
**Sustainable cities and communities —
Business districts — Guidance for
practical local implementation of ISO
37101**

*Villes et communautés territoriales durables — Quartiers d'affaires
— Recommandations pour la mise en œuvre pratique de l'ISO 37101
au plan local*

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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).

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).

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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

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

In 2015, the United Nations (UN) committed to adopting 17 Sustainable Development Goals (SDGs) addressing a broad range of development issues. Each goal has specific targets to be achieved by 2030. However, UN SDG 11b specifies that by 2020 cities should embark on integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, and resilience to disaster. Achieving these goals requires coordinated work by governments, the private sector, civil society and citizens.

Local governments play a key organizing role in building a more sustainable and desirable collective future. The SDGs can be seen as challenges but offer an opportunity for cities to find a new way to develop, minimizing their impact on the environment. As a Management System Standard (MSS), ISO 37101 represents a tool for achieving these goals by proposing a holistic approach to address the related challenges and is therefore consistent with this idea.

To enhance their economic dynamism, each country and metropolis concentrates headquarters, research and development (R&D), hotels and services in large business districts, flagships of their excellence. Even if these districts often include residential neighbourhoods, natural spaces and cultural amenities, they present singular characteristics regarding sustainable development. ISO 37101 provides a general framework for the cities as a whole. ISO 37104 offers practical guidance to all types of cities and other settlements on initiating, planning, implementing, measuring and managing sustainable development activities in a way that is holistic, inclusive and based on sustainability principles. The purpose of this document is to implement ISO 37101 and to provide guidance to business districts as specific urban districts (see 4.1). This document can assist local governments and all relevant interested parties in integrating a more sustainable holistic approach at all steps of the lifecycle of the business district: planning, design, construction, maintenance, operations, and renovation.

Establishing and implementing a sustainable development strategy has a number of benefits for a business district, at the local and national or international levels, such as:

- to design and improve both the built environment and unbuilt areas, by promoting better use of resources, enhancing levels of reuse and recycling of existing resources when possible, optimizing mobility and accessibility and bolstering the business district's integration into the surrounding area;
- to encourage initiative and interaction between all interested parties;
- to promote economic development and job growth, including in the surrounding area;
- to improve working and living conditions;
- to balance short-term and long-term perspectives in setting priorities and decision-making processes;
- to ensure sound and balanced finances throughout the business district's lifecycle;
- to get a better return of investment for the future;
- to promote and encourage pooling of resources between similar activities in the business district and the surrounding area;
- to improve environmental performance;
- to create a distinct identity and cultivate a sense of belonging among interested parties;
- to increase satisfaction and productivity;
- to develop new opportunities for wealth creation;
- better adaptability to changing contexts.

- to apply sustainable energy use and communication technologies, especially water, waste, electric energy, ICT technologies.

It is based on ISO 37101 and on the Plan-Do-Check-Act (PDCA) model, which can be briefly described as follows:

- Plan: establish objectives and processes necessary to deliver a strategy for the sustainable development of business districts in accordance with city and community purposes;
- Do: implement processes and achieve objectives;
- Check: monitor and measure established processes against policy, objectives and commitments, and report the results;
- Act: take necessary actions to improve performance.

[Figure 1](#) illustrates how this document follows a PDCA approach in the management of sustainable development in business districts.

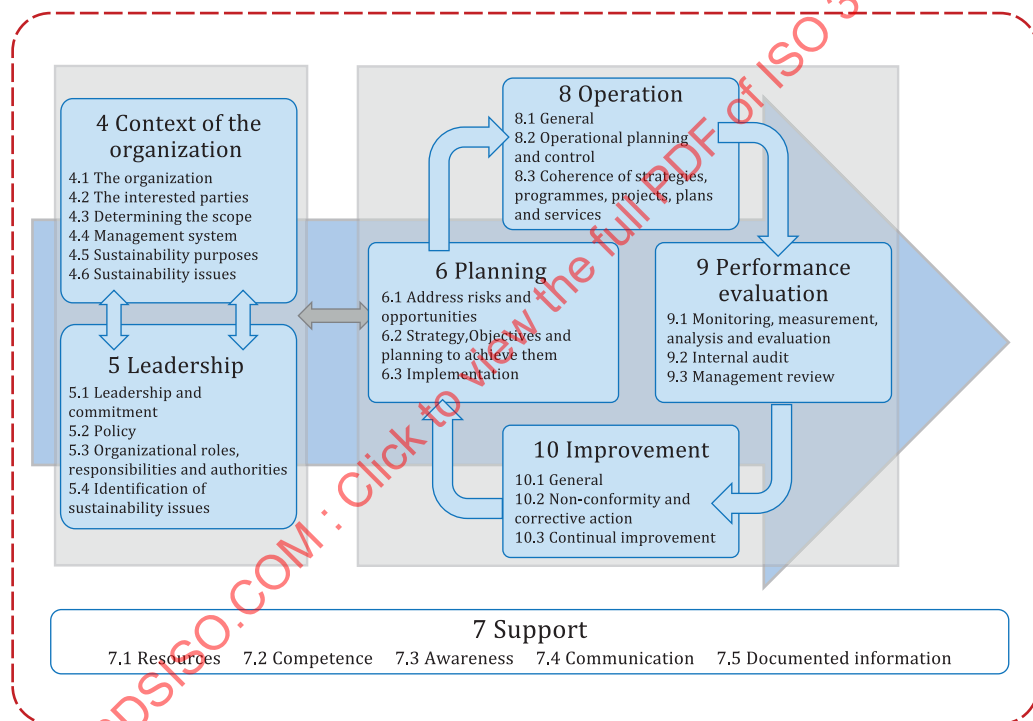


Figure 1 — Overview of the guidance contained in this document

NOTE [Clauses 1](#) to [3](#) (Scope, Normative references and Terms and definitions) are not shown in the figure as they are clauses that contain information not specifically related to the technical or guidance part of the document.

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Sustainable cities and communities — Business districts — Guidance for practical local implementation of ISO 37101

1 Scope

This document provides guidance on how to implement and maintain a management system for sustainable development in cities and communities according to ISO 37101 in the context of a business district.

This document defines the business district and presents the procedure to follow to establish and implement a sustainable development policy and continuous improvement initiative for the duration of the business district's lifecycle.

This document identifies the general principles of sustainable development management and how to apply them in a business district, within both new developments and in operations to upgrade and renovate existing ones. It relates to all interested parties and all stages of the business district lifecycle, including planning, design, construction, operation, maintenance and renovation.

This document is intended to serve as the basis for assessing and improving economic, social, environmental, infrastructure, and governance outcomes and to provide guidance for conducting comparative analyses for business districts.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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 in communities — Management system for sustainable development — Requirements with guidance for use*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 37101 and the following 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/>

3.1

accessibility

ease of reaching and using a service or facility

Note 1 to entry: The requirements relating to accessibility depend on the needs of the *users* (3.10) and the activities carried out over the course of the lifecycle of the business district and its facilities.

Note 2 to entry: Accessibility includes barrier-free access to the business district and its facilities for users with reduced mobility.

Note 3 to entry: Accessibility includes the access to services and their availability, e.g. water supply, energy supply, waste management, public amenities, transportation, parking, healthcare and recreational facilities.

[SOURCE: ISO 11620:2014, 2.2, modified — Notes 1, 2, and 3 to entry have been added.]

3.2 business district

delimited area of a community with business services as the predominant economic activity

Note 1 to entry: A business district can combine working, living and social spaces, natural spaces, comprising constructed elements, public, semi-public as well as private areas and infrastructures, that contribute to its unity, resilience and user-friendliness, in which context, the semi-public areas are private areas opened to the public.

Note 2 to entry: A business district typically features high-density business activities and commercial space, requiring an efficient supply of municipal, transportation and public services, and having a *governing body* (3.6) with clear responsibility.

Note 3 to entry: Frequently business districts present large building density, high floor area ratio, dense population and the number of working population higher than that of residents, with significant incoming and outgoing flows of people and services

Note 4 to entry: For the purpose of the implementation of this document, the business district should have some form of governance.

3.3 business environment environment of doing business

relevant external market factors and conditions involved in the process of entrance, production, operation and withdrawal of the entities doing business

Note 1 to entry: The quality of the environment of doing business contributes significantly to the overall attractiveness and economic dynamism of a business district.

3.4 facility

collection of assets which is constructed, installed or established to serve an entity's need

Note 1 to entry: A facility can be a part of a building, a whole building or a set of multiple buildings and can include adjoining engineered works (such as roads and alleys) which, considered as a whole, serve a specific function.

Note 2 to entry: The term refers to the physical elements and their use.

[SOURCE: ISO 6707-4:2021, 3.1.6, modified — Notes 1 and 2 to entry have been added.]

3.5 governance framework

strategies, policies, decision-making structures and accountabilities through which the organization's governance arrangements operate

[SOURCE: ISO/IEC TR 38502:2017, 3.1]

3.6 governing body

person or group of people who are accountable for the performance and conformance of the organization

Note 1 to entry: The governing body is part of the *governance framework* (3.5).

[SOURCE: ISO/IEC 38500:2015, 2.9, modified — Note 1 to entry has been added.]

3.7 business district organization

organization that is tasked with implementing the *business district's* (3.2) management system for sustainable development

3.8

social responsibility

responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour that:

- contributes to sustainable development, including health and the welfare of society;
- takes into account the expectations of stakeholders;
- is in compliance with applicable law and consistent with international norms of behaviour; and
- is integrated throughout the organization and practised in its relationships

[SOURCE: ISO 26000:2010, 2.18, modified — Notes 1 and 2 to entry have been deleted.]

3.9

sponge city

comprehensive approach adopted to integrate technical measures within urban planning and a construction process in order to effectively control urban rainfall runoff, through infiltration, stagnation, storage, purification, use and drainage

Note 1 to entry: The objective is to minimize the damage to the original natural hydrological characteristics and water ecological environment caused by urban development and construction activities, in order to enable cities to have good resilience in adapting to environmental changes and resisting natural disasters, i.e. cities behave like a "sponge". The aim is to realize natural accumulation, natural infiltration and natural purification during urban construction, to achieve multiple benefits of restoring urban water ecology, to conserve urban water resources, to improve urban water environment, to ensure urban water security and revive urban water culture.

Note 2 to entry: The following equivalent terms to "sponge city" are used:

In the USA: Low Impact Development (LID);

In Australia: Water Sustainable Urban Design (WSUD);

In the UK: Sustainable Drainage Systems;

In New Zealand: Low Impact Urban Design and Development (LIUDD);

In Germany: Water-sensitive urban development;

In France: Ecoquartier policy.

3.10

user

organization or person who uses or intends to use a building or built structure, *facility* (3.4) or service, public or semi-public spaces, within the business district

3.11

smart city

city that increases the pace at which it provides social, economic and environmental sustainability outcomes and responds to challenges such as climate change, rapid population growth, and political and economic instability by fundamentally improving how it engages society, applies collaborative leadership methods, works across disciplines and city systems, and uses data information and modern technologies to deliver better services and quality of life to those in the city (residents, businesses, visitors), now and for the foreseeable future, without unfair disadvantage of others or degradation of the natural environment

Note 1 to entry: A smart city also faces the challenge of respecting planetary boundaries and taking into account the limitations these boundaries impose.

Note 2 to entry: There are numerous definitions of a smart city; however, the definition that is used within TC 268 is the official one agreed to by the ISO Technical Management Board.

[SOURCE: ISO 37122:2019, 3.4]

3.12

resilient city

city able to prepare for, recover from and adapt to shocks and stresses

Note 1 to entry: A resilient city can resist, absorb, accommodate, adapt to, transform and recover from the effects of disasters and shocks in a timely and efficient manner, including through the preservation and restoration of essential basic structures and services in a sustainable way, and through risk-management practices. It involves interested parties and especially citizens in disaster risk reduction through co-creation processes; reduces vulnerability and exposure to natural and human-made disasters; and increases its capacity to respond to disasters, shocks and other unforeseen chronic stresses through enhanced preparedness.

Note 2 to entry: A resilient city is still able to thrive regardless of the hazards, shocks and stresses it faces. It has a focus on lesson learning, continuous improvement and building back better after disasters.

[SOURCE: ISO 37123:2019, 3.7]

3.13

compliance obligations

requirements that an organization mandatorily has to comply with as well as those that an organization voluntarily chooses to comply with

[SOURCE: ISO 37301:2021, 3.25]

4 Context of the organization

4.1 Understanding the organization and its context

4.1.1 General

A business district is of significant importance to the economic attractiveness and job market of the municipality or region within which it is located. At the same time, a business district generates several negative side effects and impacts, such as an increase in energy and water consumption, waste production and traffic.

Business districts usually have a dedicated form of governance framework to carry out the management locally according to the specificities of the surrounding local government.

According to the context applicable to the business district and its administrative and management arrangements, any entity can be the organization identified and designated to initiate and implement a sustainable development management system for a business district. It can be a certain type or a combination of certain types of institutions including, e.g. the government administration of the business district, public authorities, development and construction companies.

Once the business district organization is defined, the governance framework should be put in place.

The business district undergoes a lifecycle that can be divided into the following main stages: planning, design, construction, operation, maintenance and renovation. All of these stages can be distinguished in terms of objectives, actors involved, fields of action dealt with and tools used. They can be of different duration and intensity depending on the business district. Key performance indicators (KPIs) for the different stages are shown in [Annex A](#).

A management system for sustainable development in cities can be implemented in a business district at any stage of its lifecycle. For already existing business districts the management system can be implemented at the current stage. For planned new business districts it should be implemented as early as possible.

4.1.2 Business district characteristics

A business district is a type of urban development that meets some or all of the following criteria where applicable:

- density (floor area) of office buildings greater than other types of buildings;
- total office footprint area as the majority of the total land area;
- a group of buildings with surrounding public or semi-public space and infrastructure that can provide business activity space for enterprises in different categories of industries (e.g. service and entertainment industry) at the same time;
- on-site presence or programming of facilities and business services to support innovation and trade functions, e.g. business hotels and restaurants, business centres affiliated with a network, meeting rooms and conference centres, theme buildings offering a range of services;
- the majority of the people circulating and coming to the business district are related to commercial and business activities.

NOTE 1 Residents who are also employees in the business district are counted only as employees, in order to avoid redundancy.

NOTE 2 The items listed are illustrations only. Users of this document can make adjustments or propose different classifications according to the national context of each country.

A business district frequently includes certain functional areas of service facilities, e.g. offices, hotels and apartments, with provision of services such as finance, trade, consulting, R&D, Meetings, Incentives, Conferences/Conventions, Exhibitions/Expositions/Events (MICE).

A business district usually promotes benefits such as economic attractiveness, economic dynamism, job creation, innovation, efficient use of resources, facilitated mobility, and well-preserved heritage, among others.

Usually, a business district and its components are more dynamic than other parts of the city and therefore it goes through different phases of its lifecycle more quickly than other types of urban development.

Textbox: Types of business districts

- Business complex;
- Central business district;
- Cultural and creative business district;
- Financial business district;
- MICE;
- Science and technology business district.

4.1.3 Practical needs for achieving sustainable business districts

4.1.3.1 General

The practical needs defined in [4.1.3.2](#) to [4.1.3.8](#) represent the essence of a sustainable business district.

For consistency in achieving the SDGs, it is crucial for business districts to address these practical needs, either for new or existing ones.

NOTE Some examples are provided in [Annex B](#) as case studies to illustrate how business districts distinguish themselves by focusing on the practical needs when achieving sustainable development.

4.1.3.2 High quality services

Business districts should provide the users with access to high quality services, e.g. working environment, housing, healthcare and recreation. Such services promote the welfare of the users. The services provided in the business district should meet high-quality standards such as in the following areas:

- mixed-use development allowing for a social mix;
- economic activities of all types of companies;
- opportunity to take part in shaping the life and trajectory of the business district;
- fitness for purpose;
- planning for indoor and outdoor comfort (e.g. air quality);
- minimum or no noise pollution;
- safety, health and security;
- quality infrastructure to facilitate easy mobility and accessibility of the area and all the premises;
- availability of essential services, e.g. rapid response, health care, public and local government services;
- adequate parking;
- energy efficient consumption buildings;
- conservation and improvement of natural spaces and biodiversity;
- aesthetic values such as landscape and architectural features that consider the local heritage;
- stable and efficient energy provision;
- high performance telecommunication services.

High quality services are of vital importance. They enable and support attraction and retention of talent in a business district. A decent and secure environment should always be the focus in order to promote and retain attraction and talent retention.

The assets in the business district (buildings and outdoor space) should meet high standards. Therefore, high quality public and building property services should be provided.

Services provided by third parties are also of high importance and should also contribute to improving living and working conditions for employees and residents. A high-quality natural environment should be maintained, by avoiding environmental impacts where possible and making improvements where it is not possible.

4.1.3.3 Vitality

Business districts should be vibrant during the day and night, on both weekdays and on weekends. It is therefore important that business districts offer vital and diverse experiences for employees, visitors and residents.

Creating and improving local branding can promote or influence vitality of the business district. Holding big events (e.g. international forums, sporting events) or annual special activities are examples of initiatives that promote the vitality of business districts.

Also, vitality can be improved by adding commercial and other recreational facilities. This optimizes the living and working environment for all users and attracts talent and investors.

4.1.3.4 Industrial agglomeration

Industrial agglomerations are important economic drivers for business districts and should be encouraged. Moreover, they can attract businesses with similar interests along the supply chain to unite and cooperate in order to minimize the unnecessary running cost for each business hence increasing efficiency and sustainability.

When defining the industrial structure of a business district, targeting leading companies should be focused on. This can initiate a driving force for industrial agglomeration which can build an industrial chain hence inspiring or encouraging economic innovation.

4.1.3.5 Business environment

A friendly business environment in a business district is essential for organizations. Therefore, it is important to improve the business environment by optimizing the overall support in terms of good policies, promoting businesses through good but affordable local services and responding to their needs when required.

This business-friendly environment should include:

- facilitation to start new businesses and easy access to local permits when needed;
- easy access and use of infrastructures;
- flexibility in utilize and re-utilize spaces that addresses the dynamic nature of business districts;
- promotion and support of micro, small and medium-sized enterprises (SMEs);
- promotion of business activities that will attract new investments;
- promotion of business and creating synergies across the city/cities and region.

4.1.3.6 Smart city approach

State-of-the-art technologies and disruptive innovations require the existence and application of digital solutions. Therefore, the access to digital and smart infrastructures should be strengthened. In fact, a smart city approach with digital technologies is fundamental for sustainable development, which forms the basis of a modern business district.

The smart city approach represents a new trend of urban development which offers good opportunities to enhance the competitiveness and the sustainability of urban areas. The smart city approach should always be in support of the overarching goal of sustainable development. It depends not only on an adequate policy system, planning and construction implementation, but it also requires feedback and behaviour adjustment during the operational stage.

The smart city approach should allow for the use of digital technologies (e.g. blockchain platforms), plus monitoring and feedback collection via infrastructure, e.g. an interoperable smart city platform based on big data technologies. This includes fields such as urban ecology, energy use, transportation systems and operational management, as well as smart public services, e.g. governance, housing services, education and cultural services, health security systems, industrial service platforms.

4.1.3.7 Resilient city approach

In times of climate change and other disruptive events, a business district needs a high degree of resilience to face unexpected incidents.

This should be supported by pooling the competences and knowledge present in the business district as well as allowing for easy accessibility to outside services and help.

On one hand, emergency response should be efficient and constantly improved regarding hazards and natural occurrences, especially for the post-epidemic era. On the other hand, preventative approach and programs should also be adopted.

A resilience solution for flooding, such as a sponge city scheme, e.g. the EcoQuartiers and other equivalent approaches on water-sensitive urban development allowing for water retention, can help business districts to enhance their capacities to respond to storm water and to save water resources.

4.1.3.8 Sustainable built environment

The sustainability of the built environment (e.g. building, roads) is essential for the overall performance of the sustainable development of the business district. It is very important that an adequate mechanism is put in place to ensure that the built environment within the business district area can achieve high performance and positive sustainable impacts throughout its lifecycle. The underlying principles are:

- a constant improvement with regards to sustainability targets;
- avoidance of any negative impact; and compensation if it is not possible.

A sustainable built environment is not only about high-performance green buildings (e.g. green buildings such as Passive House), but also about more sustainable infrastructure, which can include green spaces, ecological protection zones and other solutions that deliver economic, social and environmental benefits.

NOTE 1 A method for the assessment of the green built environment is provided in [Annex A](#).

NOTE 2 For a method for the assessment of a singular building also refer to ISO 21931-1.

Business districts should assess the performance of the green built environment regularly, specifically, during the Concept/Design, Planning, Construction, and Operation stages. This includes buildings and infrastructure.

4.1.4 Synergy with surrounding communities

The business district is embedded within a broader regional development strategy. Municipalities with equal competences can come together to form intercommunal cooperation to develop a business district voluntarily thereby taking care of matters of common interest that have a regional significance, bolstering the sustainable development, decreasing redundancies, increasing land-use efficiency and integrating the business district into the surrounding ecosystem. Consequently, it enhances the consideration of other operations already undertaken or planned in the region, enhances the synergies and creates benefits on a regional scale. Only when the communities and municipalities work together within the broader regional strategy can they continue to play a leading role.

Often, business districts cannot meet all the demands of its residents, employees, and users concerning urban services, e.g. residence, transportation, activities, commercial activities. Therefore, it is necessary to establish cooperation and coordination with adjacent communities (including neighbouring districts and municipalities). They can result in more convenient public transportation, public spaces, residential properties, educational facilities, healthcare and medical facilities and other inter-municipal infrastructure. These forms of cooperation should be coordinated within the respective municipality and the regional level through urban and regional planning, cooperation contracts and policies.

NOTE It can also be helpful to refer to Reference [\[15\]](#).

4.2 Understanding the interested parties in a business district

4.2.1 Type of interested party

It is important to recognize all interested parties that are relevant to the governance framework of the sustainable development of the business district, which mainly include:

- a) the government bodies responsible for the management and administration of the business district (e.g. the formal governmental organization or agency, the governing body of the business district);
- b) relevant organizations (local, regional or national level):
 - departments in charge of the business environment;
 - chambers of commerce/associations;
 - universities and research institutes;
 - governments of the surrounding areas or government-mandated industrial, public services and regional development bodies;
 - inter-regional cooperation organizations;
 - city/regional governments.
- c) development and construction companies involved in building and maintaining the business district;
- d) enterprises;
- e) investors and financing companies;
- f) employees and trade unions;
- g) citizens, residents and neighbour associations;
- h) facilities and utilities companies;
- i) transportation and other public service companies;
- j) property management companies operating in the business district;
- k) third party consultancies or planning and design institutes relevant to the business district;
- l) organizations founded by several parties;
- m) neighbouring communities and municipalities

NOTE When applying this document, it is appropriate to get feedback from all interested parties.

4.2.2 Roles of interested parties

Generally, the roles of the interested parties in business districts can be categorized into three types (see [Figure 2](#)):

- a) **Governing body:** decision-making entity that will be mandated to be in charge of the management system for the sustainable development of the business district. This entity can be the local authority, city government, regional district governments, business district government or other governance arrangements set up for that purpose and sometimes for policy-making;
- b) **Execution bodies:** entities in charge of providing industrial, public service or regional development. This can be regional developers or operating companies, other organizations (e.g. association,

chamber, council), or occupants of the business district, e.g. the tenants or owners of the individual business;

- c) **Users:** employees and visitors, individuals or entities, whose activities are mainly within the business district. Normally, they are the users to which the services are provided, and the sources from which feedback is collected.

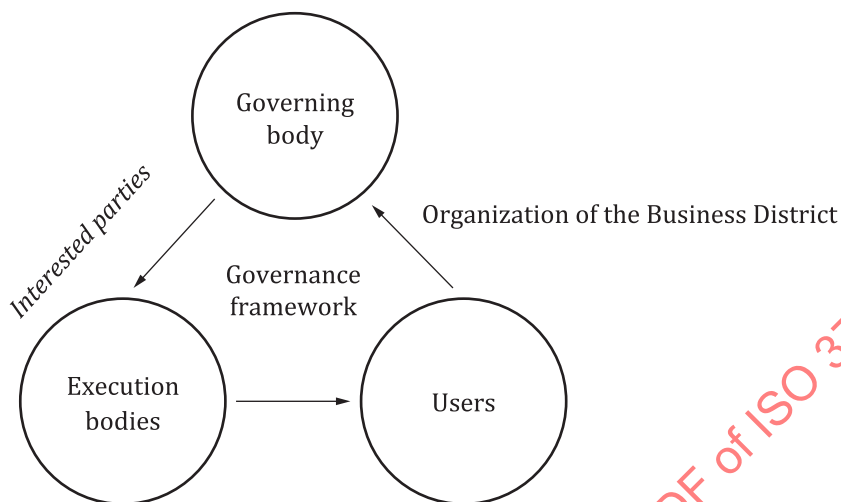


Figure 2 — Organization of the business district for sustainable development

4.3 Determining the scope of the management system for sustainable development of the business district

The scope of the management system for sustainable development of a business district should be clearly established, including their boundaries and applicability. This scope should be described in a document and it is useful to identify which aspects of the functioning of the business district are within the scope and those that are not. The boundaries should be clearly described in order to avoid misunderstanding, but also overlapping or absence of activities.

To determine the scope of the management system, the boundaries in terms of geography, of applicability to public services and facilities and of authorities, responsibilities and accountabilities should be clearly agreed and defined.

The needs and expectations of interested parties, as well as the sustainability issues should be considered during the determination of the scope. At the implementation stage, a preliminary scope may be set to be validated along the process.

4.4 Management system for the sustainable development of a business district

A proper management system for the sustainable development of the business district includes establishment, implementation, operation and continuous improvement.

The management system for sustainable development of a business district should be conceived, designed and planned to be effectively implemented within the boundaries of the business district.

If the city or region in which the business district is located already has a management system in place for sustainable development, then the business district's management system for sustainable development should connect, articulate and contribute to the city/region's management system.

4.5 Purposes of sustainability for a business district

Implementing ISO 37101 with this document as guidance will help business districts to coordinate with municipality or regional levels in terms of achieving economic, social and environmental outcomes. This sustainable development approach meets the needs of today's and future generations.

It is an inseparable system for the business district to achieve the purpose of social-economic development, and at the same time to protect the natural resources and environment.

The six purposes for sustainable development of communities, according to ISO 37101, are to enhance the attractiveness, preservation and improvement of the environment, resilience, responsible resource use, social cohesion and well-being.

The organization should identify, review and document all the purposes that contribute to implementing ISO 37101 in the business district.

4.6 Sustainability issues

4.6.1 General

As stated in ISO 37101, it is important to review all strategies, programs, projects, plans and services for inclusion in the organization's strategic plan. The organization should evaluate their contribution to achieve the six purposes of sustainability and how they take the sustainability issues into account. In order to do so, the organization should undertake an iterative cross-analysis of purposes and issues.

It is therefore important to note that these issues should be used as tools to assist review of the above-mentioned schemes, such that sustainability issues are made to fit in the context of a business district.

As noted in ISO 37101, it can be useful to consider additional issues if relevant and suitable, bearing in mind that issues are likely to change or evolve over time.

4.6.2 Sustainability issues for management system for sustainable development of business districts

4.6.2.1 General

According to the 12 issues defined in ISO 37101, the issues for the sustainable management of business districts can be elaborated as follows:

4.6.2.2 Governance, empowerment and engagement

This refers to the establishment of a governance model for the business district in which all interested parties, including local and regional government, the public, enterprises, employees, residents and NGOs, can actively participate to help to deal with highly diverse and potentially incongruous areas of the economy, society, resource management, and the environment.

It is important to ensure that all voices and opinions are heard, the needs are addressed and a trustworthy governance system for the business district is established.

4.6.2.3 Education and capacity building

This refers to the establishment of a system capable of continuously improving competency such as knowledge and skills of personnel within the business district, through education, training and capacity building. For example, education should also focus on creating understanding about sustainability in the management of offices and facilities, not only on the general education of staff which is the responsibility of the respective companies and their own programs.

4.6.2.4 Innovation, creativity and research

This refers to the promotion of activities that stimulate functional, social and economic diversity, to facilitate scientific or technological innovation, and to help to drive economic growth of the wider adjacent area.

In the context of the business district, it is vital to improve innovation by encouraging R&D input, enhancing labour quality, and to promote the optimization of economic structures, to aid in knowledge transfer and application of science achievements into productivity, to introduce incentives attracting talent to relocate and work locally, and to promote international cooperation among business districts.

4.6.2.5 Health and care in the business district

This refers to the continuous improvement of the healthcare system to meet the requirements of patients, and to ensure that such service covers everyone within the business district as well as to increase communication and mutual assistance among residents and users.

For business districts, it is important to focus on prevention measures and convenient access, e.g. to defibrillators and access routes for emergency services. Another example can be to provide child care service in the areas where employees and residents work and live. Moreover, the provision of healthcare service resources in the business district can be optimised by enhancing its accessibility, capacity and usability efficiency. Healthcare service resources in the business district should also have plans to respond to public health emergency events, such as during a pandemic.

4.6.2.6 Culture and community identity

The core concept of culture and community identity should create an identity that encompasses the past, present and future, by achieving a synergy between heritage and innovation, where the identity of the business district should be preserved and characterized rather than duplicated or modelled. Culture is frequently reflected in land-use and building architecture, as well as in activities such as events or tourism.

It is vital to shape the business district through cohesion between the protected traditional culture and localized modern culture. The dominant cultural elements include customs, buildings, architectural symbols, heritage, landmarks, landscape and place-making, cultural facilities, public facilities and participation in cultural events via media and press.

4.6.2.7 Living together, interdependence and mutuality

This refers to the introduction of a mixed approach to new buildings or the regeneration of the business district to allow and encourage living close to work, and to accommodate mixed-income residents/employees in the same district, which will further contribute to achieving a compact city and to strengthen social harmony.

It includes setting a mixed-use land layout, mixed-density typology, diversified facilities providing public services, the mixed construction of affordable housing against commercial properties, ancillary facilities serving mixed-income population at all ages. It also encourages social interaction within the business district, establishing a decision-making mechanism to involve public/enterprise participation in local affairs.

4.6.2.8 Economy and sustainable production and consumption

The economy and its resilience is the fundamental driving power for the sustainable development of the business district, which refers to the optimisation of the economic structure towards a low carbon economy, the positioning and lay-out of local enterprises within the economic chain, and the continuous innovation and adaptation to economic crises.

It includes a sound economic growth plan, a good environment for doing business, high-quality living conditions for inhabitants and an environment that attracts talent to work and live there, smart application of clean technology, and a regional economically coordinated development mode.

4.6.2.9 Living and working environment

This refers to convenient, safe, healthy, social harmony, comfortable and secure living and working conditions which include but not limited to:

- minimising energy consumption in buildings and other infrastructures;
- sustainably managing resources and waste;
- restraining pollution, noise and nuisance;
- conserving the natural environment;
- promoting biodiversity;
- promoting externalities.

It includes the physical provision of a man-made environment relating to issues of, e.g. society, medical care, education, unemployment.

NOTE 1 The term 'environment' includes both 'natural environment' of water, air, noise, waste, and wetland, and 'man-made environment' of green space, public health and service facilities.

NOTE 2 The improvement of the living and working environment is highly related to municipal planning and can be clearly implemented and improved through planning, construction and operations processes.

4.6.2.10 Safety and security

The improvement of safety and security helps to deliver a liveable and happy urban environment, and to enhance the safety of residents and their properties and their satisfaction with regards to the business district.

It includes providing support to improve security prevention and control systems, to further enhance public service and management, and to effectively prevent, solve and control prominent problems affecting social stability, to promote training on public security, to introduce a free and constantly responsive "hotline" for pursuing help, to adopt an "Urban SOS Plan" where appropriate, to strengthen legal support, and to strengthen scientific and technological support for safety and security issues.

4.6.2.11 Community infrastructures

This refers to the provision of diverse services, e.g. energy, water, waste treatment, smart city approaches. Smart infrastructure mainly refers to the intelligent equipment and facilities which aid in better decision-making processes, enable citizens to better enjoy the service provided, enable digital and physical resource management, promote open and collaborative society, promote collaborative engagement and invite participation of all interested parties; and most importantly, improve the efficiency of actions towards sustainability and resilience.

Smart infrastructure should be developed in accordance with the local geography, environment, resources, economy, and culture. It is important that, once the system is ready, data should be updated regularly by the citizens, property management companies, or integrated service providers. Furthermore, data and requirement of design stage and construction stage should be collected, delivered to the operation correspondent, and shared to avoid data islands within the business district.

4.6.2.12 Mobility

This refers to the provision of a diverse and connected transportation mode that enables people and goods to move around within the business district, and to provide significant ties when connecting

with other regions or destinations, to provide fair-shared traffic service that reduces traffic congestion, enhances traffic efficiency, optimizes the environment, and reduces traffic carbon emission.

It includes proper transportation planning which gives priority to:

- public transport and slow traffic;
- "Parking + Riding transfer" (P+R) strategy for metro stations;
- Transit Oriented Development (TOD) development mode;
- smart transportation including APP and Car-Rent sharing;
- shared user paths for cyclists and bike parking;
- safe walkways;
- policies for encouraging clean energy automobiles;
- scientific and technological innovation in transportation vehicles and ancillary facilities.

4.6.2.13 Biodiversity and ecosystem services

This refers to the reduction of the negative impact and influence that development and the construction of human settlement can cause on the ecosystem and to protect and stabilize it.

It includes conserving and improving the local and regional eco-environment through a conservation plan, incorporating conservation measures into the urban planning and construction process with the identification of habitat zones, and creating or re-establishing ecological corridors linking previously identified reservoirs of biodiversity. Technologies, materials and approaches should be specified. Roof gardens, lighting systems especially those for landscape areas, should take into account the impact on the eco-system. It is also important to establish a continuous monitoring and assessment mechanism to monitor the progress of the conservation of biodiversity and eco-system; and to promote cross-regional collaboration on eco-system and biodiversity conservation.

NOTE The ecosystem often is larger than a business district. Thus, the business district has close interaction with the eco-elements extended outside its geographic boundary.

4.6.3 Specifying tasks according to sustainability issues of business district

It is important that the organization, when implementing this guidance in this document, should list out specific tasks that contribute to the sustainability issues, as in the examples illustrated in [Table 1](#). The tasks should be locally developed and adapted according to the context of each business district. Furthermore, each task should be clearly described in the way that a specific department in charge can be allocated.

Table 1 — Examples of main tasks that contribute to sustainability issues of a business district

Issues	Main tasks
Governance, empowerment and engagement	— Integrate PDCA cycle as guiding principle within the governance framework — Promote specialization and standardization across departments to improve governance capability — Establish an open governance framework and encourage balanced participation from all interested parties — Establish a democratic framework that runs on a regular basis with all interested parties involved — Establish a multi-level, multi-sectoral and multi-agent coordination mechanism — Encourage public participation in supervision mechanism — Collect satisfaction feedback from all interested parties — Realize co-governance of multiple governing bodies by formulating rules and regulations — Improve information management and sharing whilst respecting privacy — Emphasize on societal safety issues — Foster intercommunal cooperation to create synergies and avoid unnecessary negative impact
Education and capacity building	— Strengthen the ties between training, education and research, in response to real needs — Organize regular training courses to suit the user needs — Study the content of the governance framework through a joint institution — Improve the knowledge and skills of personnel
Innovation, creativity and research	— Promote new forms of collaborative work between different entities — Foster innovation initiatives — Foster innovative and smart services to meet user needs — Promote back-office pooling and synergies, including with the surrounding area/community — Enable data sharing (e.g. through an interoperable smart city platform) — Trigger a local token economy (e.g. through blockchain platforms) — Apply suitable technology innovation to buildings during construction or renovation
Health and care	— Ensure density of health service infrastructure — Introduce psychology clinic for employees — Promote awareness and prevention of occupational diseases in office — Ensure that the emergency services are available throughout the business district — Provide child-care service in the business district

Table 1 (continued)

Issues	Main tasks
Culture and community identity	— Preserve original historical sites, natural mountains, vegetation and water bodies — Protect architectural heritage — Preserve material and non-material cultural heritage — Offer a collection of local community services — Develop a service offer that is open outside business hours — Introduce mixed functions of shops and services, offices, sports, recreation and culture — Develop cultural, sports and leisure opportunities that extend outside business hours
Living together, interdependence and mutuality	— Diversify urban functions and activity sectors at work — Promote a mosaic of opportunities for development, both residential and entrepreneurial — Introduce public places for socializing, parks and walkways, relaxing places for exchange — Reduce on-site factors of socio-spatial exclusion — Promote mixed use and accommodating compact functions to create a harmonious environment for residents from different backgrounds. — Promote the inclusivity of migrant population — Provide mixed construction of affordable housing against commercial properties
Economy and sustainable production and consumption	— Help to create direct and indirect jobs and support inclusive employment — Provide economic and service-offer complementarity with the surrounding area-community, as a wider cluster-initiative — Promote the wider sphere of influence of the business district and local area-community — Promote low carbon economy — Position and lay-out the on-site enterprises along the supply chain — Provide a friendly business environment

Table 1 (continued)

Issues	Main tasks
Living and working environment	— Establish energy communities — Promote sustainable buildings and green lifestyle to minimize energy consumption — Cut greenhouse gas emissions — Increase carbon sinks — Control water consumption and regulate effluents — Reduce waste and maximize sorting and recycling — Preserve raw material resources — Introduce sustainable building schemes for better use of resources, including water and materials. — Mitigate local air pollution — Mitigate local water pollution — Mitigate soil pollution — Curb noise pollution — Mitigate light pollution — Integrate man-made environment with the considerations of society (medical care, education etc.) NOTE 1 Pollution typically includes chemicals and substances such as fine particulate matter, released to air, water and land. NOTE 2 Nuisances include transient events of noise, odour and dust that has more of a psychological impact, than a physiological impact.
Safety and security	— Improve safety and security infrastructure and services for prevention and preparation — Address all natural and industrial risks and mitigate the after-effects to a minimum level — Facilitate business-as-usual recovery following a disruptive contingency — Strengthen public security and emergency response capability — Promote training on public security NOTE It can be helpful to refer to ISO 22325.
Community infrastructure	— Maximize the use of renewable energy and the recovery of unavoidable energy for new construction and renovation. — Provide innovative and smart service — Provide non-barrier service and resilient safety facilities across all infrastructures. — Develop a smart infrastructure in accordance with the local geography, environment, resources, economy, and culture — Update data from smart infrastructure regularly to utilize after appropriate treatment, ensuring privacy

Table 1 (continued)

Issues	Main tasks
Mobility	— Promote soft modes of transport system (walking and cycling) and lower travel demand — Provide a safe, continuous and environmentally-friendly non-motorized transportation system for walking and cycling — Allocate public transportation stops reasonably — Increase share rate of public transportation — Provide easy-transfer transportation systems — Manage bike-sharing facilities — Manage motor vehicle parking facilities — Provide alternative energy charging facilities
Biodiversity and ecosystem services	— Control soil sealing — Preserve, nurture and create native wildlife and outstanding biodiversity — Enrich the biodiversity of native species — Maintain long-term sustainable green space management — Establish ecological corridors where possible — Identify and preserve reservoirs of biodiversity — Establish a continuous monitoring and assessment mechanism to monitor the progress of conservation of biodiversity and eco-system

5 Leadership

5.1 Leadership and commitment

5.1.1 General

To implement a management system for sustainable development of a business district according to ISO 37101, the business district organization should be identified and designated to establish the governance framework and to provide the resources necessary to support the management. It can be the case that a specific organization is set up to fulfil that role, which can be a certain type or a combination of certain types of institutions. Such organization can be established to be in charge specifically of the management system for sustainable development of a business district within the business district, or can be an existing public or private entity that receives a mandate for this purpose specifically.

Frequently, the leadership of the business district organization is exercised by a governing body, with the proper mandate set by the relevant local government authorities. Additionally, care should be taken in managing the relations between the business district level and organizations and authorities at city or regional levels.

The role of the business district organization is both the 'management' and the 'coordination'. Therefore, the business district organization should reflect the requirements of all interested parties, including the governing body, execution bodies and the users. It should also gain support and commitment from city/regional/national government in order to ensure that the resources needed are available.

The leadership in the governance framework includes two aspects: commitment and policy. For a business district, it is essential to ensure an alignment of the local policy with the city/regional/national

sustainability directives, if they exist, and actively coordinate with the city/regional government to get support.

5.1.2 Support from local /regional/national government

Business districts usually follow, or at least are affected by the policies established at the local / regional/national government. Therefore, it is important to coordinate with the relevant departments of a city or regional government. Business districts should actively participate in the city/regional/national government policy making activities related to the development of a city, other business districts and companies.

It is very important to coordinate the sustainable development of the business district with the masterplan of the local/regional government. During the construction stage, the local infrastructure should also be harmonized with public facilities of the city or region.

The local/regional/national government usually has larger coordination capability and policymaking rights and has more resources than the business district itself. The support from local/regional/national government departments therefore benefits the sustainable development of a business district.

5.1.3 Political commitment

It is essential that the governing body commit to sustainable development, and this can be further integrated into the vision of the business district. When the local leadership for sustainable development is in place, the necessary resources can be directed into this area.

The following key considerations illustrate how political commitment of sustainable development can be elaborated in detail and thus can further guide decisions and actions.

- a) **Multi-participation:** To consider the contributions and expectations of the interested parties based on their respective level of involvement and responsibilities, through practices such as consensus-building phases.
- b) **Global thinking and local action:** To consider the global consequences arising from local actions, taking into consideration the regional and local concerns, in order to assess the relevance of its strategic choices:
 - when acting locally;
 - when implementing global strategies that have been developed and may have local implications in terms of creating needs or draining on local resources.
- c) **Long-term vision:** To consider the short-, medium-, and long-term impact of the decisions taken through lifecycle in costing and assessing the following, as a minimum:
 - performance over time, i.e. the capacity to meet a defined level of functionality, including its capacity for resilience, throughout the entire period of use;
 - the lifecycle, or more specifically, how a choice made during one stage of the lifecycle affects the other stages;
 - legacy, i.e. the effects of past decisions, even if they extend beyond the physical boundaries of the business district.
- d) **Attractiveness:** To foster and facilitate value creation, in order to improve attractiveness for investors, partners, interested parties and users at the very foundation of their business model. The attractiveness of a business district revolves largely around the quality of living and work environment it offers its users.
- e) **Operability:** The management measures should be easy to operate, in order to ensure the convenient implementation by the management staff.

- f) **Consideration of impacts:** To offer means of duly considering the impacts and cumulative effects that can be a result of the business district.
- g) **Social responsibility:** To adopt the principles of social responsibility and report the consequences of its decisions and activities.

NOTE For further information on social responsibility, refer to ISO 26000.

- h) **Equity:** To adopt an objective and balanced perspective on questions of intergenerational, interregional and intra-societal ethics, taking environmental protection, economic performance and social needs into account.
- i) **Precaution and risk management:** To set up risk management and preventative measures in accordance with a precautionary perspective, as applicable. Risk analysis is based on the assessment of contingencies and stakes of any kind that are likely to affect the business district. Risk management consists of a series of coordinated actions, such as identification, analysis, assessment, processing and communication. Development of new technologies or new products should include a precautionary perspective, without unduly compromising innovation.
- j) **Improvement:** To measure and improve its economic, social and environmental performance, the governance framework determines the most appropriate assessment, checking, monitoring, communicating, and undertaking of an improvement program.
- k) **Transparency:** To provide clear, accurate, honest and exhaustive information, in a timely manner, on any decisions and activities of a business district that have an impact on society, economy or environment.

5.2 Policy

A core element of a sustainability management system is the establishment of a sustainability policy.

The policy should translate the vision of the business district in terms of sustainable development in order to clearly set the commitment of the top management of the business district to sustainability.

If the city in which the business district is embedded has a sustainable development policy, then the business district's policy should be consistent with the city's policy and articulated with it. If the city doesn't have such a policy, then the business district's policy should take into account the vision or expectations of the city.

In order to reflect the views of the interested parties it is useful to consider some consultation process when developing the policy (see also [6.1.5](#)), besides the contributions from the interested parties' representatives in the governance framework.

Other relevant points are the context of the business district, the sustainability purposes and the sustainability issues.

Policies define the "rules of the game" and can stimulate activities to happen in the direction in which the political commitment leads. Although many of the policies are developed at the city/regional level, business districts do have a role to develop local specific relevant policies to support sustainable development in the area, as follows:

- The link and consistency with the current policy available for sustainable development;
- Policy that contributes to the sustainable purposes and sustainable issues;
- Policy that will deliver objectives;
- Policy that will attract growth for the local industries;
- Policy relevant to the participatory framework in engagement of the interested parties.

5.3 Organizational roles, responsibilities and authorities

5.3.1 General

As ISO 37101 states, the community, in this case the business district, should designate an organization to establish the organizational framework and to provide the resources necessary to support the management. According to the business district's decision-making process, an organizational framework should be clearly defined, established and empowered.

The arrangements that define and establish a business district vary widely according to the context of each country. The local context should be taken into consideration (e.g. being aware of legal context) when identifying and establishing the organizational framework for the management system.

The arrangements can take the form of a governance framework, to which the roles, responsibilities and organization should be clearly defined, documented and communicated. For example, it should be made clear how the governance framework is organized to concretely implement its sustainable development policy, calling on specific departments if necessary.

This can include a governing body, which governs, set directions and holds top management to account. The governing body should also ensure alignment with the wider regional context.

Independently of the arrangement established, it should have the authority and the responsibilities acknowledged, recognized and mandated in a way consistent with the requirements of ISO 37101. Most of the work will be done by the business district administration bodies, and by the business district's services and departments, with responsibilities and authorities assigned for these tasks, whilst some part of the work can be designated for other actors whose role is defined by the governing body, e.g. NGOs, academia and other parties.

A key role to the successful implementation, maintenance and continuous improvement of the business district management system for sustainable development is the designated representative from the governing body that is in charge of:

- ensuring that the management system for sustainable development conforms to the requirements of ISO 37101;
- reporting on the performance of the business district management system for sustainable development.

The designated representative should be empowered accordingly and have support from the governing body to carry out its duties.

Specific roles should be identified for the governing body, execution bodies and users, to determine the issues according to the boundaries and applicability of the sustainable development management system. A mechanism should be established to increase the synergy level and ensure the participation of interested parties through, e.g. working groups, inhabitant forums, enterprise seminars, business forums.

Although any organization can be designated to initiate the sustainable development approach in a business district, it is important that the organization obtains a proper understanding of the category in which it fits. Should it belong to the execution bodies or users, it should inform, report to and involve the governing body on all action plans of sustainable development.

The business district organization should ensure that the management system for sustainable development:

- is designed to empower the community within the business district and build on local initiatives;
- targets issues relevant to the three objectives of economic, social, environment, including its relations with infrastructure and governance;
- improves district services and socio-economic benefits;

- supports clear sustainable purposes and promotes a comprehensive implementation plan.

5.3.2 Governance framework and interested parties' participation

As indicated in [4.2](#), the governance framework includes the governing body, the execution bodies and the users.

The governance framework should allow interested parties participation, both in the decision making and policy-making at the strategic level, as well as in consultation and feedback processes. This participation should be designed using the good practices of multi-interested parties' processes and taking into account the formal political organization of the different bodies legally established at the local government level.

This can be achieved by including some interested parties' representatives in the governing body, as well as to have consultation processes established to support and follow the implementation and maintenance of the business district management system for sustainable development of the business district, by methods, e.g. sharing information, holding meetings, initiating working groups, establishing committees or commissions, engaging public consultation.

The results of [6.1.5](#) would be an input into designing and operating the processes to ensure interested parties' engagement.

5.4 Responsibility for identification of sustainability issues

Identifying and assessing the sustainability issues relevant to the business district, as referred in [4.6](#), is a crucial activity for the proper functioning of its management system for sustainable development. This identification and assessment should be done by the organization, with proper interested parties' engagement, and accepted and announced by the governing body. To ensure this, clear responsibilities should be defined and assigned, together with the appropriate resources.

Some of the main responsibilities for the business district organization, correlating to its internal and external context are:

- how the business district organizes itself and relates with the interested parties, and the surrounding community;
- the sustainability issues (see [4.6](#)) that are relevant to its purposes (see [4.5](#)) taking into account the specificities of the business district.

Throughout the lifecycle of the business district, the organization should study the means to implement in order to create an appropriate environment for living, studying, working, recreation and other social activities.

6 Planning

6.1 Actions to address risks and opportunities

6.1.1 General

Risks and opportunities should be considered to take into account uncertainty on the effectiveness of the management system for the sustainable development of a business district and its outcomes.

The planning process is an interactive process, by which the sustainability policy, objectives and strategy are set, and how the objectives are achieved, considering the sustainability purposes ([4.5](#)) and issues ([4.6](#)), as well as the context of the business district ([4.1](#)), the interested parties' requirements ([4.2](#)) and the compliance obligations ([6.1.3](#)) that the business district has (see [Figure 3](#)).

In applying the established strategy, the governance framework should plan the necessary actions and set up an appropriate system for carrying them out. The governance framework should also set priorities and define the steps in the process.

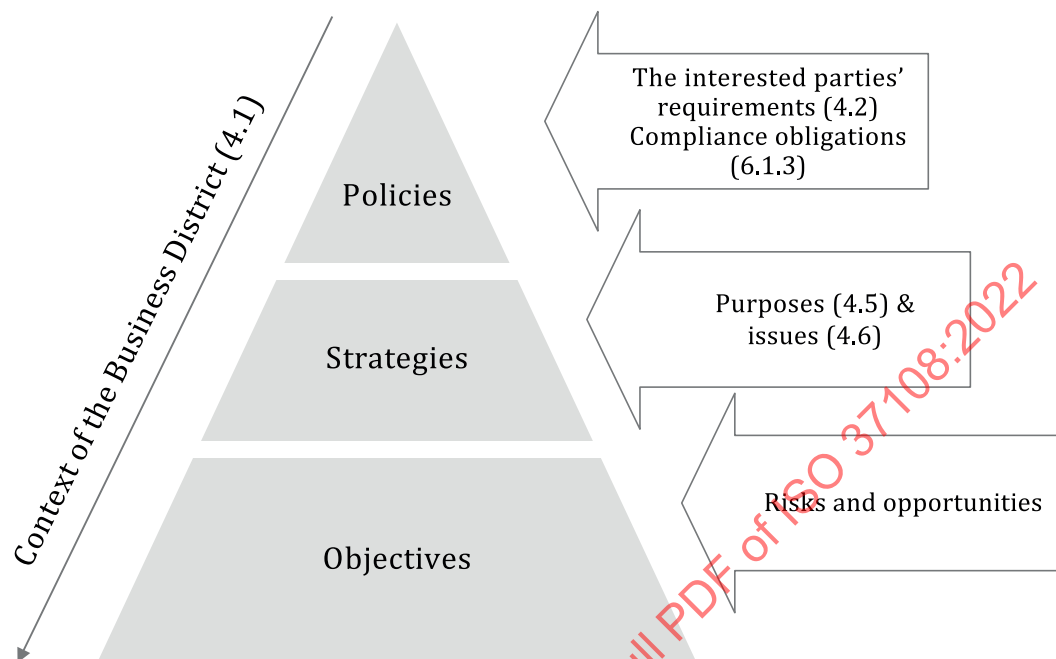


Figure 3 — Policies, strategies and targets

6.1.2 Baseline review

Once political commitment is made, an important step in the planning process is to understand where the business district is in terms of the sustainability purposes and issues, looking to establish a reference for setting and monitoring priorities at planned intervals for the development of a sustainability strategy. This can be achieved by the baseline review.

Essentially, the baseline review looks at the sustainable purposes and to the programs, plans, projects, activities, products and services and identifies the current status of the business district's performance.

The output of the baseline review provides the foundation of all steps in the management cycle, includes a set of priorities which helps to establish the sustainable policy and sustainable objectives, and helps the organization to set reasonable targets and draft a vision and action plan.

This process should take into account other relevant purposes and issues, as outlined in ISO 37101.

Although most of the job is done by the business district organization, the interested party engagement is critical to ensure transparency as well as commitment. Therefore, proper methods should be adopted.

6.1.2.1 Mapping the local situation

The local situation of the business district indicates not only the situation inside the boundary, but also its relationship with the surrounding area.

Mapping the local situation is the starting point of the baseline review where data and information are collected and compiled according to the agreed structure and identified needs and priorities. Mapping the local situation includes:

- a) mapping the business district profile:
 - reviewing the existing database, information systems and reporting tools to gain information on, for example, geographical, environmental, social and economic aspects and cultural heritage, in order to establish an accurate understanding of the context of the scheme;
 - identifying the relevant sustainability issues and highlighting the trends (core set of indicators);
- b) mapping the policy framework:
 - legal requirements;
 - emerging trends and forthcoming policies;
 - existing political priorities, decisions, commitments and strategies;
- c) mapping the organizational set-up, determining:
 - relevant responsibilities and organizational set-up;
 - staff capacity and capabilities;
 - existing relevant management instruments, procedures and financial capacities;
 - interested parties' landscape, including all relevant actors;
 - the financial resources of the business district.

Quantitative and qualitative data collected will be used to establish the reference state.

To aid the initial diagnosis, the governance framework can use tools such as check lists, interviews, field visits, Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis and past assessments.

TEXTBOX: example of SWOT analysis for a business district

Strengths: There are a high number of high-tech industries, innovation institutes, quality infrastructure and abundant talent in the area.

Weaknesses: The business districts cannot meet all demands of its users in relation to urban services, e.g. residence, transportation, business activities.

Opportunities: The tasks should be coordinated with the existing workload and departmental functions of the business districts. It is an improvement rather than a revolution. The application of the standard should be firmly integrated with the local status. Priority should be given to key local issues, which should be carefully identified from the start.

The standardization application should not only remain at the district level, but also influence practices of all departments. The concept should be planted into daily operations. A local standard system for various sustainability issues should be established to guide the implementation.

Threats: The tasks in the business district sustainable development should be coordinated with multiple interested parties, which can need extra coordination work.

6.1.2.2 Establishing an initial diagnosis

Based on the understanding of the local situation, establishing an initial diagnosis helps to review it and the governance instruments in place, especially in relation to the UN SDGs.

The business district organization should carry out a diagnosis on the current situation of the business district and determine the level of development at the current stage, which should cover the pros and

cons of the key aspects of the business district, e.g. geographical location, industries, services, culture, talent, including the following actions, as a minimum:

- check compliance with applicable requirements in which the business district is bound;
- identify and analyse the economic, social and environmental impacts, whether related to ordinary operation of the business district or emergency situations, past or present;
- identify and examine existing economic, social and environmental practices and procedures, including those associated with procurement and contracting activities;
- define the role of interested parties and how they contribute to different stages of the business district's lifecycle;
- establish an integrated digital platform, e.g. Geographical Information System (GIS), Building Information Modelling (BIM) or City Information Modelling (CIM), when applicable. This would facilitate the implementation and increase in the efficiency during the management process;
- identify the existing KPIs.

The methodologies adopted can be a mixture (or a hybrid) of quantitative and qualitative approaches. The generally applied methods include but are not limited to, e.g. eco-footprint, carbon emission, resource endowment, GIS layout analysis, environment capacity estimation.

In addition to a specific diagnosis report, the cross-analysis matrix of the relevant purposes and issues defined in ISO 37101 can also be used as a basic tool to aid in the initial diagnosis, as a checklist for proposed actions or schemes.

The diagnosis report or result of this cross-analysis matrix will serve as the point of reference when monitoring and evaluating progress achievements, as improvements are only measurable and visible if compared to the 'point of departure' (i.e. initial "point of reference"), the baseline.

In the development of a sustainability programme, each of the issues should be checked regarding its priority to achieve the six purposes. Thus, it can be that some of the 12 issues are not a priority in the moment of the analysis. The issues can also be subject to change.

This will deliver the assessment of the present sustainable development conditions of the business district, performed by the organization. The organization creates an assessment framework that later serves as a basis for setting priorities and targets for the co-creation of a strategy and action plan and for the monitoring of progress by making use of indicators. It also refers to an analysis of the challenges and pressures that have led to the current situation as well as the impacts those pressures have on various parts of the society, economy and environment, and the policies and measures already in place. This step summarizes the current status with respect to existing legal requirements, relevant existing policies, objectives and targets and relevant existing instruments.

TEXTBOX: Demonstration example of initial diagnostic method

The calculation mode of carbon emissions in communities can be established on the methodology provided in the IPCC Guidelines for National Greenhouse Gas Inventories, referring to use the calculation mode of greenhouse gas (GHG) in ISO 14064-1:2018 or the calculation method developed by the International Energy Agency (IEA).

6.1.2.3 Benchmarking against relevant comparators

The initial diagnosis allows the identification of the starting point. More importantly, this should help understanding the potential for improvement.

If the baseline review is not primarily viewed as an exercise for benchmarking with others, benchmarking against relevant comparators can help the organization to set its own ambitions. Relevant benchmarking organizations can include similar business districts that also participate in sustainable management practices, national reference values, international references or commitments.

The comparison with other business districts can be facilitated through exchanges and bench learning programmes.

Benchmarking of sustainable development evaluates the best pragmatic performance of the six purposes of development proposed by ISO 37101:2016, 6.2.1.

The results of benchmarking can be a good reference for all the following steps of the management cycle. At the planning stage, it assists in determining whether the targets are reasonable considering the capacity of the management system. At the implementation stage, it can be a reference for the resource allocation and action plan. At the evaluation stage, it is applied as gap analysis for further improvements of performance or the adjustment of targets.

6.1.3 Conformance obligations

Business districts are subject to several compliance obligations related to sustainability issues, some as being part of the city or region itself, or as from the national context, others resulting from international binding agreements that the national government subscribed as well as voluntary commitments to which the business district, the city or region have subscribed.

Awareness of these compliance obligations is part of the sustainable development objectives of the business district management system and the compliance obligations are inputs for the planning process.

6.1.4 Determining the significance of sustainability issues

The twelve sustainability issues are a reference framework for the baseline review and the planning process. How they affect the performance of the business district and the achievement of the sustainability purposes are a key element in the successful achievement of the sustainability policy, objectives, and the effectiveness of its management system. It is one of the main inputs to establish the sustainability strategy.

The characteristics of the business districts addressed in [4.1](#) should be included in the analysis of the sustainability issues.

ISO 37101 proposes that significance should be assessed, with some criteria given. The result of this exercise, handled by the organization, will help to set the priority for sustainability issues with relevant tasks on agenda for a certain period of time for the business district.

6.1.5 Identifying and engaging interested parties

The organization should consider the contributions and expectations of the interested parties based on their respective level of involvement and responsibilities, through practices such as consensus-building phases.

A proactive process to identify and engage relevant interested parties should be implemented. This process should consider different forms and levels of engagement and be designed to accommodate different levels of commitment to participate and be engaged.

These should include, e.g. consultation processes, awareness raising initiatives, participation in advisory bodies, decision making bodies. The steps to identify the needs and expectations of interested parties include:

- mapping of relevant interested parties;
- defining the governing body, execution bodies and users in core activities;
- establishing strategies for communication and consultation;
- consulting or interviewing to get information about their needs and expectations;
- listing requirements from relevant interested parties;

- understanding their needs and expectations;
- identifying their potential roles and resources;
- establishing mechanisms for effective dialogue and participation;
- sharing progress and jointly securing continual improvement.

The rules and expectations about the engagement and their outcomes should be transparent and communicated.

It is important to consider that there are asymmetries in the engagement and potential involvement and engagement of different interested parties and that it can be useful to support the participation of interested parties with fewer resources in the process.

TEXTBOX: Engaging interested parties

Dialogue and collaboration with interested parties is strategically important for implementing sustainable development and resilience: interested parties are necessary in identifying the major sustainability issues and implementing the relevant solutions. Interested parties can also represent risks and opportunities for the business district.

6.2 Sustainable strategy and objectives and planning to achieve them

6.2.1 General

The strategy and the objectives should be consistent with the sustainable development policy and take into account the applicable requirements.

The sustainable development strategy and objectives are important tools for the management system for the sustainable development, as they not only define clearly where the business district is heading in terms of sustainable development, but also can be further elaborated into technical terms to realise expectations and political commitments.

Based on the baseline review and the diagnosis results, and comparison with domestic and international best practices for sustainable development, the organization should be able to establish a policy and set priorities for the sustainable development with appropriate short-term, mid-term and long-term targets.

6.2.2 Strategy for sustainable development

6.2.2.1 General

The organization should identify a sustainable development strategy as a path to implement the sustainability policy and to achieve the sustainability objectives.

The sustainability strategy should be derived from the sustainability policy, that:

- is adapted to the current context and promotes the economic, social and environmental development of the business district and the city/region;
- clearly defines its scope and its limitations;
- includes analysis of the economic, social and environmental impacts of its implementation;
- assumes the sustainability purposes as its ultimate goals to reach, and responds to issues of sustainable development;
- aligns with political commitments;

- is under updated and revision process in keeping with a regular and transparent schedule, or whenever the need becomes apparent.

In establishing the sustainable development strategy, the organization, working with the interested parties, should:

- identify the risks and opportunities;
- set improvement targets, specifying the quantifiable elements;
- develop and implement effective procedures for the planning, assessment and monitoring of these goals.

The definition of the strategy mainly consists in defining the objectives of sustainable development that are key priorities according to the scheme. This is the third step in the sustainability management process. It consists of:

- determining the city development vision that should be supported by the scheme. At this stage, the role of the leadership is crucial and should be properly addressed;
- taking into account the needs and the expectations of interested parties, setting the strategic priorities and sustainable objectives according to the six purposes.

The sustainable development strategy can be presented as a report which should be regularly updated based on the achievements of the project until the end of the management period. The report should include the following expected outputs:

- the results of the baseline review;
- the internal and external sustainability issues;
- the conformity obligations;
- a strategic program with vision, relevance of policies, objectives;
- quantifiable targets, related KPIs and realistic expected achievements or targets;
- calculation methods with data collection proposal;
- necessary support and resources.

6.2.2.2 Setting local priorities to achieve the policy

As a result of the baseline review, the organization will have an overview of the current conditions at the scale relevant for the scheme and actions carried out as well as an insight into the scope for improvement in different issues.

The local priorities for sustainability objectives and issues should be determined considering the requirements of city/regional government, expectation of interested parties and feasibility in implementation.

This step involves collectively deciding the policy for the business district and setting local priorities for the scheme based on the vision. This strategy should take into account and reflect the relevant commitments and existing political frameworks identified in the baseline review. In particular, the global and local commitments and existing sustainability frameworks should be considered at this stage, e.g. UN SDGs. Indicators and targets are defined with regard to the local context and reflect the political commitment.

6.2.2.3 Defining objectives of sustainable development corresponding to priorities

Based on the results of the previous stage, the organization details each of the objectives of sustainable development according to the priorities to which the scheme contributes.

This step is not only about establishing objectives but also about considering the processes necessary to deliver results in accordance with the purpose. The organization should evaluate the contents from the SWOT analysis, to define potential risks in the sustainable development.

6.2.2.4 Defining KPIs

Measurable (quantitative and/or qualitative) KPIs of a business district should be used as a basis for tracking progress in achieving sustainable development and for continuous improvement. They can be established, and also be adjusted according to the local situation.

KPIs should be objective, verifiable, reproducible and appropriate to strategies, programs, projects, plans and services in a business district's sustainable development. They should also be consistent with the policies defined for the business district, and be practical, cost-effective and technologically feasible.

When choosing KPIs according to local practices, the following principles should be considered:

- Relevance: indicators should be in accordance with areas of actions and categories, and also reflect the characteristics of a business district;
- Statistical feasibility: urban management information related to indicators should be collected to measure the indicator outcome;
- Implementation and innovation: selection of indicators should be related to local context;
- Benchmarking: the possibility of being the best practices worldwide should be considered for some or even all indicators;
- Flexibility: the possibility of using a combination of quantitative, semi-quantitative and qualitative indicators.

KPIs for a sustainable business district during planning/design/construction and maintenance/operation stages are provided in [A.1](#) as examples.

KPIs for buildings in a sustainable business district are provided in [A.2](#) as examples, and a local indicators system should be established to fit the local context.

6.2.2.5 Setting long-term targets

In consideration of the identified KPIs, it is necessary to set up long-term targets and integrate the requirements with the whole process of implementation, monitoring improvements.

The means of enabling priorities as a manageable task for the organization are key KPIs that can connect to strategic objectives and targets. Objectives and targets mark the optimum targets to be achieved and the 'stepping stones' along the way. Target setting is a crucial moment: this is the point to align local ambitions and global responsibility. A general rule when setting up targets for the strategic program is to be smart and set achievable and realistic targets, not too high and not too low.

Textbox: Focus on the selection of targets and indicators

The selection of objectives and targets is very much a 'local agreement', largely depending on the urban authority's motivation and ambition. However, there are advantages in using international and inspiring targets as a benchmark. The definition of overall objectives and targets should derive from a coherent first assessment of the main patterns, strengths, and weaknesses of the given local context. The assessment's aim is in fact to allocate the right level of importance to each aspect, integrating interested parties' perceptions with objective data. However, the definition of targets and objectives is also a cultural and political affair.

There are generally three types of targets:

- short-term strategic targets (0 to 5 years);
- mid-term strategic targets (from 5 to 10 years);
- long-term strategic targets (above 10 years).

Long-term and short-term targets are defined in comparison to a reference or base year, which can be different from indicator to indicator. The base year usually depends on data availability. It is important to bear in mind that with regard to the long-term target, organizations can decompose and formulate different short-term targets in multiple areas. This framework of long- and short-term targets prevents a business district organization from losing sight of the route to become more sustainable.

The long-term targets should be re-assessed regularly based on results from internal and external audit and political evaluation on whether they have proven suitable or not, whether a new situation requires new ambitious targets, or whether the latest scientific research and scenarios should be included, e.g. the Assessment Reports released by the Intergovernmental Panel on Climate Change (IPCC). The results should be taken into consideration when preparing the subsequently following sustainable development strategy and action plan. The definition of a new long-term target has to be undertaken every time the long-term target has been achieved, and in any case when the due-date for target-attainment has been reached.

Choosing the short-term targets for the action plan derived from long-term targets is the next stage. Before setting the short-term targets, the previous year's value (if available) or reference value should be taken into account in order to find the right orientation.

The performance parameters can be used to track the progress of achieving the targets and indicators. The business district should document the targets and indicators. The information should be provided in a timely manner to the relevant departments and personnel responsible for the implementation.

6.2.3 Mapping out the industry cluster in spatial planning

In most cases, businesses grow well when they are close to others of similar industry cluster, as they can benefit from their up-stream buyers and down-stream suppliers conveniently, so that the needs and resources can be collected much easier and at lower cost.

Therefore, in connection with the urban planning scenario, it is essential to map out the existing industry cluster and future space to grow in spatial planning, so that incoming businesses will be able to function at a lower cost overall. In the meantime, it can be easier for the business district to provide compact and efficient infrastructure and services.

6.3 Implementation**6.3.1 General**

The sustainable strategy, objectives and KPIs should be supported by an action plan, in order to substantiate the strategic objectives. The action plan is the short-term operationalization of the strategic program. The action plan should set the operational schedule and name the persons or

organizations responsible for each action in order to ensure clarity, quality and accountability of the scheme management, and to prepare for the assessment review process.

With the selection of the different actions for the relevant issues, it is possible to ensure coherence of the business district vision by taking into account the following elements:

- policy coherence with the strategic planning documents of the city;
- review of the ongoing projects and actions in the territory and their integration or at least consideration in the action plan;
- assessment of the different risks identified for each action (risk analysis);
- identification of common risks that cut across the issues, and also of common enablers that would help drive forward progress across the areas.

6.3.2 Establishing the action plan

The action plan (including activities, e.g. building construction, renovation, initiating new projects, operation, attracting new businesses and talents) sets out the practical steps for implementing the scheme. In order to establish this action plan, the organization should identify and determine the different levers, i.e. actions, with respective timelines, in order to achieve the sustainability strategic objectives set in the previous step. Within the action plan, the organization should:

- define reasoning with regard to targets and expectation of impact;
- establish an action plan with specific actions and tasks;
- specify specific actions and tasks to achieve the expected targets and meet the requirements of the implementation of KPIs (6.2.2.4), with a statistical framework to be established;
- define responsibilities and partnerships, with tasks being allocated to different entities in charge, e.g. departments, destination companies;
- define a schedule for each action and tasks identified (in line with financial resources);
- identify suitable policies or regulations in support of specific prioritised action tasks;
- mobilize adequate procedures, incentives, tools (such as risk management/scenario planning), skills, and resources that are needed to implement in the relevant issues;
- define a way to assess, evaluate and report the progress and outcome;
- report to interested parties and retaining their engagements;
- identify common risks and common enablers that cut across the relevant issues, and hence need managing on a city/region-wide basis.

In the action plan, different levels of actions should be determined. Some actions can be taken internally, but some can rely on coordination of external resources.

The action plan can be a collection of different plans. Each action plan addresses the needs of its topic, i.e. both technical needs and for the purpose of addressing the strategic targets. The twelve issues should also be explored according to the six purposes.

6.3.3 Engaging interested parties at different stages

The organization should encourage participation of all interested parties. The motivation, authority and the reasonable allocation of responsibilities should be considered.

In addition to those requirements listed in 6.1.5, there are specific interested parties in a business district to be involved in the implementation process, depending on what needs to be achieved.

For example, if a business district wishes to promote enterprise participation, it should identify what kind of information to be shared with enterprises, and how to generate value for their contribution of information and data. There can be different ways to achieve this, e.g. investigations, seminars, questionnaires, and annual featured activities (cultural events, salon). Social activities such as initiating an NGO can be good global networking to exchange information between enterprises.

6.3.4 Managing common risks and common enablers that cut across the issues

The issues of a business district involve the governing body, execution bodies and users, therefore coordination is needed among these parties to ensure the consistency of the implementation.

The strategy and the action plan developed through the process described here is structured around the issues that need addressing in order for the scheme to contribute to deliver the six purposes of ISO 37101. Each of these issues is complex and requires the engagement of multiple interested parties with significant levels of expertise in relevant areas and issues. However, there are also factors that cut across many or all issues, and these factors should be identified and managed on a city-wide basis. Finally, sometimes the issues can conflict with each other and the organization should be careful about these potential conflicts.

NOTE Practical advice and tools focused on smart city operating models to identify and manage such cross-cutting factors are provided in ISO 37106:2021.

7 Support

7.1 Resources

The resources for implementing sustainable development in a business district should be ensured and these can be a combination of allocation of resources from the governing body (if not the organization) and can include those provided or shared by other interested parties.

The resources should include those dedicated to the management system itself, while efforts should be made to minimize the resources (particularly human) dedicated to the management system for sustainable development of a business district.

The management system for sustainable development of a business district should avoid bureaucracy, overlapping and redundancy of activities. The leadership should pursue the management in an effective and efficient way.

Since the sustainable development should be a collective commitment including relevant interested parties, resources from other sources than that of the public budget should also be considered to supplement public investment.

7.2 Competence of people involved in management system for sustainable development

7.2.1 General

The organization should also recognize the importance of the skills of competent people, both in the management of the system and in operations.

The organization should determine, provide, and manage personnel with necessary competence for the effective implementation of its sustainable development management system for the business district. These include:

- the need to attract, recruit, and retain talent;
- forming teams with a diversity and mix of people including different disciplines, personal attributes, and backgrounds to encourage cross-exchange of ideas and experience that can result in unexpected positive outcomes;

- public servants as well as people from interested parties, and also people involved in delivering public services and other services relevant to the sustainable objectives.

The organization should:

- where applicable, take actions to acquire and maintain the necessary competence, and evaluate the effectiveness of the actions taken;
- retain appropriate documented information as evidence of competence;
- consider the need for outsourced competence, e.g. collaborating with or commissioning academia, consultants, external partners, innovation support services, or online resources to assist with innovation activities;
- establish necessary connections and collaborations between people with different competencies to leverage the collective competence of the organization;
- consider the need for aligning internal competencies with relevant external interested parties to achieve a common understanding and a convergence of vocabulary, attitudes, and approaches.

NOTE Applicable actions can include, e.g. the provision of training to, the mentoring of, or the reassignment of currently employed persons or the hiring or contracting of competent persons.

It is not necessary for each individual involved to have the same competence, however, the collective competence of the personnel should be sufficient in order to apply the guidance in this document to a business district.

7.2.2 Knowledge

Knowledge about the sustainable development topics mentioned within this document are important for people involved in the management process of the organization, including knowledge of:

- the organizational context and process: the organization type, size, governance, structure and workplace practices, information and data systems, documentation systems, and information technology involved within daily management work;
- the management system for sustainable development of the business district and process within the organization;
- sustainable topics including goals, purposes, issues, objectives, targets and how they interact and correlate with each other;
- KPIs (indicators) and especially for those in charge of one or more specific technical indicator during implementation, evaluation and reporting;
- digital monitoring, data collection and data uploading;
- evaluation of performance;
- the performance of the sustainability of buildings;
- sustainable building technology, including during design, construction and operation stages.

7.2.3 Experience

Relevant experience in sustainable development is essential to those people who are in charge, especially for those in position where decisions can imply substantial consequences.

Although it is not necessary to have everyone involved to obtain the same level of experience, a mixed level of experience within the organization can be a good combination, as a sustainable development scheme for any community, including business districts will take time to show impact, and many

messages can be shared during day-to-day conversations. The team confidence can be improved if there have been some positive and convincing exchanges.

It should be noted that sometimes experience can also cause obstacles, as sustainable practice requires innovation from time to time, and requires willingness to do things in a different way, compared to established business practices.

7.2.4 Skills

The employee skills important for the sustainable development of a business district include:

- Language skills appropriate to all levels within the organization: Capable of communicating effectively to people within the organization using appropriate terms, expressions and speech;
- Secretarial skills (note taking and report-writing): Capable of reading and writing with sufficient speed, accuracy and comprehension to record, take notes;
- Presentation skills: Capable of presenting findings and conclusions to be easily understood;
- Skills to determine and identify interested parties;
- Communication skills including interviewing and handling workshops to engage interested parties: Capable of interviewing to obtain relevant information by asking open-ended, well formulated questions and listening to understand and evaluate the answers;
- Skills to identify suitable techniques that are applicable to sustainable buildings with regards to construction and renovation purposes.

NOTE Skills can also be acquired from capacity building (7.2.6).

7.2.5 Competences to foster innovation

Considering the nature of sustainable development, competences to foster innovation are important for the organization in the business district context, which can include:

- **Cross-departmental sharing:** to encourage multi-disciplinary interactions and cross sectoral coordination;
- **Digital technology application:** to maximize the effectiveness of smart technology and introduce disruptive technologies;
- **Incentives:** to encourage the participation of all interested parties, to promote a green lifestyle, and to encourage enterprises to provide services in the sustainable development scenario, this also includes non-financial incentives, e.g. rewards and recognition.

7.2.6 Capacity building

Capacity building for the management system's personnel should also be considered. Training and education activities should be specifically planned, budgeted and implemented.

- **Training:** Regular training should be provided to those in charge of implementing the guidance in this document, in order to improve the team capability for sustainable development. Examples of training include, e.g. courses, visits, working group meetings, seminars, forums, lunches, talks.
- **Education:** Degree-oriented education courses can be a good opportunity for key staff to improve their knowledge and skills in the sustainable development area. This can include green technology, green financing, or green leadership.
- **Exchange with other business districts:** International exchange is also very important. Through international cooperation, the influence of a business district can be increased. In addition, through exchanges with other business districts in areas relating to and beyond standardization (e.g.

industrial, technology, culture exchanges), the level of sustainability development can be improved for all.

7.3 Awareness

The success of sustainable development for a business district and the milestones can take decades to be achieved. Therefore, it is very important to raise awareness and achieve engagement among all interested parties.

Persons doing work under the organization's control and all interested parties should be aware of:

- the policy for sustainable development in the business district;
- their contribution to the effectiveness, including the benefits of improved performance in sustainable development in the business districts;
- the implications of not conforming with the requirements of the management system for sustainable development in the business districts;
- sustainable development of the business district requiring human behaviour to change. This can include the work procedure, considerations, and even lifestyle.

It should also be noted what the different roles that each trade organization, professional and business organization has in this awareness raising activity. Therefore, it is very important to position sustainable development as the "shared vision". This can include actions of training for interested parties on relevant purposes and issues of the sustainable management system.

7.4 Communication

Communicating effectively with interested parties is crucial in order to strengthen commitment in leadership, reach consensus, create awareness, engage interested parties' participation, act in one direction, and reduce the cost of governance.

Internal communication within the process of management is also important to reach a shared vision for sustainable development. This can take the form of team meetings, notice boards, intranets, newsletters, team-building, staff conferences and training. Also, external communication can be effective, e.g. through a webpage, annual report, corporate literature, white paper, briefing to external institutions, users, customers, partners, service providers and other interested parties, advertising, press releases, road shows, and professional conferences.

7.5 Documented information

A documentation system with proper document records should be set up and managed, to ensure:

- information transparency and traceability;
- consistent leadership and governance;
- capacity building on the management system, especially for the new staff.

8 Operation

8.1 General

During the operation stage, the organization should ensure the following:

- the respect of the phases and the schedules it has organized;
- adaptation to changing contexts when necessary;

- the interested parties are informed and involved in decision-making processes as arranged.

8.2 Operational planning and control

The organization should identify the processes that affect the outcomes of the sustainable development management system to enable the organization to plan, implement and control those processes. This includes any externally provided processes and the consideration of risks and opportunities when determining the extent of control for the processes. It should be noted that many of the outcomes relevant to achieve the sustainability objectives are delivered through strategies, plans, programs, projects and services. It is not within the scope of the management system to take control of such initiatives.

External providers can include providers of processes, products or services that have an effect on the sustainable development management system. External providers can include the city government, public services provided at the city level, associate companies, suppliers, or someone to whom the organization has requested to provide a process, a product or a service. An external provider is outside the scope of the management system, although the control over the externally provided processes, products or services relevant to the intended results of the sustainable development management system are within the scope. Therefore, the organization should ensure that outsourced and collaborative sustainability initiatives and processes are properly controlled as planned.

Controls should be put in place to manage the identified compliance obligations and the processes and operations that impact or contribute to the achievement of the sustainability objectives.

Effective controls are needed to ensure that the objectives of the organization's management system for sustainable development of the business district are met and that non-conformities are prevented or detected and corrected. The types and levels of controls should be designed in a way to facilitate achieving the sustainable objectives. Such controls should, where possible, be embedded into normal organizational processes.

TEXTBOX: Examples of controls include:

- clear, practical and easy to follow documented operating policies, procedures, processes and work instructions;
- systems and exception reports;
- approvals;
- automated processes;
- annual plans;
- employee performance plans;
- sustainable development assessments and audits;
- demonstrated management commitment and recognition for exemplary behaviour and other measures to promote commitment and engagement;
- active, open and frequent communication on expected behaviour of employees (standards and value, codes of conduct);
- corporate social responsibility action plans.

These controls should be maintained, periodically evaluated and tested to ensure their continuous effectiveness.

Procedures should be established, documented, implemented and maintained to support the management system for sustainable development of the business district policy and operationalize the sustainable strategy into practice. In developing these procedures, consideration should be given to:

- integrating the sustainable objectives into procedures, including information technology systems, forms, reporting systems, contracts and other legal documentation;
- consistency with other review and control functions in the organization;
- on-going monitoring and measurement;
- assessment and reporting (including management supervision) to ensure that employees comply with procedures;
- discouraging creating unnecessary bureaucracy and redundancy of measures.

It should also be noted that operational planning can require a different approach to control, especially regarding creative and experimentation activities, incorporating a higher degree of freedom and flexibility to manage uncertainty. This approach can be different from other established management control practices.

8.3 Ensuring coherence of strategies, programs, projects, plans and services

The organization should periodically assess whether and how strategies, programmes, projects, plans and services contribute to the six sustainability purposes and twelve sustainability issues.

Further, with regard to the governance framework for a business district, the organization should be continually cautious about the framework including the governing body, execution bodies and users. In addition, since there are multiple interested parties in a business district, coherence is very important and can be challenging.

Good measures to be recommended include arranging regular communication events, e.g. meetings, webinars, salons.

9 Performance evaluation

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General

Performance evaluation is a key element of an effective management system. ISO 37101 already gives guidance on how to comply with the requirements for performance evaluation.

The organization should conduct periodical monitoring and measurement to assess the effectiveness of the sustainable development management system and the sustainability performance of the business district.

The results of the monitoring process should be analysed and evaluated using appropriate methods and at the relevant instances in order to provide valuable information to top management.

9.1.2 Monitoring and measurement

The sustainable development management system should be monitored to ensure that sustainability performance is achieved. A plan for continuous monitoring should be established, including setting out monitoring processes, schedules, resources and the information to be collected.

Monitoring is the process of gathering information for the purpose of assessing the effectiveness of the sustainable development management system and of the organization's sustainability performance.

It is important to develop a set of measurable KPIs that will assist the organization in measuring achievement of its objectives (see 6.2) and quantifying its sustainability performance. This process should take into account the results of the assessment of the baseline to ensure that KPIs relate to the relevant characteristics of the sustainability context and sustainable development policy and strategy of the organization. The issue of what and how to measure sustainability performance can be challenging, but is, nevertheless a vital part of demonstrating the effectiveness of the sustainable development management system. Furthermore, the KPIs needed will vary with the organization's maturity and the timing and extent of new and revised strategies, plans, programs, projects and services being implemented.

The KPIs of sustainable development of a business district defined in Annex A should be monitored. The responsibilities of monitoring and measurement should be specifically refined and addressed to the relevant roles, which can include public departments in charge and other sources. Roles for other entities such as trade associations, non-governmental organizations or academia, may also be included depending on the organization's context.

A management process of KPIs including action plan, implementation, monitoring, reviewing and upgrading of the indicators should be established.

Examples of sources for defining KPIs are ISO 37120, ISO 37122 and ISO 37123, but according to the context of the business district, other KPIs can be defined and used. An example set of KPIs for the business district (including KPIs for the district, and KPIs for buildings in the business district) is provided in Annex A.

In order to maximize the benefit of adopting the management process approach of KPIs, the organization should start with the selected KPIs, map out specific tasks as relevant, which also contribute to the sustainability issues (4.6.3) of the business district. The tasks should be further allocated to different entities in charge including, e.g. departments, operation companies, who can also provide data at a later stage as required.

The implementation process should be monitored, and data/information should be collected. Based on the evaluation system, the objectives will be better implemented.

The organization should establish an adequate monitoring system, to collect information required for the evaluation in appropriate monitoring frequency, and to document and analyse monitoring results. Therefore, it is important to identify who should take action, how to research and how to collect data.

The organization should establish an adequate monitoring system, which includes the scope and aspects of monitoring, to collect information required for the evaluation in appropriate monitoring frequency, and to document and analyse monitoring results.

A proper established monitoring system will be based on correct understanding of the sustainability objectives, the targets, KPIs, and the data resources and data owners. This will further lead to its analysis and evaluation, which will reflect the effects of the action plan and the performance gaps of the KPIs. It will also help the decision makers to determine corrective actions needed, opportunities for improvement, the effectiveness of the sustainable development management system and the sustainability performance.

The sources of monitoring data can include:

- a statistical system;
- data collected from monitoring points;
- data from interested parties;
- surveys;
- a daily management system.

Textbox: Focus on monitoring

In accordance with objectives and against its defined baseline, monitoring involves regular observation, recording and analysis of activities in the community's management system for sustainable development, including economic, social, environmental, infrastructure and governance data. It provides information of the direct or indirect outcomes of activities, strategies, programs, plans, projects, and enables the evaluation and reporting of their impacts.

Smart tools can be applied to support regular monitoring. For example, an online platform for sustainable development KPIs can be established to aid monitoring and present results.

Textbox: Example of data

Depending on the agreed evaluation concept, quantitative and/or qualitative data are requested. They can be grouped among the main sectors, such as:

- environmental and meteorological data (e.g. rainfall, temperature, evaporation, extent of vegetation, stream flow);
- socio-economic data (e.g. population growth, regional production, socio-economic aspects and benefits);
- financial data (e.g. budget, spending, savings, costs of activities, monetary benefits);
- project outputs (e.g. number of activities of sustainability program completed, length of restored/re-planted river shore, number of dwellings in risk prone areas, number of energy-efficient heating systems installed).

NOTE It is important to keep the dataset consistent when data is collected from various resources, in order to enable further analysis of cross-sector data and create value at a later stage.

The data collected within the business district should be made available to help analyse the bigger picture of the city, the local region/area. Care should be taken about data security, safety and privacy.

The indicator system itself should be evaluated and upgraded within a certain period of time. It should be in accordance with the latest policies and development status.

Further, through a smart city approach, digital platforms and normalized statistics, data collected can be shared among different business districts. This can break the barriers of data sharing and aid the global comparison of various business districts and also year-by-year comparison of the business district itself.

9.1.3 Analysis and evaluation of performance

In order to determine the performance and effectiveness of the management system for sustainable development, the business district organization should regularly analyse the results of their monitoring, in order to:

- ensure conformance with the policy, strategic and operational objectives, and compliance obligations;
- ensure that it remains effective in maintaining and improving sustainability;
- improve policies, strategic and operational objectives in sustainable development, smart city approach and resilient city approach, as necessary.

Evaluation is a planned, systematic process that regularly compares the achievement against commitments and requirements. It assesses the efficiency, effectiveness and appropriateness of actions. Evaluation generally consists of comparing the information available before, during and after project implementation, e.g. to assess behavioural change in interested parties, or improvement in quality of environment. Depending on the evaluation, quantitative or qualitative data are required.

The organization should ensure valid and accessible reporting to all relevant interested parties, including their appointed or elected representatives, providing the opportunity for feedback and constructive challenge.

Evaluation contributes to inform top management about the best choices and help the organization move to continuous improvement. It is important to understand that evaluation is not a one-time step but is used at each step of the whole lifecycle process especially in the planning phase (baseline review – planning) and for continuous improvement. It will support the management system all along the process with:

- the level of understanding of the context;
- the degree of leadership commitment;
- the effectiveness of actions taken to address opportunities and risks;
- the effectiveness of the sustainable development strategy;
- the level of achievement of the sustainability objectives;
- the effectiveness and efficiency of the sustainable development management system support and processes;
- knowledge sharing and learnings from both successes and failures;
- the need for improvements of the sustainable development management system.

9.2 Internal audit

Internal audit is a key tool to assess the effectiveness and proper function of a management system. It is also the opportunity to help top management to form an overview of the progress made upon sustainable development in the business district, to better understand the achievements and gaps, and to continuously engage all interested parties to participate in the process.

The organization should establish an internal audit team. Team members can consist of internal staff within the organization, outsourced personnel (or organizations) and representatives of interested parties, with their appointed or elected representatives and they should collect feedback and suggestions.

The internal audit program should cover all the elements of the sustainable development management system, the output should be reported at least annually and can be released and reported to all interested parties.

The internal audit process can also raise awareness ([7.3](#)) and assist communication ([7.4](#)).

NOTE ISO 19011 provides guidance on the management of audits in management systems and how to perform them.

9.3 Management review

With the internal audit report, it is useful for the organization to review the management impact, regarding the progress of sustainable development of a business district and to define and update new opportunities and potentials.

This can be an opportunity for the organization to identify areas that need to be improved, and to identify a new task list based on the results or trends of the recent years.

It should be noted that sustainable development can be a long journey. The management review is also a good opportunity to identify capable personnel with a goodwill to achieve and promote more suitable contributions.

The management review should be done at planned intervals, to ensure its continuing suitability, adequacy and effectiveness. The management review can take place over a period of time and can partially, or fully, cover all elements of the sustainable development management system. The actual depth and frequency of such reviews varies with the nature of the organization and its policies.

Information for the management review includes:

- a) Internal audits results;
- b) Non-conformities and corrective actions;
- c) Experience from correction or prevention measures;
- d) Best practices benchmark;
- e) Laws, regulations, requirements and their impending revision;
- f) Other validation results;
- g) Monitoring of KPIs;
- h) Technical progress;
- i) Opinions of interested parties.

10 Improvement of the management system

10.1 General

The organization should seek to continuously improve the suitability, adequacy and effectiveness of the sustainable development management system.

The information collected, analysed and evaluated accordingly, and included in sustainability reports, should be used as a basis to identify opportunities for improvement of the sustainability performance of the organization.

The organization should determine and select opportunities for improvement and implement any necessary actions and changes to the sustainable development management system, considering performance evaluation results.

The organization should consider actions and changes to:

- a) maintain or enhance strengths;
- b) address weaknesses and gaps;
- c) correct, prevent, or reduce deviations and non-conformities.

The organization should ensure that actions and changes are implemented in a timely, complete, and effective manner.

The organization should communicate actions and changes within the organization and to other relevant interested parties, in order to stimulate learning and improvement.

A deviation can be described as an identified gap, an undesired effect, or a difference from the expected performance, whereas non-conformity is the non-fulfilment of a requirement.

By measuring and improving the economic, social, environmental, infrastructure and governance performance of the business district, the organization should consider undertaking an improvement program.

10.2 Non-conformity and corrective action

The organization should establish, implement and maintain one or more procedures, and take corrective and preventive actions, to recognize and deal with real, imagined or potential non-conformity in the business district context. The procedures can include requirements of:

- reviewing the non-conformity corresponding to the six purposes and twelve issues of business district, with associated tasks;
- confirming the reason for non-conformity, or the threats thereof and identify the key responsible interested parties;
- instituting and implementing proper measures by interested parties, and coordination measures required if there are inter-regional interested parties;
- establishing (or developing) a mechanism to involve all interested parties and implement corrective or preventive actions;
- reviewing and evaluating the effectiveness of corrective and preventative actions;
- ensuring and monitoring continuous improvement.

Corrective actions should complement the non-conformities. The organization should retain documented information as evidence of:

- ensuring that the understanding of all interested parties is consistent;
- the conformities or non-conformities thereof;
- types and nature of the non-conformities;
- recommending subsequent corrective actions and upholding their effectiveness.

10.3 Continuous improvement

To pursue continuous improvement, the organization can set goals for improving its institutional structure and organization, and its processes and performance. It should also periodically give feedback to the interested parties in relation to updating of the business district and local standards.

Improvement actions can relate to specific, limited aspects or the sustainable development policy as a whole. They should follow a structured approach and be applied coherently.

The organization should ensure that the operational teams working on improvement actions are motivated and committed and take action to motivate them if necessary.

Textbox: Focus on continuous improvement

Continuous improvement is a recurring activity to enhance performance. Actions for continuous improvement include:

- Carrying out annual performance evaluation;
- Reviewing sustainable development objectives and indicators;
- Discussing with interested parties about how to make improvements;
- Compiling plans and actions for continuous improvement;
- Deciding on the responsible department;
- Deciding that the improvement actions and performance will be the focus point of the evaluation next year.

Annex A

(informative)

Suggested KPIs for management system for the sustainable development of business district

A.1 Examples of KPIs for sustainable business district during planning/design/construction and maintenance/operation stages

The indicator system consists of 53 indicators in 12 Issues, as shown in [Table A.1](#).

The following set of KPIs is only an indication to support sustainable development and thus is not comprehensive. To achieve sustainability, the projects need to consider further locally/regionally/nationally established indicator systems that will support sustainable development.

Table A.1 — Suggested KPIs for sustainable business district during planning, design, construction and maintenance/operation stages

Issues	Indicators	Planning/ design/ con- struction	Maintenance/ operation	Source (where applica- ble)
Governance, empow- erment and engage- ment	[1] Participation rate of enterprises in the governance system of the business district		x	
Education and capac- ity building	[2] Number of annual international activities		x	
	[3] Creation of a brand identity for the business district		x	
	[4] Hosting and offering quality hospitality services for international visitors		x	
Innovation, creativi- ty and research	[5] Proportion of enterprises with R&D institutions in the business district		x	
	[6] Percentage of the labour force employed in occupations in the education and research and development sectors		x	ISO 37122:2019, 5.4
Health and care	[7] Area of health service infrastructure per 10 000 population NOTE: "health infrastructure" includes hospitals, dental clinics, rehabilitation centres, pharmacies, medical facilities.	x	x	

Table A.1 (continued)

Issues	Indicators	Planning/ design/ con- struction	Maintenance/ operation	Source (where applica- ble)
Culture and commu- nity identity	[8] Reservation rate of original historical sites, natural mountains, vegetation and water	x	x	
	[9] Existence and evaluation steps of a spatial planning charter	x	x	
	[10] Integration of urban landscape while preserving natural features	x	x	
	[11] Continuity of landscape networks	x	x	
	[12] Preservation, protection and valorisation of architectural heritage	x	x	
	NOTE Re-use of heritage building is preferred.			
	[13] Quality of the architecture of new buildings	x	x	
	[14] New constructions and redevelopments built sensitively to heritage building	x	x	
	NOTE Heritage includes natural and building heritage.			
	[15] Area of cultural facilities per 10 000 population	x	x	
Living together, interdependence and mutuality	[16] Ratio of plots with accessible recreational areas within the range of 300 m	x	x	
	[17] Square metres of public outdoor recreation space per capita	x	x	ISO 37120:2018, 14.2
	[18] Accessibility to broadband		x	
	[19] Ratio of mixed-use plot	x	x	
	[20] Breakdown and monitoring the progress of m ² lettable area by building typology with respect to their functions e.g.: residential, shops and services, offices, sport, recreation and culture	x	x	

Table A.1 (continued)

Issues	Indicators	Planning/ design/ con- struction	Maintenance/ operation	Source (where applica- ble)
Economy and sus- tainable production and consumption	[21] Number of jobs offered per square metre of non-residential buildings annually	x	x	
	[22] Number of jobs in the business district/number of jobs of the district area		x	
	[23] Greenhouse gas emissions measured in tonnes per employee per year		x	ISO 37120:2018, 8.8 (slightly adapted to business districts)
	[24] Carbon greenhouse emission intensity per building area/year		x	
Living and working environment	[25] Percentage of noise reaching quality standard in functional area	x	x	
	[26] Existence of a noise map			
	NOTE: Introduction and enforcement of an Environmental Noise Action Plan (ENAP).	x	x	
	[27] Energy consumption per unit area of residential and non-residential buildings	x	x	
	[28] primary energy (kWh/m ²)/year	x	x	
	[29] final energy (kWh/m ²)/year	x	x	
	[30] Virgin land/total area of the district	x	x	
	[31] Proportion of sustainable buildings	x	x	
	[32] Percentage of use of local resources		x	
	[33] Percentage of use of local construction materials	x		

Table A.1 (continued)

Issues	Indicators	Planning/ design/ con- struction	Maintenance/ operation	Source (where applica- ble)
Safety and security	[34] Coverage of the intelligent monitoring system in water resources, energy supply consumption, environmental quality and public security monitoring	x	x	
	NOTE: ISO 37122 indicators exist for water monitoring.			
	[35] Percentage of business district area covered by publicly available hazard maps		x	ISO 37123:2019, 21.1 (slightly adapted to business districts)
	[36] Frequency with which disaster-management plans are updated		x	ISO 37123:2019, 10.1
	[37] Continuous monitoring on both the facts and figures and on the experiential perceptions		x	