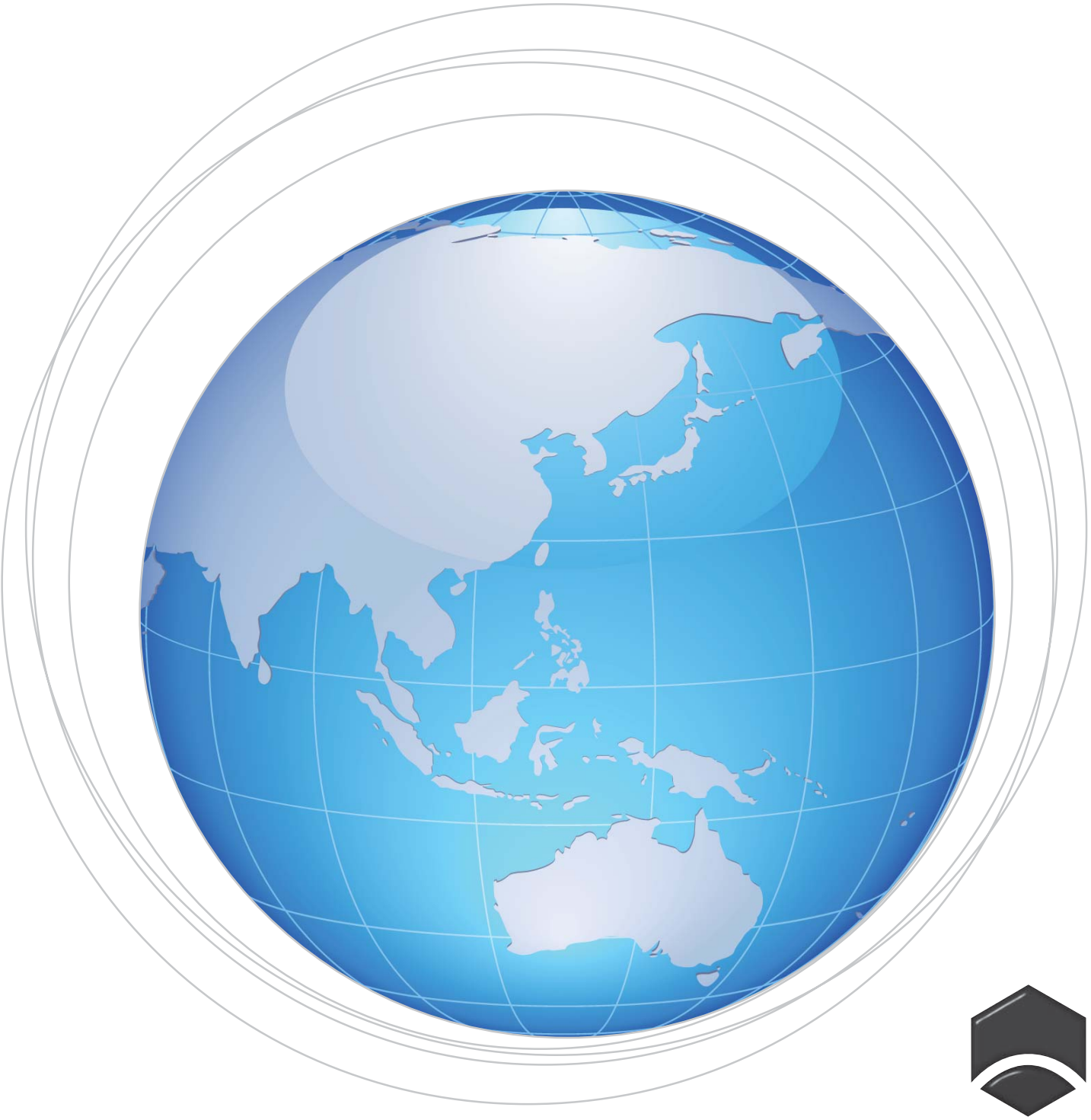
ENGINEERING THE WORLD, SUPPORTING THE PROFESSIONAL MOBILITY OF ENGINEERS IN AUSTRALIA AND THE UNITED STATES



ENGINEERS
AUSTRALIA

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ABOUT US

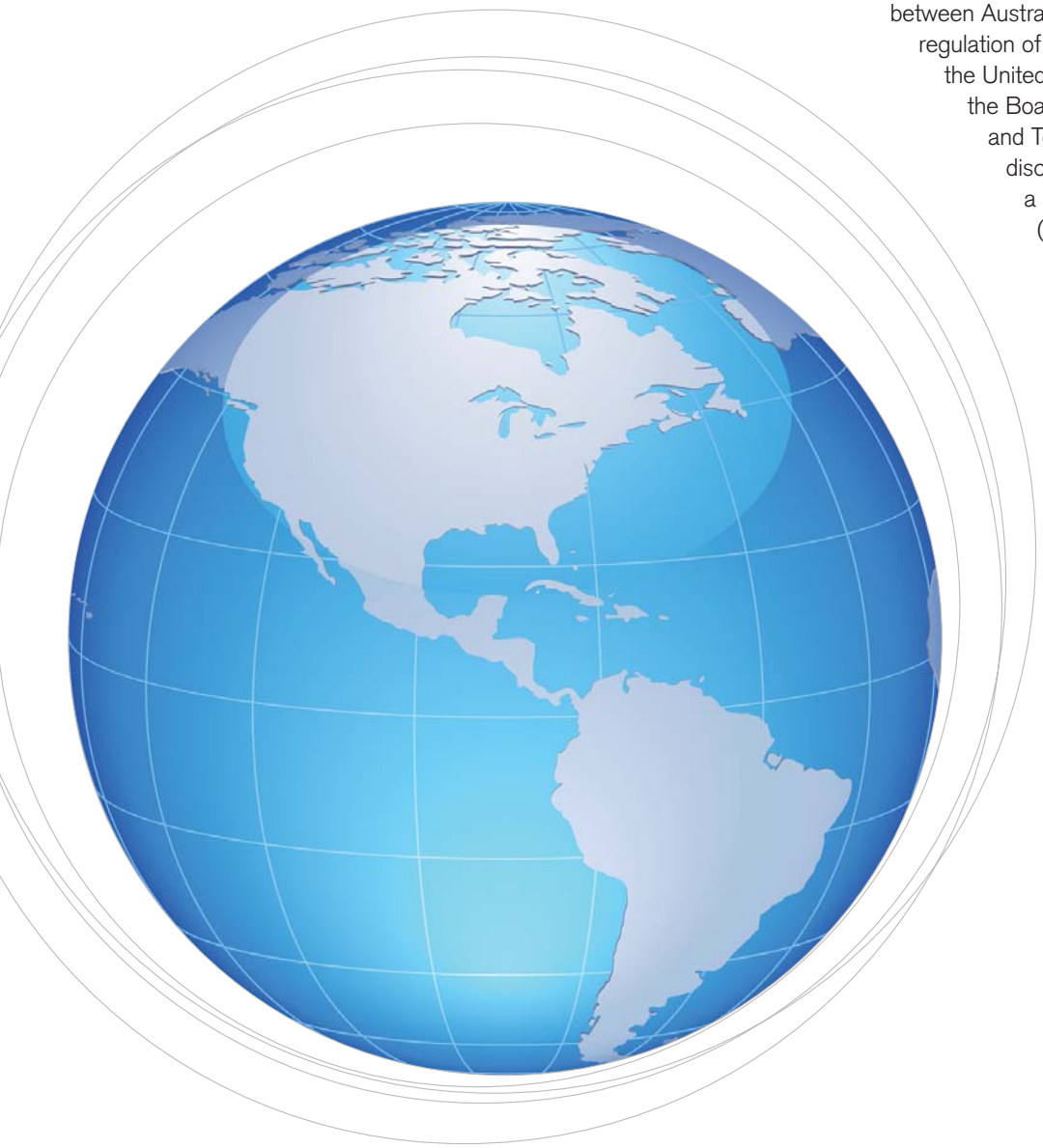
The Institution of Engineers Australia, trading as Engineers Australia, is the peak body for engineering practitioners in Australia with over 80,000 members Australia-wide.

Engineers Australia is committed to enhancing the reputation and standing of the profession and its practitioners and is the national forum for the advancement of engineering and the professional development of engineers in Australia. It accredits engineering courses in Australia, operates programs of continuing education and professional development, maintains a vigorous publishing and conference program and involves itself in debate on national and community issues.

RELATIONSHIPS WITH USA BODIES

Engineers Australia has invested a large amount of time and energy in developing and facilitating trade in engineering services at a multilateral and bilateral level. We enjoy a highly co-operative relationship with United States national engineering organisations, including the Accreditation Board for Engineering and Technology, the National Council of Examination for Engineering and Surveying (NCEES) and the United States Council for International Engineering Practice (USCIEP). We work closely with these bodies on the Washington Accord and the Asia Pacific Economic Cooperation (APEC) Engineer Register, which are aimed at expanding mutual recognition arrangements to facilitate mobility for professional engineers.

Engineers Australia would like to take steps to improve the international mobility for professional engineers between Australia and the United States. Because regulation of the engineering profession in the United States is the responsibility of the Board of Engineers in each State and Territory, we would like to facilitate discussion on the potential of reaching a mutual recognition agreement (MRA) for the licensing of engineers in our respective jurisdictions. The aim would be to negotiate an agreement that resulted in both Australian and United States licensed engineers gaining a high degree of mutual recognition in each jurisdiction. An MRA would provide that the licensing/registration procedures in both jurisdictions are 'substantially equivalent' and that licenses/registration can be issued without further examination.



HOW AN MRA WOULD HELP ENGINEERS FROM THE UNITED STATES ACCESS THE AUSTRALIAN ENGINEERING MARKET

Engineers Australia operates a National Professional Engineers Register (NPER). Engineers licensed by a United States Engineering Board that has an MRA with Engineers Australia would be eligible to be listed on this register. This would assist these engineers to become registered by Australian State and Territory government authorities where registration is required.

Most States and Territory governments in Australia have registration and/or licensing regimes for engineering practitioners in various areas of practice. NPER is used by many of these government bodies as the assessment framework for engineering qualifications and competence, For instance:

> Tasmania: designers and certifiers must be eligible to be registered on NPER.
> Victoria: engineers in the building and construction industry registered on NPER are able to be registered by the Building Practitioners Board without undergoing additional assessment.
> South Australia: geotechnical engineers must be registered on NPER.
> New South Wales: building certifiers must be registered on NPER.
> Queensland: All practicing engineers must be registered by the Board of Professional Engineers.
> Northern Territory: Engineers must be registered with a government board under the Building Practitioners Act in order to work in the building and construction industry.
> Western Australia: The government has announced a proposal to introduce a registration system for all engineers.
> Australian Capital Territory: The Land and Planning Authority utilizes NPER for registration of building and plumbing certifiers.

THE CASE FOR THE EXCELLENCE OF AUSTRALIAN ENGINEERS

The reputation of Australian engineers and engineering firms stems, in the main, from a rigorous accreditation and voluntary registration system in Australia. The high standards of Australian engineers have been developed and maintained through:

> The accreditation of all Australian engineering four-year degree courses to Washington Accord competency standards.
> Professional development programs leading to the award of Chartered Professional Engineer status.
> Registration on the National Professional Engineers Register.
> Audited continuing professional development to maintain and build current competency.
> Maintenance and operation of a Code of Ethics with disciplinary procedures.
> International benchmarking through the Asia-Pacific Economic Co-operation (APEC) Engineer Register and other Accords.

Accreditation of University Courses

Since 1965, Engineers Australia has undertaken an accreditation program for university programs and courses. Every engineering school in Australia is reviewed on a five-yearly cycle and accreditation of each degree program is confirmed or withheld, as appropriate, and developmental advice is offered.

Engineers Australia looks upon accreditation as a community of interest between the profession and its educators, and is acutely conscious of the importance of international benchmarking. Australian engineering degrees, like United States degrees, are internationally benchmarked through the Washington Accord. The Accord recognises the equivalence of accreditation systems for engineering degrees in the signatory countries. The Accord is an agreement between engineering accreditation bodies in Australia, Canada, Hong Kong SAR, Ireland, New Zealand, South Africa, the United Kingdom, the United States of America and Japan. Germany, Korea, Malaysia and Chinese Taipei are provisional members of the Accord and approval of Singapore's application for full membership is imminent.

Chartered Professional Engineer - CPEng

Membership of Engineers Australia is offered in various grades. Membership denotes experience and recognition as an engineer and is a means by which purchasers of engineering services can determine the experience level of the practitioner.

The Chartered title is exclusive to Engineers Australia and is based on competence. The title is offered at the professional engineer, engineering technologist and engineering officer level. The title stands for the highest standards of professionalism, up-to-date expertise, quality and safety, capacity to undertake independent practice and to exercise leadership within the engineering team.

An engineer who is a member of Engineers Australia at the Chartered level is committed to maintaining the currency of their skills and knowledge and meeting established ethical standards. Purchasers of engineering expertise can be assured that Chartered Engineers are competent to be licensed in foreign jurisdictions and practise internationally.

National Professional Engineers Register - NPER

Engineers Australia, in conjunction with the Association of Consulting Engineers, Australia, and the Association of Professional Engineers, Scientists and Managers Australia, State and Territory governments and community groups, has established the National Professional Engineers Register (NPER).

NPER is maintained in the community interest, at no cost to governments or other authorities, and is open to Engineers Australia members and non-members alike. Although Engineers Australia provides the secretariat for NPER, an independent Board comprising representatives of the engineering profession, government and the community directs registration activities.

NPER is a simple, consistent national database to which any person or organisation can refer when particular engineering and engineering related skills are required. It identifies those persons whose academic qualifications, cumulative and current experience and competencies, and commitment to ethical conduct and continuing professional development are of the standard considered appropriate by the profession for independent professional practice.

NPER is divided by areas of practice and registration in an area of practice on NPER is based solely on the demonstrated professional competence of the applicant. Every effort is made to provide an objective, fair and equitable system of assessment for applicants. Entry standards for NPER are used in international forums, such as the APEC Engineer Register to develop world best practice for defining a professional engineer.

Practitioners seeking renewal of registration must confirm their involvement in 150 hours of continuing professional development over the previous three years. Continuing professional development activities must relate to the practitioner's area of practice. Compliance with this requirement is subject to periodic random audit. As with Chartered Engineers, engineers registered on NPER are committed to maintaining the currency of their skills and knowledge and meeting established ethical standards and are competent to be licensed in foreign jurisdictions and practise internationally.

Code of Ethics

All members of Engineers Australia are bound by a code of ethics. The first tenet of the Code of Ethics obliges members to place the welfare, health and safety of the community before sectional or private interests. Other tenets of the Code bind members to act with honour, integrity and dignity, and to be aware of the social and environmental consequences of their actions. The most secure protection for the community lies in the fundamental requirement of the Code that members must practice within the limits of their personal and professional competence, and in the assurance that they will be subject to effective disciplinary action if they fail to observe that constraint. Engineers Australia's Code of Ethics and disciplinary procedures are another guarantee that Australian engineers are competent to be licensed in foreign jurisdictions and practise internationally.

International mutual recognition of engineering qualifications

As a result of the work by Engineers Australia, accredited Australian qualifications and overseas engineering qualifications are recognised through formal agreements with engineering accreditation bodies in other countries.

One of these agreements is the APEC Engineer Register, an initiative of regulatory authorities, professional bodies and relevant ministries from APEC economies to remove barriers to professional mobility. Member countries include Australia (Engineers Australia), the United States (USCIEP), New Zealand, Hong Kong, Malaysia, Canada, Indonesia, Japan, Korea, Singapore, Thailand, the Philippines and Chinese Taipei. Engineers entered on the APEC Engineer Register are granted a high degree of mutual exemption from further assessment when practising in any of the participating economies.

An APEC Engineer is defined as a person who is recognised as a professional engineer within an APEC economy, and has satisfied an authorised body in that economy (for example Engineers Australia), operating in accordance with the criteria and procedures approved by the APEC Engineer Coordinating Committee, that they have:

- completed an accredited or recognised engineering program;
- been assessed within their own economy as eligible for independent practice;
- gained a minimum of seven years practical experience since graduation;
- spent a minimum of two years in responsible charge of significant engineering work; and
- maintained their continuing professional development at a satisfactory level.

All practitioners seeking registration as APEC Engineers must agree to be bound by the codes of professional conduct established and enforced by their home jurisdiction and by any other jurisdiction within which they are practising. Such codes normally include requirements that practitioners place the health, safety and welfare of the community above their responsibilities to clients and colleagues, practise only within their area of competence, and advise their clients when additional professional assistance becomes necessary in order to implement a program or project. APEC Engineers must also agree to be held individually accountable for their actions, through requirements imposed by the licensing or registering body in the jurisdictions in which they work and through legal processes.

Under the APEC Engineer Agreement, bilateral mutual recognition agreements to streamline registration/licensure between countries can also be signed. For example, a bilateral agreement to facilitate mobility of registered/licensed engineers between Australia and Japan was signed on 1 October 2003. APEC Engineers in both Australia and Japan in the mechanical, electrical and chemical disciplines now receive recognition of their qualifications and experience under the agreement, allowing them to easily meet any registration or licensure arrangements they encounter. There may be opportunities for a similar arrangement to be reached between Engineers Australia and State and Territory Engineering Boards of the United States.

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