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The human-centred organization — Guidance for managers

Organisme centré sur l'humain — Lignes directrices pour les dirigeants

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ISO copyright office

Ch. de Blandonnet 8 • CP 401

CH-1214 Vernier, Geneva, Switzerland

Tel. + 41 22 749 01 11

Fax + 41 22 749 09 47

copyright@iso.org

www.iso.org

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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 159, *Ergonomics*, Subcommittee SC 1, *General ergonomics principles*.

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

This document is based on ISO 27500, which explains to executive board members the principles that enshrine the values and beliefs that make an organization human-centred. 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 other stakeholders, including their employees, their families, and the wider community. ISO 27500 explains seven principles of *human centredness*, which are:

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

Although it is recognized that organizations establish their governance systems based on a set of principles which they develop (as described in ISO 30408), the principles described here are considered to be essential to be included by organizations that wish to make the claim of being human-centred.

Human factors and ergonomics provide an effective and valuable approach for managers to utilize in their day-to-day work to support the achievement of a human-centred organization.

The requirements and recommendations of this document are intended to be applicable to various types of organizations in the private, public and non-profit sectors, whether large or small. Organizations vary in their assignment of management responsibilities. Some larger organizations can assign the responsibilities set out in this document to multiple managers, while some smaller organizations can have these assigned to a few managers or even one manager. While not all clauses of this document are of equal use to all types of organizations, all the core subjects are relevant to every organization. It is the individual organization's responsibility to identify which clauses are relevant and significant for the organization to address, through its own considerations and through dialogue with stakeholders.

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The human-centred organization — Guidance for managers

1 Scope

This document is intended to be used within organizations that embrace and intend to implement the principles of human centredness outlined in ISO 27500.

This document is intended to provide requirements and recommendations on the human factors and ergonomics approach to achieving a successful and sustainable human-centred organization. It outlines managers' responsibilities ranging from organizational strategy to development of procedures and processes enabling human centredness, and the implementation of those procedures and processes.

This document provides requirements and recommendations for managers and the actions to be taken in order for an organization to achieve human centredness.

This document can be used:

- a) by managers to understand and improve human-centred aspects of their activities;
- b) by managers to identify how their staff can improve human-centred aspects of their activities;
- c) to provide a basis for training managers how to be human-centred;
- d) to provide a basis for organizations to evaluate the performance of managers.

It is not a management systems standard. Nor is it intended to prevent the development of standards that are more specific or more demanding.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

ergonomics human factors

scientific discipline concerned with the understanding of interactions among human and other elements of a *system* (3.5), 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.

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[SOURCE: ISO 26800:2011, 2.2]

3.2 organization

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

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

[SOURCE: ISO 9000:2015, 3.2.1, modified — Note 2 to entry has been deleted.]

3.3 usability

extent to which a *system* (3.5), product or *service* (3.6), can be used by specified *users* (3.13) to achieve specified goals with *effectiveness* (3.7), *efficiency* (3.8) and satisfaction in a specified context of use

[SOURCE: ISO 9241-210:2010, 2.13, modified — Note 1 to entry has been removed.]

3.4 accessibility

extent to which products, *systems* (3.5), *services* (3.6), environments and facilities can be used by people from a population with the widest range of *user* (3.13) needs, characteristics and capabilities to achieve identified goals in identified contexts of use

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

[SOURCE: ISO 9241-125:2017]

3.5 system

combination of interacting elements organized to achieve one or more stated purposes

[SOURCE: ISO 26800:2011, 2.7, modified — The Notes to entry have been removed.]

3.6 service

means of delivering value for the *stakeholder* (3.9) by facilitating results which the stakeholder wants to achieve

Note 1 to entry: Services can include both human-system interactions (e.g. accessing a word processor through the web) and human-human interactions (e.g. a citizen interacting with a clerk at the post office counter).

Note 2 to entry: The results of the service can be intangible and tangible in nature.

Note 3 to entry: Delivered value consists of fundamental value, knowledge value and emotional value.

[SOURCE: ISO/IEC 20000-1:2018, 3.2.15, modified — In the definition, the terms "stakeholder" and "results" have been substituted for "customer" and "outcomes". Notes 1 to 2 to entry have been changed and Note 3 to entry has been added.]

3.7 effectiveness

accuracy and completeness with which *users* (3.13) achieve specified goals

[SOURCE: ISO 9241-11:2018, 3.1.12]

3.8 efficiency

resources used in relation to the results achieved

[SOURCE: ISO 9241-11:2018, 3.1.13, modified —Note 1 to entry has been removed.]

3.9 stakeholder

person or *organization* (3.2) that can affect, be affected by, or perceive themselves to be affected by a decision or activity

Note 1 to entry: Includes, but not limited to environmental organizations, investors, communities, regulators, employees, specific employee groups and customers.

[SOURCE: ISO 31000:2018, 3.3, modified —Note 1 to entry has been changed.]

3.10 workspace

volume allocated to one or more persons in the work *system* (3.5) to complete the work *tasks* (3.12)

[SOURCE: ISO 6385:2016, 2.9]

3.11 environment

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

[SOURCE: ISO 26800:2011, 2.3]

3.12 task

set of activities undertaken in order to achieve a specific goal

Note 1 to entry: These activities can be physical, perceptual and/or cognitive.

Note 2 to entry: While goals are independent of the means used to achieve them, tasks describe particular means of achieving goals.

[SOURCE: ISO 9241-11:2018, 3.1.11]

3.13 user

person who interacts with a *system* (3.5), product or *service* (3.6)

[SOURCE: ISO 26800:2011, 2.10, modified — Notes 1 to 3 to entry have been removed.]

3.14 customer

organization (3.2) or individual purchasing property, products, or *services* (3.6), for commercial, private, or personal use

Note 1 to entry: A customer does not necessarily have a financial relationship with the organization.

[SOURCE: ISO 27500:2016, 2.2, modified — In the definition, the phrase "public purposes" has been changed to "personal use" and Note 1 to entry has been added.]

3.15 fundamental value

value expected by *stakeholders* (3.9)

3.16 knowledge value

value stemming from knowledge of *stakeholders* (3.9), through their interactions

3.17 emotional value

value stemming from emotion of *stakeholders* (3.9) through their interactions

Note 1 to entry: Emotional value can be short term from a single or short, successful interaction, or it can be long term (trust and comfort).

3.18 workstation

combination and spatial arrangement of work equipment, surrounded by the work *environment* (3.11) under the conditions imposed by the work *tasks* (3.12)

[SOURCE: ISO 6385:2016, 2.18]

3.19 job

organization and sequence in time and space of an individual's work *tasks* (3.12) or the combination of all human performance by one worker within a work *system* (3.5)

[SOURCE: ISO 6385:2016, 2.16]

3.20 human-centred design

approach to *systems* (3.5) design and development that aims to make systems more usable by focusing on the use of the system and applying *ergonomics* (3.1), *human factors* (3.1) and *usability* (3.3) knowledge and techniques

[SOURCE: ISO 9241-210:2010, 2.7, modified — In the definition, the phrases "interactive system" and "human factors/ergonomics" have been replaced by "system" and "ergonomics, human factors". Notes 1 and 2 to entry have been removed.]

4 The human-centred organization and ergonomics

4.1 The seven principles of a human-centred organization

The seven principles that characterize a human-centred organization, are outlined in ISO 27500 as follows.

1) Capitalize on individual differences as an organizational strength

The organization recognises individual differences as a strength and takes this into account in all areas of its business. The organization accommodates the nature and extent of individual differences, and creates teams of individuals who have complimentary skills.

2) Make usability and accessibility strategic business objectives

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 other stakeholders.

3) 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, and the physical, social and organizational environment in which people work and live. These elements interact and are interdependent, and the organization understands this and acts accordingly.

4) Ensure that health, safety and wellbeing are business priorities

The organization takes the necessary steps to protect individuals (both inside and outside the organization) from hazards to their health, safety and wellbeing, and aims to exceed the minimum requirements required by legislation.

5) Value personnel and create meaningful work

The organization values and acknowledges the contribution that personnel make. It strives to create meaningful tasks for all potential users of the system. The intent for this principle is not to develop a workplace within which a worker simply “survives” (passive vision), but to create an environment within which to live and thrive as a meaningful part of the organization’s objectives and work.

6) Be open and trustworthy

The organization benefits from being open and trustworthy through enhanced customer relations (internal and external), user confidence, and increased loyalty, as well as an enhanced reputation.

7) Act in socially responsible ways

The organization is socially responsible. It behaves ethically and instils pride and confidence in its personnel, customers, and the local community. It does this by following the recommendations in ISO 26000.

4.2 Ergonomics/human factors

Ergonomics (or human factors), by definition, is human-centred. As detailed in ISO 26800, ergonomics addresses the interactions between humans and the other components of a system, such as, machines, products, services, environments and tools. All of these are integrally important in order to achieve a human-centred organization. Although the terms human factors and ergonomics are synonymous, the remainder of this document uses “ergonomics” for expediency.

The ergonomics approach helps to support and maintain a human-centred organization in its regular maintenance and operation of systems and whenever systems are being designed, redesigned and improved.

The ergonomics approach and its associated methodologies can be applied to any system, whether that system is one that is internal to the organization (such as the organization’s intranet), or one that includes external stakeholders (such as the design of a product which the organization intends to sell). An ergonomics approach can also be applied to the organization as a whole (i.e. the organization itself can be considered as a “system.”) In addition to ergonomics, there are also other types of considerations which organizations address as a part of being human-centred (see other standards listed in Annex B for examples).

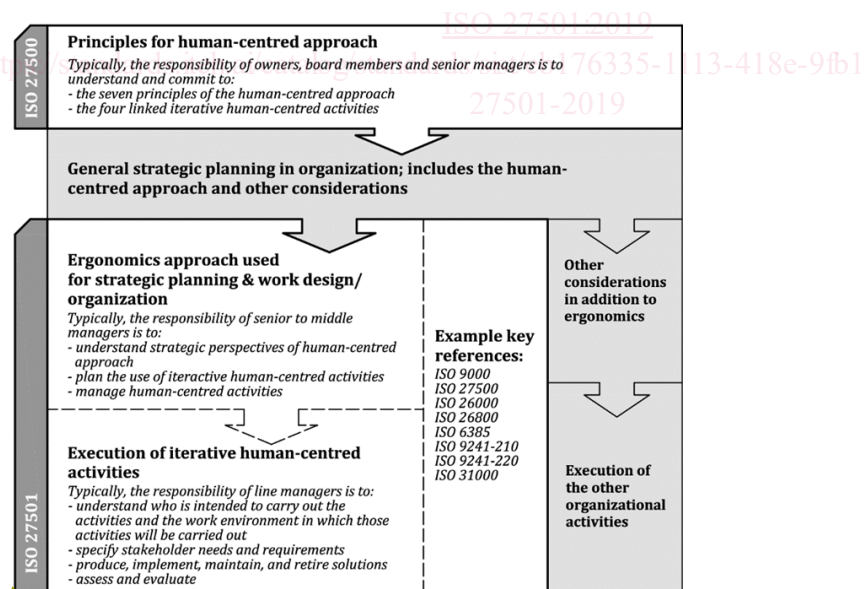
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Figure 1 represents the relationship between this document and ISO 27500. It shows how the responsibilities in question in each of the two International Standards differ, based on the target audience for each standard (i.e. either executive board members and policy makers or other levels of management). It also includes some key references on which this document is based. ISO 27500 contributes to the organization's strategic planning for ergonomics (shown on the left-hand side of the figure) and other activities of the organization (shown on the right).

Caption: Figure 1 Relationship between ISO 27500 and ISO 27501. Figure 1 is a diagram showing the relationship between responsibilities in ISO 27500 and ISO 27501. ISO 27500 provides seven principles of the human-centred approach. Typically it is the responsibility of owners, board members and senior managers to understand and commit to the seven principles, including the four linked iterative human-centred activities. Generally these senior management groups initiate strategic planning in the organization, including the human-centred approach and other considerations. In the diagram, this concept then leads to the implementation of ISO 27501, wherein the ergonomics approach is used for strategic planning and work design/organization. Here it is typically the responsibility of senior to middle managers to understand strategic perspectives of the human-centred approach, plan the use of iterative human-centred activities and manage human-centred activities. Still within the purview of ISO 27501, is the execution of iterative human-centred activities; typically the responsibility of line managers. These managers are required to understand who is intended to carry out the activities and the work environment in which those activities will be carried out, specify stakeholder needs and requirements, produce, implement, maintain and retire solutions and assess and evaluate. To carry out ISO 27501 responsibilities, other key references are suggested; ISO 27500, ISO 26000, ISO 26800, ISO 6385, ISO 9241-210, ISO 9241-220 and ISO 31000. While line managers are responsible for these activities, it is not to the exclusion of other organizational activities for which they are responsible and considerations as required by them in their role within the organization

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Figure 1 — Relationship between ISO 27500 and ISO 27501

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