Benchmarking Sessions

COLLEGE BOARDS

September-December 2008

FINAL REPORT

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Manager Strategic Planning and Corporate Performance

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Contents

Introduction

During the period September to December 2008, our College Boards and some other National Committees were consulted as part of the process to generate ideas towards the next five-year Strategic Plan for Engineers Australia.

These consultations were part of an overall approach to develop background material prior to the final Planning Forum by Congress on 22 July 2009 in Canberra.

This report is based on input provided up to February 2009, and has been added to the Engineers Australia website at www.engineersaustralia.org.au/strategicplan.

Thanks are due to all Chairs and members of the Boards and Committees consulted for the contributions they made in the workshops or in other ways to provide the views and suggestions underpinning these findings.

Approach

With some variations, contributing groups were asked to respond to a number of questions adopted by the Board of Engineering Practice, around three core questions:

- **How can we learn from others?**
  What services do our national and international counterpart bodies deliver that we should consider emulating, or collaborating more closely on?
- **What do we do best?**
  Which of Engineers Australia's current range of activities are considered of most ongoing value, and which (if any) might be scaled back?
- **What improvements might we make?**
  What initiatives of a strategic nature might Engineers Australia take to improve the learned society experience for our members?

Consultation

An initial draft report was prepared which consolidated the results from the workshops and submissions, without any summary or overview. It was distributed to the Chairs of participating groups for feedback by teleconference on 28 April 2009. The Chairs who were able to join the teleconference spoke to three key planning priorities for each of their groups drawn from their respective contributions to the process, and provided general comments on the draft report.

A common theme from the Chairs was that the report provided much detail, and would benefit from giving readers a somewhat higher focus. This sentiment was carried over to expectations for a more strategic format also for the forthcoming Strategic Plan 2010-2015.

The report now includes an overview which tries to convey the key findings, at the same time retain the context of the detailed results in terms of the key questions which were addressed.

There are risks in over-generalising the findings, so the raw results have been retained and provided back to each group for ongoing reference.

Overview of Findings

Participating groups were asked to identify services that national and international bodies provide which Engineers Australia might consider emulating, or collaborating more closely with. They were then asked to rank our current activities for most value, and to nominate strategies to improve the way we pursue our overall Charter obligations and provide services for members.

Emulation of others

The five categories considered of most value for emulation were:

- **Quality of technical information and CPD** – for the high quality of conferences and events, eminent speakers, and access to technical journals and research;
- **Highly recognised and respected professional accreditation** – for widespread recognition of training and accreditation, and strong performance on standards and the regulatory environment;
- **Broad influence with decision-makers and across professions** – for strong member perceptions of presence and ability to influence policy, networking and acceptance by industry and other professions, cohesion with related interest groups, and sustainability culture;
- **Member relations, services and support** – for effective communication with members and good systems to engage members and volunteers in any location, prestigious awards, and provision of a range of relevant services from education resources to structured professional development;
- **Brand, marketing and community profile** – for good marketing resulting in enviable brand strength and credibility.

Collaboration with others

Reasons identified for better collaboration, both nationally and internationally, were:

- One-third of the reasons quoted related to **access and sharing of CPD opportunities and technical information** – opportunities to participate in and contribute to high quality professional development activities and technical information of direct benefit and relevance to members;
- **Greater influence on practice issues** – enhancing our working relationship with Standards Australia, involvement with standards development at the international level, and curriculum developments;
- **Benefits for members across wider networks of interest** – giving members access to a wider range of related disciplines for professional development and even potential business or employment opportunities;
- **Promotion of mutual interests** – working with like-minded bodies on such as policy representation, working to heighten awareness of engineering and technology careers, and cross-publication and communication;
- **Wider recognition of qualifications** – to improve mobility opportunities for members through mutual recognition arrangements: maintaining existing arrangements and considering a range of potential new ones.

Even the process of building better working relations was seen as an end in itself. Even for Engineers Australia itself, there was seen to be room for better coordination among our own groups, and better understanding of the breadth of interest of our International Committee of Council.

A note of caution: how do we go about managing such a wide range of relationships responsibly?

Our high value activities – chart at page xx refers

Using a simple survey methodology, the groups identified two activities, across all the major areas of activity of Engineers Australia, as the stand-out highest value for the groups themselves and more broadly for Engineers Australia:

- Contributing to public debate on current national issues, and
- Promoting the contribution of engineering in the community.

'Delivering and managing major conferences and seminars' was identified as the highest value activity for the groups themselves.

Low Value Activities

Possible ambiguity in the survey methodology may not have resulted in reliable results in seeking to identify activities with low or diminishing value return. For the record, some of our international activities - supporting our members working overseas, providing services for our overseas members and Chapters, and taking advantage of participation in international forums – attracted most 'low value' votes.

Possible improvements

The following is an overview gleaned from over 200 suggestions for strategic initiatives and 'benefits' identified through the workshops to improve the 'learned society experience' for members, under 10 headings:

Public profile and promotion of the profession – in addition to benefits expected from our forthcoming national marketing campaign, specific benefits would flow from attracting high calibre students to the profession, encouraging diversity and the notion of the engineering team, and closer links with the general public through such as local media contacts;

Public policy and related practice issues – find ways to strengthen our reputation for independent advice to policy makers and bodies such as Infrastructure Australia on the issues of the coming decade, engender a sense of urgency for the establishment of a nationally consistent regulatory regime for the profession, promote professional development and values, and coordinate our groups to work more cohesively on practice standards;

Improving the appeal of membership – work to establish the profession as a more welcoming and inclusive calling for members and their diverse backgrounds and interests, and address the countervailing views on the status of the different occupational categories;

Promoting Chartered status and the value of CPD – ensure our Chartered status 'system' is managed effectively, that Chartered status is accepted as recognition of professional competence to meet registration criteria, and that employers support the necessary professional development of their engineering employees;

Better access to better CPD – with the backdrop of the 2007 and 2008 CPD Committee reports, and in conjunction with Engineering Education Australia, continue the search for an overarching CPD strategy which enables members wherever they are to get effective access to diverse and high quality CPD, both face-to-face and online, and to be able to provide feedback on its value to them;

Youth appeal – work to entice more young Australians to pursue engineering and technology study, so that Australia is equipped for the technology-based solutions of the future;

Added benefits from our accreditation role – beyond the benefit from keeping the technical, non-technical, and practical elements of undergraduate curricula under review, further benefits could be had in relation to 'portability' of post-graduate subjects and more emphasis on technologist degrees;

International reach – in addition to the benchmarking findings above, work as a conduit for international and overseas bodies, strengthen our profile and leadership initiatives in our region, and promote and leverage our agreements and Accords better for members;

Informing and supporting our groups – create a shared understanding of the respective roles, responsibilities, and resources of office bearers, volunteers, and staff so that the efforts and direction of all these contributors are marshalled to best effect for the very diverse goals of the organisation;

Better use of online capabilities – with its emphasis on user-generated content and business and social networking channels, the website upgrade during 2009-10 could be promoted to support 'common interest groups' more effectively.

Our Special Interest Groups

Three of our national Special Interest Groups – Women in Engineering, Technologists, and Associates – provided input to this information-gathering phase by way of workshop sessions. Their contributions are incorporated in the analysis presented in the overview above and in the main body of this report.

Rather than workshop contributions, CELM, YEA and the Heritage special interest groups provided specific submissions. More detail is presented at the end of this report.

Key points were:

- **CELM:** Our new Strategic Plan must highlight as a primary objective the need for Engineers Australia to understand and serve the needs of the community, and to create an appreciation among the community of the contribution engineering makes. Engineers Australia cannot be seen as too inwardly-focussed and self-serving, that it faces increasing competition in its role to represent the engineering profession, and should pay particular attention to the promulgation and education of ethical standards, enforced by members of the profession.
- **Young Engineers Australia:** The opportunities provided for graduates and early professionals to gain leadership experience and rapid skill development is one of the things Engineers Australia does best. Suggestions included national regulation of the profession, adding value for Chartered status, and investment in better online technology for networking and access to information for members, and to improve our public face.
- **Engineering Heritage Australia:** It was felt the objectives in the current Strategic Plan don't represent the learned society function adequately, and don't give adequate recognition of the place of engineering heritage. Engineers Australia needs to provide a clear policy mandate for the activities of EHA.

Detailed Findings

HOW CAN WE LEARN FROM OTHERS?

Participants were asked to nominate national and international bodies which they felt their members most related to; then to identify what types of activities or services Engineers Australia should consider emulating for the benefit of members; then, likewise, which activities or services we should consider strengthening our collaboration with those bodies on.

Over 140 separate national and international bodies (or generic groups) were nominated in all. Many bodies were nominated for emulation, and more were nominated for collaboration. Some 230 'benchmarking connections' were listed – many with multiple opportunities.

Even by limiting the numbers for each participating workshop to just a 'top 5', specific opportunities for collaboration and emulation were listed for some 80 separate bodies. Several bodies received multiple nominations, so that 10 bodies accounted for over a quarter of all the identified benchmarking opportunities.

Emulation

Some 150 opportunities were listed whereby Engineers Australia could learn from counterpart bodies and apply them ourselves in ways which should strengthen our relevance and appeal to members.

For presentational purposes, the opportunities have been grouped into five main categories:

1. Quality of technical information and CPD
2. Highly recognised and respected professional accreditation
3. Broad influence with decision-makers and across professions
4. Member relations, services and support, and
5. Brand, marketing and community profile.

This is a broad method of classification only – appearance in one category will often show a link into another category.

Quality of technical information and CPD

This category records instances where the counterpart body was considered to have:

- high quality conferences (eg. AUSIMM, CBSE, EESA, IEEE, IET, IStructE, ASCE)
- valuable technical journals (eg. AICHE, ASME, CIA, IEEE, IET, IStructE)
- good quality technical information, and/or good management and access to their technical library and research (AIM, ASI, CIA, IEEE, IET, IMechE, IStructE, ASCE, Qld Law Society)
- access to excellent eminent speakers (ASME, CBSE, IEEE, IET, IMechE, ASCE) and
- otherwise high quality content and delivery of CPD events (eg. AICHE, AUSIMM, CIA, CPA/AMA/AICD, Clinical Colleges, Food Eng'g, IChemE, IEEE).

Highly recognised and respected professional accreditation

- widespread recognition of training and accreditation (and even as an employment pre-requisite) – including internationally (eg. CA/CPA – most often quoted; Clinical Colleges, ACPSEM, IEEE, IStructE, EIANZ, AMA, RAIA)
- strong performance on standards and the regulatory environment (IEEE, IStructE, ASCE, EESA, Roads Australia).

Broad influence with decision-makers and across professions

This category covers a wide range of examples which relate to members' perception of the professional 'acceptance' of the nominated body:

- lobbying, political presence, and policy influence (eg. AMA, Roads Australia, AUSIMM(WIM), CA/CPA)
- networking and relations with industry and other professions – both national and international (eg. CITL, IEEE, IET, NAWIC, AICD, IPWEA, IStructE, ASCE)
- cohesion with their related special interest groups (eg. IStructE, ASCE, IHAR)
- influence over clinical practice and interaction with biomedical engineers – Clinical Colleges;
- sustainability agenda and culture (eg. ICE).

Member relations, services and support

This is a broad category going to the quality of the approach to membership and the perceived ability to provide a high quality 'service delivery' for members:

- communicative and highly responsive to member needs (eg. ACS, ASI, AUSIMM(WIM), CIA, CIRED/CIGRE, IPWEA, UDIA)
- member support services (eg. IET, APESMA – mentoring; IET, IPWEA – education and training resources; IEEE – relations with student bodies; CPA – structured professional development program; SWE(USA) – well-developed programs and information on issues; Qld Law Society – head-hunting; AUSIMM, IChemE – 'road map' concepts)
- volunteer contributions (eg. IEEE)
- user-friendly website/online experience (eg. ICE, IEEE, IET, NAWIC)
- attractive financially (eg. ASME – subsidised standards; EEANZ, EIANZ, IEEE, IET – funded staff support, fee levels and structure; ASI, CIA, AUSIMM(WIM) – corporate membership, employer support; IPWEA – commercial acumen)
- prestigious awards (eg. IStructE, ASCE, NAWIC)
- engagement with regional and remote members (eg. AUSIMM, IPWEA)
- spread and diversity of membership footprint, general 'appeal' (eg. ACS, EIANZ, IEEE, IET, SWE(USA))
- and conversely (!), tight control over membership (eg. AMA).

Brand, marketing and community profile

The following organisations were quoted as having enviable brand strength – hence 'credibility', and effective and innovative marketing approaches:

- CA, CPA, AMA, RAIA, quoted often; and
- AICHE, AIM, Law Society, ASI, AICD, IChemE, IStructE, CIA.

Collaboration

Over 170 reasons were identified for better collaboration with other bodies. Given the number of target bodies identified, for some groups, a 'top five' was selected for both national and international bodies.

There were disparate reasons for better collaboration – although again the categorisation is subject to cross-related impacts:

1. Access to CPD opportunities and technical information for members
2. Greater influence on practice issues
3. Benefits for members across wider networks of interest
4. Promotion of mutual interests
5. Wider recognition of qualifications

Even the process of building better working relations was seen as an end in itself, leading to better mutual understanding of each counterpart's ethos and structure, for both organisational purposes and the interests of individual members. The breadth of interests of our own International Committee could be better understood among our groups.

Access and Sharing of CPD Opportunities and Technical information

Approximately one-third of the reasons for better collaboration related to the opportunities to participate in and contribute to high quality professional development activities and technical information of direct benefit to members. These opportunities apply to national as well as international bodies – even better coordination among Engineers Australia's own groups.

The nature of such opportunities are well-known:

- Technical presentations, seminars, forums, eminent speakers, and conferences and papers,
- Quality of training resources, including e-learning,
- Increased access to technical information, including research material, innovation and new technical methods, and emerging areas of interest – the body of knowledge,
- Promotion of our members internationally through their professional contributions, and even participation.

In this analysis, it was not intended to gain particular insights into ways of achieving better collaboration, simply to identify opportunities. There may be limits to how many different relationships can be managed responsibly – nearly 30 groups were listed across the respondents, and even this list was restricted by the 'top five' limit:

- ACEA, ACECC, ACPSEM, ACS, AEEMA, AIG, AICHE, AIRAH, API, APA, ARATA/RESNA/AAATE, ASCE(USA), AUSIMM, AWA, BPW, CIRED/CIGRE, CI Waste Mgt, CIBSE, CMES, IEInd, EIANZ, EWB, GBCA, IABSE, ICE, IChemE, ICOMES(JSME), INWES/WFEO, IEEE, IET, IMEA, IStructE, NICTA, RAeS, RINA, SMBE/Tech Societies, IMarEST, RAIA, WMAA.

In one set of responses, it was acknowledged that peer bodies in our region were not even that well known!

Greater Influence on Practice Issues

This group of opportunities is weighted heavily towards our involvement in the development of practice standards, at both national and international levels:

- More than half these entries address the need to enhance our working relationship with Standards Australia – six College Boards identified issues to varying degrees;
- At the international level, opportunities were seen for collaboration on standards with ASME, CIRED, CIGRE, ICIBSE, ASHARE;
- Opportunities were seen to have a stronger influence on curriculum development with ACED and our international Accord partners; and

- Opportunities for influence into policy and technical papers, and special projects – ACECC, ACED, ICE.

Benefits for Members Across Wider Networks of Interest

Stronger collaboration is expected to reap benefits for members, so making membership more attractive:

- Access to a wider range of related disciplines for professional development and potential business/employment opportunities – ACECC, ACS, AICHE, API/APA, AUSIMM, AWA, CEO (Women), CIBSE, other Engineers Australia groups, EWB, Food Eng'g, IChemE, IEEE, IET

Promotion of Mutual Interests

Working with like-minded bodies on issues of mutual interest is seen as valuable in such areas as:

- Joint professional policy development and representation – ACEA, API/APA, BPW, EIANZ, GBCA, WMAA, EOWA – Office(s) of Women, other Engineers Australia groups
- Cross-publication and communication opportunities – AIRAH, AWA, CI Waste Mgt, CIBSE, IEEE, other Engineers Australia groups
- Working towards increased enrolments in engineering – ACED, IEEE, IET
- Mutual promotion of registration, the PDP, and Chartered status – ACEA, NERB
- Broadening the appeal of awards and prizes – ImechE, SAE

Wider Recognition

One of our oft-stated objectives is to improve mobility opportunities for our members through mutual recognition agreements. Respondents identified a wide range of existing arrangements we should work to maintain, and potential arrangements for consideration, both national and international (eg. ASCE(USA), ASME,CMES, IEEE – EMBS, IEInd, EIANZ, ICE, IChemE, ICIBSE, IFMBE/WHO, ASHARE, IMechE, IStructE, SAE).

WHAT DO WE DO OF MOST VALUE?

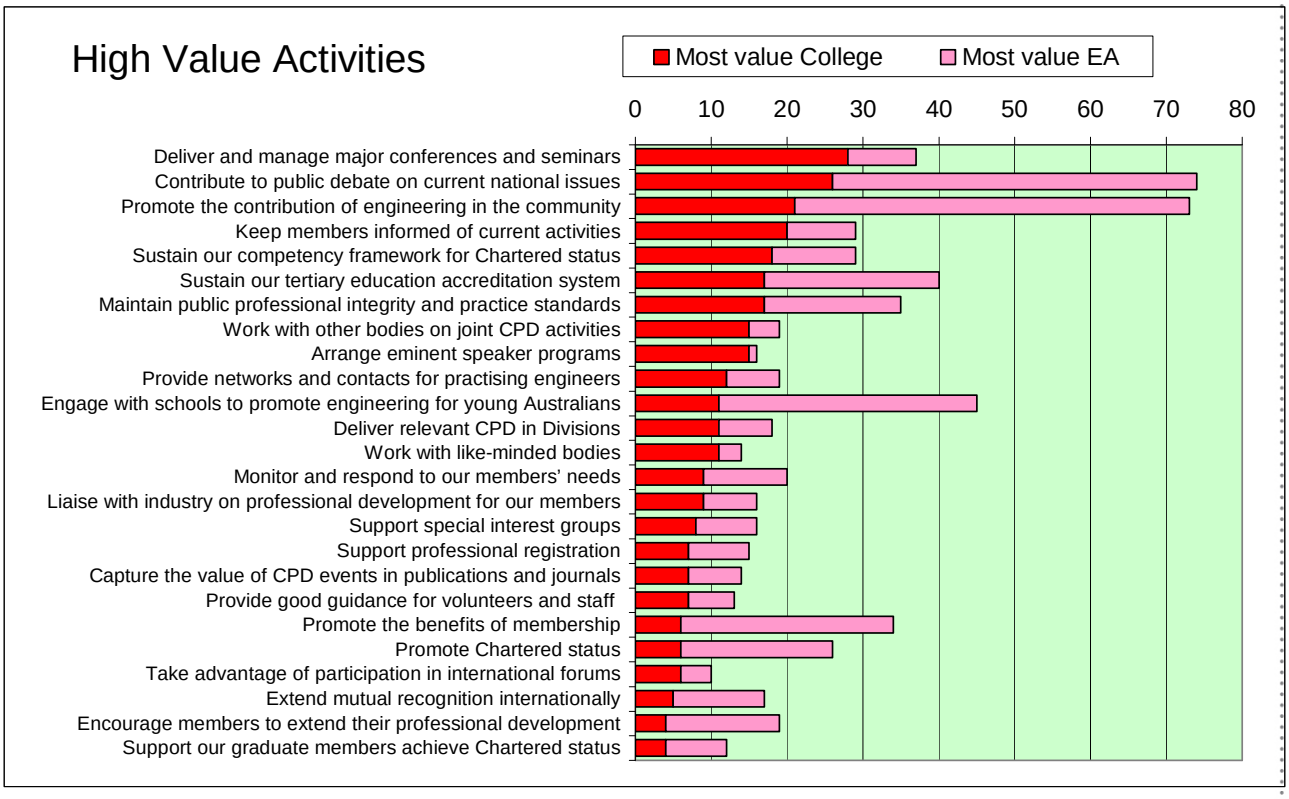
Workshop participants were given a one-page summary table of some 40 topic headings covering all the major areas of activity within the eight key objectives of our current Strategic Plan.

They were asked to select the five areas of activity across all of Engineers Australia which they considered of most ongoing value. College Boards were asked to nominate also the five areas of most value within their Board's own area of interest.

They were asked also to identify in either case any of the listed activity areas which they felt may not represent ongoing value for members' interests.

The purpose of these questions was to gauge perceptions of what members of national committees feel are our most valuable current activities, and also to gauge whether there may be perceptions about areas of activity that may not represent ongoing value. Do these suggest blind spots to be aware of?

The following chart presents a summary of the votes cast for the 'top 25' current activities, across 85 returns. These are ranked in relation to the highest-value activities for College Boards in their own areas of activity, and showing the selections for Engineers Australia generally. They represent 91% of the votes cast.



Lower results were recorded for such activities as our migration skills assessment service, support for professional registration, support for remote members, and the need for Engineers Australia to implement sound governance practices. It is hard to envisage that these activities would not be considered of value.

Low Value Activities

While quite a number respondents did not identify any current activities which they felt may have low or diminishing value, many did.

In interpreting the 'low value' results, care may be needed in case some ambiguity was present – between whether the return suggested that the activity was perceived to have low ongoing value to the

broader purpose of Engineers Australia, or whether the activity was seen as being of value but not contributing strongly to our overall achievements at present.

Nevertheless, the most prevalent selections of low or diminishing value were made in respect of our international activities – supporting our members working overseas; providing services for our overseas members and Chapters; and taking advantage of participation in international forums.

'Promoting engineering on campus', and 'Using corporate communication strategies' also attracted a good number of 'low value' votes.

WHAT IMPROVEMENTS MIGHT WE MAKE?

Individual participants were then asked to suggest strategic initiatives we could take to improve the 'learned society experience' for members, using a simple proforma. Well over 200 suggestions and 'benefits' were identified.

Many suggested initiatives reinforce the steps being taken by Engineers Australia:

- to raise the profile of the profession at all levels in the community and promote recognition of Chartered status, through the forthcoming Public Awareness, Career Preference and Credentials components of our national marketing campaign;
- to improve our schools outreach efforts to attract school children to a career in engineering and technology;
- to pursue a nationally consistent legislative framework for the registration of engineers;
- to improve our online services to members generally for networking and access to technical/CPD information; and
- to address member concerns through Committees – in particular the current Bye-laws Committee of Congress.

Where the initiatives suggested are being pursued as part of our current Operational Plans or Committee studies, and don't seem to add any new perspectives, they are not revisited in this report. However, there were quite a number of additional perspectives which are worthy of inclusion.

To assist in assessing all suggested initiatives, they were classified into 10 categories depending on topic.

1. Public profile and promotion of the profession

In addition to the general benefits anticipated to flow from our marketing campaign, suggestions included:

- the desire to attract high calibre students into engineering at an early enough stage in their choice of study and career paths;
- the benefit from encouraging diversity in the profession, and from improving awareness in the community and with employers of the contributions across occupational categories – the 'engineering team';
- promoting engineering and Engineers Australia through use of local media contacts and provision of an 'advisory service' to the general public (nature not specified).

2. Public policy and related practice issues

There is strong interest in improving our participation and influence in national policy and legislative developments across a wide range of issues of interest to the profession:

- take timely steps (such as establishing new National Committees) to enable Engineers Australia to strengthen its reputation as a leader for trusted, independent advice for policy makers on some of the greatest technical issues of the coming decade – water, energy, climate change, emissions trading, sustainable development (and particularly sustainable engineering outcomes); find ways to encourage and nurture innovation;

- be proactive in establishing closer ties with Infrastructure Australia, and reinforce the national benefit of continued investment in and sustainment of key national infrastructure, together with recovery of adequate skills within governments to oversee such work professionally;
- apply a sense of urgency to efforts to achieve consistent regulation of the profession across our various jurisdictions, including new areas of practice such as biomedical engineering, and across occupational categories, as part of the overarching objective to maintain and improve the quality and consistency of engineering skills into the future;
- promote the importance of national engineering registers;
- be concerned that the work environment for members of the profession is amenable to an adequate work-life balance, that individual professional development is encouraged, and that we provide and promote a consistent set of values across the profession in Australia; and
- perhaps Colleges could work more closely together to strengthen our presence in the development and application of standards, including adaptation of international standards to be fit for purpose where 'unique' Australian conditions might apply.

3. Improving the appeal of membership

Ultimately, all suggestions are aimed at ensuring members have positive professional and personal experiences in their engagement with Engineers Australia. A number of suggestions go to issues not readily categorised elsewhere:

- Engineers Australia could take deliberate steps with functions or ceremonies to 'welcome' new graduates to the profession;
- Work with employers, their HR staff and placement agencies to adopt recruitment criteria which promote effective diversity in the workplace (eg. male/female), as well as preference for the professionalism associated with membership of Engineers Australia;
- Encourage more employers to recognise the value of professional development, and encourage their engineering employees to undertake professional development, by paying their membership subscriptions;
- Examine the value of recognising dual or multiple memberships across like-minded organisations (eg. to provide members with access to a broader set of professional development information and opportunities) if it resulted in added mutual benefits for each organisation;
- Continue to survey member needs, and ensure that responses to member enquiries are timely so that members feel there membership is valued;
- Find ways to address the countervailing views regarding membership across occupational categories – the lack of recognition and therefore value felt by Technologists and Associates, versus the view that the Institution has lost stature as a true learned society with acceptance of 'para engineers'.

4. Promoting Chartered status and the value of CPD

A key element of the forthcoming national marketing campaign is to articulate and promote the value of Chartered status. The same need applies to CPD more broadly. Workshop participants cited many of the objectives behind the campaign in their suggestions.

Contributions which provided some specific amplifying points included:

- as the leading engineering body, Engineers Australia should build the justification and need for professional registration and influence governments – and ensure that achievement of Chartered status is sufficient for registration under the various Engineers Acts;
- that the wider community should be made more aware of the significance of Chartered status (across all occupational categories) for the quality of service to the community as the ultimate client;
- that Engineers Australia could align and work more closely with peak employer bodies (such as ACEA, ACA) and large companies to raise the profile and recognition of Chartered status, and the

related value of ongoing CPD for their Graduate programs and for individual engineers; this should result in flow-on effects to smaller firms;

- engineers who are employed in support roles in organisations whose core business is not overtly engineering in nature would benefit if their employers were included in our PDP strategies; and
- we should look at ways to relieve the onus currently on Colleges in "managing" the Chartered status system on a voluntary basis.

5. Better access to better CPD

Several initiatives from the reports of the 2007 and 2008 CPD Committees commissioned by Council are being implemented, and are likely to go some way to meeting the improvements suggested by participants. Better online capabilities in particular are being targeted.

Delivering an effective overarching CPD strategy across all of Engineers Australia will always be challenging. Suggested ways of dealing with the ongoing challenges include:

- implementing a CPD database to help members find and access appropriate CPD;
- continuing joint activities to deliver high quality CPD, including access to internationally recognised specialists;
- delivering CPD electronically with partner organisations;
- where online CPD is available, augment it with inbuilt test/scoring to support self-assessment;
- making events more accessible in regional and remote areas, leading perhaps to improved profile and presence for Engineers Australia with regional firms;
- avoiding overuse of some speakers, which can tend to reduce their effectiveness;
- advertising the technical library services available to members more effectively, and partnering with other professional bodies (eg international) to spread resources;
- keeping our publications program and strategies under review to ensure known needs are targeted, with optimal use of appropriate media – perhaps more industry-based and multi-disciplinary papers would be of interest to a wider range of members;
- making best use of Engineering Education Australia to increase availability of courses, best-tailored to the different disciplines; and
- ensuring timely and effective advertising and communication on forthcoming events through Divisions, and selecting venues and times to suit the largest number of members.

6. Youth appeal

While outreach programs such as EngQuest and the Science and Engineering Challenge are improving each year, our challenge to entice more young Australians to pursue engineering and technology study and careers will continue.

Our overall aims should be to improve the skill base of our engineers and our engineering capabilities so we are better equipped nationally for future technology-based solutions – and even reduce our growing reliance on migrant engineers.

We need to improve our efforts and resources and work with educators and governments in areas such as:

- capturing high achieving students;
- delivering programs to remote schools;
- engaging more females towards the profession;
- directing training funds towards sectoral skill shortages; and
- enjoining academic staff to become 'ambassadors' for the profession and for Engineers Australia.

7. Added benefits from our accreditation role

A small number of suggestions were made for using our accreditation links with academia to:

- achieve greater collaboration and mutual recognition of post-graduate subjects among different institutions, with possible benefits for highly mobile engineers;
- in an era of skill shortages, promote the value of 3-year technologist degrees (or abandon them if they are not considered worthwhile); and
- as part of the accreditation regime, promote the development of better practical skills (not defined) as part of undergraduate curricula.

8. International reach

In addition to the wide range of opportunities for emulation and collaboration noted in the benchmarking analysis, a few additional thoughts were provided:

- develop our linkages with international counterpart bodies, offer to act as their local 'extension', improve our profile and standing internationally, and consider options for 'dual' or 'multiple' memberships – providing wider opportunities and access to technical information for our members;
- closer to home, develop better strategies to both strengthen links with counterpart bodies in our region, and also to help develop engineers in developing countries in our region – with opportunities for our engineers to contribute in those countries, for us to accept and develop their engineers, and for increased levels of participation and technical interchange through our conferences;
- make sure we promote the various Accords to which we are signatories, so that members are encouraged regarding the recognition overseas of their own qualifications, and non-members may be encouraged to join Engineers Australia; and
- as a tangible benefit from our agreements, use our website to make codes and practice notes from our agreement partners in other countries available more readily to our members who might wish to work in those countries.

9. Informing and supporting our groups

Engineers Australia accommodates such a wide range of professional interests across our membership, across such a wide geographic spread, and takes an active responsibility to cover issues of national significance affecting the profession, that there is often uncertainty and tension, and sometimes unrealistic expectations, regarding the balance of resources and effort available between volunteers and staff at all levels.

Many participants offered suggestions (sometimes more in the nature of commentary than strategies). It is important that they be recorded, and it may be that strategies to create a more shared understanding of respective roles, responsibilities and resources will be as important as strategies to respond to any of the specific comments:

- freedom of thought should be encouraged for smaller groups to initiate ideas, to help sustain our intellectual and professional standing globally;
- active interest groups are more likely to engender high quality CPD events;
- there is a concern that the organisation should be more responsive to volunteers' proposals, with a strategy to create a more "can do" attitude among staff, with the perceived benefit of enhancing the activities of Engineers Australia as a whole;
- better recognition could be given to firms who support the voluntary involvement of their engineering employees in our activities, so that, for example, reasonable periods of absence are encouraged for the professional development value;
- more financial and staff support (even paying of some volunteer positions) would attract more members to contribute and enable volunteer committees to meet and better plan activities;

- top-echelon staff in Divisions should be engineers to facilitate liaison with National Office and with employers and Divisions, to speak on behalf of Engineers Australia, and to develop solutions to relevant issues;
- volunteers should be relieved of event management, financial and other 'administrative' tasks, which are likely to be undertaken more cost-effectively by staff;
- conversely, members might perceive increased value for money if salaried staff levels were reduced at national and Division levels! and
- better information should be provided on what Engineers Australia does, and its achievements, to counter perceptions of a complex structure, a 'muted voice', and a lack of direction for the profession, and to engender a more proactive approach among members towards the organisation.

10. Better use of online capabilities

Our Operational Plan for 2009-10 includes a major upgrading of our public website. Among other things, the upgrade will be geared towards greater reliance on user-generated content and business and social networking channels. A number of suggestions along these lines were made by workshop participants.

Our technical library will now be available to all members free of charge. It was suggested that standards from Standards Australia could also be made available free to members via the web – reportedly such service is available within universities.

The prospect of more active use of our website as a platform for common interest groups was suggested; 'Career Interest Groups' could be of particular benefit to such as our YEA members.

SPECIAL INTEREST GROUPS

Three of our national Special Interest Groups – Women in Engineering, Technologists, and Associates – provided input to this information gathering phase by way of workshop sessions. Their contributions are incorporated in the analysis presented in the earlier parts of this report.

The other three national Special Interest Groups were asked also to provide submissions on, from their viewpoints:

- what Engineers Australia does best,
- if different, what has most ongoing value,
- could improvements in what we do now increase the value of membership markedly, and
- is there anything we do now which might be of low or diminishing value?

Centre for Engineering Leadership and Management (CELM)

CELM Chapters were approached for comments, and the Sydney Chapter provided a substantive submission. This was supported with additional comments from the Queensland Chapter and a response from the Canberra Chapter.

The strongest recommendation from CELM is that our new Strategic Plan must highlight as a primary objective the need for Engineers Australia to understand and serve the needs of the community, and to create an appreciation among the community of the contribution engineering makes.

The submission warns against Engineers Australia being seen as too inwardly-focussed and self-serving, and that it faces increasing competition in its role to represent the engineering profession. For these reasons, the submission was very supportive of the 'Profile Raising' element of the forthcoming communication campaign. In addition, the submission argues that such a relationship with the community can only be based on trust, requiring particular attention to the promulgation and education of ethical standards, enforced by members of the profession, and that CELM is well-placed to provide guidance on such issues within Engineers Australia.

The CELM submissions made many other suggestions. In summary, Engineers Australia should:

- continue to promote cross-disciplinary seminars on issues of national significance,
- advance the leadership and management skills of members of the profession,
- focus on increasing our membership base among professional engineers,
- dispel ambiguities which might exist with the community and among our international counterpart bodies regarding membership grades,
- clarify the relationship between "EngExec" and "CPEng",
- improve (even re-think) our fundamental structure, top leadership and governance arrangements, and internal consultative and communication processes,
- support international efforts to ensure Australian companies do not engage in corrupt practices when operating outside Australia,
- reverse the trend which has occurred for centralisation of responsibilities away from Division Committees, and give them more support and autonomy,
- fix the membership database to facilitate, among other things, members' networking in pursuit of their diverse interests, and
- increase involvement of the membership in our public policy role.

Young Engineers Australia (YEA)

The response from the Chair of Young Engineers Australia pointed to the opportunities provided for graduates and early professionals to gain leadership experience and rapid skill development as one of the things Engineers Australia does best.

Areas for suggested improvement were:

- continue to push for national legislation recognising the need for registration, so creating value for Chartered status as the standard of competence for individual engineers,
- find ways to protect the terms "engineering" and "engineer" as descriptors for the profession and its practitioners,
- move more quickly with the roll out of the national marketing campaign towards rectifying the problems and weaknesses identified,
- direct our limited resources to meet members' needs more in accordance with the size of our various membership groups, with priority to paying members, and
- invest in better online technology for networking, access to information, and to improve our public face.

Engineering Heritage Australia (EHA)

EHA was invited to identify strategic issues for the achievement of Engineers Australia's objects and purposes into the future, and what steps should be taken to address them adequately.

In addition to providing comments on the questions raised, the Chair of EHA offered some general comments. It is felt that the eight key objectives in our current Strategic Plan may be too many, they don't represent the learned society function adequately, and they don't give adequate recognition of the place of engineering heritage – in regard to its place within Engineers Australia, the postgraduate training available in universities towards registration in conservation and heritage engineering, and the opportunities to use engineering heritage to reinforce our public policy and public information roles.

In this regard, key issues and steps needed were seen as:

- the Heritage Recognition Program and the Oral History Program could be drawn on to showcase the achievements and contribution of engineers and engineering to the community,
- the postgraduate education of Conservation and Heritage Engineers, and processes for assessment of their competence for registration, must be progressed, and
- Engineers Australia needs to provide a clear policy mandate for the activities of EHA.