



NSAI

ANNUAL REPORT 2023

NSAI TECHNICAL COMMITTEE
NSAI/TC 45 – INNOVATION
MANAGEMENT

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1 Chair

In December 2023, Mr Sean McNulty, said his farewells as he retired from his role as Chair. Since 2008. Mr McNulty's contributions have been characterized by innovative ideas, strategic thinking and most significantly his tireless efforts to increase the credibility and visibility of the committee which in turn created a vibrant and productive committee. The relationships fostered with NSAI's partners and stakeholders will ensure that the committee will continue to prosper in the years to come.

NSAI and fellow committee members thanked Mr McNulty for what he had accomplished over the last number of years through his dedicated service, including in the production of Swift 1:2009 -- Guide to good practice in Innovation and Product Development.

2 Introduction

Standards on innovation management enable International and Irish organisations, particularly SMEs, to share best practices across various aspects of innovation management. This will facilitate collaboration, and also develop the capability of Irish-based companies to innovate and to bring new innovations successfully to competitive global markets.



ISO TC 279 is
developing Innovation
Management guidance
standards

Innovation is key to global competitiveness, and human and technological progress over the coming decades, particularly in the context of the twin Green and Digital transformations. International management system standards on innovation will help break down the existing cultural, structural and organisational obstacles within and between organisations. These ISO Innovation standards will provide best practices to support the implementation of innovation policies and best practices in SMEs, public institutions, universities, research & innovation centres and non-profit organisations.

The OCED recognises the importance of polices and processes that promote pro-innovation forms of workplace organisation for stimulating SME innovation. The OECD, in its report on SME and entrepreneurship makes reference to the fact that a firm's workplace organisation model can affect its ability to stimulate ideas and facilitate the absorption of knowledge from research organisations [1].

An organisation can innovate more effectively and efficiently if all necessary activities and other interrelated or interacting elements are managed as a system. An innovation management system guides the organisation to determine its innovation, strategy, policy and objectives, and to establish the support and processes needed to achieve the intended outcomes.

An innovation management system provides a systemic approach to integrate innovation into all the layers of the organizations in order to seize and create opportunities for the development of new solutions, systems, products and services. The first International Standard for such is ISO 56002:2019.

¹ OECD, "OECD SME and Entrepreneurship Papers No 17", 2019. [Online]. Available on: https://www.oecd-ilibrary.org/economics/oecd-sme-and-entrepreneurship-papers_f493861e-en [Accessed on: 10th January,2023]

To achieve this goal, the work focuses on developing a management system for innovation, with supporting 'Tools & Methods'. The ISO 56000 Series of Innovation Management guidance standards address: terminology, tools and methods such as open innovation partnerships, design innovation, strategic intelligence, intellectual property management, creativity/idea management; measurement of innovation; and also, the assessment of innovation management practices in all types of organisations.

ISO 56002:2019 is based on the principles of innovation management. It schematically represents how the structure of the innovation management system should be viewed, relating it to the different clauses of the standard and the Plan Do Check Act approach. This standard also refers to the need for an appropriate structure to manage the risks and uncertainties associated with the organisation's market, especially in the earliest stages of its creative processes.

The structure that is adopted also allows for an alignment with other international management system standards international standards, such as ISO 9001:2015 and ISO 14001:2015^[2], enabling a more effective integration, development, implementation, maintenance and continuous improvement of the innovation management system. The adoption of this standard, together with the innovation tools, has the potential to facilitate and boost the innovation process of any company by providing principles that allow it to structure and organise its internal innovation processes, maximise innovation efforts and harness the knowledge and creativity of its employees and those with whom it collaborates externally. It also makes possible an integration with other existing management systems ^[3].

3 Scope of TC

The scope of this Committee is standardization of terminology tools and methods and interactions between relevant parties to enable innovation.

This committee does not produce indigenous Irish Standards as the national committee is focussed on participating in the development of International Standards at an ISO and European level.

The committee mirrors the following European & international committees:

Committee Name	Committee Title
CEN/TC 389	Innovation Management
ISO/TC 279	Innovation Management
ISO/TC 279/WG 1	Innovation Management System
ISO/TC 279/WG 2	Terminology, Terms and Definitions
ISO/TC 261/WG 3	Tools and Methods






² International Organization for Standardization, "Environmental Management Systems—Requirements with Guidance for Use "(ISO 14001:2015)",. 2021 [Online]. Available online: <https://www.iso.org/standard/60857.html> [Accessed on 10 January 2023]

³ Idris, M.C.; Durmusoglu, A. "Innovation management systems and standards: A systematic literature review and guidance for future research. Sustainability,"2021. [Online]. Available on: <https://www.mdpi.com/2071-1050/13/15/8151> [Accessed 24th January 2023]

4 Structure and Membership

4.1 Structure

The table below illustrates the latest official structure of the ISO TC 279 Committee, which is mapped directly by NSAI TC45

Structure	Liaisons
Reference ↑	Title
ISO/TC 279/STTF 	Spanish translation task force
ISO/TC 279/TF 2 	Comments handling creation CAG
ISO/TC 279/WG 1 	Innovation management system
ISO/TC 279/WG 2 	Terminology, terms and definitions
ISO/TC 279/WG 3 	Tools and methods

4.2 Members

Five new members joined NSAI TC45 during 2023. The list below are the member organisations for the year 2023:

Organisation	Committee Role
Dolmen Design & Innovation (Managing Director, Dolmen)	Chair
Abcon Ireland	Member
Ariadne Consultants	Member
Atlantic Technological University	Member
Bord Iascaigh Mhara (BIM)	Member
Catalyst	Member
Centre for Excellence in Universal Design, National Disability Authority	Member
Chronos Consulting	Member
Citi Innovation Lab Dublin (Head of Innovation Design)	Member
Commercialisation Manager CeADAR	Member
CTO Neurent Medical	Member
DCU Business School (Assistant Professor)	Member
Digital Catapult	Member
DPER Innovation Team	Member
Dromone Engineering	Observer
Enterprise Ireland	Member
Ervia	Member
Evoquent IP	Member
Hanna Moore + Curley, IP Attorneys (European Patent Attorney, IP Strategy lead)	Member
ICT Skillnet & Technology Ireland Innovation Forum (Manager)	Member
IDA	Member
IDA (Innovation team)	Member

IDA Ireland (Head of Technology, Consumer & Business Services)	Member
Innovate XL Innovation Consultant	Member
Innovation Consultants	Member
Innovation Consultant GBI Ltd.	Member
Innovation Delivery Ltd. Innovation Consultant	Member
IRDG	Observer
J&J Depuy Synthes	Member
Maynooth University	Member
Mergon	Member
NACEC - National Association of Community Enterprise Centres	Member
NACEC - National Hub Network Manager NOTE: NACEC recently rebranded as CEAI - Community Enterprise Association Ireland	Member
National College of Ireland / NCI (Program Director Innovation & Commercialisation)	Member
NSAI - Market and Regulatory Support	Member
NSAI Medical Devices (Industry Engagement)	Member
NuaWorks	Member
NUIG	Member
Origin Chain Networks	Member
Queens University	Member
SFA (Small Firms Association, Ibec)	Member
SFI Challenges Research Manager	Member
SFI Confirm	Member
Sustainability Works (Business & Innovation Consultant)	Member
TU Dublin	Member
NSAI	Committee Manager

4.3 Liaison Organisations (Category A and B), ISO TC 279

Organizations in liaison (Category A and B)

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

As illustrated above, during 2023, ISO TC 279 had active liaison relationships with key international players in Innovation Management, including OECD, EPO, WIPO, UNESCO, UNIDO, LESI, World Bank and others who are actively following and participating in the ISO TC279 work programme. For example, the future revised version of the influential and highly cited OECD Oslo Manual on Innovation [4] will be aligned with the outputs from ISO TC279.

Many countries (54 Participating and 22 Observing members during 2023) are heavily involved in ISO TC 279 work programme, such that ISO believe the outputs from ISO TC 279 could well be the basis for 'the next ISO 9000 series' of key International management system standards, to support the systematic management of innovation systems in organisations of all types and sizes globally.

4.4 Liaison Organisations, to ISO TC 279

The significant work being undertaken of ISO/TC 279 is recognised by its peers, through liaisons to other ISO technical committees. These liaison committees are a key aspect of the committee's work, that ensures alignment and consistency of standards across the whole ISO portfolio. See below for a full list of liaison committees to ISO/TC 279.

⁴OECD, "Oslo Manual 2018 Guidelines for collecting , Reporting and Using data on Innovation",2018, [Online]. Available on: <https://www.oecd.org/sti/inno/oslo-manual-2018-info.pdf> .[Accessed on 8th February 2023]

Reference ↑	Title
ISO/CASCO	Committee on conformity assessment
ISO/IEC JTC 1/SC 7	Software and systems engineering
ISO/IEC JTC 1/SC 40	IT service management and IT governance
ISO/TC 176/SC 1	Concepts and terminology
ISO/TC 176/SC 2	Quality systems
ISO/TC 176/SC 3	Supporting technologies
ISO/TC 258	Project, programme and portfolio management
ISO/TC 266	Biomimetics
ISO/TC 268	Sustainable cities and communities
ISO/TC 286	Collaborative business relationship management
ISO/TC 307	Blockchain and distributed ledger technologies
ISO/TC 312	Excellence in service
ISO/TC 323	Circular economy

5 Summary of 2023 Activities

5.1 National

5.1.1 Meetings

Committee members attended the following national meetings as follows:

Meeting No.	Date	Minutes Reference ** optional**
1	16 th January 2023	N 445
2	14 th March 2023	N 456
3	18 th May 2023	N 474
4	14 th September 2023	N 510
5	7 th December 2023	N 518

5.1.2 National Work

The Standards Committees does not draft any National Standards as it is focussed on the development of international standards. All of the ISO/TC 279 Standards adopted as European Standards will be published as Irish Standards.

5.2 International/Regional

5.2.1 Meetings

Committee members attended international meetings as follows:

Committee Name	Location	Date	No. of Attendees
ISO/TC 279 11 th Plenary	Italy	16 th -20 th October	2

5.2.2 International/Regional Work

Ireland is committed to following and inputting into the development of the ISO Standards. The National Committee reviews, comments and votes on each of the public comment drafts circulated by ISO/TC 279.

Ireland has several experts participating in the Working Groups that are drafting the Standards.

Irish experts collaborated with their colleagues in UNIDO and ISO on the publication of an ISO-UNIDO Innovation Management Handbook. This practical guide expands upon the standard ISO 56002:2019, Innovation management — Innovation management system — Guidance, and aims at providing guidance for organizations wanting to innovate. In addition to the Handbook, UNIDO and ISO presented an online course on Innovation Management that they developed, which is currently available in both English and Spanish on UNIDO's Knowledge Hub, found at the following [LINK](#).

5.2.3 International/Regional Standards Reviewed

ISO/CD 56000, *Innovation management — Fundamentals and vocabulary*

ISO/DIS 56001, *Innovation management — Innovation management system — Requirements*

ISO/FDIS 56007, *Innovation management — Tools and methods for idea management — Guidance*

ISO/DIS 56008, *Innovation management — Tools and methods for innovation operation measurements — Guidance*

FprEN ISO 56007, *Innovation management - Tools and methods for idea management - Guidance (ISO/DIS 56007:2023)*

prEN ISO 56008, *Innovation management — tools and methods for innovation operation measurements — Guidance*

5.2.4 International/Regional Voting Results

The committee voted on 21 out of the 27 international votes in 2023.

5.3 Policy /Update

On the 18th May 2022 the Minister for Further and Higher Education, Research, innovation and Science Simon Harris launched *Impact 2030: Ireland's Research and Innovation Strategy*. The core purpose of the new national strategy is to ensure that Ireland's investment in research and innovation makes as big a difference as possible to as many people as possible [5].

Minister Harris said:

"The Irish research and innovation system is a strategic national asset that – through the whole-of-government approach taken by Impact 2030 – will deliver solutions and

⁵ Government of Ireland, "Impact 2030 – Ireland's Research and Innovation Strategy", 2022.[Online]. <https://assets.gov.ie/224616/5f34f71e-e13e-404b-8685-4113428b3390.pdf> [Accessed on: 26th January, 2023]

will create opportunities to address these grand challenges, building on and continuing its very successful role in Ireland's economic performance and resilience to date [6]."

This National strategy which focuses on delivering system-wide impact that will facilitate and add value to the activities of national R&I performers and funders across five pillars, recognises standards development as an integral part of a competitive national enterprise R&I ecosystem. Indeed, the strategy makes reference to the ISO 56000 series supporting innovation management, especially in SMEs in Ireland.

Under pillar 3.6 "Wider Business Environment" which is to deliver a competitive wider business ecosystem in standards, intellectual property, finance and tax measures. NSAI is committed to supporting its government department the Department of Enterprise Trade and Employment.

NSAI will deliver strategic objectives aligned to its own Strategic Plan for 2022-2026 "Innovating to shape a safer, better, and sustainable future [7]". These flagship initiatives will enhance enterprise engagement on standards development and use for innovation and grow the number of firms with Innovation Management Certification.

NSAI will continue the work to grow the NSAI Innovation committee and actively contribute to the development of the international standard for Innovation Management system – requirements and enhance the knowledge valorisation of the ISO 56000 series.

Furthermore in 2023 NSAI initiatives regarding SME engagement continued to be examined and improved as part of the NSAI Strategic Plan, as new standards are currently under development to help strengthen and enable SMEs in their innovation management journey.

5.4 Publications

National Standards are not produced by this committee as International Standards developed in this area will be published as European Standards and adopted as Irish Standards.

6 Work programme for 2024 onwards

6.1 ISO/TC 279 – Innovation Management

ISO/DIS 56000, *Innovation management – Fundamentals and vocabulary*

ISO/DIS 56001, *Innovation management – Innovation management system – Requirements*

ISO/FDIS 56008, *Innovation management – Tools and methods for innovation operation measurements – Guidance*

ISO/AWI TR 56009, *Innovation management – Example implementations of Innovation Operation Measurements*

⁶ Government of Ireland, "Minister Harris launches Impact 2030: Ireland's Research and Innovation Strategy", 2022. [Online]. <https://www.gov.ie/en/press-release/18f45-minister-harris-launches-impact-2030-irelands-new-research-and-innovation-strategy/> [Accessed on: 26th January, 2023]

⁷ NSAI, "NSAI Strategic Plan 2022-2026" [Online]. https://www.n sai.ie/images/uploads/general/NSAI-Strategic_Plan_2022-2026.pdf/ [Accessed on: 26th January, 2023]

6.2 CEN/TC 389 – Innovation Management

prEN ISO 56000 rev, *Innovation management - Fundamentals and vocabulary (ISO/DIS 56000:2024)*

prEN ISO 56001, *Innovation management – Innovation management system – Requirements (ISO/DIS 56001:2023)*

FprEN ISO 56008, *Innovation management - tools and methods for innovation operation measurements - Guidance (ISO/FDIS 56008:2024)*

7 Additional Information

ISO 56001-- Innovation management – Innovation management system – Requirements

NSAI ran a social media campaign highlighting ISO/DIS 56001, the upcoming requirements standard for innovation management, that was out for public comment through "Your Standards Your Say" platform.

ISO 56001 is contributing to driving delivery of the vision and goals of National and European Innovation Policy, thereby helping to advance Ireland's national competitive advantage through the development, adoption and strategic use of this standard. As it has the potential to revolutionise the way innovation is managed.

Comments were received from members of the public as part of this campaign, that were reviewed by the committee and feed into the comments submitted by Ireland to ISO as part of Its National Positioning Ballot.

Enterprise Ireland Innovation Scorecard based on ISO 56000 Series

Enterprise Ireland (EI), the government organisation responsible for the development and growth and competitiveness of Irish enterprises in world markets, has been instrumental in ensuring that ISO 56000 is used to assist SMEs. EI utilises the ISO 56000 Innovation Management Series as its framework for improving the innovation capabilities and performance of all Irish and multinational companies in Ireland to this end. EI also uses this same framework to promote innovation excellence throughout Europe.

Irish businesses are supported through an online Innovation scorecard that is currently utilised as an innovation tool for SMEs, MNCs and public sector organisations. The scorecard is based on the new ISO 56002 Innovation Management System guidance standard.

Based on answers to a questionnaire, the tool automatically generates a rich PDF report that includes a very intuitive heatmap which helps users to quickly understand their overall innovation position and identify key areas of strength and weakness. Users can also identify relevant development supports and understand the most effective next steps to improve their innovation management capability and performance.

The data generated by the toolset can help policy makers better address the innovation development needs of the SME, MNC and public service sectors in Ireland and across Europe.

Due to the success of the innovation scorecard, Enterprise Ireland has expanded its programme to provide SMEs with an Innovation Diagnostic Tool service, to help identify weaknesses in their innovation management capacity. The innovation diagnostic is a facilitated collaborative group

exercise. It is a more comprehensive and in-depth assessment that the innovation scorecard resulting in a more detailed and insightful analysis of where there are opportunities to develop organisation innovation capability.

Innovation Diagnostic tools are utilised, as part of the process, to diagnose gaps within their innovation capacity and provides tools to help SMEs overcome them. This service avails of the international best practices on innovation management activities, set out in the ISO 56000 Series of guidance standards on Innovation Management.

Enterprise Ireland's Innovation Diagnostic tools focus on five of the key groups of innovation management elements aligned with the ISO 56000 standard series:

- Leadership & Planning; Organisation Context; Operation; Supports; Evaluation & Improvement.

These elements and their interactions are needed for an organisation to establish its innovation capabilities for the purpose of effectively and sustainably achieving innovations. This exercise and output report allows business leaders to take a holistic view of the areas in their organisations. Leaders can understand where the opportunities are for improvement in developing their innovation capabilities based on the 5 key element groups. For more information you can download the information on the Innovation Diagnostic tool for SMEs, click on the following [LINK](#).

Government Policy: Impact 2030 & SME & Entrepreneurship Growth Plan

A particular focus of the NSAI TC45 team during 2023 has been continued inputs into the development of the ISO draft standards listed above, and related national roll-out and promotion of these and other published ISO 56000 series standards. Such a broad and ongoing national roll-out will support and enable NSAI actions under Impact 2030 (Ireland's Research and Innovation Strategy, is to maximise the impact of research and innovation on multiple national priorities.) and the national vision therein of positioning Ireland as a 'Global Innovation Leader'.

The widespread introduction of systematic - versus ad-hoc - innovation management practices as outlined in the ISO 56000 series will also help indigenous Irish SMEs to deliver much needed improvements in productivity and international competitiveness and exports – as outlined in the OECD report on SME Productivity in Ireland published in 2019 [⁸], and the directly related and current national SME & Entrepreneurship Growth Plan being led by the Department of Enterprise Trade & Employment (DETE).

The Taskforce's Growth Plan [⁹]set out a wide range of recommendations with long-term strategic relevance for SME and entrepreneurs, including measures to assist companies to start up, scale up, enhance their digital capabilities, and increase export activity. These recommendations are being taken forward by a Ministerial-led SME and Entrepreneurship Implementation Group.

NSAI was assigned the following action under recommendation 2.4 Support and recognise a broader understanding of innovation to incentivise increased investment in innovation:

⁸ OECD, "OECD SME and Entrepreneurship Papers No 17", 2019. [Online]. Available on: https://www.oecd-ilibrary.org/economics/oecd-sme-and-entrepreneurship-papers_f493861e-en [Accessed on: 10th January,2023]

⁹ DETE, " Report of the SME Taskforce: National SME and Entrepreneurship Growth Plan", 2021. [Online]. Available on: <https://assets.gov.ie/120136/27ff2549-d338-4507-bf16-1305a7f8c692.pdf> [Accessed on: 30th January,2023]

Action 2.4.2: Promote the use of the ISO 56000 Innovation Management Standards by SMEs through awareness building and education to encourage a wider view and understanding of innovation and grow innovation capability and culture within SMEs

These actions supporting recommendations are being progressed by the taskforce. Government has noted the significant progress made on the 10 priorities and expressed the intention to continue the work of the Taskforce into 2024 and the intention to publish a progress report on the priority areas [¹⁰]. This progress report is available at SME and Entrepreneurship Taskforce 2023: Priority Actions Progress Report.

NSAI TC45 will continue to work closely with our international community of experts & colleagues within ISO TC279 to support and enable the above strategy and actions.

¹⁰ DETE, " SME and Entrepreneurship Taskforce 2023: Priority Actions Progress Report", 2023. [Online]. Available on: <https://enterprise.gov.ie/en/publications/publication-files/sme-and-entrepreneurship-taskforce-2023-priority-actions-progress-report.pdf> [Accessed on: 27th February,2024