

Regulation of Engineers in Western Australia

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1. Introduction

Engineers Australia is the peak body for engineering practitioners in Australia and represents all disciplines and branches of engineering. Engineers Australia has over 83000 members, with around 11,500 members in Western Australia and is the largest and most diverse engineering association in Australia. All members of the Engineers Australia are bound by a common commitment to promote engineering and facilitate its practice for the common good. Engineers Australia welcomes the release of the discussion paper and is calling on its members to support an Engineers Act for Western Australia, which they believe will give the public and business sector certainty that engineering expertise required for their needs is delivered by those who have the experience and necessary qualifications.

The following reiterates our position on the issues raised in the discussion paper.

2. Regulation of the engineering profession

Engineers Australia believes that Australia should have nationally consistent State and Territory regulatory regimes for the engineering profession based on a registration system that identifies competent engineering practitioners. The registration system should include all professional engineers, engineering technologists and engineering associates who are responsible for the approval or certification of designs, specifications, systems or their implementation. Engineers Australia believes that competency assessment should underpin the registration system, with recognition of Chartered status and registration on the National Engineering Registers.

We believe that a regulatory regime for the engineering profession is essential for the following reasons:

- *Reducing risks to public safety, health and welfare* - Threats to the public from provision of engineering services by unqualified or incompetent persons have three elements, namely:
 - Health – through such things as contaminated drinking water, sick buildings and other environmental incidents;
 - Safety – through collapse of buildings and other structures or through failure of hazardous services such as gas, electricity or mechanical works; and
 - Property damage – where the effect is primarily measured in economic terms.

Allowing only registered engineering practitioners to offer services that place the public safety, health and welfare at risk can reduce these risks by eliminating unqualified persons from the market and preventing engineering practitioners found guilty of misconduct from continuing to practise.

Risks to the purchasers of engineering services can involve financial costs such as design and construction costs, litigation expenses, lost production and rectification costs. There can also be enormous financial costs to the community associated with the delivery of poor engineering services as well as environmental costs.

- *Legislative efficiency* - Regulation of the engineering profession will create legislative efficiency. At present, Queensland requires registration of professional engineers, while Victoria, the Australian Capital Territory, the Northern Territory, Tasmania, New South Wales and South Australia register professional engineers for some building and construction services.

In addition, there are many regulatory and quasi-regulatory regimes maintained across jurisdictions by local and state governments that impose various prescriptive standards to which engineering practitioners are required to work. Each of these has the potential to have different qualification and experience requirements.

Comprehensive, consistent statutory regulation of engineering practitioners would alleviate the inconsistencies across jurisdictions.

- *Industry/consumer efficiency* - Engineering services are purchased by governments, large and small businesses, and individual consumers. The lack of a nationally consistent regulatory system for engineering practitioners means that consumers, large and small, must make purchasing decisions based on their own investigations into the suitability of that person and their ability to do the work required. Determining who is a qualified to provide engineering services, particularly if it is an infrequent purchase, can be costly.

A regulatory system based on registration of engineering practitioners can aid the market by providing information to consumers on the education and experience levels of engineering practitioners. This enables consumers to make decisions that are more informed and reduces the tendency for consumers to choose services based on price alone.

An unregulated environment can cause operational inefficiencies for industry. There have been instances where appropriately qualified and experienced engineering practitioners have not been engaged and, as a result, poor design has led to failure and environmental degradation. A requirement for the work to be completed by an appropriately qualified and competent engineering practitioner selected from a credible register could prevent this type of failure.

- *Professional recognition* - As with others who offer professional services, engineering practitioners have a high degree of responsibility and liability imposed on them by both courts and regulators. The regulation of engineering practitioners differs from other practitioners such as legal and medical practitioners who are required under legislation to be registered in order to practise. The community expects a certain set of standards and skills from engineering practitioners. Regulation is an appropriate mechanism to implement a registration system to identify those with the appropriate skills, and ensuring that standards and skills are well maintained.
- *Enhanced international mobility and trade in engineering services* - Standards of practice that are recognised by government have the potential to improve overseas trade, and are essential for trading in accordance with the World Trade Organisation trade and services obligations, and under bilateral free trade agreements. In many countries, engineering is seen as a critical profession whose practitioners should be recognised and registered by government. Many of Australia's trading partners, such as Japan, Malaysia, the United States, China and Singapore, have statutory registration of engineers, and place faith in a legislated, comprehensive registration system.

A statutory registration system can provide a competitive edge for companies tendering for overseas engineering projects. This is because statutory registration is recognised as common currency in the international trade of engineering products and services, and certificates of compliance from registered engineering practitioners are required in most instances.

Engineers Australia believes that to reduce risks to users of engineering services and the community at large, a regulatory system must restrict delivery of engineering services to those who are competent to do so.

This restriction can be contained in an Engineers Act or in other Acts and regulations that can refer to the registration system provided by an Engineers Act.

This should be coupled with restrictions on the use of the title 'registered engineer', 'registered engineering technologist', and 'registered engineering associate', so that consumers are able to easily identify who has been registered.

Engineering can be divided into broad specialisations, which can then be subdivided into hundreds of sub-categories and there are overlaps between specialisations of engineering practitioners. Engineers Australia believes that there is public benefit in providing sections in the register that relate to broad engineering disciplines or specialties. For instance, the following categories are commonly used to describe engineering practitioners:

- Mechanical
- Electrical
- Civil
- Structural
- Chemical
- Biomedical
- Environmental
- Information Telecommunications and Electronics

These areas of practice can be used to assist identification of suitable practitioners. However, there are areas of overlap between some disciplines and some practitioners could legitimately claim to be competent in more than one area of practice.

The effectiveness and success of any regulatory regime is based on the skill, knowledge and standard of the registered person. Engineers Australia believes that registration should be dependent on an initial assessment of competency, coupled with a requirement of continuing competency (including continuing professional development).

Professional engineers, engineering technologists and engineering associates come together in different combinations to undertake engineering services. Their activities and competencies are often closely inter-related and it is difficult and sometimes artificial to say where the responsibilities of one category end and those of the next category begin. There are activities that could be undertaken in different circumstances by any member of the three categories. Other activities are clearly the province of one category but not of another – for example, the province of a professional engineer but not an engineering associate, or vice versa.

Given that the three occupational categories can be delineated by demonstration of competency against the Australian Engineering Competency Standards, Engineers Australia believes that there should be a registration system for all engineering occupational categories. This will also assist purchasers of engineering services to match the engineering practitioner to the level of service that they require.

All registration systems have the same basic characteristics in that standards must be set, courses accredited, candidates examined and a register maintained. Performance must also be monitored and failures disciplined.

Engineers Australia supports a co-regulatory system involving statutory bodies and professional associations undertaking the following roles:

(a) The professional association:

- sets qualification, experience and competency standards,
- assesses applicants in accordance with those standards,
- develops and disseminates appropriate standards of practice, and
- audits compliance with conditions of continuing registration.

(b) A statutory body:

- maintains an open and up-to-date register that includes those persons assessed by approved professional associations,
- responds to complaints from consumers,
- undertakes inquiries and if necessary, disciplinary action, against practitioners in response to complaints, and
- prosecutes non-registered persons breaching the provisions of the legislation.

This approach allows industry and the professional association to control the qualifications, experience and competency standard applied to a practitioner, but allows government to oversee the assessment and monitoring system and standards applied to practitioners through the approval process.

The statutory body must be independent and would typically handle complaints and/or disputes in accordance with the relevant state laws. This would reassure persons who are uncomfortable with the concept of professional bodies dealing with complaints against their members.
