



**ENGINEERS
AUSTRALIA**

**Ms Maggie Eibisch
Standards and Accreditation Study
Productivity Commission
PO Box 80
Belconnen ACT 2616
Australia
21st April 2006.**

Dear Ms Eibisch,

Please accept Engineers Australia's Submission as attached.

The key issues addressed in our submission relate to:

- Engineers Australia's role as a founding member of Standards Australia and as a major player in the operations of its committees and governance.
- Why Engineers Australia chooses to facilitate intellectual property for Standards Australia for the voluntary, consensus development of standards.
- We note the risks associated with standards generation.
- We note the nature of voluntary contribution and the ramifications of such.

Our major question for the Productivity Commission is "How do we best facilitate the development of unbiased professionally-based standards for community benefit?" and a number of comments in this submission address this issue.

It is very important that Engineers Australia, as such a significant stakeholder, be invited to make face to face comments and interview re Standards Australia. We believe that such contact will be of considerable help in the Productivity Commission's deliberations.

With our best wishes,

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Engineers Australia Submission to the Productivity Commission Standards and Accreditation Study Executive Summary

- Engineers Australia is a significant founding member and stakeholder for Standards Australia.
- Engineering volunteers contribute significant intellectual property towards the development of standards and Engineers Australia wishes standards to continue to be developed in a voluntary, not-for-profit, consensus environment of other professionals, industry groups and government. It does so in the interests of non-biased, conflict-of-interest free standards, developed from the widest range of appropriate expertise.
- Engineers Australia holds that, should the above environment be limited or transformed into a "for-profit" mode then outcomes will run the considerable risk of conflict of interest, biased standards and with potential damage to trade and economy.
- Engineers Australia believes that Australia's significant and enviable international reputation and influence has been built through the Standards Australia not-for-profit, consensus approach to standards development.
- Engineers Australia holds that inadequate involvement in International Standards bodies may lead to outcomes biased against Australia with consequent economic damage.
- Engineers Australia recommends that, due to the importance of Australia's participation in the setting of international standards that the Commonwealth continues to ensure that sufficient funding under the umbrella of Standards Australia is available for appropriate participation by highly competent technical experts.
- Engineering volunteers to Standards Committees are sensitive to the fact that they have donated intellectual property and that, as a consequence of the float of SAI Global (Ltd), IP is licensed to that commercial organisation and then standards using such IP are sold for profit. This has caused the withdrawal of some volunteer support and threatens others. Engineers Australia holds that the licensing/publishing agreement between Standards Australia and SAI Global needs to be clear in its terms and in its recognition of donated intellectual property.
- Engineering volunteers to Standards Australia committees find a number of barriers to participation including the costs of travel, accommodation and time release from work. Such volunteers are often higher level professionals living in different cities of Australia. It is viewed that modern technology approaches can help reduce those barriers.
- Engineers Australia recommends that methods are found to reduce or eliminate these barriers so that appropriate expertise is put to the task of developing

standards that facilitate trade, community benefit and protection, legal system support, higher quality goods products and services.

- Engineers Australia recognizes that Standards Australia need to review systems so that processes can be sped up where errors are found in standards and corrections need to be adopted.
- Engineers Australia holds that the composition of the Governance of Standards Australia is critical. It should be of the highest calibre exhibiting balance, appropriate ranges of skills, non-bias and high motivation. It must continue to be committed to the principle of standards being developed in a voluntary, consensus approach utilizing the best technical expertise available.



ENGINEERS
AUSTRALIA

Engineers Australia

Submission to the Productivity Commission Standards and Accreditation Study

Background.

Engineers Australia is a significant founding member and stakeholder in Australia's key national standards and conformance system – Standards Australia.

Engineers Australia is strongly represented on the Council of Standards Australia and on its Boards and many Committees. Currently there are Engineer nominees on over 250 Standards Australia Committees with many more engineers (as representatives of Engineers Australia Societies) on other committees. The areas of involvement include:

- a range of fundamental engineering standards, which underpin the modern construction industry and add to the safety, efficiency and cost-effectiveness of engineering in Australia;
- standards for community, materials and IT standards for a wide range of sectors including occupational health and safety, technical engineering, materials, transport, consumer products, environmental issues, textiles, food production, health, health informatics, communications and IT.

Engineers Australia and Standards Australia signed a Memorandum of Understanding in September 1994 that recognized each organisation's contribution, not only to each other but to anticipating and facilitating Australia's progress and access to the markets of the world.

Engineers Australia has the view that engineers contribute intellectual property in the process of developing standards and would be quite capable of generating such standards within the organisation of Engineers Australia. The condition that enables Engineers Australia to release such intellectual property to another agency is that Engineers Australia wishes Standards to be developed in a consensus environment with architects, designers, government, industry and others.

The sell-off of Standards Australia's Publishing/Printing components along with its Quality Assurance business led to the formation of an independent company SAI Global (Ltd). The intellectual property inherent within standards generated by Standards Australia is not transferred to SAI Global and royalties are returned to Standards Australia by SAI Global. This is to be the case for 15 years from the formation of SAI Global. This matter generated consequences and a number of risks some of which are developed below.

Engineers Australia view Standards Production as Vital to National Interest.

Engineers Australia sees the development of standards as having a role in:

- Public Protection and community benefit
- Lifting the quality and reliability of products, processes and services to that reasonably expected.
- Facilitating trade and commerce
- Reducing barriers for entry by new players in the many related fields.
- Standards are part of the necessary intellectual infrastructure for business
- Standards can support the legal system by providing an independent view on “what might be a reasonable expectation for performance of a product, process or service”.

Engineers Australia supports Standards Australia

Standards Australia has made submission to the Productivity Commission and made comment about its role. Engineers Australia supports this role in:

- its generally efficient and effective operation that facilitates the development of national standards, enhances the economic performance of Australian industries and delivers a safe and sustainable future for all Australians;
- the continued need to provide, clearly demonstrate and realize the economic benefits of standardisation;
- its role, in a broad national context, with a focus on providing support to **best practice consensus standardization** in Australia, whether it be undertaken within Standards Australia or by any other standards development organisation (through the autonomous Standards Accreditation Board (SAB));
- its role as the nation’s peak non-government standards development body and thence the Australian member of key international standards organisations, notably the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC);
- the extent to which Standards Australia personnel and committee nominees play a major role in key international standards organisations ensuring that the interests of Australian business, government and other stakeholders are reflected in the development of international standards. *To not do so may lead to outcomes biased against Australia with consequent economic damage.;*
- Demonstrating the success of voluntary consensus standardization undertaken at arms length from government, industry and commercial interests, whilst necessarily reliant upon technical and expert contributions by participants from such sectors. *In particular, Engineers Australia chooses to develop standards*

in consensus with other professional groups on the basis that the environment is voluntary and not for profit;

- in recognizing that the development of standards continues to move into wider fields and as such Standards Australia must review its role and funding to acknowledge that the full range of stakeholder requirements cannot be achieved under the current model and funding arrangements. *Without adequate funding the range of stakeholders faces the risk of becoming more limited and potentially generating an environment with increased conflict of interest;*
- its role as the national and international promoter and supporter of Australian design and innovation through the Australian Design Awards programme and other related activities.

Comments to the Productivity Commission **regarding Standards Australia**

The most important question for the Productivity Commission, regarding Standards Australia, is “How do we best facilitate the development of unbiased professionally based standards for community benefit?”

Regarding the Terms of Reference.

1. The efficiency and effectiveness of standards setting in Australia.

a. The Risks Associated in Standards Production.

There should be clear measures within the structure of Standards Australia to guard against:

- Biased Standards that may create barriers to trade and this may occur both nationally and internationally.
- Standards that are inappropriate or too slow in their development may stifle innovation.
- Standards that are developed in a very narrow setting may be ignorant of other significantly related activities or developments.
- Standards for standards sake may impose an increased regulatory burden with no clear benefit.

b. Engineers Australia Nominees for Standards Committees.

Standards development has been possible only due to the voluntary contribution of individuals, their professional associations, industry bodies and commercial enterprises. Standards Australia has made their own assessment of the total funding required to sustain Australia’s Australian Standards® development infrastructure and this is estimated to be in the order of \$100M p.a., with Standards Australia contributing in the order of 10 plus per cent of that from its corpus funds, and the Commonwealth 2-3 per cent *and the vast majority being “in kind” contribution to committee participation. Engineers Australia supports this level of estimate of contribution by the 9000+ volunteers who supply IP to Standards Australia.*

We need to be careful not to offend and drive away the balanced IP flow that currently forms the basis of standards or it will be replaced by biased input and this would risk the development of biased standards and risk barriers to trade and entry of new products processes and services.

The current consensus system for the development and approval of Australian Standards mitigates the risk of bureaucratic self-serving outcomes.

Whilst Engineers Australia recognises and is doing its part to resolve the issue of declining enrolments in tertiary training for courses in the Sciences, Technology and Engineering, we are seeing what we assume to be a temporary restriction in the availability of engineering expertise and this has ramifications for engineering involvement on voluntary committees.

The notion that there is surplus engineering expertise available to provide a substantial supply of time to Standards Australia (if that ever was the case) is no longer the case without reducing the barriers to such involvement.

Increasingly, Standards Committees call on Engineers Australia for nominees and often-times, significant delays may occur before vacancies are filled. This is clearly an impediment to the efficient production of standards. It is clear that engineers have a necessary contribution to the production of standards and equally clear that there are fewer willing to commit to same. We suspect that this matter is also the case in other fields that rely on Scientific and Technological expertise.

As noted, Engineers Australia has many nominees on Standards Committees but it is not in a financial position, via its members fees, to support the many engineers who need to commit time and travel to such Committees. Organisations that employ engineers are reluctant to forego the time that engineers must spend to travel and meet for local standards development.

The costs borne by volunteer contributions (such as travel, time and accommodation) need to be reduced so as to not constitute a barrier to the professional generation of standards.

Whilst some operational modifications to meetings (such as teleconferencing and, possibly, video-conferencing) are now being utilized, there are enough occasions when groups must gather, face-to-face, that renders attendance too difficult for all to arrange. These more technologically developed methods should continue to be expanded.

There is not, at this stage a lack of engineering resources for standards development. It is just that to tap into this need there may need to be a change of attitude and philosophy on the part of Standards Australia and its major financial stakeholders.

The reliance upon Engineers Australia (and its limited access to human resources) to meet a substantial component of Standards Australia's voluntary and consensus standards development has been tested of late and with continuing high barriers to voluntary committee involvement then we would anticipate a diminishing supply of volunteers.

c. The Commonwealth Should Continue to Strongly Support Australia's International Standards Activities

Engineers Australia believes that Australia's significant and enviable international reputation and influence has been built through the

Standards Australia not-for-profit, consensus approach to standards development.

- Australia “punches well above its weight” with international standards and this is very important if international trade is not to be biased against Australia.
- Engineers Australia holds that the Commonwealth must support Australia’s International Standards activities because to not do so may lead to outcomes biased against us with consequent economic damage (N.B. not all overseas bodies can claim an unbiased approach to Standards development)
- It is also because the costs of international development are sufficiently high to severely limit Australian contribution and this is an issue of market failure that requires Government support. Without such engineers, Australia will be deprived of much of the expertise that would help in the development of leading international standards. It is clearly part of Standards Australia role that it continues to ensure that sufficient funding is available for adequate participation by highly competent individuals and other technical experts at international meetings. *Should there be inadequate funding for this then such expertise (as is now the case) will continue to be available to an unsatisfactory level.*

d. Separation Of Commercial Interests And Standards Development

Engineers Australia was a founding member because it believed that consensus based standards development is the best way to avoid the risks of over-regulation, bias and standards becoming barriers to trade and commerce.

Engineers Australia’s support for consensus Standards development has meant that it has suppressed its autonomy in the development of Engineering Standards and in doing so has foregone potential revenue from the exploitation of this sort of Intellectual property.

In our view Standards Australia has generally sought consensus with a fair and acceptable balance of most relevant interests when developing Australian Standards.

Engineers Australia, most fervently, holds that the generation of Standards must occur at an arm’s length from potentially vested interests AND in a consensus voluntary standardisation environment. There should be no risk of Standards Australia in becoming (or being subsumed by) a commercial enterprise. It should be noted, again, that Engineers Australia has chosen to develop standards in consensus with other professional groups on the basis that the environment is consensus, voluntary and not for profit.

Engineers Australia also notes that a consequence of the separation of Standards Australia from the commercial enterprise SAI Global is the perception/reality that intellectual property freely contributed by engineers

is subsequently being used by a commercial organisation for profit. (Indeed, it is clear from feedback to Engineers Australia that volunteers have been offended this apparent consequence in an otherwise supported float of SAI Global).

The publishing or licensing agreement between Standards Australia and SAI Global needs to be clear, communicated and reviewed in such a way that appropriate recognition for the contribution is made and especially In a way that will reduce the barriers to participation and contribution. Should this not happen, there is risk that many engineers will cease to contribute that intellectual property to Standards Australia.

Whilst Engineers Australia generally supported the development and separation of SAI Global of the float of SAI Global which resulted in SAI Global profiting from the volunteers' free gift.

e. The Matter Of Errors In Standards And Process For Adopting Corrections.

Given the exigencies and real world processes in developing Standards, errors sometimes occur or are found to emerge given previously untested situations. Engineers Australia believes that the process for attending to these can be lengthy thereby giving rise to potentially damaging situations. *Thus a review of processes for reconsideration of a given standard would be a relevant and timely inclusion at this point.*

2. The appropriate role for the Australian Government in relation to Standards setting; (Commonwealth Undertakings).

Engineers Australia is aware that the memorandum of Understanding between the Commonwealth and Standards Australia needs modification due to a variety of structural and operational changes within Standards Australia.

- a. *The Commonwealth may, through the grant in aid, provide financial assistance in relation to activities assessed as being in the national interest.* Engineers Australia believes that the current funding needs to be continued (and possibly enhanced) to cover the wider range of Standards now being requested, along with a review to investigate how to better reduce barriers for professional committee contribution.
- b. *The Commonwealth will, to the maximum extent possible, participate on Standards Australia's Council, the Standards Accreditation Board, Standards Sector Boards and Technical Committees.* Engineers Australia believes this to be an appropriate involvement.
- c. *The Commonwealth will actively support Standards Australia's efforts to achieve internationally aligned standards.* Engineers Australia regards this matter as vital and believes that funding for this area needs to be set at the level required for appropriate technical representation at international forums.
- d. (Engineers Australia recognises that this Term must change due to SA's new Business Model). *The Commonwealth will, in recognising Standards Australia as the Australian member of ISO and IEC, participate in developing policies and delegation briefs via its membership of Standards Australia's Standards Accreditation Board and its ISO and IEC Subcommittees.* Engineers Australia strongly supports the development of ISO standards as a way of ensuring consistent manufacturing and process methodologies to enhance Australian interests and participation in global treaties and agreements.
- e. *The Commonwealth will, where appropriate, invite Standards Australia to participate in national, regional and international intergovernmental discussions involving the standards and conformance infrastructure. Where such discussions may give rise to intergovernmental agreements, the Commonwealth will, as appropriate, take into account Standards Australia's views on how best to implement such agreements.* Engineers Australia believes that this is an appropriate involvement in seeking to enhance Australian interests and participation in global treaties and agreements.
- f. *The Commonwealth will encourage government legislative and regulatory bodies to use the process of developing standards and related documents provided by Standards Australia rather than develop their own standards and documents and, where appropriate, participate in the development of Australian Standards that are in a form suitable for referencing in legislation, regulations and purchasing guidelines. The Commonwealth's general policy is to use Australian Standards for regulatory purposes only where it is satisfied that the standard represents a minimum effective solution to the problem being addressed. Consistent with this policy, the Commonwealth will retain the right to develop, where warranted, its own standards.* Engineers Australia holds that this is an effective caveat.

3. The appropriate terms for the Memorandum of Understanding between the Australian Government and its agencies and Standards Australia Limited.

a. Appropriate terms

Whilst noting that the new Business Model for Standards Australia will require some changes to the wording and possibly terms of the MOU, Engineers Australia has no general recommendation regarding the terms for the MOU but holds that there we strongly support the continuation and facilitation of *the essential volunteer, consensus and not-for-profit environment that has characterised Standards Australia to date.*

b. Governance Independence and Capability.

As noted, a necessary condition for Standards Australia is that it must be able to develop standards in a voluntary and consensus environment. *To this end, all aspects of the operation should reflect this important condition including its Governance. Whilst it is clear that those who are charged with the Governance of such a significant Australian organisation should be of the highest calibre exhibiting the most appropriate range of skills, a good balance, non-bias and high motivation. It is important that the representation of such persons be appropriately in accord with a not-for-profit organisation.*

4. The appropriate means of funding activities of Standards Australia which are deemed to be in the national interest.

Engineers Australia believes that the production of standards provides the essential infrastructure for the manufacture of goods and development of processes. The existence of such a strong infrastructure increases the competitiveness of products and services both within Australia and on the international market.

However, the costs of Standards via SAI Global (Ltd.) have continued to rise and many organisations are likely to defer the use of, or extent of adoption to which, such standards are adopted if such are beyond a reasonable cost-benefit.

Engineers Australia encourages suitable funding to:

- Avoid conflict of interest being a significant factor in standards generation – this can come about if there are significant barriers to involvement by the most appropriate professional expertise. Conflict of interest will certainly arise if standards setting were to be open to the “for-profit” world.
- That tools that enhance member involvement (e.g. teleconferencing/video-conferencing etc) be continually investigated and brought into practice where they facilitate the above goal.
- That the perception wherein volunteers feel that others are “scoring” from their freely donated IP be addressed.