified — Definition adapted to the context of smart community infrastructures.]

3.6.2
smart community infrastructure
community infrastructure with enhanced technological performance that is designed, operated and maintained to contribute to sustainable development and resilience of the community

Note 1 to entry: It is the infrastructure that is considered to be "smart" in this document, and not the community.

Note 2 to entry: Sustainable development tends to require community infrastructures that meet multiple, often contradictory, needs at the same time.

Note 3 to entry: Information and communication technologies (ICT) is an enabler but not a precondition for achieving smart community infrastructures.

3.6.3
interoperability
ability of systems to provide services to and accept services from other systems and to use the services so exchanged to enable them to operate effectively together

[SOURCE: ISO 21007-1:2005, 2.30]

3.6.4
primary education
elementary school
education that is considered to be the first stage of "basic education"

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 some local education systems.

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