SLOVENSKI STANDARD
oSIST prEN ISO 56007:2022

01-junij-2022

Upravljanje inovacij - Orodja in metode za upravljanje idej - Navodila (ISO/DIS 56007:2022)

Innovation management - Tools and methods for idea management - Guidance (ISO/DIS 56007:2022)

Innovationsmanagement – Tools und Verfahren für das Ideenmanagement – Leitfaden (ISO/DIS 56007:2022)

Management de l'innovation - Outils et méthodes de management des idées - Recommandations (ISO/DIS 56007:2022)

Ta slovenski standard je istoveten z: **prEN ISO 56007**

ICS:

03.100.40	Raziskave in razvoj	Research and development
03.100.50	Proizvodnja. Vodenje proizvodnje	Production. Production management

oSIST prEN ISO 56007:2022 **en,fr,de**

DRAFT INTERNATIONAL STANDARD

ISO/DIS 56007

ISO/TC **279**

Secretariat: **AFNOR**

Voting begins on:
2022-04-08

Voting terminates on:
2022-07-01

Innovation management — Tools and methods for idea management — Guidance

ICS: 03.100.40; 03.100.01

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING

Reference number
ISO/DIS 56007:2022(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

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 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 279, *Innovation Management*, Working Group WG 3, *Tools and Methods*, Task Force 56007.

A list of all parts in the ISO 56000 series can be found on the ISO website.

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.

0 Introduction

0.1 General

The ability to innovate is central to any organization's growth, viability, and impact within society. Idea management is a process for managing ideas. This standard focuses on early-stage ideas in the front end of innovation, utilizing tools and methods for identifying opportunities, creating concepts, and validating concepts to be considered for development and deployment. It does not address ideas that result from development and deployment activities.

Any organization wishing to innovate needs to bring good ideas and opportunities through to realization to provide a stream of potential innovations. This idea management standard guides activities from intention through to selection for development.

0.2 Guidance

This standard guides people and organizations to realize value from their ideas and opportunities at strategic and operational levels.

Ideas and opportunities can come from anywhere, e.g., top down, bottom up, inside or outside the organization. They can span the continuum of innovation types from incremental to radical. Organizations will need to manage their efforts at different levels of sophistication and complexity, depending on their size, maturity, context, and ambition.

This standard supports these different levels according to type of organization and innovation ambitions. It also can help users select and adapt methods and tools that are appropriate to their specific circumstances.

Types of organizations and users of this Standard include, for example:

a) *established, large organizations (for profit and social value)* desiring to be more systematic about their idea and opportunity management activities;

b) *small and Medium Enterprises (SMEs)* looking to bring more structure to their innovation activities;

c) *start-ups/Venture Capitalists* considering how to evaluate ideas and opportunities more systematically;

d) *non-profit organizations* seeking to leverage idea management activities to build a more innovative organization for the benefit of their interested parties;

e) *Non-governmental organizations (NGOs)* aiming to transform innovation ecosystems through more effective and efficient idea management activities;

f) *Individuals inside or outside of an organization* looking for a framework for managing ideas and opportunities; and

g) *Universities and research institutions* exploring new ways to create value by addressing the needs and expectations of the organization and interested parties.

0.3 Framework

Figure 1 presents idea management as one element of an innovation management system. Idea management covers the front end of innovation and includes those activities within the dashed circle. The Figure emphasizes the iterative nature of idea management, with learning cycles that reduce uncertainty and lead toward realizing value.

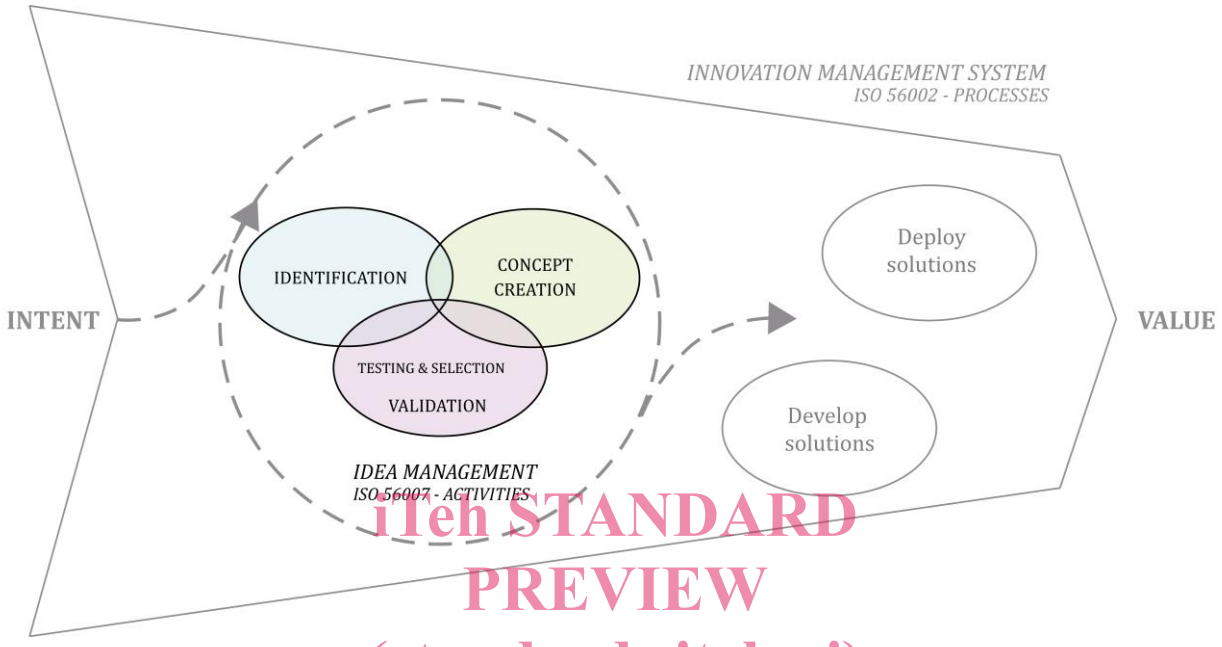

Figure 1 — Idea management framework in relation to ISO 56002 IMS Operation processes

The main clauses of this standard provide information and guidance as follows:

— *Clause 4* focuses on preparing for idea management, including key terms of reference, fundamental questions to ask, the progression of ideas, innovation drivers to consider, and different methods that can apply;

— *Clause 5* focuses on people and organizational considerations and how they could affect idea management;

— *Clause 6* details idea and opportunity management activities and their interrelationships through identification, concept creation and validation (further refined into testing and selection);

— *Clause 7* covers review and evaluation of idea management activities and efforts.

0.4 Relationship to other innovation management standards

This document relates to the ISO 56000 family of standards, developed by ISO/TC 279 as follows:

a) ISO 56000, *Innovation management — Fundamentals and vocabulary*, for understanding the main terms, definitions, concepts, and principles of innovation management.

b) ISO 56002, *Innovation management — Innovation management system — Guidance*, for establishing, implementing, maintaining, and continually improving an innovation management system.

c) ISO 56003, *Innovation management — Tools and methods for innovation partnership — Guidance*, for working together to innovate.

d) ISO/TR 56004, *Innovation management assessment — Guidance*, for planning, implementing, and acting upon the results of an innovation management assessment.

e) ISO 56005, *Innovation management — Intellectual property management — Guidance*, for establishing and implementing an intellectual property (IP) framework, strategy, and tools for IP management activities.

f) ISO 56006 (under development), *Innovation management — Tools and methods for strategic intelligence — Guidance*, for developing and providing intelligence to enable strategically driven innovation decisions.

g) ISO 56008 (under development), *Innovation management — Tools and methods for innovation measurement — Guidance*, for planning, designing, and selecting indicators and metrics to measure innovation activities and portfolio.

Innovation management — Tools and methods — Guidance for managing ideas and opportunities

1 Scope

This document provides guidance on managing ideas and opportunities by:

— explaining the reasons for and the value of managing ideas effectively;

— describing how to prepare for idea management;

— addressing people and organization issues, including culture;

— detailing idea management activities and their interrelationships;

— outlining activity and process evaluation considerations that are important for innovation success.

This standard addresses a sub-set of processes as described in ISO 56002 – identifying opportunities, creating concepts, and validating them. The activities within these processes, when managed together, bring forward viable innovation concepts for development. Developing these concepts into solutions and deploying these solutions is outside the scope of this standard and is addressed by ISO 56002.

This document provides guidance for any innovation type along the continuum from incremental to radical innovation, as defined in ISO 56000.

This document is intended for:

— any user involved in innovation, ~~whether for an organization or~~ individual;

— any organization ~~type or scale~~;

— any understanding of value realization, whether for profit, social impact, changes in strategic direction, or any other purpose;

This standard can help organizations learn how to systematically manage their ideas and opportunities to realize greater value from idea management activities to arrive at go/no–go decisions for development. There is no one method or set of tools for use in all situations. Choice is impacted by a range of related considerations to be addressed in this document.

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 56000, *Innovation management — Fundamentals and vocabulary*

ISO 56002, *Innovation management — Innovation management system — Guidance*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 56000 apply. For those definitions that are not included in ISO 56000, they will be included in the next version of ISO 56000.

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 To see only TC 279 definitions select “Terms & Definitions” and for Committees select “ISO/TC 279”

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

4 Preparing for idea management

4.1 General

To prepare successfully for idea management, organizations should:

— align on its key terms to create a common language;

— ask the right questions at the right time to enable learning;

— address organizational considerations that are specific to innovation;

— gain a clear view of idea and opportunity progression; and

— understand how different methods can be applied.

Each of these considerations refers in one way or another to all or parts of three fundamental processes described in ISO 56002: identification, concept creation and validation.

The progression idea managers seek is to learn, iteratively, to reduce uncertainty in order to achieve sufficient clarity to make selection decisions as described in 4.3. The intended outcome of idea management activities is to deliver validated innovation concepts that are ready for development. The activities that enable this outcome are detailed in clause 6 of this document.

In this standard, validation is further divided into testing and selection. Testing covers all the activities that contribute to reducing uncertainties to achieve an outcome as described in 4.2 and 4.3. Selection covers the decision-making activities that are necessary to identify ideas or opportunities that deserve further attention and ultimately become innovation concepts suitable for development. Selection may also lead to rework or archiving of ideas that are not meeting selection criteria as outlined in 6.6.

4.2 Key concepts for idea management

The organization should consider the following descriptions of concepts to prepare for managing ideas:

— whereas *idea management* is a process for managing the entire idea lifecycle, this standard focuses on the front end of innovation;

— an *area of opportunity* can address a current strategy or a strategic intent or can emerge due to external and internal changes. It has the potential to sustain, grow or renew an organization;

— an *idea* can be inspired spontaneously or by an area of opportunity. It can address a stated or unstated issue or problem to be solved, need or desire. It can emerge through serendipity or by a direct challenge or brief. It can also lead to opportunities or opportunity areas;

— an *opportunity* emerges from a set of circumstances that can lead to a potential innovation. It can also lead to ideas or opportunity areas;

— an *innovation concept* is the result of evolving and refining an initial idea or opportunity or integrating related ideas and opportunities;

— an *uncertainty*[1] is a lack of knowledge or understanding across a wide range of considerations that increases the unpredictability of a desired/potential innovation;

— a *risk*[2] is a deviation from the expected arising from uncertainty or an event;

— v*alue*[3] is the benefit that can be achieved by satisfying the perceived needs and expectations of organizations and interested parties.

NOTE For ease of readability and to clarify scope, the term idea management is used throughout this document to mean "idea and opportunity management".

Ideas and opportunities can have different levels of uncertainty. Figure 2 below represents the relationship of these key terms.

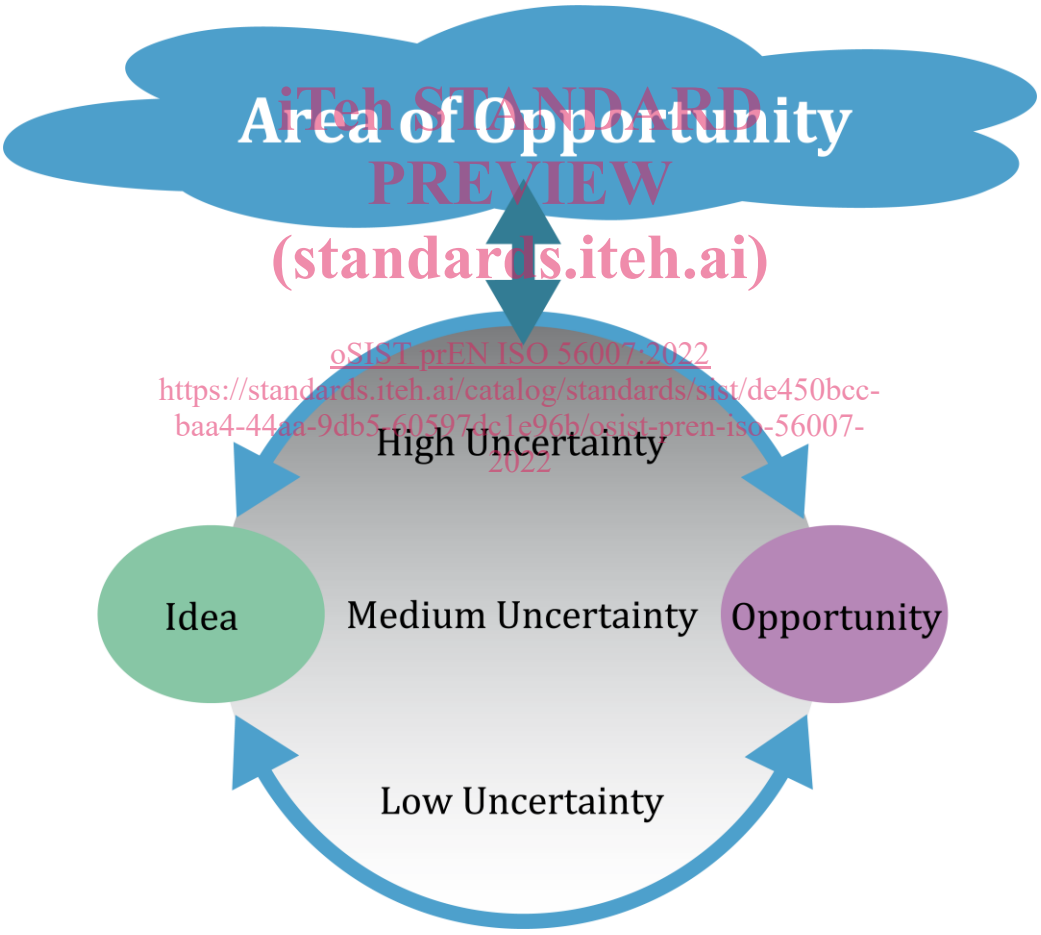

Figure 2 — Relationship of idea, opportunity, and area of opportunity

[1] Source ISO 56000:2020, *Innovation management — Fundamentals and vocabulary*.

[2] Source ISO 56000:2020, *Innovation management — Fundamentals and vocabulary*.

[3] Ibid.

The organization should treat ideas and/or opportunities as the starting points for idea management. Idea management uses these inputs to create and validate innovation concepts, which can then be developed and deployed to realize value. Drivers of value can include pursuing new strategic ambitions, identifying specific areas for exploration, addressing organizational challenges, developing new products, services, or operating models, and/or building upon insights about interested party behaviour. An area of opportunity is an exploratory market, domain, or strategic focus area in which to identify an idea or opportunity. It can also be viewed as a theme.

4.3 Uncertainty

Uncertainty arises from a state of deficiency of information, understanding or knowledge that increases the unpredictability of a desired or potential outcome. Since idea management is about exploring new areas of opportunity, any new idea or opportunity faces different levels of uncertainty expressed as assumptions, questions, unknowns, or potential problems that need to be resolved. These uncertainties address factors, such as, market need, technological feasibility, social acceptance, maturity of the idea, strategic, resource or business model fit, interested party expectations, environmental responsibility, estimated cost or time to develop, etc. The focus is on what needs to be learned across a range of factors to reduce uncertainty.

a) Uncertainties versus risks

Even though they are often confused, uncertainties and risks are not the same. Risks can be analysed and assigned a probability of occurrence. Whereas risks can be mitigated and hedged against based on probability, uncertainties can only be reduced through further investigation, testing and learning to fill gaps in knowledge and understanding. Contrary to risks, a probability of occurrence cannot be assigned to uncertainties, which arise due to a lack of information, understanding, or knowledge. The possibility to find the information could be assigned a probability but not the uncertainty itself.

The inability to obtain the missing information, understanding, or knowledge, creates the risk that the missing knowledge negatively affects the innovation concept. Risk can be an effect of uncertainty and can be described as a deviation from the expected, where the consequences of an event and its probability/likelihood of occurrence can frequently be quantified from available information, experience and/or capabilities.

b) Uncertainty reduction

The aim of idea management is to identify and reduce uncertainty to a level acceptable to decision-makers by filling gaps in information, understanding or knowledge, through a process of idea and opportunity refinement and the generation of innovation concepts. It requires iteration and re-evaluation against a set of options or selection criteria (see 6.6). When uncertainty is reduced sufficiently and the innovation concept is deemed to be validated, it is then ready for development.

Reducing the level of uncertainty can thus be achieved through exploration and testing methods or tools, such as, prototypes, tests, market studies, research projects, pilots, verifying assumptions, iterative creative input, research and data acquisition, simulations, storyboarding, modelling, in-market experiments, or reaching out to internal/external experts within networks to seek answers to questions. Building prototypes is a way to learn and acquire knowledge about feasibility. Using methods, such as lead user or design thinking, are efficient ways to verify customer needs or desires as well as suitability of the desired solution.

In this standard, the activities for obtaining missing information, understanding or knowledge are included as part of testing. Testing, along with selection, is one of the two components of validation. Further information on managing the reduction of uncertainty is outlined in 6.3.4 (cataloguing innovation concept uncertainties) and 6.5 (testing).

c) Screening for uncertainty

As the management of ideas varies considerably with the level of uncertainty, the organization should screen for levels of uncertainty. As outlined in 5.6, screening into three levels of low, medium, and high can be effective for idea portfolio management as well as for selecting idea management methods.

Annex B provides examples of specific methods and tools to describe uncertainty across organization, technical/implementation, resource, market/mission, and interested party categories as well as how to screen for and ask key questions across a number of factors to reduce uncertainty.

4.4 Fundamental questions and principles

In understanding the context for managing ideas and opportunities, the organization should consider how the following questions apply to current, planned and future innovation initiatives.

— *Why look for new ideas?* There are many reasons for deciding to pursue new ideas including: competition, new technology, drop in sales/growth, economic, statutory obligation, political and social change, outdated innovations, customer/user engagement, mission ambitions, etc.

— *What are the objectives?* Make enquiries more specific by asking “How do these objectives?” help to focus idea management efforts on types of innovation or on customers or products or service attributes or mission purpose.

— *When will/might this happen?* Timing, sequence, identifying milestones are all important considerations for planning and keeping ideas and opportunities on track.

— *Who to enrol and engage?* Examples of key questions to consider are “Who is involved in creating and validating ideas?” “Do we have the right capabilities and resources?” “Who is to benefit?” “Who might resist or be disadvantaged by this idea?” “Who performs which roles?”

— *Where to focus?* Expand efforts by asking questions, such as, “Where else might we…?” or focus efforts on “Where will this work best?” for envisioned ideas and opportunities.

— *Which idea management options are best?* Choose among a specific set of options, e.g., “Which methods and tools are most appropriate for idea refinement or setting up experiments?”

— *How to set this up for success*? Once a pain/need/desire is established, seek to ensure that idea and opportunity management efforts are successful. Which are the best methods to use? Consider framing questions, such as, as “How might we…?”.

— *What are the right questions to ask*? Consider questions based on categories of uncertainty. See Appendix B for examples.

These questions provide a learning framework for understanding the considerations and success factors for managing ideas and opportunities.

It is also important to consider these questions through the lens of innovation management principles listed in the ISO 56000 that can be specific to idea management activities as follows:

— adaptability – Developing adaptable structures and processes;

— managing uncertainty – Ability to manage uncertainty and risk; and

— exploiting insights – Effectiveness in capturing insights to successfully exploit them.

