

GUIDE TO INTERNATIONAL STANDARDISATION FOR ACCREDITED SDOs

1 BACKGROUND

The purpose of this Guide is to provide information for accredited Standards Development Organisations (SDOs), and their stakeholders, on international standardisation, including advice on adopting international standards and participating in international standardisation activities.

Standards Australia is the National Member Body, and Australia's representative, at the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). This role is recognised in the Memorandum of Understanding between the Commonwealth Government and Standards Australia.

Consequently, Standards Australia is responsible for co-ordinating Australia's participation in ISO and IEC standardisation activities. However while coordination is through Standards Australia, accredited SDOs are able to, in fact they are encouraged to, take part in the technical work of both ISO and IEC.

2 INTERNATIONAL STANDARDS DEVELOPMENT ORGANISATIONS

There is a wide range of international standards development organisations ranging from those with a specific narrow focus, e.g. International Commission on Illumination (CIE), International Wool Textile Organization (IWTO), to those with a wide ranging scope such as the International Telecommunications Union (ITU) and the Codex Alimentarius Commission (food standards). However the two organisations of relevance to most SDOs are the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) together with their hybrid JTC1.

International Organization for Standardization (ISO)

ISO is a network of National Standards Bodies (NSBs) of 157 countries (on the basis of one member per country) with a Central Secretariat in Geneva, Switzerland, that co-ordinates the system.

ISO Standards are drafted by Technical Committees (TCs); subcommittees (SCs) and working groups (WGs) comprised of experts appointed by the NSBs of ISO. The topics covered by these groups are varied, including topics from cork and cement to tourism and personal financial planning.

ISO publishes Directives on Technical Committee work and Guidance for delegates and experts. Copies of these documents are available from

http://www.iso.org/iso/standards_development/processes_and_procedures/iso_iec_directives_and_iso_supplement.htm

More information about ISO can be found at <http://www.iso.org>

International Electrotechnical Commission (IEC)

The International Electrotechnical Commission (IEC) is the leading global organisation that prepares and publishes international standards for all electrical, electronic and related technologies. These standards serve as a basis for national standardisation and as references when drafting international tenders and contracts. IEC currently has 51 full members. Membership of IEC in each country is nominally via a National committee of IEC, which represents all aspects of the

electrotechnology industry. The secretariat of the Australian National committee is maintained by Standards Australia.

Over 170 technical committees (TCs) and subcommittees (SCs), and about 700 project teams carry out the standards work of IEC. These working groups are composed of people from all around the world who are experts in electrotechnology. The great majority of contributors come from industry, while others from commerce, government, test laboratories, research laboratories, academia and consumer groups also contribute to the work.

More information about IEC can be found at <http://www.iec.ch>

Joint Technical Committee (JTC1)

ISO and IEC have established a Joint Technical Committee (JTC1) for Information Technology Standards. It operates on the same principles as other Standards Committees, but on a much broader scale. Subcommittees (SCs) of JTC1 are effectively Standards Committees, given the breadth of the information technology field. Standards from JTC1 are joint ISO/IEC publications.

More information about JTC1 can be found at www.jtc1.org.

3 REGIONAL STANDARDS DEVELOPMENT ORGANISATIONS

The most notable regional standards activity is that of the European Union, where the corresponding regional bodies to ISO and IEC are CEN and CENELEC.

European Committee for Standardization (CEN)

European Committee for Electrotechnical Standardization (CENELEC)

Membership of these organisations comprises the standards agencies of Europe as well as some affiliated NSBs outside the EU. Both CEN and CENELEC have around 33 members. Their standardisation work is given an added impetus in that under the European Union Directives, compliance with Standards which have been prepared by CEN and CENELEC under a mandate from the European commission is a designated means of complying with the EU legal requirements.

Most CEN and CENELEC committees have parallel activities in ISO and IEC, and in some cases the same organisation provides the secretariat for both an international and regional committee. There are agreements between CEN/CENELEC and ISO/IEC regarding exchange of information, avoidance of duplicated effort, and the use of International Standards as the basis of European Regional Standards.

A significant difference between European regional standardisation and international standardisation is that CEN and CENELEC use weighted voting, with larger countries having a bigger vote than smaller ones. In some cases, the secretariats of CEN and CENELEC committees are willing to correspond with non-European interests and convey their views to the committees.

More information about CEN can be found at www.cen.eu and CENELEC at <http://www.cenelec.eu>

Standards New Zealand (SNZ)

Although not a regional standards body in the true sense, since 1992 Standards Australia and Standards New Zealand have had agreements in place to co-operate with one another to the utmost of their abilities to meet objectives of Article 12 of the Australia/New Zealand Closer Economic Relations (CER) Trade Agreement.

There are over one thousand Joint Australian/New Zealand Standards whose purpose is to assist trade and harmonisation between Australia and New Zealand and by both countries to the rest of the world.

Standards New Zealand is New Zealand's leading developer of Standards and Standards' based solutions. Standards New Zealand is the operating arm of the Standards Council, an autonomous Crown entity operating under the Standards Act 1988. The Standards Council, an appointed body with representatives from a wide range of community sectors, is the governing body for Standards New Zealand.

More information about Standards New Zealand can be found at <http://www.standards.govt.nz>

4 BENEFITS AND REASONS FOR INTERNATIONAL STANDARDISATION

There are many benefits for Standards Development Organisations in both encouraging the use of International Standards and actively participating in their development. International Standards bring technological, economic and societal benefits including:

1. The facilitation of international exchange of goods and services and helping break down barriers to international trade.
2. International Standards generally reflect the best experience of industry and regulators worldwide and cover conditions in a variety of countries.
3. Ensuring that Australia's obligations to the World Trade Organisation (WTO) are met.
4. Helping to harmonize technical specifications of products and services making industry more efficient.
5. Assisting in reducing negative impacts on the environment and encouraging sustainability.
6. For business, they are strategic tools that reduce costs by minimizing waste and errors and increasing productivity.
7. They help companies to access new markets by levelling the playing field for global trade.
8. Conformity to International Standards helps reassure consumers that products are safe, efficient and good for the environment

SDOs are encouraged to participate in ISO and IEC activities wherever possible. There are specific advantages for doing so and some of the benefits include:

1. Ensuring your stakeholder's interests are voiced in the development of International Standards.
2. Giving early access to information that could shape the future for your organisation and your stakeholders.
3. Helping to keep market access open.
4. Facilitating participation in international certification schemes.

Getting involved in standards development brings your concerns and needs to bear on a process that will affect you in the future.

5 ADOPTION OF INTERNATIONAL STANDARDS

For the reasons mentioned previously, the policy of Standards Australia (and the Commonwealth Government) is to base Australian Standards on International Standards wherever feasible.

However, the question has been raised as to why should International Standards be adopted nationally rather than simply relying on the use of the International Standard itself. What value does adoption add, given that the International Standard would otherwise still be available to the Standards-using public. The following points were taken into account when formulating this policy and are worthy of consideration by SDOs and Standards Reference Bodies (SRBs) when considering this question:

- The national adoption of International Standards clearly indicates to the Standards-using community that the International Standard has been reviewed and endorsed by an accredited SRB and found to be relevant to the economic efficiency or safety of the Australian community.
- It clearly indicates that the SRB has determined that the International Standard is used internationally by Australia's trading partners and is not enshrining obsolete or little used technologies or practices.
- It enables, where appropriate, the selection of options for local usage that are provided for in some International Standards.
- It expands the portfolio of Australian Standards coverage and thus encourages those seeking standardisation information to seek it from within Australian Standards.

The adoption of International Standards also fulfils Australia's commitment to the World Trade Organisation's (WTO) Technical Barriers to Trade (TBT) Agreement . There are specific provisions in the Agreement related to Standards. Article 2.2 and 2.4 of the TBT agreement note that where Standards are to be used as part of regulations in a signatory country, the country shall use International Standards that exist and only in circumstances where there are fundamental climatic or geographical factors or fundamental technological problems can a country disregard this rule.

Before any Standards project is commenced, a search should be undertaken to identify equivalent International Standards. The SDO should review the results of the search when it first considers the new project and make an informed decision on whether it is appropriate to adopt the International Standard.

ISO/IEC have identified three levels of international equivalence that are used when adopting an International Standard:

Identical: When a national Standard is identical in technical content, and is either identical in presentation to the International Standard, or includes only minimal editorial changes.

Modified: Where there are some minor technical differences from the International Standard but these are clearly identified.

Not equivalent: Where the national Standard is not equivalent in technical content although has used the International Standard as the base. Local changes need not be identified and there is no clear correspondence with the International Standard.

When assessing which level might apply, the key consideration is whether or not a product designed to comply with the International Standard would automatically meet the equivalent Australian Standard, and vice versa. If this is the case, the Australian Standard is normally referred to as being 'identical' to the International Standard.

Even though the objective is to exactly align Australian Standards with the corresponding International Standards, there will be Standards in which local changes have to be incorporated. As described above, there are several legitimate reasons for varying the technical requirements but these reasons should not be interpreted too broadly.

When variations to an International Standard have been included in the equivalent Australian Standard, all such variations are required to be identified in the Preface, along with the justification for the change, based on the criteria in the TBT Agreement. If space does not permit inclusion within the Preface itself, the Preface may need to refer to an Annex containing the variations or in the body of the document using redline/strikeout.

Further details relating to the presentation, numbering labelling, copyright implications can be found in the following ISO/IEC Guides:

- ◆ ISO/IEC Guide 21-1, Regional or national adoption of International Standards and other International Deliverables — Part 1: Adoption of International Standards
- ◆ ISO/IEC Guide 21-2, Regional or national adoption of International Standards and other International Deliverables — Part 2: Adoption of International Deliverables other than International Standards
- ◆ ISO/IEC Guide 59, Code of Good Standardisation Practice
- ◆ ISO policies and procedures for copyright, copyright exploitation rights and sales of ISO publications – ISO POCOSA 2012

These are available from ISO or Standards Australia's International Development Manager.

Because of the copyright issues, before finally approving a project to adopt an international standard as an Australian Standard, SDOs are advised to contact Standards Australia's International Development Manager. This will allow any queries to be resolved and the relevant copyright licences to be obtained

Where an International Standard is being adopted as an Australian Standard, the adoption will still need to go through the process listed in Part 3 of the Requirements for Accreditation document. However, where an identical adoption is being carried out it is possible to combine the public comment and ballot stages. The Secretary can provide assistance in this process.

6 OPERATION OF INTERNATIONAL STANDARDISATION

At both ISO and IEC membership is based on the country, each country having one member. The national 'member bodies' are the recognised (usually by the country's national government) peak standards body in each nation.

The technical (standards development) work of ISO and IEC is carried out through Technical Committees (TC) who may delegate part of their scope of work to Subcommittees (SC), Working Groups (WG) or Study Groups.

Where there is a need for an International Standard on a very specific topic not falling within the scope of an existing TC, a 'Project Committee' (PC) may be established. A PC works in the same way as a TC but is not allowed to approve new work and once the International Standard for which it was established has been published, it is either disbanded or its status upgraded to that of a TC.

International TCs are composed of representatives from national member bodies. Standards are prepared on the basic principle of one country, one vote although there may be multiple representatives from a country participating in the preparation of the standard.

Representatives of Australia on these Committees are endorsed by Standards Australia and represent Australian interests at the international level.

Many international Committees and SCs make use of Working Groups (WG) for various tasks, to reduce delays and to prepare competent drafts on given subjects, ready for Committee discussion and voting. WGs may be established when the special knowledge of experts in various countries

needs to be brought together directly to prepare a working document or to resolve a technical question for the Committee or Subcommittee. The main objective within a WG is to provide direct consultation, with prompt responses, between individual experts in the field of activity of the committee or subcommittee.

The development of an International Standard goes through an analogous process to that used to develop Australian standards, although the process is modified to allow for country participation and voting rather than SRB members voting directly.

A proposal for a new project that is not covered by an existing committee (i.e. a new committee will be required) is submitted to ISO (or IEC) and then circulated to all member bodies of ISO (or IEC). As with the proposals for new Australian Standards, there must be substantial market justification for the work. The national standards bodies (NSBs) are asked to vote on whether they agree with the proposal and whether they will participate in the new committee. It is usual for the NSBs to consult local committees or experts in formulating their response. Where there are sufficient national votes agreeing to the new proposal the board responsible for managing the technical work of ISO or IEC approves the establishment of the new committee.

For a proposed new work item within an existing committee, the members of the committee are responsible for voting on whether to accept the proposal and include it in the committee's work program. Again, substantial justification is required, and the respective work programs are overseen by ISO and IEC.

Once a new work item has been approved, the text of the draft is developed in the committee (usually through sub-committees and/or working groups). Once the committee reaches consensus that the document is ready it is submitted to all ISO member bodies (NSBs) for a five-month vote as a draft International Standard (DIS) – ISO, or committee draft for vote (CDV) – IEC. This is termed the 'enquiry stage' and is equivalent to the public comment stage when developing an Australian Standard.

NSBs consult their local committees or experts (see 7.2) and, where appropriate, submit consolidated technical and editorial comments on the draft text. NSBs also submit a vote (based on advice from their experts) on whether the document should proceed to final development. Further development is approved if two-thirds of the P-members (see 7.3) vote affirmatively and not more than a quarter of all votes cast are negative.

A final text is then prepared taking into account member body comments on the DIS and this text is issued for formal vote as a final draft International Standard (FDIS). If the text is again approved by two-thirds of the P-members voting and if not more than a quarter of all votes cast are negative, then the text is approved and the International Standard is published.

7 PARTICIPATION IN INTERNATIONAL STANDARDISATION

7.1 General

As mentioned previously, Standards Australia is the Australian member body of ISO and IEC. Involvement with ISO and IEC takes place at two levels: – policy and technical participation.

Policy issues related to ISO and IEC are the sole responsibility of Standards Australia, who is very active in this area, particularly in the governance of ISO and the management of the technical work.

By far the greatest part of international activity in Australia is devoted to technical participation in the development of International Standards. This participation may be the responsibility of Standards Australia or an accredited SDO, depending on the organisation involved in the relevant Australian Standards development work.

7.2 Mirror groups and committees

As mentioned earlier, when commenting or voting on international documents or proposals Standards Australia (Australia's member body in ISO and IEC) seeks advice from local experts. These can be a balanced technical committee (Standards Australia), a Standards Reference Body (accredited SDOs) or a balanced ad hoc group of experts. These groups are termed 'mirror groups' or 'mirror committees' since they mirror (follow and monitor) the international standards development work. These bodies represent the Australian view on the subject of an International Standard.

The relevant Australian mirror group has the responsibility for voting and commenting on ISO and IEC documents and proposals. This allows Standards Australia to forward a considered and comprehensive Australian view to ISO / IEC. It is also important that Australian involvement in ISO and IEC is closely integrated with the development of Australian Standards and handled, as much as possible, by the same group of experts.

Mirror groups also play a major role in endorsing delegates to attend international meetings to represent the Australian point of view (see 7.4).

7.3 Membership status on international committees

For a given ISO or IEC Committee the National mirror group will need to indicate whether it wants Australia to be a participating (P) or observing (O) member.

Under ISO and IEC rules P members are required 'to participate actively in the work, with an obligation to vote on all questions formally submitted for voting within the technical committee or subcommittee, on new work item proposals, enquiry drafts and final draft International Standards, and to contribute to meetings.'

The key thing about being a P member is a commitment to attend meetings and fully participate in the technical discussions. This obviously means some travel and time commitment in attending meetings and reviewing/developing documents. If you don't participate then ISO is pretty quick to downgrade your status.

O members can 'follow the work as an observer, and therefore to receive committee documents and to have the right to submit comments and to attend meetings'.

In practice, comments made by O members may be treated somewhat cursorily by active P members, so O members may not have their input incorporated. However, many individuals feel O membership is sufficient since they get access to the working documents (particularly if there is no strong desire to have their special views incorporated) and the knowledge of the development of the standard does help formulate the final votes on the draft standards.

Membership of a subcommittee is open to P- and O-members of the parent technical committee. O-members of a technical committee may be granted P-membership in a subcommittee without changing their status in the parent technical committee. This sometimes occurs if an individual is only interested in one particular aspect of the topic, but the same meeting participation obligations apply to P membership of a sub-committee.

Australian members of Working Groups (WGs) do not formally represent Australia. In fact ISO/IEC Directives state 'experts act in a personal capacity and not as the official representative of the member organization by which they have been appointed. The relevant SDO should, however, seek to ensure that the views of Australian members of WGs are in harmony with any established Australian position. Every attempt should be made to ensure that an Australian member of an international WG does not pursue a technical position that is subsequently not supported by the official Australian submission, which is generally that of the Australian mirror group concerned.

Standards Australia is responsible for informing SDOs of relevant international projects, and does so through a monthly International Update.¹ For a given ISO or IEC committee the relevant SDO will need to indicate to Standards Australia whether it wishes to participate in the international work and whether it wants to be a participating (P) or observer (O) member. Procedures for this are available on the accreditation website

(<http://www.standards.org.au/StandardsDevelopment/accreditation/procedures/Pages/default.aspx>).

7.4 International delegates to meetings

Should an SDO become a P member in an International committee, it is obliged to send a delegate(s) to meetings of that committee.

Delegates are selected because they are considered to be one of the experts best able to represent Australian interests in the deliberations of an ISO/IEC committee. Primarily this is because of their technical expertise in the field of activity of the committee, their negotiation skills, and their broader understanding of the Australian view on the matters to be discussed at the meeting.

Delegates need to have a willingness to serve, their employer a willingness to commit their employee's time, and the delegate's employer, representative organisation or, if appropriate, the SDO is able to offer financial support for their attendance at the meetings (see also 7.6). Normally they will have had experience on the relevant Australian Standards Reference Body.

All delegates to international meetings have to be accredited by Standards Australia (as the Australian member body of ISO and IEC). Only accredited delegates may take part in ISO/IEC Technical Committee, Project Committee and Subcommittee meetings.

Procedures for nominating a delegate(s) are on the accreditation website (<http://www.standards.org.au/StandardsDevelopment/accreditation/procedures/Pages/default.aspx>). Note that before nominating a delegate(s) to Standards Australia for accreditation, that delegate has to be supported and recommended by the SDO's relevant representative mirror group.

Once the nomination of the delegate is approved Standards Australia will inform the Secretary of the ISO TC or SC (copied to the Australian delegate and SDO) and advise that the delegate is accredited to attend the meeting. If there is more than one delegate attending then Standards Australia will notify the TC or SC Secretariat of the Head of Delegation.

Accreditation for IEC TC or SC meetings will occur via the IEC Meeting Registration System (MRS), at <http://meetings.iec.ch/>. Once the nomination of the delegate is approved by Standards Australia, the delegate will be emailed details of the official website registration process. Once the registration is completed by the delegate the Operations Secretariat will accredit the delegate to attend on behalf of Australia.

Once a delegate has been accredited there are a number of protocols and conventions that delegates need to be aware of. ISO provides a publication '*My ISO job - What delegates and experts need to know*'² that explains much of the operation of ISO and what is expected from delegates. It also includes a range of links to other documents and sources of information.

¹ Also available from:

<http://www.standards.org.au/InternationalEngagement/InternationalUpdates/Pages/default.aspx>

² Available at http://www.iso.org/iso/my_iso_job.pdf

Standards Australia's International Development Manager can also provide information on a range of issues. Delegates should be aware that they should not offer to host meetings, or accept chairmanships or secretariats without conferring both with the SDO and Standards Australia. There are a number of implications, not the least of which is resourcing, that need to be addressed before any firm commitment can be made.

7.5 Communication

For ISO and IEC operations to remain effective, all communications must be between member bodies. Neither delegates nor their organisation should establish direct liaison with ISO or IEC member bodies, or with ISO and IEC. Communications are more effective if channelled through Standards Australia. Of course, in the case of nominated members of WGs, communication directly among members in carrying out business assigned to a WG is more effective and is encouraged. However, the SDO and the mirror group may need to be kept informed of such communication, as required.

7.6 Funding assistance

Each year, the Department of Industry (DOI) provides, as part of its grant to Standards Australia, funds to assist selected delegates from accredited Standards Development Organisations (SDOs) to participate on Australia's behalf at ISO and IEC meetings. These funds are provided as part of the Government's commitment to the development and adoption of International Standards, as well as the government's obligations under the WTO Agreement on Technical Barriers to Trade. The program is intended to supplement funds from other sources since it is expected that other Australian organisations will also provide practical support for international standardisation activities and contribute to the cost of participation.

Standards Australia oversees the transparent administration of funding under the Support for Industry Service Organisations (SISO) Program for international participation, and the selection of delegates to attend international meetings. Standards Australia seeks to ensure that all accredited SDOs with a legitimate interest in international standardisation have equal access to this funding in the form of travel subsidies. Standards Australia also seeks to ensure that funding levels permit participation in a range of international standardisation projects for the public benefit.

Procedures for seeking funding assistance are on the accreditation website

(<http://www.standards.org.au/StandardsDevelopment/accreditation/procedures/Pages/default.aspx>).