HSbooster.eu
TRAINING ACADEMY

Intermediate 1

Course 2

STANDARDISATION TRAINING ACADEMY

Topic:

HOW TO PARTICIPATE IN TCS OR WGS

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Module Objectives

After completing this module, you should be able to:

1. understand that only national organisations for standardisation can become ISO members and only one member per country shall represent the ISO in that country;
2. explain that committee managers deal with administrative tasks of the committee;
3. explain that committee chairs deal with managerial tasks of the committee;
4. explain that liaisons may be established between committees, between
5. ISO and IEC, and between committees and external organisations;
6. explain that WGs are managed by the convenors who lead the WG
7. towards achieving the main goals for which the WG was originally established;
8. explain that members can choose to become O-members or P-members;
9. explain that O-members only observe standards development;
10. explain that P-members are actively engaged in standards development and are obliged to vote on working drafts, as well as, to attend technical committee meetings (if requested).

Key Terms

Committee Chairs, Committee Managers, Convenors, ISO/IEC JTC1, Liaisons, O-members, P-members

About The Author

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Biljana Tošić is a Teaching Assistant and a Research Assistant at the Faculty of Organisational Sciences, University of Belgrade. She earned a B.Sc. and M.Sc. in Quality Management and Standardisation and another M.Sc. in Human Resources Management at the same Faculty. She is currently a Ph.D. Candidate, working on a doctoral dissertation titled ''The significance of the expertise in standardisation for the internationalisation of SMEs''. To date, she has been engaged in teaching several courses at the Faculty: Fundamentals of Quality, Standardisation 1, Metrology with the Fundamentals of Engineering, Normative Regulation of Quality, and Accreditation and Certification. She has been a member of the organisational board of the World Standards Cooperation Academic Day 2019 and the International Cooperation for Education about Standardisation (ICES) WorkShop 2019. She has been a member of the technical board of the International Symposium SymOrg 2020 titled ''Business and Artificial Intelligence'' and the SymOrg 2022 titled ''Sustainable Business Management and Digital Transformation: Challenges and Opportunities in the post-COVID Era''. She has been engaged in project III 47003 ''Infrastructure for technology-enhanced learning in Serbia'', supported by the Ministry of Education, Science, and Technological Development of the Republic of Serbia (2017-2020). She has been Editor in Chief of the Quality Media Station, the first media centre for quality established within the TEMPUS project titled ''Enhancement of Quality Infrastructure in Western Balkan Countries (EQIWBC)'' (2015-2017). She is currently a member of the National Mirror Committee Conformity Assessment & Quality Management KS CASCO at the Institute for Standardisation of Serbia (National Technical Committee related to ISO/CASCO, ISO/TC 176, ISO/TC 176/SC 1, ISO/TC 176/SC 2, ISO/TC 176/SC 3, ISO/TC 283, CEN/SS F20, CEN/TC 279, CEN/TC 379, CEN/TC 381, CEN/TC 389, CEN/CLC/JTC 1, and CEN/CLC/JTC 4).

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1 INTERNATIONAL ORGANISATION FOR STANDARDISATION (ISO)

As an independent, non-governmental, formal organisation for standardisation, ISO aims at bringing together members from 167 different countries to develop voluntary, consensus-based, international standards while contributing significantly to sustainable development. [1] Only national organisations for standardisation can become ISO members and there can be only one member per country. [2] There are three member categories: full members, correspondent members, and subscriber members, and each category enjoys different benefits within the ISO system. [3]

To learn more about ISO membership, please visit the following links:

- https://www.iso.org/members.html

- https://www.iso.org/publication/PUB100399.html

- https://connect.iso.org/login.action?os_destination=%2Fpages%2Fviewpage.action%3FspaceKey%3Dmembers%26title%3DMember%2BArea&permissionViolation=true

All members meet once a year at the General Assembly (GA) to determine ISO's strategic goals. [4] As an annual meeting attended by all ISO members and the Principal Officers (President, Vice-President (policy), Vice-President (technical management), Vice-President (finance), Treasurer, and Secretary-General), the GA enjoys the greatest authority over the ISO members and is hosted by the ISO member(s). [5] Additionally, 20 members, ISO Officers, and Chairs of the Policy Development Committees (CASCO, COPOLCO, and DEVCO) meet three times a year at the ISO Council. [6] The ISO Council enjoys the authority over several technical committees and working groups which are reporting directly to the ISO Council (e.g. CSC/FIN, CSC/SP, CSC/NOM, CSC/OVE, CASCO, COPOLCO, and DEVCO). [7] All members can become members of the Council and the membership rotates to ensure the adequacy of its members. [8] Finally, the ISO Council reports directly to the General Assembly. [9] All technical matters are managed by the Technical Management Board (TMB) which reports to the Council and is responsible for technical committees (TCs). [10] The TMB consists of 15 members

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[1] ISO. (2025a). About us. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/about-us.html.

[2] ISO. (2025c). Members. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/members.html.

[3] Ibid.

[4] ISO. (2025d). Structure and Governance. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/structure.html.

[5] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.

[6] ISO. (2025d). Structure and Governance. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/structure.html.

[7] Ibid.

[8] Ibid.

[9] Ibid.

[10] Ibid.

and the Chair who meet three times a year (February, June, and September) and work by collaborating between meetings. [11] The TMB is responsible for establishing TCs, electing TC chairs, and monitoring their technical activities. [12] The TMB also establishes the Directives as the rules for the standards development and manages all technical activities. [13]

To learn more about committees reporting to the Council, please visit the following links:

- https://www.iso.org/committee/259960.html
- https://www.iso.org/committee/259963.html
- https://www.iso.org/committee/6887745.html
- https://www.iso.org/committee/6774216.html
- https://www.iso.org/casco.html
- https://www.iso.org/copolco.html
- https://www.iso.org/devco.html

To access the complete governance structure of the TMB, please visit the following link:

- https://www.iso.org/committee/4882545.html

To access the complete list of TCs, please visit the following link:

- https://www.iso.org/technical-committees.html

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[11] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from:
https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.
[12] ISO. (2025b). Governance of Technical Work. Accessed on 21.02.2025. Retrieved from:
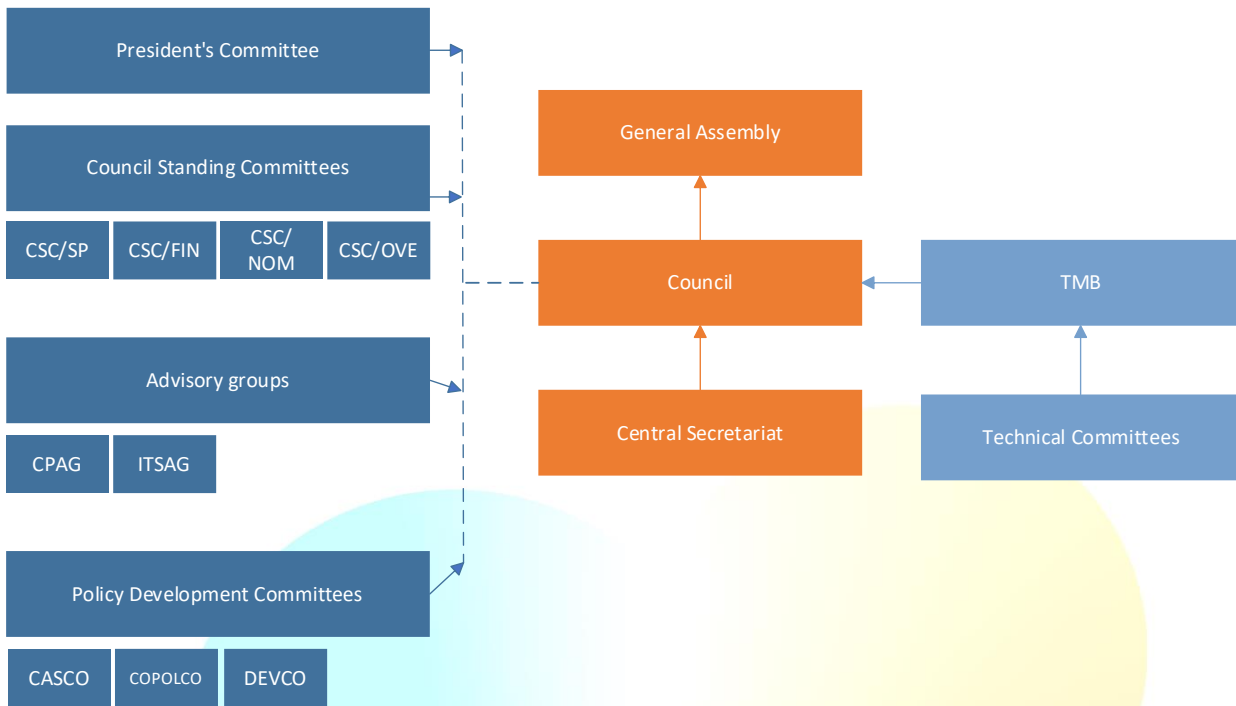https://www.iso.org/governance-of-technical-work.html.
[13] Ibid.

Fig. 1. The ISO Governance Structure [14]

Currently, TMB manages over 300 TCs (from screw threads to the heat supply network). [15] By clicking on the technical committee, you may access more specific data about the committee secretariat, committee managers, technical managers, and editorial managers, work programs and business plans, meetings, and standards that are up for development. [16]

TCs may choose to establish one or more subcommittees (SCs) or working groups (WGs). [17] The scope of the SC must be within the scope of the TC within which the SC was established. [18] TCs may also choose to establish different groups that shall be disbanded after completing a specific task (e.g. advisory groups, study groups, and ad hoc groups). [19] Aside from TCs, one or more project committees (PCs) may be established to develop some specific standards. The PCs differ from TCs, given that they enjoy a limited mandate and shall be disbanded after completing a specific task. [20] By definition, PCs cannot establish SCs unless they are

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[14] ISO. (2025d). Structure and Governance. Accessed on 21.02.2025. Retrieved from:
https://www.iso.org/structure.html.

[15] ISO. (2025e). Technical Committees. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/technical-committees.html.

[16] Ibid.

[17] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from:
https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.

[18] Ibid.

[19] Ibid.

[20] Ibid.

transformed to TCs. [21] PCs may be transformed to TCs if the need for more standards within a specific area has been recognized. [22] All ISO TCs, PCs, or SCs are administratively supported by the ISO member body (commonly known as the Secretariat). [23]

To learn more about the latest developments concerning technical activities and matters, please see the complete collection of the TMB Communiqué published after each meeting:

- https://isotc.iso.org/livelink/livelink?func=ll&objId=15788626&objAction=browse&viewType=1

To learn more about the ISO technical work, please see the following document:

- https://www.iso.org/sites/directives/current/consolidated/index.xhtml, especially:
- Clause 1.8. Chairs of technical committees and subcommittees
- Clause 1.9. Secretariats of technical committees and subcommittees
- Clause 1.15. Liaisons between technical committees
- Clause 1.16. Liaison between ISO and IEC
- Clause 1.17. Liaison with other organisations
- Annex D: Resources of Secretariats and Qualifications of Secretaries
- Annex L: Selection criteria for people leading the technical work

The member appointed by the TMB as the Committee Secretariat appoints the Committee Manager. [24] The Committee Manager deals with the administrative tasks of the committee and must remain neutral when dealing with members of the committee. [25] The Committee Chair deals with the managerial tasks of the committee and works closely with the Committee Manager. [26] The Committee Chair plays a significant role in the day-to-day activities of the committee by thinking strategically, developing standards effectively, collaborating with members of the committee, leading them to reach a consensus, encouraging national, regional, and international collaboration. [27] The Liaison may be established between ISO committees, between ISO committees and IEC committees, and between ISO committees and external organisations. [28]

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[21] Ibid.

[22] Ibid.

[23] Ibid.

[24] Ibid.

[25] ISO. (2023c). Getting Started Toolkit: For ISO Committee Managers. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100415.html.

[26] ISO. (2023b). Getting Started Toolkit: For ISO Committee Chairs. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100417.html.

[27] Ibid.

[28] ISO. (2023a). Getting Started Toolkit: For Committee Liaisons. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100447.html.

The Liaison is responsible for maintaining the relationship between a broad range of stakeholders, enabling their voices to be heard throughout standards development. [29] There are many resources created by the ISO Central Secretariat aimed at assisting Committee Managers, Committee Chairs, and Committee Liaisons.

To access the ISO Getting Started Toolkit(s), please visit the following links:

- https://isotc.iso.org/livelink/livelink/fetch/2000/2122/15507012/20090199/Getting_started_Committee_Managers.pdf?nodeid=17891748&vernum=-2
- https://isotc.iso.org/livelink/livelink/fetch/2000/2122/15507012/20090199/Getting_started_Chairs.pdf?nodeid=15508281&vernum=-2
- https://isotc.iso.org/livelink/livelink/fetch/2000/2122/15507012/20090199/Getting_started_committee_liaisons.pdf?nodeid=21124173&vernum=-2

The WGs established by TCs, SCs, or PCs are managed by the Convenors who lead the WG towards achieving the main goals for which the WG was originally established. [30] Convenors are appointed for a three years period and can be reappointed an unlimited number of times. [31] Only experts elected by the members that have become P-members (and category A liaisons) can become members of the WGs. [32] These experts were chosen based on their expertise and should work closely with the member(s) who appointed them. [33]

The following brochure may offer some guidance on the ISO's technical work:

- https://www.iso.org/publication/PUB100037.html

To learn more about the different roles, responsibilities, and competence requirements of the committee leadership, please see the following link:

- https://isotc.iso.org/livelink/livelink/fetch/2000/2122/15507012/19587784/PMM_-_Roles%2C_responsibilities_and_capability_requirements.PDF?nodeid=19588324&vernum=-2

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[29] Ibid.
[30] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from:
https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.
[31] Ibid.
[32] Ibid.
[33] Ibid.

ISO members may choose to become O-members (observer members) or P-members (participating members). [34] O-members only observe standards development but may give advice and suggestions. [35] P-members are actively engaged in standards development and are obliged to vote on working drafts, as well as, to attend technical committee meetings. [36] Correspondent members may become observers of committees but they do not have the right to give advice and suggestions. [37] Subscriber members can take a part in the committee meetings, but only under the pilot project (e.g. five committees for two years). [38]

The ISO only develops standards for which there is evident demand at the global market. [39] Standards are developed by experts who have the knowledge, not only about the professional or technical sector to which the standard applies but also knowledge about standardisation. [40] Others with relevant knowledge, skills, and experiences, such as governmental agencies, accredited laboratories, consumer associations, academia, and governmental and non-governmental organisations may join the standards development. [41]

The ISO works closely with other formal international organisations for standardisation – IEC, and ITU. These organisations established the Worlds Standards Cooperation (WSC), aiming to advance the voluntary, consensus-based international standardisation system. [42] Under the auspices of the Standards Programme Coordination Group (SPCG), the World Standards Day (WSD) (which is celebrated each year on the 14th of October worldwide), and the G20: International Standards Summit, the WSC aims at encouraging and advancing the voluntary, consensus-based international standardisation system around the world. [43]

To learn more about the WSC, please visit the following link:

- https://www.worldstandardscooperation.org/

To learn more about the SPCG, please visit the following link:

- https://www.worldstandardscooperation.org/what-we-do/standards-programme-coordination-group-spcg/

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[34] ISO. (2025f). Who develops standards? Accessed on 21.02.2025. Retrieved from: https://www.iso.org/who-develops-standards.html.

[35] Ibid.

[36] Ibid.

[37] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.

[38] Ibid.

[39] ISO. (2011). Guidance for ISO Liaison Organisations: Engaging Stakeholders and Building Consensus. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100270.html.

[40] Ibid.

[41] Ibid.

[42] WSC. (2025). Who are we? Accessed on 21.02.2025. Retrieved from: https://www.worldstandardscooperation.org/who-we-are/.

[43] Ibid.

To learn more about the G20:International Summit, please visit the following link:

🔗 https://www.worldstandardscooperation.org/g20/

The ISO collaborates with the UN and the UN specialized agencies, especially the ones dealing with international standards and regulations. [44] For example, the ISO and the CEN signed the agreement on technical cooperation commonly known as the Vienna Agreement.

To learn more about the Vienna agreement, please visit the following link:

🔗 https://isotc.iso.org/livelink/livelink?func=ll&objId=4230458&objAction=browse&sort=subtype

The ISO also collaborates with over 700 national, regional, and international organisations by sharing knowledge, skills, competence, and expertise required for developing standards.

To access the complete list of organisations cooperating with ISO, please visit the following link:

🔗 https://www.iso.org/organisations-in-cooperation-with-iso.html

All actors within the ISO community must follow the Code of Conduct which generally applies to the ISO/CS, NSBs, committee managers, committee chairs, committee liaisons, convenors, project managers, technical managers, WG secretaries, experts, and delegates. [45]

To learn more about the Code of Conduct, please visit the following link:

🔗 https://www.iso.org/publication/PUB100397.html

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[44] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.
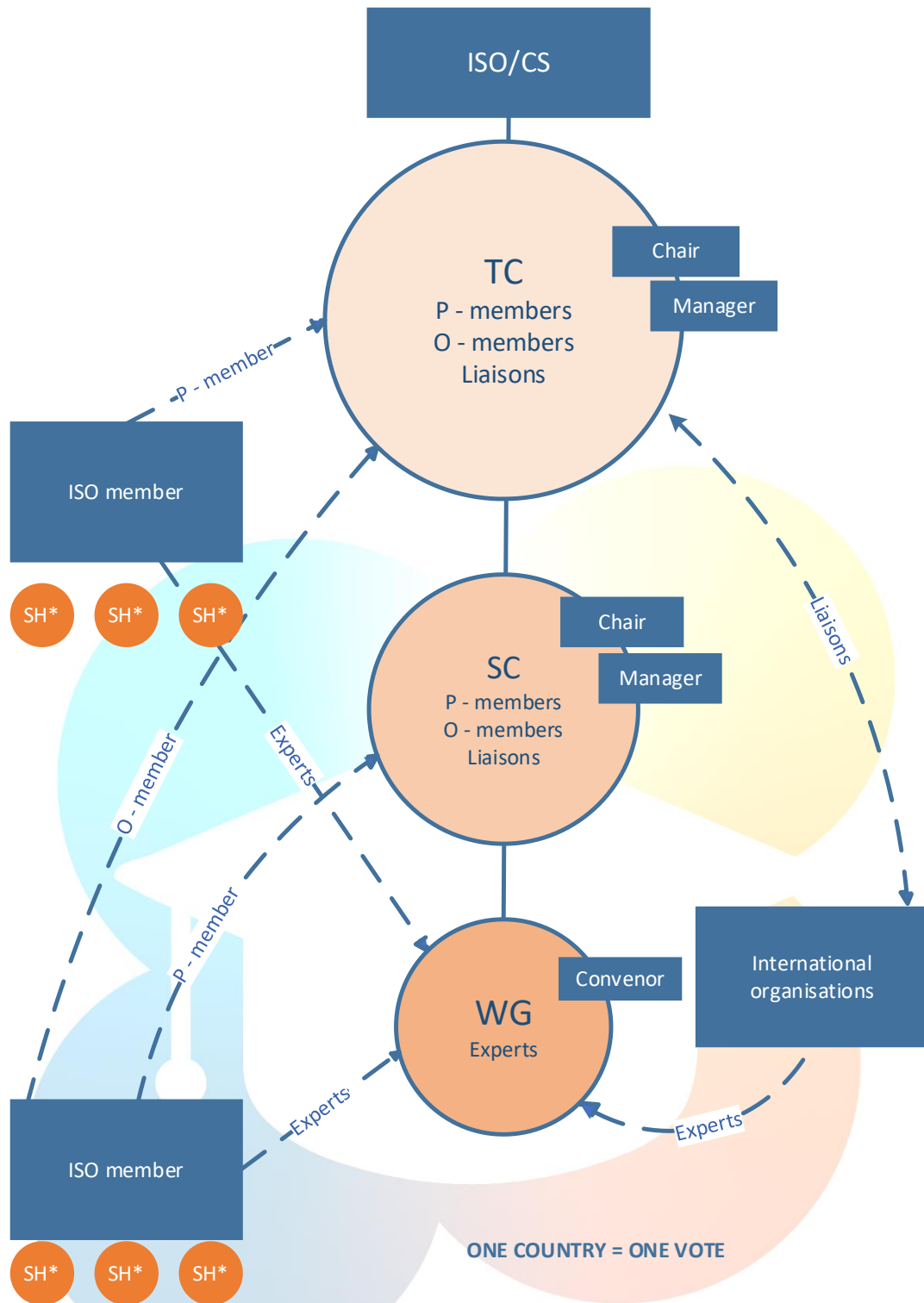[45] ISO. (2025d). Structure and Governance. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/structure.html.

Fig. 2. How elements of the ISO committee structure fit together [46]

[46] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from:
https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.

#HSbooster.eu Success Story

The Project: SHINTO

SHINTO – short name for Self-Healing soft materials for sustainable products - is a project aiming to disrupt the soft robotics market by creating a new market for self-healing structural components, introducing autonomous damage detection and healing in intelligent soft robots. In symbiosis, VUB-research groups FYSC and Brubotics have been building soft robots out of self-healing materials that fully recover functional material properties and resulting performances after healing incurred damage. This extends the robots service lifetime and raises their reliability and sustainability, which in combination with their inherent recyclability contributes to economic benefits and the EU Green Deal.

The Project Standardisation Needs

SHINTO applied to the standardisation booster service to get support in connecting the SHINTO management and researchers with the right stakeholders in the standardisation scene (standardisation organisations, technical committees, peer experts). The objective of the project was to gain insights into and investigate the standardisation landscape (relevant existing standards) in the new field of technology, assist the standardisation organisation to evaluate the need for new standards. SHINTO defined terminology for self-healing materials and initiated a working draft for an ISO standard in soft robotics, contributing to foundational definitions for this emerging field.

To learn more about the Project, please visit the following links:

https://project-shinto.eu/

https://zenodo.org/records/10687284

2   INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)

The IEC aims at bringing together thousands of experts to work within the IEC TCs and SCs. These experts are appointed by their National Committees (NCs) to share their knowledge, skills, and competence, and to develop voluntary consensus-based international standards. [47] Only National Committees may become IEC members, either as full members or associate members and it may be only one National Committee per country. [48] The IEC also runs the ''Affiliate Country Programme'', by enabling developing or newly developed countries to get involved in technical committees and standards development without financial costs. [49]

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[47] IEC. (2025d). Technical Committees and Subcommittees. Accessed on 21.02.2025. Retrieved from: https://iec.ch/technical-committees-and-subcommittees#tcfacts.
[48] IEC. (2025b). National Committees. Accessed on 21.02.2025. Retrieved from: https://iec.ch/national-committees.
[49] Ibid.

To access the complete list of IEC members, please visit the following link:

🔗 https://iec.ch/national-committees

To access the complete list of IEC Affiliates, please visit the following link:

🔗 https://iec.ch/acp

The General Assembly (GA) is the supreme decision-making body of the IEC. [50] The GA consists of National Committees members and delegates to the IEC Board. [51] The IEC Board is the executive body of the IEC and reports directly to the GA. [52] The IEC Board consists of Officers (without vote) and 15 individual members. [53] The IEC Board delegates work to the Business Advisory Committee (BAC). [54] The BAC consists of 4 members of the IEC Board, 15 members from National Committees, and Officers (without vote) and mostly coordinates the financial planning. [55] The President's Committee (PresCom) advises and supports the IEC Board. [56] The IEC Board may also establish advisory groups to address specific matters not addressed by other committees and boards reporting to the IEC Board. [57] Additionally, the IEC Board also delegates work to the Market Strategy Board (MSB), the Standardisation Management Board (SMB), and the Conformity Assessment Board (CAB) that may establish Special Working Groups (SWGs) to address tasks specific to their subject area. Finally, the Secretariat (SEC) aims at carrying out the technical activities of the IEC. [58]

To learn more about the IEC Board, please visit the following link:

🔗 https://iec.ch/ords/f?p=103:48:0::::FSP_ORG_ID,FSP_LANG_ID:28485,25

To learn more about the PresCom, please visit the following link:

🔗 https://iec.ch/dyn/www/f?p=103:47:0::::FSP_ORG_ID,FSP_LANG_ID:28484,25

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[50] IEC. (2025a). Management Structure. Accessed on 21.02.2025. Retrieved from: https://iec.ch/management-structure.
[51] Ibid.
[52] Ibid.
[53] Ibid.
[54] Ibid.
[55] Ibid.
[56] Ibid.
[57] Ibid.
[58] Ibid.

To learn more about the BAC, please visit the following link:

🔗 https://iec.ch/ords/f?p=103:68:0:::::FSP_ORG_ID:28487

To learn more about the MSB, please visit the following link:

🔗 https://iec.ch/dyn/www/f?p=103:47:0:::::FSP_ORG_ID,FSP_LANG_ID:3261,25

To learn more about the SMB, please visit the following link:

🔗 https://iec.ch/dyn/www/f?p=103:47:0:::::FSP_ORG_ID,FSP_LANG_ID:3228,25

To learn more about the CAB, please visit the following link:

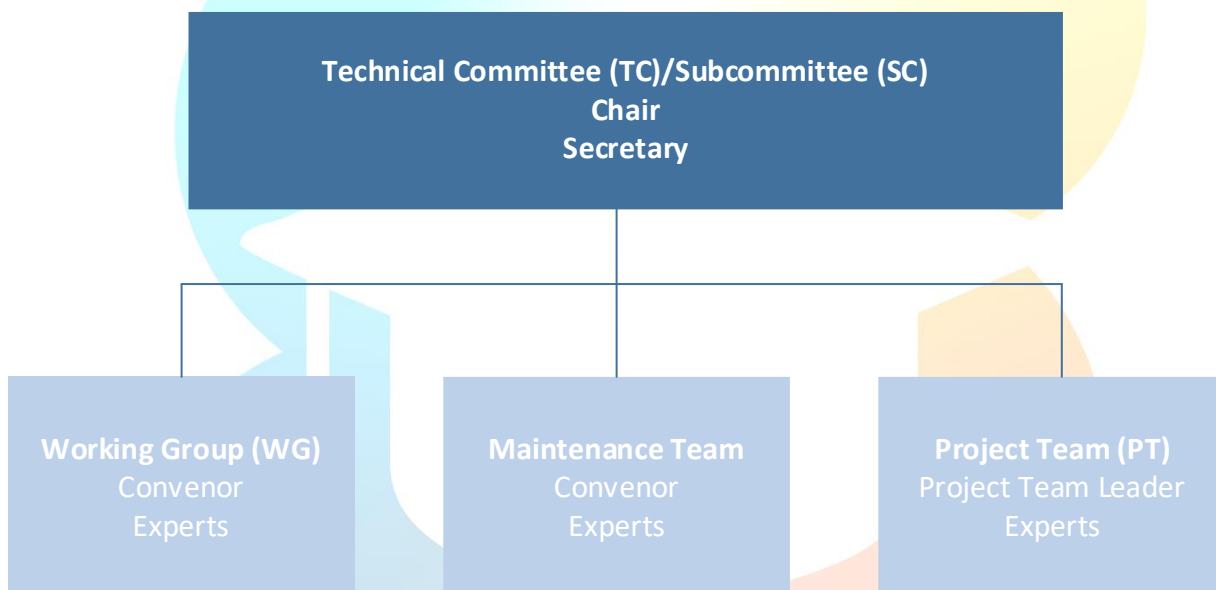🔗 https://iec.ch/dyn/www/f?p=103:47:0:::::FSP_ORG_ID,FSP_LANG_ID:3250,25

Fig. 3. The IEC TCs/SCs Governance Structure [59]

Currently, the SMB manages about 213 TCs and SCs, and about 1591 WGs. [60]

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[59] IEC. (2025c). Roles and Responsibilities. Accessed on 21.02.2025. Retrieved from: https://www.iec.ch/standards-development/roles-and-responsibilities.

[60] IEC. (2025b). National Committees. Accessed on 21.02.2025. Retrieved from: https://iec.ch/national-committees.

To access the complete list of TCs and SCs, please visit the following link:

🔗 https://www.iec.ch/technical-committees-and-subcommittees#tclist

By clicking on the TCs/SCs, you may access more specific data about the scope, structure, projects/publications, documents, votes, meetings, and even the collaboration platform. [61]

The SMB may choose to establish one or more PCs to develop some specific standards that are not within the scope of existing TCs or SCs. [62] PCs differ from TCs, given that they enjoy a limited mandate and shall be disbanded once standards have been published. [63] Additionally, joint technical committees (JTCs) and joint project committees (JPCs) may be established by a common decision of the ISO TMB and the IEC SMB, or by a decision of the Joint Technical Advisory Board (JTAB). [64] For example, these two organisations have jointly established the ISO/IEC JTC1 which aims at addressing standardisation in the field of ICTs.

To learn more about the JTAB and the ISO/IEC JTC1, please visit the following links:

🔗 https://www.iec.ch/ords/f?p=103:18:2436322894446::::FSP_ORG_ID,FSP_LANG_ID:3240,25

🔗 https://jtc1info.org/

🔗 https://assets.iec.ch/public/jtc1/ict_innovation.pdf?0824T11

More recently, the SMB blog has replaced the SMB newsletters, as it offers the most recent updates on all SMB activities. Additionally, the SMB Communiqué contains information about all of the SMB decisions that might be relevant to the broad IEC technical community.

The latest SMB newsletters (from 2015 to 2019) may be downloaded via the following link:

🔗 https://www.iec.ch/iec-zip-media/download/smb

To access the SMB blog, please visit the following link:

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[61] IEC. (2025d). Technical Committees and Subcommittees. Accessed on 21.02.2025. Retrieved from:
https://iec.ch/technical-committees-and-subcommittees#tcfacts.
[62] Ibid.
[63] Ibid.
[64] ISO/IEC. (2024). ISO/IEC Directives, Part 1 — Consolidated ISO Supplement — Procedure for the technical work — Procedures specific to ISO. Edition, 2024, Accessed on 21.02.2025. Retrieved from:
https://www.iso.org/sites/directives/current/consolidated/index.html.

 https://www.iec.ch/blog?categories=421

To access the SMB Communiqué, please visit the following link:

 https://www.iec.ch/smb-communique

When it comes to the technical work of the IEDiC (e.g. the roles and responsibilities of the committee secretariat, committee chairs and managers, convenors, and even the liaisons) – it is already described above, given that the document the ISO/IEC Directives (Part 1, 2024) set out several rules to be followed within ISO and IEC when carrying out the technical work.

To learn more about roles and responsibilities within TCs, please visit the following link:

 https://www.iec.ch/standards-development/roles-and-responsibilities

#HSbooster.eu Success Story

The Project: BEST4Hy

BEST4Hy focuses on the development and validation of existing and novel recycling processes for 2 key FCH products: PEMFC and SOFC. In particular, two existing processes will be developed to TRL 5: one on PEMFC and one on SOFC; two novel recycling techniques will be developed and validated at TRL 5 on PEMFC precious materials. In addition, one novel PEM dismantling process will reach TRL5 and one novel SOFC recycling technology will be proved at TRL3. At the end of the processes, the materials will be validated in terms of quality and performance when re-used in new components and new stacks, demonstrating the overall efficiency of recycling.

The Project Standardisation Needs

BEST4Hy, a project focused on developing and validating recycling techniques for hydrogen fuel cell technologies, identified a pressing need to align its innovations with existing and emerging standards. The project sought guidance to address the lack of comprehensive standards for managing the end-of-life phase of fuel cells, specifically PEMFC and SOFC technologies. With the aim of integrating sustainable design, disassembly, and handling of end-of-life fuel cell components, BEST4Hy needed support to identify relevant standards and benchmark its methods against approaches used in similar fields, such as those involving precious and hazardous materials. The project also required insights into technical committees and directives, such as IEC TC105 (Fuel Cell Technologies), IEC TC111 (Environmental Standardisation), and ISO TC197 (Hydrogen Technologies), to ensure its findings would contribute meaningfully to standardisation efforts. BEST4Hy was advised to contribute to sustainable fuel cell recycling by engaging with IEC/TC 105, IEC TC111 and ISO/TC 197, addressing gaps in end-of-life management of fuel cells.

To learn more about the Project, please visit the following links:

https://best4hy-project.eu/

https://zenodo.org/records/14330433

3 INTERNATIONAL TELECOMMUNICATION UNION (ITU)

As the United Nations specialised agency for information and communication technologies - ITU aims at developing voluntary consensus-based international standards to ensure that international networks and technologies may easily connect in communications networks. [65] Currently, the ITU brings together more than 20,000 experts from all over the world. [66] ITU members are mainly technology professionals from the government, micro, small and medium-sized, and, large enterprises, educational establishments, and national, regional, and international organisations. [67] With 193 Member States and over 900 companies, universities, and other organisations, ITU membership shapes the future of standards and standardisation. [68]

To learn more about the ITU Membership, please visit the following link:

    https://www.itu.int/hub/membership/become-a-member/

To access the complete list of ITU Members, please visit the following link:

    https://www.itu.int/hub/membership/become-a-member/

As the United Nations specialised agency for information and communication technologies - ITU is governed by the Plenipotentiary Conference and the ITU Council. [69] The Conference is the highest policy-making body

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[65] ITU. (2025a). About ITU. Accessed on 21.02.2025. Retrieved from:
      https://www.itu.int/en/about/Pages/default.aspx.
[66] Ibid.
[67] Ibid.
[68] Ibid.
[69] ITU. (2025b). General information on TSB. Accessed on 21.02.2025. Retrieved from: https://www.itu.int/en/ITU-T/info/tsb/Pages/geninfo.aspx.

of the ITU. [70] It consists of delegates from the ITU Member States that get together every four years to determine the future of ITU standards. [71]

The Conference: [72]

- sets the ITU general policies;
- adopts strategic and financial plans; and
- elects the senior management team of the ITU,
- the Member States of the Council, and the members of the Radio Regulations Board.

To learn more about the Conference, please visit the following link:

- https://pp22.itu.int/en/

The ITU Council serves as the governing body between the Plenipotentiary Conferences. [73] Its role is to address a variety of telecommunication policy issues and ensure that the ITU's activities, policies, and strategies are adequate. [74] The Council deals with the day-to-day operations, coordinates committee programs, adopts budgets and manages finances and expenditures. [75]

The Council aims at carrying out the decisions of: [76]

- the ITU Constitution;
- the ITU Convention;
- the Administrative Regulations;
- the Plenipotentiary Conferences; and
- other conferences and meetings of the ITU.

To learn more about the Council, please visit the following link:

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[70] ITU. (2025e). The ITU Plenipotentiary Conference. Accessed on 21.02.2025. Retrieved from: https://pp22.itu.int/en/en/about/about-pp22/.

[71] Ibid.

[72] Ibid.

[73] ITU. (2025c). ITU Council Overview. Accessed on 21.02.2025. Retrieved from: https://www.itu.int/en/council/Pages/overview.aspx.

[74] Ibid.

[75] Ibid.

[76] Ibid.

- https://www.itu.int/en/council/2022/Pages/default.aspx

The ITU's technical work is organized by sectors (governed by conferences and meetings):

- The Radiocommunications Sector (ITU-R):
    - The Radiocommunication Assembly (RA);
    - The Radiocommunication Advisory Group (RAG);
    - The Radio Regulations Board (RRB);
- The Telecommunication Standardisation Sector (ITU-T):
    - The World Telecommunication Standardisation Assembly (WTSA);
    - The Telecommunication Standardisation Advisory Group (TSAG);
- The Telecommunication Development Sector (ITU-D):
    - The World Telecommunication Development Conference (WTDC);
    - The Telecommunication Development Advisory Group (TDAG);

To learn more about the ITU-R, please visit the following link:

- https://www.itu.int/itu-r

To learn more about the ITU-T, please visit the following link:

- https://www.itu.int/itu-t

To learn more about the ITU-D, please visit the following link:

- https://www.itu.int/itu-d

The ITU-T's technical work is done through study groups that bring together a wide variety of experts to develop technical standards and guidelines (called ITU-T Recommendations). Since its establishment, the ITU-T has developed voluntary consensus-based international standards. ITU standards are crucial for the day-to-day operations of today's ICT networks. For example, the Emmy award-winning standard ITU-T H.264 might be one of the most universal standards for video compression developed by ITU-T available around the globe. [77]

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[77] ITU. (2025g). What's next for the technical standards that underpin our audiovisual heritage? Accessed on 21.02.2025. Retrieved from: https://www.itu.int/hub/2023/10/whats-next-for-the-technical-standards-that-

To access the ITU-T Recommendations, please visit the following links:

- https://www.itu.int/net4/ITU-T/search#?collection=ITU-T%20Recommendations
- https://www.itu.int/en/ITU-T/publications/Pages/latest.aspx
- https://www.itu.int/t/aap/aap-recs
- https://www.itu.int/net/ITU-T/lists/t-approval.aspx
- https://www.itu.int/ITU-T/recommendations/iso.aspx
- https://www.itu.int/pub/T-REC

Based at ITU's headquarters in Geneva, the Telecommunication Standardisation Bureau (TSB) acts as the secretariat to ITU-T study groups. Governed by the appointed Director, the TSB acts as a body responsible for enabling the ITU-T's standards development process. [78]

The TSB: [79]

- manages study groups;
- ensures secretarial and logistics services;
- approves the ITU-T Recommendations;
- enables access to the ITU-T Recommendations;
- maintains the ITU-T website;
- maintains and updates the List of ITU-T Recommendations;
- maintains and updates the ITU-T Work Programme Database;
- maintains and updates the ITU-T Patent Statements Database;
- maintains and updates the ITU-T Terms and Definitions Database (SANCHO);
- maintains and updates any other database as requested by study groups;
- offers administrative and technical support through the ITU Operational Bulletin;
- publishes various texts and documents (e.g. guidelines and recommendations);
- establishes agreements with international organisations for standardisation, etc.

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underpin-our-audiovisual-heritage/.

[78] ITU. (2025d). ITU-T in brief. Accessed on 21.02.2025. Retrieved from: https://www.itu.int/en/ITU-T/about/Pages/default.aspx.

[79] ITU. (2025b). General information on TSB. Accessed on 21.02.2025. Retrieved from: https://www.itu.int/en/ITU-T/info/tsb/Pages/geninfo.aspx.

To learn more about the ITU TSB, please visit the following link:

🔗 https://www.itu.int/en/ITU-T/info/tsb/Pages/default.aspx

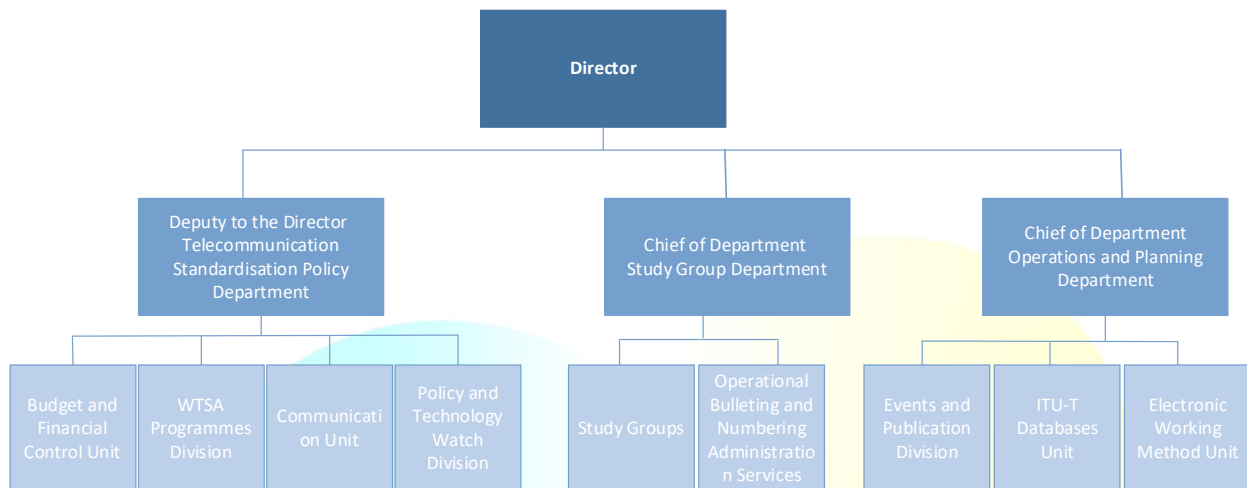**Fig. 4**. The ITU TSB Organisational Structure [80]

The World Telecommunication Standardisation Assembly (WTSA) meets every four years and sets out the general policy of ITU-T by establishing and coordinating study groups and approving study groups' programs, electing chairs and vice-chairs of the study groups, etc. [81]

To learn more about the WTSA, please visit the following link:

🔗 https://www.itu.int/ITU-T/wtsa-08/index.html

The Telecommunication Standardisation Advisory Group (TSAG) advises the TSB Director, establishes new and restructures existing study groups, advises them, sets and reviews priorities, coordinates the study groups' strategic, operational, and financial activities, etc. [82]

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[80] ITU. (2025f). TSB Organisational Structure. Accessed on 21.02.2025. Retrieved from: https://www.itu.int/en/ITU-T/info/tsb/Pages/org-structure.aspx.

[81] ITU-T. (2025b). The framework of ITU-T. Accessed on 21.02.2025. Retrieved from: https://www.itu.int/en/ITU-T/about/Pages/framework.aspx.

[82] Ibid.

To learn more about the TSAG, please visit the following link:

🔗 https://www.itu.int/en/ITU-T/about/groups/Pages/tsag.aspx

To learn more about the ITU-T, please visit the following link:

🔗 https://www.youtube.com/watch?v=FsVemofz8DQ

The ITU-T organizes several workshops and seminars covering a wide variety of topics in the ICT field. Aside from members-only workshops and seminars, the ITU-T also organizes standalone seminars and webinars that are open to everyone that wants to get involved. [83]

To access the complete list of events organized by the ITU-T, please visit the following link:

🔗 https://www.itu.int/en/ITU-T/Workshops-and-Seminars/Pages/default.aspx

#HSbooster.eu Success Story

The Project: TRIANGLE

The focus of TRIANGLE is the development of a framework that facilitates the evaluation of the QoE of new mobile applications, services and devices designed to operate in the future 5G mobile broadband networks. The framework will exploit existing FIRE facilities, adding new facilities when necessary. The project will identify reference deployment scenarios, will define new KPIs (Key Performance Indicators) and QoE metrics, will develop new testing methodologies and tools, and will design a complete evaluation scheme. The project will focus on the development of a framework to ensure user QoE in the new challenging situations, especially those due to heterogeneous networks and considering the role software will have in the new 5G ecosystem.

The Project Standardisation Needs

The TRIANGLE Project has refined its findings to create a focused framework that captured the interest of ITU-T Q17/12, leading to the Y.TestBed standardisation initiative. This initiative presented a structured testbed setup and methodology to evaluate the Quality of Experience (QoE) of multiple 5G and beyond mobile use cases. The Y.TestBed Recommendation offered a calibrated, automated testbed and testing methodology designed to deliver consistent, repeatable results using commercial devices and applications, aiming at making results more valuable by mimicking the setup of a real user. TRIANGLE's team has launched the Y.TestBed work item within ITU-T SG12 (Q17/12), but it faced challenges due to limited experience in standard writing. Through HSbooster, TRIANGLE aimed to receive expert feedback and guidance to ensure

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[83] ITU-T. (2025a). ITU-T Events. Accessed on 21.02.2025. Retrieved from: https://www.itu.int/en/ITU-T/Workshops-and-Seminars/Pages/default.aspx.

their contributions meet ITU-T standards and build the team's expertise in standardisation for future initiatives. TRIANGLE contributed to ITU-T Study Group 12 with a draft recommendation for 5G testbed environments, addressing key pre-standardisation needs.

To learn more about the Project, please visit the following links:

https://www.triangle-project.eu/

https://zenodo.org/records/14327502

4 EUROPEAN COMMITTEE FOR STANDARDISATION (CEN) AND EUROPEAN COMMITTEE FOR ELECTROTECHNICAL STANDARDISATION (CENELEC)

The CEN and the CENELEC are two non-profit formal organisations for standardisation. The CEN/CENELEC standards are voluntary consensus-based standards driven by business and developed by businesses, associations, commerce, academia, and the government. [84] The CEN/CENELEC community consists of 200.000 experts, such as: [85]

- 34 Member States counting national standardisation bodies (CEN) and national electrotechnical standardisation committees (CENELEC);

- European organisations representing businesses, commerce, consumers, etc;

- governmental organisations and agencies (e.g. the EC and the EFTA);

- the Affiliates as the national standards bodies/committees of countries cooperating with the EU and standards bodies of countries outside the EU;

- Memoranda of Understanding (MoU) with countries outside the EU and the EFTA;

- cooperation with international organisations the ISO (CEN) and the IEC (CENELEC).

Since 2012, the CEN and the CENELEC have established a set of criteria that all their National Members have to continuously fulfill to retain their CEN/CENELEC membership. [86] As of September 2017, General Assemblies (GAs) of the CEN and CENELEC approved ''Part 1D of the CEN/CENELEC Internal Regulations'' and, at the same time, revised the ''CEN-CENELEC Guide 22 on the organisational aspects and processes for the

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[84] CEN/CENELEC. (2025). CEN and CENELEC. Accessed on 21.02.2025. Retrieved from:
https://www.cencenelec.eu/european-standardization/cen-and-cenelec/.
[85] Ibid.
[86] CEN. (2025). About CEN. Accessed on 21.02.2025. Retrieved from: https://www.cencenelec.eu/about-cen/.

<u>assessment of the membership criteria''</u>. According to these documents, the voluntary assessment system is coordinated by the Membership Relations and Monitoring Committee (MRMC) whose Chair is elected for a four-year period by the CEN and the CENELEC GAs. [87] The MRMC reports directly to GAs and reviews assessment reports and manages all corrective actions. [88]

The CEN's National Members are National Standards Bodies and the CENELEC's National Members are National Committees of 27 countries from the EU, the United Kingdom, the Republic of North Macedonia, Serbia, and Turkey, and three countries from the EFTA: Iceland, Norway, and Switzerland (there can be only one National Member per country). [89] National Members shall implement European standards at the national level and withdraw any conflicting national standards. [90]

To learn more about the CEN/CENELEC organisational aspects and processes for the assessment of the membership criteria, please see the following document:

- https://www.cencenelec.eu/media/Guides/CEN-CLC/cenclcguide22.pdf

To access the complete lists of CEN Members, please visit the following link:

- https://standards.cencenelec.eu/dyn/www/f?p=CEN:5

To access the complete lists of CENELEC Members, please visit the following links:

- https://standards.cencenelec.eu/dyn/www/f?p=CENELEC:5

Additionally, National Standards Bodies of countries formally recognized by the EU as being potential candidates for EU membership may become the CEN/CENELEC Affiliate, according to <u>''CEN/CENELEC Guide 12: The concept of Affiliation with CEN and CENELEC''</u>. [91] National Standards Bodies and National Committees that are not eligible for the Affiliation status may become CEN/CENELEC Companion Standardisation Bodies (CSB). [92]

To learn more about the concept of affiliation with CEN/CENELEC & other stakeholders, please see the following document:

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[87] Ibid.
[88] Ibid.
[89] Ibid.
[90] CENELEC. (2025). About CENELEC. Accessed on 21.02.2025. Retrieved from: https://www.cencenelec.eu/about-cenelec/.
[91] CEN. (2025). About CEN. Accessed on 21.02.2025. Retrieved from: https://www.cencenelec.eu/about-cen/.
[92] CENELEC. (2025). About CENELEC. Accessed on 21.02.2025. Retrieved from: https://www.cencenelec.eu/about-cenelec/.

🔗 https://www.cencenelec.eu/media/Guides/CEN-CLC/cenclcguide12.pdf

To access the complete lists of CEN Affiliates, please visit the following links:

🔗 https://standards.cencenelec.eu/dyn/www/f?p=CEN:9

To access the complete lists of CENELEC Affiliates, please visit the following links:

🔗 https://standards.cencenelec.eu/dyn/www/f?p=CENELEC:9

To learn more about the concept of CSBs, please see the following document:

🔗 https://www.cencenelec.eu/media/Guides/CEN-CLC/cenclcguide13.pdf

To learn more about the CSBs status, please visit the following link:

🔗 https://www.cencenelec.eu/media/CEN-CENELEC/News/Publications/brochure_csb.pdf

To access the complete lists of CEN CSBs, please visit the following links:

🔗 https://standards.cencenelec.eu/dyn/www/f?p=CEN:60

To access the complete lists of CENELEC CSBs, please visit the following links:

🔗 https://standards.cencenelec.eu/dyn/www/f?p=CENELEC:60

National Standards Bodies and National Committees may also become the CEN/CENELEC partner organisations, liaison organisations, associated bodies, European counsellors, or European institutional stakeholders of the CEN/CENELEC, according to the ''CEN/CENELEC Guide 25 - The concept of Cooperation with European Organisations & other Stakeholders''. [93]

To learn more about the concept of cooperation with CEN/CENELEC & other stakeholders, please see the following document:

🔗 https://www.cencenelec.eu/media/Guides/CEN-CLC/cenclcguide25.pdf

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[93] Ibid.

To access the complete list of CEN Partners, please visit the following link:

- https://standards.cencenelec.eu/dyn/www/f?p=CEN:47

To access the complete list of CENELEC Partners, please visit the following link:

- https://standards.cencenelec.eu/dyn/www/f?p=CENELEC:47:::NO:::

The technical work of the CEN and the CENELEC is carried out by TCs and SCs and steered by Technical Boards (TBs). Specifically, WGs are responsible for standards development while workshops are particularly relevant as they develop CEN/CENELEC Workshop Agreements (CWAs). Although most of the technical work is carried out by TCs and SCs, some things may be allocated to Reporting Secretariats (RSs). RSs may only choose to work on those things that are not currently carried out by TCs and SCs of the CEN and the CENELEC. [94]

To access the complete list of CEN Technical Bodies, please visit the following link:

- https://standards.cencenelec.eu/dyn/www/f?p=CEN:6

To access the complete list of CENELEC Technical Bodies, please visit the following link:

- https://standards.cencenelec.eu/dyn/www/f?p=CENELEC:6

#HSbooster.eu Success Story

The Project: HOUSEFUL

HOUSEFUL is an Innovation Action funded by the European Union's Horizon 2020 research and Innovation programme under grant agreement N°776708. It focuses on driving circularity in the building construction sector. With the development of their Circularity Tool as a key exploitable result, HOUSEFUL aims to transform the industry by enabling practitioners to make informed decisions during the design and construction phases.

The Project Standardisation Needs

To ensure the widespread adoption and impact of the Circularity Tool, HOUSEFUL recognised the importance of aligning their methodology with ongoing standardisation efforts. They sought to collaborate with relevant Technical Committees working on Building Circularity standards, aiming to ensure the tool's compatibility

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[94] Ibid.

with emerging practices. By integrating their methodology into recognised standards, HOUSEFUL aimed to establish a consistent and recognised framework for evaluating circularity in building projects. HOUSEFUL focused on circularity in construction, working with CEN/TC 350 to align methodologies with sustainable housing practices.

To learn more about the Project, please visit the following links:

https://houseful.eu/

https://zenodo.org/record/8210857

#HSbooster.eu Success Story

The Project: NetworkNature

NetworkNature is a resource for the Nature-based Solutions (NbS) community, creating opportunities for local, regional and international cooperation to maximise the impact and spread of Nature-based Solutions. It will maintain and add to a diverse and science-based repository of evidence on NbS, strengthen partnerships and foster new relationships around a clear, strategic framework for action. This work is underpinned by an up-to-date EU Research & Innovation NbS Roadmap and NetworkNature's six priority themes: Biodiversity enhancement and ecosystem restoration; Sustainable food systems; Zero Pollution; Climate adaptation, mitigation and resilience; Sustainable finance, investment and just transition; Sustainable urban and regional transformation.

The Project Standardisation Needs

NetworkNature recognised a critical need to integrate Nature-Based Solutions (NbS) into the standardisation landscape to ensure broader recognition, impact, and adoption. As a platform encompassing over 80 European projects across diverse topics—including under others NbS in cities, coastal areas, and wetlands—NetworkNature identified raising awareness of standardisation among its Task Forces as the most effective way to generate momentum. Engaging HSBooster experts was pivotal in achieving this objective, helping to map the challenges, risks, and priorities associated with NbS implementation. Understanding the standards landscape was crucial for aligning the project's outcomes with relevant standards and creating pathways for meaningful contributions. NetworkNature sought strategic guidance to engage with standardisation bodies, foster collaboration between Task Forces and technical committees, and explore the potential for a CEN Workshop Agreement (CWA) to accelerate the standardisation of outputs generated by its five Task Forces. These efforts aimed to address practical challenges such as ensuring data reliability, quantifying the economic value of NbS benefits, and promoting inclusive governance models. NetworkNature promoted urban sustainability by aligning biodiversity and natural systems initiatives with standards developed by CEN/TC 465.

To learn more about the Project, please visit the following links:

https://networknature.eu/

https://zenodo.org/records/14379833

5 EUROPEAN TELECOMMUNICATIONS INSTITUTE (ETSI)

The ETSI consists of over 900 various organisations around the globe, counting micro, small and medium, and large enterprises, educational organisations, and the government. [95] Organisations wanting to become a member may choose between two types of membership depending on the geographical area of the country they are established in: [96]

- full membership for organisations established in a country within the CEPT and
- associate membership for organisations established in a country outside the CEPT.

To access the complete list of ETSI members, please visit the following link:

- https://www.etsi.org/membership

Members' contributions are calculated based on the type of membership: [97]

- full members and associate members;
- non-profit associations, universities, public bodies, and micro enterprises;
- governmental organisations; and
- observing members.

To learn more about applying for membership, please visit the following link:

- https://www.etsi.org/membership/become-a-member

The ETSI's technical activities are organized by technical groups: [98]

- Technical Committees (TC);

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[95] ETSI. (2025a). ETSI members around the world. Accessed on 21.02.2025. Retrieved from:
https://www.etsi.org/membership.

[96] ETSI. (2025c). The Class of Contribution for ETSI Membership. Accessed on 21.02.2025. Retrieved from:
https://www.etsi.org/membership/dues.

[97] Ibid.

[98] ETSI. (2025b). Our technical work. Accessed on 21.02.2025. Retrieved from: https://www.etsi.org/about/our-operations#mytoc3.

- ETSI Projects (EP);
- ETSI Partnership Projects (EPP);
- Industry Specification Groups (ISG);
- Special Committees (SC); and
- Specialist Task Forces (STF).

To learn more about these technical groups, please visit the following link:

- https://www.etsi.org/about/our-operations#mytoc3

All ETSI members are members of the General Assembly (GA) and can attend the meetings. [99] Representatives of the EC and the EFTA may also attend these meetings but only as counselors (e.g. they may offer valuable advice and suggestions but have no right to vote). [100]

The GA is the highest decision-making body of ETSI and is entrusted with: [101]

- determining general policy and strategy;
- adopting budgets;
- dealing with memberships;
- appointing the ETSI Board members;
- appointing the ETSI Director General;
- appointing the Financial Committee members;
- endorsing external agreements; and
- approving changes to statutes and rules of procedure;

The ETSI Board executes the decisions of the GA and is entrusted with: [102]

- overseeing the work program;
- approving Terms of Reference (ToRs);
- endorsing the appointment of TCs' chairs;

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[99] ETSI. (2025d). The General Assembly. Accessed on 21.02.2025. Retrieved from: https://www.etsi.org/about/our-structure.
[100] Ibid.
[101] Ibid.
[102] Ibid.

- approving resources and ToRs for STF; and

- advising the GA on finances and expenditures.

To learn more about the roles & responsibilities of the Board, please visit the following link:

- https://www.etsi.org/about/our-operations#mytoc3

The Secretariat supports the TCs' technical work and is entrusted with: [103]

- supporting the TCs' technical work;

- communicating about the TCs' technical work;

- organising meetings and committees;

- organising workshops and events;

- maintaining relationships with external organisations; and

- managing financial aspects, IT services, legal services, and HR services.

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[103] Ibid.

SUMMARY

As an independent, non-governmental, formal organisation for standardisation, ISO aims at bringing together members from 167 different countries to develop voluntary, consensus-based, international standards while contributing significantly to sustainable development. [104] Only national organisations for standardisation can become ISO members and there can be only one member per country. [105] There are three member categories: full members, correspondent members, and subscriber members, and each category enjoys different benefits within the ISO system. [106] The member appointed by the TMB as the Committee Secretariat appoints the Committee Manager. [107] The Committee Manager deals with the administrative tasks of the committee and must remain neutral when dealing with members of the committee. [108] The Committee Chair deals with the managerial tasks of the committee and works closely with the Committee Manager. [109] The Committee Chair plays a significant role in the day-to-day activities of the committee by thinking strategically, developing standards effectively, collaborating with members of the committee, leading them to reach a consensus, encouraging national, regional, and international collaboration. [110] The Liaison may be established between ISO committees, between ISO committees and IEC committees, and between ISO committees and external organisations. [111] The Liaison is responsible for maintaining the relationship between a broad range of stakeholders, enabling their voices to be heard throughout standards development. [112] There are many resources created by the ISO Central Secretariat aimed at assisting Committee Managers, Committee Chairs, and Committee Liaisons. The WGs established by TCs, SCs, or PCs are managed by the Convenors who lead the WG towards achieving the main goals for which the WG was originally established. [113] Convenors are appointed for a three years period and can be reappointed an unlimited number of times. [114] Only experts elected by the members that have become P-members (and category A liaisons) can become members of the WGs. [115] These experts were chosen based on their expertise and should work closely with the member(s) who appointed them. [116] ISO members may choose to become O-members (observer members) or P-members (participating members). [117] O-members only

[104] ISO. (2025a). About us. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/about-us.html.

[105] ISO. (2025c). Members. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/members.html.

[106] Ibid.

[107] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.

[108] ISO. (2023c). Getting Started Toolkit: For ISO Committee Managers. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100415.html.

[109] ISO. (2023b). Getting Started Toolkit: For ISO Committee Chairs. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100417.html.

[110] Ibid.

[111] ISO. (2023a). Getting Started Toolkit: For Committee Liaisons. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100447.html.

[112] Ibid.

[113] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.

[114] Ibid.

[115] Ibid.

[116] Ibid.

[117] ISO. (2025f). Who develops standards? Accessed on 21.02.2025. Retrieved from: https://www.iso.org/who-

observe standards development but may give advice and suggestions. [118] P-members are actively engaged in standards development and are obliged to vote on working drafts, as well as, to attend technical committee meetings. [119] Correspondent members may become observers of committees but they do not have the right to give advice and suggestions. [120] Subscriber members can take a part in the committee meetings, but only under the pilot project (e.g. five committees for two years). [121] The ISO only develops standards for which there is evident demand at the global market. [122] Standards are developed by experts who have the knowledge, not only about the professional or technical sector to which the standard applies but also knowledge about standardisation. [123] Others with relevant knowledge, skills, and experiences, such as governmental agencies, accredited laboratories, consumer associations, academia, and governmental and non-governmental organisations may join the standards development. [124]
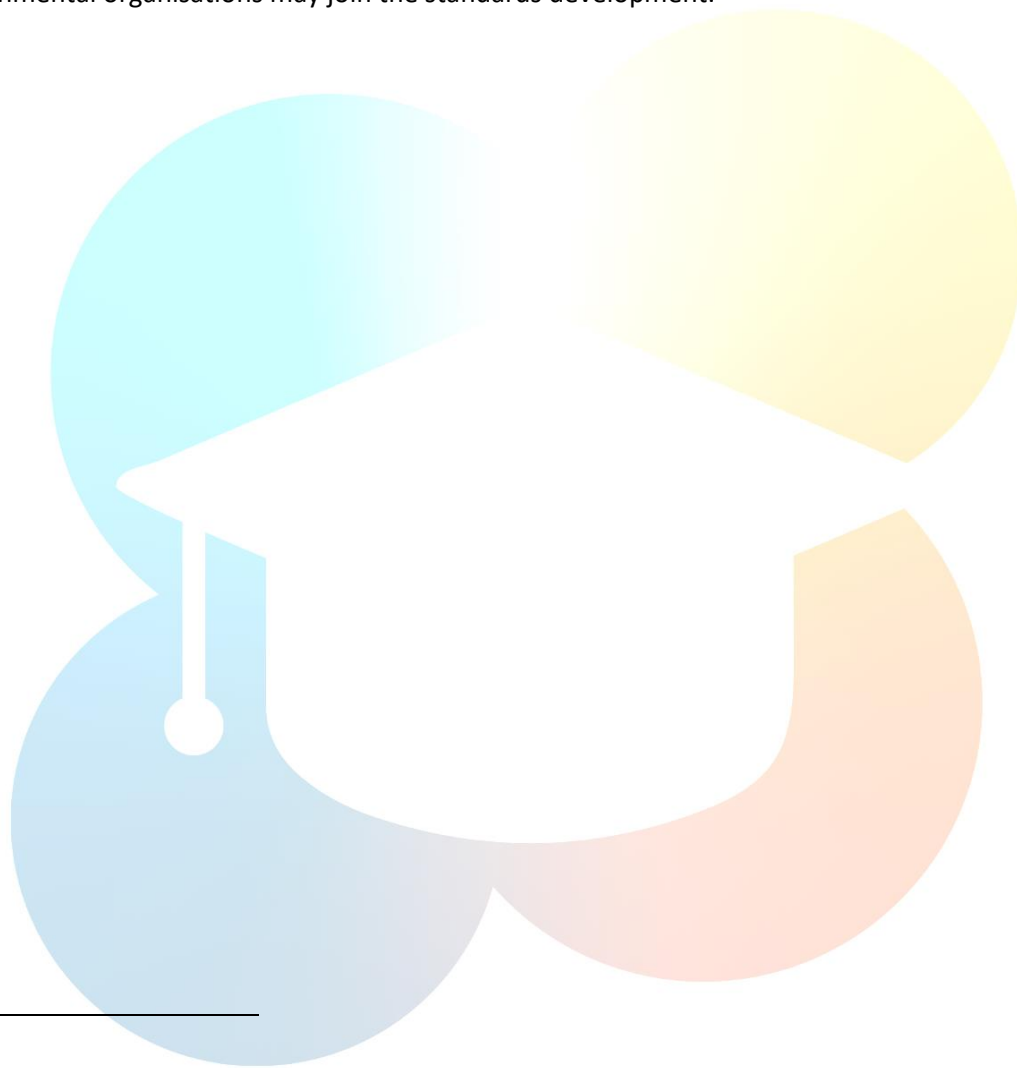
develops-standards.html.

[118] Ibid.

[119] Ibid.

[120] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from:
https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.

[121] Ibid.

[122] ISO. (2011). Guidance for ISO Liaison Organisations: Engaging Stakeholders and Building Consensus. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100270.html.

[123] Ibid.

[124] Ibid.

GLOSSARY

Committee Chairs

deal with managerial tasks of the committee and works closely with the Committee Managers [125]

Committee Managers

deal with administrative tasks of the committee and must remain neutral when dealing with members of the committee [126]

Convenors

lead the WG towards achieving the main goals for which the WG was originally established [127]

ISO/IEC JTC1

is the joint technical committee originally established by the ISO and the IEC aimed at addressing different aspects of standardisation in the field of information technologies [128]

Liaisons

may be established between ISO committees, between ISO committees and IEC committees, and between ISO committees and external organisations. [129]

O-members

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[125] ISO. (2023b). Getting Started Toolkit: For ISO Committee Chairs. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100417.html.

[126] ISO. (2023c). Getting Started Toolkit: For ISO Committee Managers. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/publication/PUB100415.html.

[127] ISO. (2019). My ISO job. Accessed on 21.02.2025. Retrieved from: https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100037.pdf.

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only observe standards development but may give advice and suggestions [130]

P-members

are actively engaged in standards development and are obliged to vote on working drafts and to attend committee meetings [131]

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