
**The human-centred organization —
Rationale and general principles**

Organisme centré sur l'humain — Justification et principes généraux

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

The committee responsible for this document is ISO/TC 159, *Ergonomics*, Subcommittee SC 1, *General ergonomics principles*.

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Introduction

NOTE This introduction serves as an executive summary of this International Standard.

Human well-being is now recognized by the G7 (the world's seven biggest economies) as an important economic measure to complement traditional measures of national output. Organizations are being judged not only on their return on the investment of their owners, but also on much broader issues such as how well they fulfil their responsibility to the society and the impact they have on the environment in both the short and long term. In those areas, organizations often turn to high level standards such as ISO 26000, ISO 31000, and ISO/IEC 38500.

This International Standard explains to executive board members the values and beliefs that make an organization human-centred, the significant business and operational benefits that arise, and the policies they need to put in place to achieve this. This International Standard identifies the key criteria which demonstrate that each principle has been met, the implications for the organization of failing to meet the relevant criteria and what steps can be taken to mitigate the risks of such failure.

Adding value by applying a human-centred approach to enhance total system performance and human well-being is the objective of ergonomics (also known as human factors). ISO 26800 describes the general ergonomics approach and specifies basic ergonomics principles and concepts applicable to the design and evaluation of tasks, jobs, products, tools, equipment, systems, organizations, services, facilities, and environments. There are a number of standards on ergonomics and human factors based on these principles and concepts which can be used by managers, engineers, and designers in selecting, designing, and managing systems and equipment to ensure that they are effective, efficient, and satisfying to use. These International Standards are not normally the direct concern of the executive board of an organization.

This International Standard, in contrast, draws on that extensive body of ergonomics and human factors knowledge and presents the rationale and general principles of *human-centredness* in a concise form for executive board members. It explains the seven principles which characterize a human-centred organization. These principles are the following:

- capitalize on individual differences as an organizational strength;
- make usability and accessibility strategic business objectives;
- adopt a total system approach;
- ensure health, safety, and well-being are business priorities;
- value employees and create a meaningful work environment;
- be open and trustworthy;
- act in socially responsible ways.

In design processes, the term user-centred is often used to reflect that the design of the product, system, or service takes account of human characteristics both to minimize risks and to optimize well-being and performance. The term *human-centred* is used to reflect that organizations not only have an impact on their customers (the users of their products and services), but also on their employees, their families and the wider community.

This International Standard is intended to be useful to all types of organizations (whether large or small) in the private, public, and non-profit sectors. While not all parts of this International Standard will be of equal use to all types of organizations, the principles are relevant to every organization. Each organization will identify which issues are relevant and significant to address through its own considerations and through dialogue with stakeholders. Governmental organizations, like any other organization, may wish to use this International Standard. However, it is not intended to replace, alter, or in any way, change the obligations of the state.

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Related International Standards, including some under development on ergonomics processes, are intended to be used by managers who are responsible for implementing the human-centred approach in the organization. They will contain both recommendations and requirements.

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The human-centred organization — Rationale and general principles

1 Scope

This International Standard is intended for executive board members and policy makers of all types of organizations (whether large or small) in the private, public and non-profit sectors.

It describes the values and beliefs that make an organization human-centred, the significant business benefits that can be achieved, and explains the risks for the organization of not being human-centred. It provides recommendations for the policies that executive board members need to implement to achieve this. It sets out high-level human-centred principles for executive board members to endorse in order to optimize performance, minimize risks to organizations and individuals, maximize well-being in their organization, and enhance their relationships with the customers. The importance of organizational policy to address human-centredness is emphasized.

This International Standard is not a management system standard. It is not intended or appropriate for certification purposes or regulatory or contractual use.

This International Standard is not intended to prevent the development of national standards that are more specific or demanding.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

consumer

individual member of the general public purchasing or using property, products, or services for personal use

2.2

customer

organization or individual purchasing property, products, or services for commercial, private, or public purposes

2.3

accessibility

extent to which products, systems, services, *environments* (2.5), and facilities can be used by people from a population with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use

Note 1 to entry: Context of use includes direct use or use supported by assistive technologies.

Note 2 to entry: When evaluating accessibility, the three measures of usability (*effectiveness* (2.9), *efficiency* (2.10), and *satisfaction* (2.11)) can be important.

[SOURCE: ISO 26800:2011, 2.1, modified]

2.4
ergonomics
human factors

scientific discipline concerned with the understanding of interactions among human and other elements of a system, and the profession that applies theory, principles, data, and methods to design in order to optimize human well-being and overall system performance

Note 1 to entry: This definition is consistent with that given by the International Ergonomics Association.

Note 2 to entry: The terms ergonomics and human factors are used synonymously throughout this International Standard.

[SOURCE: ISO 26800:2011, 2.2, modified]

2.5
environment

physical, chemical, biological, organizational, social, and cultural factors surrounding one or more persons

[SOURCE: ISO 26800:2011, 2.3]

2.6
human-centred design

approach to system design and development that aims to make systems more usable by focussing on the use of the system; applying *ergonomics* ([2.4](#)), human factors, and usability knowledge and techniques

[SOURCE: ISO 9241-210:2010, 2.7, modified]

2.7
stakeholder

person or organization that can affect, be affected by, or perceive themselves to be affected by a decision or activity

[SOURCE: ISO 31000:2009, 2.13, modified]

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2.8
usability

extent to which a system, product, or service can be used by specified users to achieve specified goals with *effectiveness* ([2.9](#)), *efficiency* ([2.10](#)), and *satisfaction* ([2.11](#)) in a specified context of use

[SOURCE: ISO 9241-210:2010, 2.13, modified]

2.9
effectiveness

accuracy and completeness with which *users* ([2.12](#)) achieve specified goals

[SOURCE: ISO 9241-11:1998, 3.2]

2.10
efficiency

resources expended in relation to the accuracy and completeness with which *users* ([2.12](#)) achieve goals

[SOURCE: ISO 9241-11:1998, 3.3]

2.11
satisfaction

freedom from discomfort and positive attitudes towards the use of the product

[SOURCE: ISO 9241-11:1998, 3.4]

2.12**user**

person who interacts with a system, product, or service

Note 1 to entry: The person who uses a service provided by a system, such as a *customer* (2.2) in a shop or passenger on a train, can be considered a user.

[SOURCE: ISO 26800:2011, 2.10, modified]

3 Understanding what being human-centred means for the organization**3.1 The benefits of being human-centred**

Organizations are subject to many different commercial, management, and regulatory frameworks and being human-centred offers several business benefits. These include the following:

- improved operational effectiveness and efficiency and increased likelihood of achieving business objectives in a timely manner;
- products and services that are easier to understand and to learn how to use, thus, increasing uptake and reducing support costs;
- increased accessibility for staff and customers;
- reduced risk of poor product design and the associated financial consequences;
- greater responsiveness to customers and to the market;
- enhanced health and safety as well as environmental protection;

which can lead to the following:

- enhanced customer confidence and trust with increased customer loyalty;
- increased owner, shareholder, and member confidence and trust and enhanced reputation;
- greater staff confidence and trust which help to improve motivation and loyalty, as well as reduce staff turnover.

These, in turn, lead to better organizational performance which may include organization financial performance, customer experience, and service to the community.

3.2 The responsibility of organizations to be human-centred

There is growing international recognition that corporate (and indeed national) success ought to be measured in terms which go beyond profit and productivity. Organizations are being assessed not just on their return on their owner's investment, but also on much broader issues such as how well they fulfil their responsibility to the society and the impact they have on the environment in both the short and long term. One area that has recently received particular attention from the world's seven biggest economies (G7) is human well-being as an economic measure in addition to traditional measures of national output.

In 1964, the International Labour Organization (ILO) declared the fundamental objective that "*all human beings, irrespective of race, creed or sex, have the right to pursue both their material well-being and their spiritual development in conditions of freedom and dignity, of economic security and equal opportunity*", and that "*everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment*".

Although these obligations are aimed at nations requiring them to enact legislation to protect such rights and freedoms, the rise of international organizations spanning the globe places these obligations on business, as well as governments.

3.3 The growth of a human-centred approach from design to organizations

The global market demand for accessible and usable systems is increasing. Human-centred design (HCD) has been widely accepted in high technology industries including medical devices, website design, consumer product design, mobile device design, and online services. The human-centred design approach is also being applied to the design of other products, systems, and services for users, employees, and other workers (e.g. volunteers, temporary workers, and consultants). Although initially focused on creating usable technology, i.e. technology which is effective, efficient, and satisfying for its users, HCD is being used to create excellent user experiences (UX), a broader concept which includes the users expectations before and after use, as well as all aspects that impact the user and their interaction with the product. HCD is also being applied in areas where the quality of the product, system, or service is critical. It has an important role in making work more humanized which facilitates participation and improved quality of life for everyone.

Accessibility is the extent to which products, systems, services, environments, or facilities can be utilized by a population with the widest range of characteristics and capabilities. Inclusion of persons with disabilities and the increasingly older population (the so called “silver economy”) will be key societal challenges for most of the world in the years ahead. According to the World Health Organization in 2013, over a billion people, about 15 % of the world’s population, have some form of disability and rates of disability are increasing due to ageing of the population and increases in chronic health conditions.

3.4 Characteristics of the human-centred approach to design

There are a number of standards describing the human-centred approach to design in different industry sectors. The human-centred approach can be applied in many different development processes. Whatever development process is employed, four linked human-centred design activities are required during design and then iterating the solutions until the requirements are met:

- a) understanding and specifying the context of use;
- b) specifying the user requirements;
- c) producing solutions;
- d) evaluating the solutions.

These activities can result in formal documents (for example, as described in ISO/IEC 25060) depending on the process being followed.

3.5 The human-centred approach, regulation, and legislation

One of the problems of using standards, even well respected International Standards in national guidance and regulation, is that technology develops more quickly than standards-making bodies can work. An organization which is able to demonstrate that the human-centred design process was followed properly is provided with the evidence that they are following good practice and technical standard requirements (regardless of developments in the technology). Such evidence is usually required to support management systems, for example, for quality, safety, and occupational health.

Accessibility legislation is widespread. For example, the European Commission proposes to use legislation, standardization, and other instruments to optimize the accessibility of products, the built environment, transport, and ICT (Information and Communications Technology). The commission also regards public procurement as a powerful means to ensure accessibility of products and services in line with the UN Convention on the rights of persons with disabilities. The UN Convention also requires, in Article 9, the development of accessibility standards and, in the general obligations, the promotion, in standards, of approaches to design that will include the widest possible range of users. In addition to national guidance and regulations on equipment and workplace design, some countries have social policies which place responsibilities on employers to consider the wider implications of their use of technology. Following a human-centred design approach can provide evidence of good practice in employment and social areas of legislation and regulation.

4 Principles of the human-centred approach

4.1 General

The human-centred approach works at every level in the organization, starting at the top, with the executive board. Some of the following principles are already addressed, at least in part by existing standards and accepted best practice, for example, social responsibility, but others have yet to be elaborated fully. Some current International Standards relevant to each principle are shown in Annex A. In the following subclauses, each principle is summarized by the heading and then elaborated in the text.

4.2 Capitalize on individual differences as an organizational strength

The organization recognizes individual differences as a strength and takes this into account in all areas of its business. It acknowledges that people differ in their abilities and needs, uses ergonomics, and social data on the nature and extent of these differences.

There is no such thing as a “standard person”. Human beings vary enormously in everything from their body size and shape, to their personality, intelligence, and preferences. Customer-facing organizations recognize this by designing product ranges, for example, clothing manufacturers offer a range of sizes and styles which they hope will appeal to a broad range of customers. Automobile manufacturers make adjustable car seats to suit different drivers. Office managers select furniture which can be adjusted to suit different users to help ensure that they can work effectively, efficiently, and comfortably at their workstations. Anthropometric data (about human body sizes) is available for many countries and can be used to support design decisions.

The human-centred organization goes even further in acknowledging that people differ in their capabilities and needs. It follows a human-centred approach to the design of products, services, and work systems to accommodate the nature and extent of these differences. It recognizes this variation as a strength rather than a problem and takes this into account in all areas of its business. It creates teams, not of “clones” forced to behave in standard ways (for example, strictly following call-centre scripts even if not appropriate), but of individuals who have complementary skills and who can use their problem solving abilities to enhance customer experience, improve resilience, provide a range of viewpoints on an issue, and also improve the quality of their working lives whilst still meeting corporate objectives.

4.3 Make usability and accessibility strategic business objectives

Whether the organization simply uses products, systems, or other technology to do its business or also provides such technology to others, usability and accessibility are the keys to a successful business. The human-centred organization uses International Standards and best practices to ensure that products, systems, and services are accessible and usable (effective, efficient, and satisfying to use) both by personnel and by customers.

In many countries, accessibility (i.e. being usable by people with widely varying abilities and characteristics) is a legal requirement and employers or suppliers who fail to deliver on accessible products and systems face legal penalties. For example, in many countries, website owners have been forced to pay compensation to customers with visual impairments who could not use their websites.

The business and management literature is full of stories of expensive systems which failed to deliver business benefit because they ignored usability. The human-centred approach helps to reduce such risks. For example, European governments now make use of the human-centred design standard (ISO 9241-210) to ensure that government websites are usable and accessible. ISO 9241-210 has also been widely adopted internationally as best practice for designing systems which work.

4.4 Adopt a total system approach

The organization recognizes that people are part of a comprehensive system which can include many elements such as equipment, workspace, physical, social, and organizational environment in which