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Importance of, and how to increase, the relevancy and impact of a terminology standard: Case of ISO 56000 innovation Management – Fundamentals and Vocabulary:2020

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***Abstract:** In 2020, the ISO 56000:2020 was published to bring globally harmonized definitions, a common language, and frameworks, to support companies, organizations and policy-makers to structure their innovation efforts. How has it been possible to write global definitions in innovation fields? In what way does this terminology standard differ from the other standards?*

The purpose of this paper is to highlight the standardization strategy to increase the relevance of terminology standard by integrating the different stakeholders at an early stage, how to disseminate the document and prepare its revision, once it is published.

1 Introduction

ISO standards represent a consensual vision of professions and their activities. They provide a technical description of measurable processes in qualitative terms using professional terminology.

Originally, standardization was limited to industrial products. It aimed at simplifying and unifying manufacturing and at determining its characteristics in order to allow for harmonization and adaptability of equipment. Standardization today covers new challenges and attracts other types of stakeholders. Among these challenges, technical and social progress, the competitiveness of industry, the protection of the health and safety of people, the consumer protection and fair trading. Standardization includes consumer goods, new technologies and services, the organisations and behaviour of economic operators. In this paper we will focus on ISO (International Organization for Standardization), a worldwide federation of national standards bodies, which is independent and supports the development of voluntary standards developed with the consensus of the members.

This industry paper aims to show how the ISO TC 279 (ISO Technical Committee on innovation management) left the comfort zone of the standard development to reach out to other international institutions to create a common understanding of the concept of innovation.

2 Purpose of Terminology Standards

2.1 ISO Standards

Today ISO is the leading producer of voluntary International Standards in the world. Founded in 1947, it has since published more than 19,000 standards in almost all fields of technology and economics. ISO is a network of national standards bodies which make up the ISO membership. These bodies represent ISO in their countries. ISO defines its mission (ISO, 2002) as to establish a sound and equitable basis for the global exchange of goods and services, incorporating all the main elements required by market and societal forces: rationality, practical applicability, protection of the environment for sustainable development, protection of safety and health and equality of opportunity in world trade.

ISO strategic management is in the hands of its members and governed by ISO's Principal Officers. The General Assembly is similar to a company's shareholder meetings and is attended by ISO's Principal Officers and delegates nominated by the member bodies. The TMB (Technical Management Board) reports to the ISO Council and is responsible for the overall management and processes of the technical work. TMB is also responsible for the ISO/IEC Directives, which are the rules for the development of International Standards. (ISO, 2016).

The development of International Standards in ISO is carried out through ISO Technical Committees established by the Technical Management Board with a specific scope to develop international standards. Working groups, study groups, ad hoc groups and task forces can also be set up to support the activity within a technical committee, as needed. Unlike technical committees, the above groups are disbanded after the fulfilment of their given task. Each ISO technical committee is administratively supported by an ISO member body (the "secretariat"). A member body is appointed by the Technical Management Board to provide the secretariat of a technical committee. Working group Convenors are appointed by the technical committee. The role of the Convenor is to lead the work of the experts on a specific work item through their working group. The convenor must also apply the principles of consensus. Membership of working groups is limited to the experts that are nominated by the members (National standards organisations that have agreed to actively participate in the project concerned). Meetings are convened only when necessary to discuss matters of substance which cannot be settled by other means. While ISO is best known for its International Standards, it has other deliverables. Below are the six types of deliverables developed by ISO committees listed in Table 1.

Table 1: Types of deliverables developed by ISO Committees

ISO Standard	Presentation
ISO/ IS International standard	it provides rules, guidelines or characteristics for activities or for their results, aimed at achieving the optimum degree of order in a given context
ISO/TS Technical Specification	it addresses work still under technical development, or where it is believed that there will be a future, but not immediate, possibility of agreement on an International Standard
ISO/TR Technical Report	it contains information of a different kind from that of the previous two publications. It may include data obtained from a survey, for example, or from an informative report, or information on the perceived "state of the art".
ISO/PAS Publicly Available	it is published to respond to an urgent market need, representing either the consensus of the experts within a working group, or a consensus in an

ISO Standard	Presentation
Specification	organization external to ISO
IWA International Workshop Agreement	it is developed outside the normal ISO committee system to enable market players to negotiate in an “open workshop” environment
ISO Guide	Guides are documents that provide advice to standards writers on how to deal with specific issues when drafting standards; or to national standards bodies on how to deal with issues specific to standardization principles

2.2 Importance of Terminology Standards Amid Other Standards (Starting Point for Any Standard)

ISO standards establish specifications, performance, technologies, systems, products, services, management systems and good practices, to increase the efficiency of all sectors of the economy. ISO (ISO, 2015)¹ defines a standard as a document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, ensuring an optimal level of order in a given context and adds standards should be based on the combined achievements of science, technology and experience and aimed at the optimum benefit of the community.

There are different types of standards, which are defined below and the impacts on standardization strategies are described:

Technical standards: Like interfaces, standards concentrate on technologies and technical works. All the stakeholders have to be around the table to debate, share, and establish relevant specifications, which would be widely adopted. This family of documents requires the involvement of an efficient rapporteur to drive the agenda, moderate the discussions and coordinate the writing activities. There are big stakes behind this kind of document, each company or consortium of companies wanting to see their in-house technology adopted by the community to capture any potential market, including a significant portion of key patents necessary to implement the standard. An efficient rapporteur will be able to keep the fundamental direction and make a standard that can be widely adopted by the community. Its key mission is to maintain the energy and commitment of all standards developers. Hence, there is a difficult but mandatory balance to find. Performance standards describe the minimum set of performance that a product or a service may fulfil to be compliant. This family of standards can also crystallize some market frictions. A company wanting to penalize a competitor may propose (and see enforced) unreachable, non-relevant or out of scope performances.

Management standards: They are nowadays often known as management systems, and support companies in the creation of their internal policies. They facilitate the relationships between different partners for co-development, research (common technical interfaces), procurement relationship (decision chain clearly identified), or supply chain management (common quality control), etc. They are also a powerful tool to disseminate good practices and to improve the efficiency in organizations. Let us note they are also mandatory for consultants: these management standards support and legitimize their activity.

¹ Blind (2017) discusses this definition and its application.

Terminology standards: Terminology is the theoretical study of the names of objects or concepts used in a given field of knowledge, the functioning of terminological units in the language, and the translation, classification and documentation problems that arise in this field. ISO 704:2009 Terminology work — Principles and methods proposes the principles to establish terminologies and describes the links between objects, concepts, and their terminological representations. A Vocabulary standard is a set of terms, definitions, concept systems (such as concept diagrams showing the interrelations of the concepts) that help to harmonize the use of language on a particular subject or discipline. It is based on terminology processes.

It is important to have a widely shared vocabulary database, in order to harmonize the different approaches and reach the ideal of the standardization: a fully harmonized world. To achieve this goal, ISO has launched an Online Browsing Platform (OBP), where all terms defined in an ISO are present with their definitions ([OBP](#), 2020)

2.3 The Terminology Standard as the Starting Point of the Standardisation Work

Once that the need has been identified and the opportunity to develop a standard has been identified after the vote of the members, experts meet to study and reach agreement on a draft standard. As soon as the draft is finalized, it is communicated to the members of ISO, who provide comments and a vote is held. If the project is the subject of a consensus, it becomes an ISO standard. Otherwise, the technical committee shall work on it again to make changes.

So the definition of concepts is generally a first recommended step of standardization, as it clarifies the concept behind each “word” and then obviously limits misunderstanding behind two parties having different backgrounds. This first recommended step is also necessary to define the standardization perimeter: it will support the development of the standards documents but also mobilize the stakeholder. Indeed as the terminology is one of the first documents published, this document gives visibility to the working group and then generally new members are joining (call for experts).

In a Working group, it is important to have the relevant experts involved in the discussions. Participation to a working group is volunteered and not necessary or rarely funded by a national standardisation body. So the call for experts has to be clear.

Standards are responses to the needs of professions and participation in standardization makes it possible both to influence the content of standards (always consensual, based on the most effective and best shared practices) and to be informed about them. Standardization is governed by principles of transparency, openness in the sense that the standards development work is open to all experts, without discrimination, to ensure that the interests of all experts are articulated and taken into account.

They may have different motivation to join the works, for example:

- for an industry, standardization opens the door to a market where everyone speaks the same language.
- for a customer, standardization improves confidence in products and services.
- for an employee of a company? Standardization improves your working and safety conditions.
- for officials, Standardization makes your public procurement and purchasing more secure.
- for consultants, Standardization structures their recommendations.

So the experts come from all economic and social sectors, (companies, professional organisations, administrations and local authorities, consumer and environmental protection associations, etc.). They bring skills and expertise which, for each subject, ensure the quality of the standard. They provide the technical content of the documents and their updating. They make a major contribution to promoting new subjects or new documents, by expressing the needs of their sector. they are sourced by national standardization offices through call for experts These calls have to be efficient to target the relevant population of experts. In particular proposing a first set of definitions to align the different visions on a topic are a necessary condition to attract and retain experts. Most of the experts take part in standards development on a voluntary basis and they have different motivations. So it is important to propose a set of common agreed definitions at the beginning of the work to avoid any deleterious misunderstanding breaking the group dynamic.

2.4 Establish Liaisons to Break the Frame of the Standardization

The admission of external organizations as liaison organizations is dependent on the area of standardization. It shall be approved by each technical committee before being submitted to the Technical Management Board (TMB) for approval. Technical committees may request a given organization to act as a liaison organization, to the initiative either of that organization or of experts within the technical body. The liaison organisations may also make a proposal for any question in a technical committee and even be the convenor of a working group. However, the liaisons are not voting members.

In principle, all stakeholders in a given country who wish, on a particular aspect of the standardization, provide input to the member committee's voice in the process ISO, may do so through the "mirror committee" at the national level, having the same scope as a given ISO committee or subcommittee.

The committee shall meet in the interval between meetings of its ISO mirror committee to allow the committee member to formulate its own positions and to evaluate the technical work done by its own national experts. Of course for regional or international institutions, like UN (United Nations) related organizations or international research centers or agencies like CERN (Centre Européen de recherche nucléaire or ESA European Space Agency) there is no obvious mirror committee to contribute to the standardization process. These stakeholders have to be engaged as liaisons. Establishing liaisons with these institutions, when it is relevant, helps to attract new types of experts, who already have a global view on a topic but who are not necessarily expert in standardisation.

2.5 Terminology as the Backbone of Standards Family

Terminology working group in a technical committee is an helpful entity to support the harmonization and cross fertilization between different working groups. In setting a common vocabulary, the terminology working group will help to clarify the scope of each working group and avoid overlap, and resolve discussions based on unclarity and cultural/country based differences and creates consistency across the technical committees deliverables.

When the family standards are created there are two strategies to publish the terminology, it can be at the beginning of each document/deliverable or all terms can be gathered in a unique document.

The first solution is interesting because each standard can be a standalone document, including all the definitions, nevertheless it will be difficult to make the interactions and relationships between the definitions visible. The second solution will allow to break the silos between the definitions and to present a structured approach for the terminology.

2.6 Terminology as an Essential Part of Communication

Some standardization experts consider the terminology part as the first sheet of paper that you remove from the brand new standard copy that you have just bought. Nevertheless, when an expert makes a presentation to an audience, one of the first slides is dedicated to share consideration on the terminology used.

When a new standard is published, it can be challenging to make it emerge amid existing alternative standards or existing statu quo. It is difficult to disseminate a new standard on an emerging topic, such as innovation management. Generally a standard is communicated through press releases, which are republished in specialised press. Promoting terminology standard is helpful to trigger the attention on a topic and to attract new stakeholders

3 The Case Study of ISO 56000

In December 2013, ISO launched the Technical committee 279 on innovation management in AFNOR (French standardisation office) premises, as France proposed the launch of the technical committee and get the secretariat and chairmanship.

During April 2014, the technical committee got structured through 4 groups: Working Group 1 dealing with Innovation Management System based on ISO High Level Structure (ISO HLS) which is the basis structure for all ISO management system standards with regards to chapters and a set of basis ISO definitions that builds up a management system. (Working Group 2 focusing on terminology , Working Group 3 on tools and Methods and a Study Group 4 on innovation management assessment.

ISO TC 279 WG2 was officially launched in April 2014 as a working group of the ISO Technical Committee on innovation management. The mandate of this working group is to Establish, structure and define the vocabulary within Innovation Management. During the first months and first years of its creation, the working group established liaisons with different liaisons with international institutions, which do not have the mandate to take any position. These liaisons, as seen in A.3 of this document, can participate on different levels of engagement, from observing to active participation and making proposals. However, liaisons cannot take part into ISO ballots. The role of these international institutions is to provide information and elements of understanding to develop standards.

In the following paragraph, we will make a deep dive in the rationale of this working group, and how the working group was in a position to structure the different activities amid the ISO TC 279. In its effort to define the lexical field of innovation, WG2 has been supported by several liaisons, we analyse in this paper how the liaisons contributed.

3.1 Purpose and Intention (Several Understandings of Innovation)

In the Nordic countries there is a saying that “a dear child goes by many names”, but we would also add meanings and perceptions for innovation. Cooperating across businesses, departments and even in the same team of people from the same school could show difficulty as innovation ended up being a vague buzzword. The experience is that we do not even agree with our own mirror image. So cooperation across several countries to set a joint understanding could seem to be mission impossible or just fighting windmills.

The purpose and intention of the ISO 56000 was to embrace a joint understanding of the concept of Innovation and create a base for a Joint global definition in a structured technical consistent way. So for this work the scope was greater than Just being a support for consistency within the Technical Committee or for the innovation management system which

was published as ISO 56002:2019 . It was not an aim to create identical wording across all involved liaisons but a shared structure and the same characteristics. This was also the case for the ISO-OECD/NESTI cooperation (Gault and Hakvåg 2018) Same structure, same core definition, but different approach to structuring terminology as the purpose of the documents are different. ISO for Innovation Management and business and OECD Oslo Manual for statistical measurement.

3.2 The Impact of ISO 56000 Work on the Development of the TC 279

3.2.1 Call for Experts

The call for experts for WG 2 aimed for experts with subject field expertise and/or terminology experience, supported by experts with terminology background. The Working group started with only a handful of experts ending up with 114 registered experts as part of the work at the time for publication of ISO 56000 in February 2020. WG 2 had a very structured approach to onboard new experts and to establish the vocabulary by analyzing the different concepts, their meaning in different contexts and situations, their use in academia vs. business and public sectors to find the common characteristics to build an iterative approach to establish a terminology structure. Including differentiating and structuring the concepts, setting the terms (names), defining concepts, structuring concept diagrams (terminology trees). As much as 20% of the time of meetings was used for attracting, onboarding and ensuring that all involved experts had a common perception and understanding of the structure, the work so far and the work ahead, establishing a minimum terminology expertise among the experts, and a continued involvement and inclusion of new experts.

3.2.2 Support to Improve the Scope of the Work Items

By structuring the concepts, establishing definitions and consistent use of the definitions, The expert of WG2s, increased the clarity, consistency, interoperability and improved progress in WG2 and across the other WGs among the experts and on all the Work Item(deliverables) of the TC. This by also identifying needs of new concepts to be defined to support the work and improve communication and efficiency in the other WGs to the technical committee.

3.2.3 Establishment of the Liaisons

External liaisons

In 2013, innovation management standards were a polemic topic. The debate was so recurrent that ISO had to publish a press release to explain the rationale of the approach ([ISO, 2014](#)).

For ISO TC 279 experts, it would have been easy to recruit experts among other Technical committees working on management systems. Nevertheless, ISO TC 279 had to leave the comfort zone of the standardization ecosystem to reach innovation experts.

During the last 7 years, ISO TC 279 established liaisons with various international institutions. See Table 2 and Figure 1.

Table 2: External liaisons of ISO TC 279 (ISO TC 279,2020)

Acronym	Title
CERN	European Organization for Nuclear Research
EPO	European Patent Office
FICPI	Fédération Internationale des Conseils en Propriété Intellectuelle
ISPIM	International Society for Professional Innovation Management
LESI	Licensing Executives Society International
OECD	Organisation for Economic Co-operation and Development, OECD
The World Bank	The World Bank Group
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

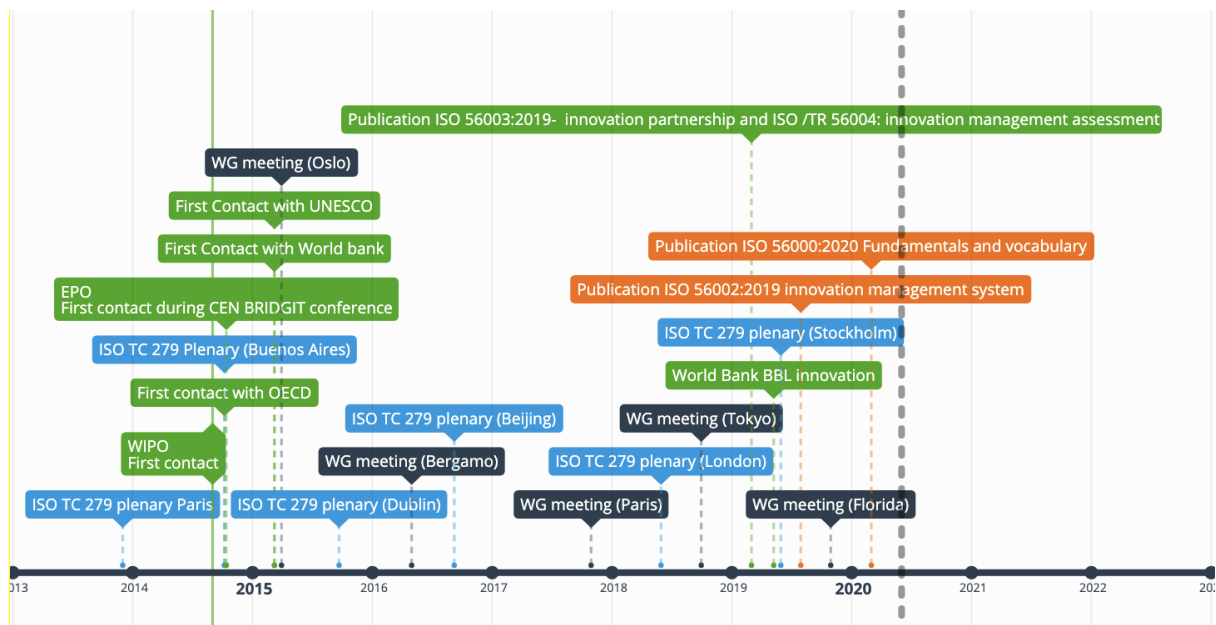


Figure 1: Timeline of ISO TC 279 meeting (plenary and WG meeting), interactions with international institutions and Publication of standards of ISO 56000 series

ISO TC 279 experts approached during international conferences international institutions ([CERN/CEN International conference on innovation and standardisation in Genova in November 2014](#), [CEN Conference BRIDGIT standards to support research and innovation in Brussels in 2015](#), [ISPIM'17 in Vienna](#) in 2017, [ISPIM'18 in Stockholm](#) in 2018...).

Thanks to the heterogeneity of the experts in the ISO TC 279, it has been possible to approach many international institutions and to enrol new experts also. Nevertheless it is very difficult to raise any interest for a standard which is under development. Most of the time, representatives of companies or international institutions wanted to keep posted. They did not find any interest in being involved, except when ISO TC 279 representatives broaching the definition of “innovation” for several reasons:

- ISO definitions impact nearly one million businesses in more than 170 countries ([ISO 9000, 2020](#)).
- Many organisations struggle with clarifying the concept of innovation.

To maintain the relationships with liaisons, ISO TC 279 chairperson and WG conveners engaged in activities as delivering keynotes to weekly meetings in order to regularly update stakeholders in the liaisons. In keeping them posted, it has been possible to get comments and keep them engaged in the writing of the standards. ISO TC 279 established also liaisons with other ISO committees

Internal liaisons inside ISO

There are two types of internal liaisons in ISO, the liaisons to a TC and the liaisons from a TC. The difference is important as it rules working documents access. Liaisons to ISO TC 279 can access ISO TC 279 working documents but the inverse is possible if only ISO TC 279 is a liaison to the other TC.

The committees referring to Table 3 and 4 below can access the documents of ISO/TC 279:

Table 3: Liaisons committees to ISO/TC279

REFERENCE	TITLE
ISO/IEC JTC 1/SC 7	Software and systems engineering
ISO/TC 176/SC 1	Concepts and terminology
ISO/TC 176/SC 2	Quality systems
ISO/TC 176/SC 3	Supporting technologies
ISO/TC 266	Biomimetics
ISO/TC 286	Collaborative business relationship management
ISO/TC 312	Excellence in service
ISO/TC 323	Circular economy

ISO/TC 279 can access the documents of the committees below:

Table 4: Liaisons committees from ISO/TC279

REFERENCE	TITLE
ISO/TC 176	Quality management and quality assurance
ISO/TC 176/SC 1	Concepts and terminology
ISO/TC 176/SC 2	Quality systems
ISO/TC 176/SC 3	Supporting technologies
ISO/TC 286	Collaborative business relationship management

Most of the liaisons were established because these liaisons took part in the debates for terms and definitions of WG2. There are also liaisons focusing on WG 3 deliverables to get cross references to ensure consistency in the terminology used but also an harmonization of the processes.

3.3 Contributions of the Liaisons to Define the Scope of the Work

3.3.1 Impact of the Liaisons on the Terminology

WG2 consulted international organisations to frame the set of definitions already set by the treaties and the different applicable national laws. Taking account of this legal constraint, the WG 2 was able to identify a set of terms/concepts commonly used by business and not in conflict with regulations or any treaties. The mission of the WG 2 was then to make clear the difference between a legal concept and a concept in common usage by business. There was also a need to differentiate some of the concepts as they had multiple meanings, and therefore only could be understood by the context in which they are used

3.3.2 Collaboration with Liaisons and the Influence on Terminology (OECD and the Fourth Edition of the Oslo Manual)

ISO 56000:2020 was being developed in parallel with the Oslo Manual revision. The concern in both the ISO and the OECD was that the definitions of innovation be compatible to avoid misinterpretation which could influence statistical measurement and policy, or the use of innovation in innovation management.

An important step for the Oslo Manual was that, for the first time in four editions, a general definition was provided that was applicable in all economic sectors. In the first three editions it was noted that innovation could happen anywhere but the Manual focussed on the business sector. In the fourth edition, the following general definition was provided.

An **innovation** is a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process) (OECD/Eurostat 2018: CH 1, para. 1.25, CH 2, para. 2.99).

Further discussion can be found in Annex B of ISO 56000:2020, in Gault and Hakvåg (2018) and Gault (2020). When comparing the Oslo general definition with the ISO 56000 definition of innovation, there is a language difference. In the SNA (EC et al. 2009) language, used in the Oslo Manual, 'product' is a good or a service. A second point is that the general definition requires only that a new or improved product be made available to potential users for it to be a

product innovation. There is no requirement that the potential user take the product innovation and there is no normative consideration. The product innovation could have a negative effect on the user, or a positive one. A third point is that, if the general definition is applied to any sector, including the business sector, the product innovation need not be made available at an economically significant price. It can, in fact, be made available at a zero price and this is not uncommon in the digital economy (Gault 2019).

ISO 56000:2020

In this section the definition of innovation in ISO 56000:2020 (Section 3.1.1) is discussed. Terms that appear elsewhere in the text are in italics followed by the section in which they appear in parentheses. The ISO practice is to provide a definition and then to qualify it in ‘notes to entry’. The ‘notes to entry’ are an integral part of the definition.

Innovation

new or changed *entity* realising or redistributing *value*

Note 1 to entry: Novelty and value are relative to, and determined by, the perception of the *organisation* and relevant *interested parties*.

Note 2 to entry: An innovation can be a product, service, *process*, model, method, etc.

Note 3 to entry: Innovation is an outcome. The word “innovation” sometimes refers to activities or processes resulting in, or aiming for, innovation. When “innovation” is used in this sense, it should always be used with some form of qualifier, e.g. “innovation activities”.

Note 4 to entry: For the purpose of statistical measurement, refer to the Oslo Manual 2018, 4th edition, by OECD/Eurostat. See Annex B.2 for a comparison between the definitions of innovation by ISO and the OECD/Eurostat.

This definition of innovation differs from that in ISO 9000:2015 as made clear in the following comment. (SOURCE: ISO 9000:2015, 3.6.15) modified by using the term “entity” instead of “object” and by replacing Notes 1 and 2 to entry with new Notes 1 to 4 to entry.

In 2005 the ISO/DIS 9000 definition of innovation was a process resulting in a new or substantially changed object. The object for the purpose of innovation can be a management system, process, product, service or technology. Two experts from ISO TC 279 were invited as liaison agents to the ISO TC 176 meeting in Vilnius. ([ASQ,2015](#)). The main debates were around the definition of invention, innovation and improvement.

Thanks to liaison with TC 176, in ISO 9001:2015, no requirements have been identified to manage innovation.

The key characteristic in innovation definition is “value” and this concept has been defined also by WG2..

Value

gains from satisfying needs and expectations, in relation to the resources used

EXAMPLE Revenues, savings, productivity, sustainability, satisfaction, empowerment, engagement, experience, trust.

Note 1 to entry: Value is relative to, and determined by the perception of, the *organization* and *interested parties*.

Note 2 to entry: Value can be financial or non-financial.

Note 3 to entry: Value can be created, realized, acquired, redistributed, shared, lost, or destroyed.

Note 4 to entry: The value of an *entity* is generally determined in terms of the amount of other entities for which it can be exchanged.

Note 5 to entry: The word “value” sometimes refers to a (numerical) unit of data, e.g. the output from *measurement* and “values” sometimes refers to principles or standards of behaviour, e.g. included in the concept of *culture*. When “value” is used in these senses, it should always be used with some form of qualifier, e.g. “numerical value” or the meaning should be obvious from the context.

The Oslo Manual

In OECD/Eurostat (2018:21) the point is made that: ‘The OECD established a liaison with the International Organisation for Standardisation’s (ISO) technical committee on Innovation Management in order to facilitate greater alignment between definitions’. To make this happen, changes to the fourth edition of the Oslo Manual were made to ensure a link with ISO 56000:2020.

This link is noted in Chapter 1, *Links to other standards*. In parallel with work to produce the fourth edition of the *Oslo Manual*, the OECD established a relationship with the International Organization for Standardization’s (ISO) technical committee on Innovation Management, responsible for developing standards for the innovation management ISO 50500² series. The exchange between the two expert groups of the OECD and ISO covered different perspectives on the definitions of innovation and innovation management, with the OECD requiring definitions suitable for innovation measurement and the ISO requiring definitions for standardisation. The discussions led to an alignment of the definitions, taking into account the different objectives of the *Oslo Manual* and of the ISO standards. Innovation management appears throughout the manual and was included as an innovation activity in Chapter 4, para. 4.8.

Innovation management capabilities were discussed in Chapter 5, para. 5.42, and in Chapter 7, para. 39, the importance of standards was emphasised and standards, as an innovation activity, are discussed in para. 40. As Gault and Hakvåg (2018) note, both accreditation and engagement in the formulation of standards are innovation activities.

While the important role of innovation standards is well covered in Chapter 7. It was proposed by ISO to add two innovation objectives³ to Chapter 8, Table 8.1, They were ‘Adopt standards and accreditation’ under the heading ‘Markets for the firm’s products’ and ‘Contribute to the development of standards’ under the heading ‘Business organisation’. The close collaboration between the ISO and the OECD resulted in better products and made both ISO 56000:2020 and OECD/Eurostat (2018) more accessible to a wider community.

² The Oslo Manual was released in October 2018 before ISO 50500 was changed to ISO 56000:2020.

³ As the Oslo Manual was still being edited, the two items were added, but not quite where they were proposed in Gault and Hakvåg (2018).

4 Strategy to Disseminate the Published Standards Family

The standardisation works is a never ending effort. Indeed, regular revisions require permanent recruitment of new experts and develop new liaisons. It also helps to reinforce the adoption of the standard and to prepare the future revisions

4.1 Press Releases for Each Issue and How to Use Them on Social Media

For major standards, ISO published in their newsroom ([ISO news room, 2020](#)), press releases to announce the publication of new standards. ISO published several press releases related to ISO TC 279 during the last years. The first press release supports the call for experts and helps to make the works visible. The publications accompanying the issue of standards are supporting standards dissemination.

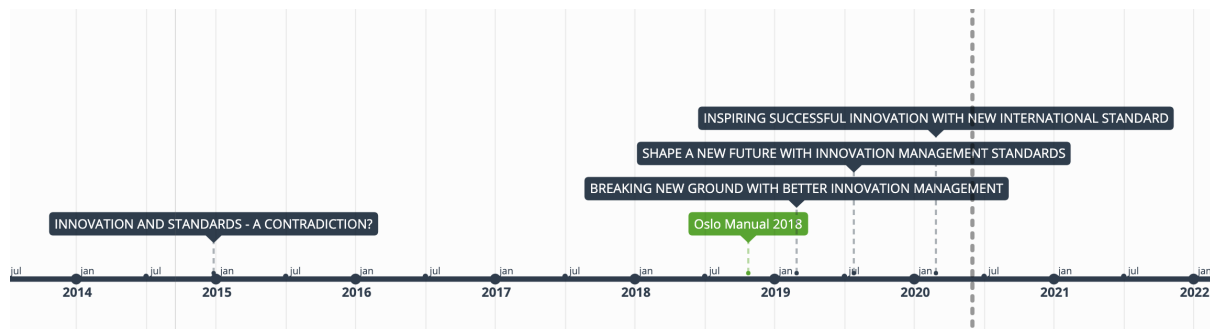


Figure 2: Timeline of press releases publications related to ISO standards on innovation management and Oslo manual

These press releases are often relayed by national standardisation bodies, regional institutions and specialized press. For example IP Helpdesk, which is an initiative of the European Commission to promote intellectual property, published an article for the issue of ISO 56000:2020 (IPR helpdesk,2020).

Social media is now a critical part of the way people in most walks of life communicate and a key part of how work gets done from corporations to institution. It is possible to reach a large and targeted audience very quickly, allowing standards to :

- Be visible to a large and clearly identifiable audience.
- Optimize your dissemination by attracting new experts to prepare the revision of the standards.
- Gain notoriety
- Monitor industry trends and news.

To measure the impacts of a publication, there are some public tools such as google search trends to measure the interest in a search over the time.

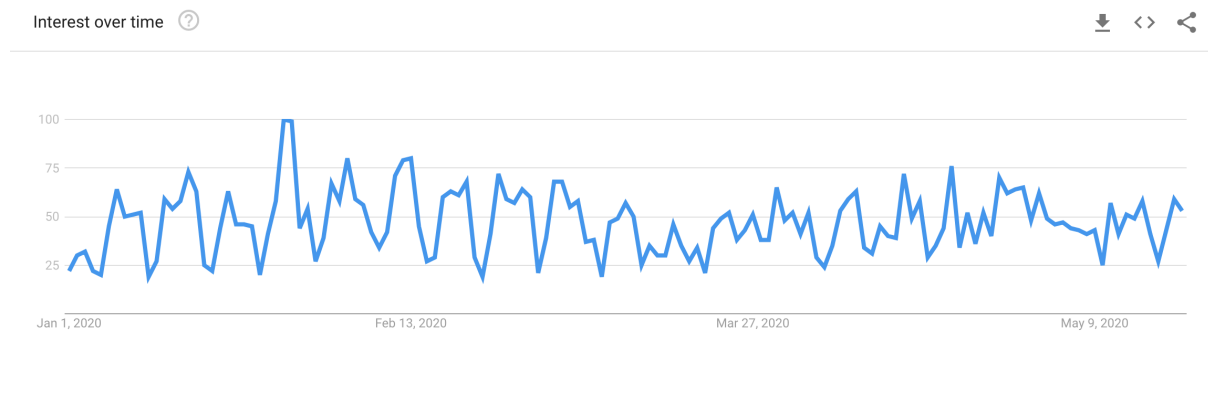


Figure 3: Google search trends for “innovation definition” google (2020)

There is a peak (Fig. 3) at the beginning in google search of “innovation definition” in February corresponding to the press release accompanying the publication of ISO 56000:2020.

Institutional newsrooms are a powerful tool to base the credibility of new standards. Nevertheless today LinkedIn, with its 500 million members, is the quintessential professional network and is an efficient way to disseminate news in targeting the audience. While the presence of institutional pages is growing on LinkedIn, personal profiles still dominate the platform.

For example the convener of WG2 published a series of posts about ISO 56000 works and dissemination, as he considered that people are more likely to follow a personal profile than a brand, institution and people want to engage with other people, not organizations.

The published posts accomplish three things:

- Clearly communicating with storytelling and value
- Using keywords to show up in relevant search results
- Providing value for people who find it with scoops

On his posts, the convener of WG2 tagged different persons and forwarded the post in Private Message to create attention. but not too many posts. Another goal is to attract discussions under the post to create attention among relevant stakeholders, it helps also to “please” the LinkedIn algorithm and to reinforce the visibility of the post.

Starting with a series of targeted posts during the past 18 months:

1. Publication of OECD/Eurostat Oslo Manual
2. Bridge article OECD ISO independent post.
3. Post on standards and innovation to target the standards community with the information that standards had become innovation indicators.
4. Follow up post with recommended reading before summer holidays with all published documents.
5. the publication of the ISO 56000

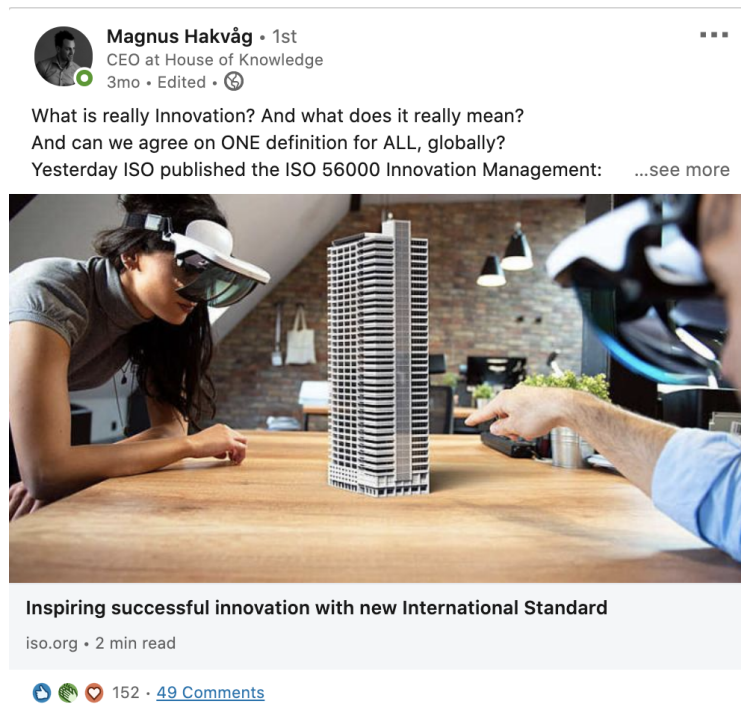


Figure 4: Example of linkedin Post on ISO 56000

The Fig. 4 presents the post for the publication of ISO 56000:2020. To encourage ISO press release reshare, there is a picture setting the scene: innovation, there is storytelling in the catch sentence: based on rhetoric question and storytelling In term of impact this post was reshared sixteen times by around 1000 executives and leaders in different domains (national standardisation offices, private company leaders). The complete post has been read by at least 8682 people.

4.2 Special ISO Publication (Leaflet and Handbook)

When ISO identifies a standard as a future blockbuster, the communication department may propose different media to promote the standards. Obviously the press release presented in the previous section is a major medium. Nevertheless ISO proposes other supports such as leaflets, available for free on their website and which can be printed to be distributed during physical events, such as conferences. For example, to support the new publication of ISO 9000:2015, a leaflet with the quality principles is available for free on ISO website (ISO leaflet, ,2015). ISO also published a handbook. This publication provides simple and applicable ideas; expands on the ones provided by a standard. Most of the time in collaboration with other international institutions. For example UNIDO (United Nations Industrial Development Organization) and ISO are currently developing a handbook on innovation management. (UNIDO,2019) in a task force (TF 1) in ISO TC 279. UNIDO promotes and accelerates inclusive and sustainable industrial development. The purpose of this handbook to further disseminate innovation tools, especially to foster entrepreneurship and enhance productivity, in developing countries.

5 Conclusion

In this paper we present a new approach regarding terminology standards development. The ISO 56000 series of standards has been developed to stimulate innovation in products, services and processes. ISO 5600:2020 is a backbone for the standard family ISO56000.

As innovation goes far beyond Research, Development and Creativity, far beyond the confines of research labs to users, suppliers and consumers everywhere including in government, business and non-profit organisations, across borders, across sectors, and across institutions. ISO TC 279, by leaving the comfort zone of standardization, has been able to develop liaisons with different international institutions to reinforce the legitimacy and impact of the published documents. This paper presented how close relationships between OECD and ISO TC 279 help to structure a common understanding of the concept of innovation. Other international organisations helped inform the ISO 56000 activity about concepts that are used in legal agreements (WIPO)/WTO and UNIDO is engaged in developing a handbook on innovation management. There are other examples, but the point to be made is that standard making is not done by a single organisation, but through collaboration and communication with many. Finally the paper presents the strategy adopted to attract experts and disseminate the standards in using modern channels.

6 References

- Blind, K, (2017), The Economic Functions of Standards, in R. Hawkins, K. Blind and R. Page, *Handbook of Innovation and Standards*, Cheltenham, UK and Northampton, MA, USA, Edward Elgar.
- ISO 704:2009 (2019), <https://www.iso.org/standard/38109.html>
- OBP, (2020), <https://www.iso.org/obp/ui/>
- ASQ,(2015), <http://asq.org/quality-progress/2015/05/standards-outlook/innovation-and-iso-9001-2015.html>
- Gault, Fred and Magnus Hakvåg (2018), *Co-operation between the International Organisation for Standardisation (ISO) and the Organisation for Economic Co-operation and Development (OECD) on the Definition of Innovation for Innovation Management and Statistical Measurement*, Paris: OECD. <https://community.oecd.org/docs/DOC-165568>
- Gault, F. (2019), User innovation in the digital economy, *Foresight and STI Governance*, vol. 13, no. 3, pp. 6-13.
- Gault, Fred (2020), *Measuring Innovation Everywhere: The Challenge of Better Policy, Learning, Evaluation and Monitoring*, Cheltenham, UK and Northampton, MA, USA, Edward Elgar.
- OECD/Eurostat (2018), *Oslo Manual 2018: Guidelines for collecting, reporting and using data for innovation, 4th edition*, The Measurement of Scientific, Technological and Innovation Activities, Paris: OECD Publishing/ Luxembourg: Eurostat.
- ISO (2019), *ISO/IEC Directives Part 1 and Consolidated ISO Supplement - 2019 (10th Edition)*
- IPR Helpdesk (2020), <http://www.iprhelphdesk.eu/news/new-international-innovation-standard-iso-56000r>
- ISO (2015), *ISO strategy* <https://www.iso.org/about-us.html>
- ISO leaflet (2015)*, <https://www.iso.org/publication/PUB100080.html>
- ISO (2016), *My ISO Job*, <https://www.iso.org/about-us.html>
- UNIDO(2019), <https://www.unido.org/news/unido-joins-iso-technical-committee-innovation-management>
- ISO newsroom (2020), ISO TC 279 webpage <https://www.iso.org/committee/4587737.html>
- google (2020), google trends <https://trends.google.com/trends/>