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Sistemi vodenja kakovosti - Smernice za vodenje kakovosti projektov

Quality management systems - Guidelines for quality management in projects

Systèmes de management de la qualité - Lignes directrices pour le management de la qualité dans les projets

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| 03.120.10 | Vodenje in zagotavljanje kakovosti | Quality management and quality assurance |

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Quality management systems — Guidelines for quality management in projects

Systèmes de management de la qualité — Lignes directrices pour le management de la qualité dans les projets

ICS: 03.100.70; 03.120.10

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105 Foreword

106 ISO (the International Organization for Standardization) is a worldwide federation of national
 107 standards bodies (ISO member bodies). The work of preparing International Standards is normally
 108 carried out through ISO technical committees. Each member body interested in a subject for which a
 109 technical committee has been established has the right to be represented on that committee.
 110 International organizations, governmental and non-governmental, in liaison with ISO, also take part in
 111 the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all
 112 matters of electrotechnical standardization.

113 The procedures used to develop this document and those intended for its further maintenance are
 114 described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the
 115 different types of ISO documents should be noted. This document was drafted in accordance with the
 116 editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

117 Attention is drawn to the possibility that some of the elements of this document may be the subject of
 118 patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of
 119 any patent rights identified during the development of the document will be in the Introduction and/or
 120 on the ISO list of patent declarations received (see www.iso.org/patents).

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

123 For an explanation on the meaning of ISO specific terms and expressions related to conformity
 124 assessment, as well as information about ISO's adherence to the World Trade Organization (WTO)
 125 principles in the Technical Barriers to Trade (TBT) see the following URL:
 126 www.iso.org/iso/foreword.html.

127 The committee responsible for this document is Technical Committee ISO/TC 176, Quality management
 128 and quality assurance, Subcommittee SC 2, Quality systems

129 This third edition cancels and replaces the second edition (ISO 10006:2003), which has been technically
 130 revised.

131 This edition has sought to improve the alignment of ISO 10006 with the updated 2015 editions of
 132 ISO 9000 and ISO 9001, and with ISO 21500 on project management.

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133 **Introduction**

134 This document provides guidance on quality management in projects. It outlines quality management
135 principles and practices, the implementation of which are important to, and have an impact on, the
136 achievement of quality objectives in projects. It is aligned with the 2015 editions of ISO 9000 and ISO
137 9001 and supplements the guidance given in ISO 21500:2012.

138 These guidelines are intended for a wide audience. They are applicable to projects which can take many
139 forms from the small to very large, from simple to complex, from being an individual project to being
140 part of a programme or portfolio of projects. They are intended to be used by personnel who have
141 experience in managing projects and need to ensure that their organization is applying the practices
142 contained in the quality management and quality management system standards from ISO/TC 176, as
143 well as those who have experience in quality management and are required to interact with project
144 organizations in applying their knowledge and experience to the project. Inevitably, some groups will
145 find that material presented in the guidelines is unnecessarily detailed for them; however other readers
146 can be dependent on the detail.

147 This document employs the process approach, which incorporates the Plan-Do-Check-Act (PDCA) cycle
148 and risk-based thinking." The two concepts of "quality management in projects" and "quality
149 management systems in projects" need to be distinguished:

150 Quality management in projects includes: quality management systems in projects, management
151 responsibilities in projects, resource management in projects, product/service realization in projects,
152 and measurement, analysis and Improvement in projects;

153 Quality management systems in projects includes: project characteristics, quality management
154 principles in project, project quality management system and quality plan for the project.

155 It is recognized that there are two aspects to the application of quality management in projects; the
156 project processes which are managed within the project management system, and *the quality* of the
157 project's outputs in the form of products or services. A failure to meet either of these dual aspects can
158 have significant effects on the project's products and services, the project's customer and other
159 interested parties, and the project organization.

160 NOTE The phrase "product/service" is used as an abbreviation for "products and services" throughout the
161 remainder of this document.

162 These aspects also emphasize that the achievement of quality objectives is a top management
163 responsibility, requiring a commitment to the achievement of quality objectives to be instilled at all
164 levels within the organizations involved in the project; however, each level should retain responsibility
165 for its respective processes, products and services.

166 The creation and maintenance of process and product/service quality in a project requires a systematic
167 approach. This approach should be aimed at ensuring that the stated and implied needs of the customer
168 are understood and met, that other interested parties' needs are understood and evaluated, and that the
169 originating organization's quality policy is taken into account for implementation in the management of
170 the project.

171 This document is designed to be used in the context of the requirements for quality management
172 systems specified in ISO 9001:2015 and the guidance on project management processes provided in ISO
173 21500. Project management processes are described in ISO 21500.

174 The structure of this guidance document reflects its design as a supporting standard rather than a
175 management system standard. A matrix is presented in Annex B to provide a cross reference between
176 ISO 10006, ISO 9001:2015 and ISO 21500:2012.

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Quality management systems — Guidelines for quality management in projects

1 Scope

This document gives guidance on the application of quality management in projects.

It applies to organizations working on projects of varying complexity, small or large, of short or long duration, being an individual project to being part of a programme or portfolio of projects, in different environments, and irrespective of the kind of product/service or process involved, with the intention of satisfying project interested parties (stakeholders) by introducing quality management in projects. This can necessitate some tailoring of the guidance to suit a particular project.

This document is not a guide to “project management” itself. Guidance on quality in project management processes is discussed in this document. Guidance on project management and related processes is covered in ISO 21500.

NOTE This document addresses the concepts of both “quality management in projects” and “quality management systems in projects”. These are distinguished by being addressed separately by the following topics and clauses:

- quality management in projects includes: quality management systems in projects (Clause 4); management responsibilities in projects (Clause 5); resource management in projects (Clause 6); product/service realization in projects (Clause 7); and measurement, analysis and improvement in projects (Clause 8);
- quality management systems in projects includes: project characteristics (Clause 4.1); quality management principles in project (Clause 4.2); project quality management system (Clause 4.3); and quality plan for the project (Clause 4.4).

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 9000:2015, *Quality management systems — Fundamentals and vocabulary*

NOTE The Bibliography contains additional references applicable to quality management in projects.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9000 and the following apply.

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

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

NOTE Some of the definitions below are quoted directly from ISO 9000:2015, but are also supplemented with notes specific to projects.

- 212 **3.1**
 213 **activity**
 214 item of work
- 215 NOTE to entry: The activity in a *project* (3.3) can generally be recognised as the smallest identified entity
- 216 **3.2**
 217 **progress evaluation**
 218 assessment of progress made on achievement of the *project* (3.3) objectives
- 219 NOTE 1 to entry: This assessment should be carried out at appropriate points in the project life cycle across
 220 *project* (3.3) processes, based on criteria for project processes and product or service.
- 221 NOTE 2 to entry: The results of progress evaluations can lead to revision of the *project management plan* (3.5).
- 222 **3.3**
 223 **project**
 224 unique process undertaken to achieve an objective
- 225 NOTE 1 to entry: A project generally consists of a set of coordinated and controlled *activities* (3.1) with start and
 226 finish dates, conforming to specific requirements, including the constraints of time, cost and resources
- 227 NOTE 2 to entry: An individual project can form part of a larger project structure and generally has a defined start
 228 and finish date.
- 229 NOTE 3 to entry: In some projects the objectives and scope are updated and the product or service
 230 characteristics defined progressively as the project proceeds.
- 231 NOTE 4 to entry: The output of a project can be one or several units of product or service.
- 232 NOTE 5 to entry: The project's organization is normally temporary and established for the lifetime of the project.
- 233 NOTE 6 to entry: The complexity of the interactions among project activities is not necessarily related to the
 234 project size.
- 235 **3.4**
 236 **project management**
 237 planning, organizing, monitoring, controlling and reporting of all aspects of a *project* (3.3) and the
 238 motivation of all those involved in it to achieve the project objectives
- 239 **3.5**
 240 **project management plan**
 241 document specifying what is necessary to meet the objective(s) of the *project* (3.3)
- 242 NOTE 1 A project management plan should include or refer to the project's *quality plan* (3.9).
- 243 NOTE 2 The project management plan also includes or references such other plans as those relating to
 244 organizational structures, resources, schedule, budget, risk management, environmental management, health and
 245 safety management and security management, as appropriate.
- 246 **3.6**
 247 **project organisation**
 248 temporary structure that includes project roles, responsibilities and levels of authority and boundaries
 249 that need to be defined and communicated to all interested parties of the *project* (3.3).

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3.7
project phase
 division of the *project life cycle* (3.8) into manageable sets of activities, such as conception, development, realization and termination.

3.8
project life cycle
 defined set of phases from the start to the end of the project

[SOURCE: ISO 21500:2012, definition 2.12]

3.9
quality plan
 specification of the actions, responsibilities and associated resources to be applied to a specific object.

[SOURCE: ISO 10005:20XX, definition 3.8.9]

3.10
provider
 supplier
 organization that provides a product or a service

EXAMPLE: Producer, distributor, retailer or vendor of a product or a service.

NOTE 1 to entry: A provider can be internal or external to the organization.

NOTE 2 to entry: In a contractual situation a provider is sometimes called a "contractor".

NOTE 3 to entry: In the context of projects, "contractor" or "subcontractor" is often used in place of "supplier".

[SOURCE: ISO 9000:2015, 3.2.5, modified – Note 3 to entry has been added]

4 Quality management systems in projects

4.1 Context and characteristics of the project

4.1.1 General

Both the project organization and the originating organization (see 4.1.2) should consider the context in which their project quality management systems operate. Some external and internal issues can affect the project's ability to achieve the intended project results. Others can offer opportunities to work more effectively with internal and external parties (see ISO 9001:2015, 4.1).

Consideration of external and internal issues that might influence the project quality management system enables both the project and originating organizations to:

- a) understand the needs and expectations of interested parties;
- b) determine risks and opportunities related to project processes and planned outputs.

The main characteristics of projects are as follows:

- a) they are unique, non-repetitive phases consisting of processes and activities;
- b) they have some degree of risk and uncertainty;

- 285 c) they are expected to deliver specified (minimum) quantified results within predetermined
286 parameters, for example, quality-related parameters;
- 287 d) they have planned starting and finishing dates, within clearly specified cost and resource
288 constraints;
- 289 e) they have outputs that can be one or several units of product or service;
- 290 f) personnel may be temporarily assigned to a project organization for the duration of the project (the
291 project organization may be assigned by an originating organization (see 4.1.2) and can be subject
292 to change as the project progresses);
- 293 g) they can be of a long duration, and subject to changing internal and external influences over time.

294 4.1.2 Organizations

295 This document makes separate reference to an “originating organization” and to a “project
296 organization”.

297 The “originating organization” is the organization that decides to undertake the project. It can be
298 constituted as a single organization, joint-venture, consortium, or any other acceptable structure. The
299 originating organization assigns the project to a project organization.

300 The originating organization can be undertaking multiple projects, each of which may be assigned to a
301 different project organization.

302 The “project organization” carries out the project. The project organization may be a part of the
303 originating organization. There should be a clear division of responsibility and authority between the
304 project organization and other relevant interested parties (including the originating organization) for
305 the project's processes. These should be maintained as documented information.

306 4.1.3 Phases and processes in projects

307 Phases and processes are two different aspects of a project. A project may be divided into
308 interdependent processes and into phases, as a means of planning and monitoring the realization of
309 objectives and assessing the related risks.

310 Project phases divide the project life cycle into manageable sets of activities, such as conception,
311 development, realization and termination.

312 Project processes are those processes that are necessary for managing the project as well as those that
313 are necessary to realize the project's product or service.

314 NOTE Guidance on project management processes is provided in ISO 21500.

315 Not all the processes discussed in this document will necessarily exist in a particular project, whereas in
316 others, additional processes can be necessary. In some projects, a distinction might need to be made
317 between core and supporting processes. Annex A lists and summarizes the processes that are
318 considered to be applicable for the majority of projects.

319 NOTE To facilitate the discussion of the guidance to quality management in projects, the “process approach”
320 is adopted in this document. Additionally, the processes of a project have been grouped into two categories: the
321 project management processes and the processes related to the project's product or service (those primarily
322 concerned with the project's product or service such as design, production, etc.).