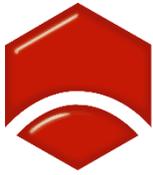




ENGINEERS  
AUSTRALIA

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**Response to the  
Victorian Government's  
Consultation Paper on  
*A statutory registration  
scheme for Victorian  
engineers***



ENGINEERS  
AUSTRALIA

Response to the Victorian Government's Consultation Paper on *A statutory registration scheme for Victorian engineers*

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# Executive Summary

The Institution of Engineers Australia (Engineers Australia) is the peak body of the engineering profession. We are a member-based professional association with over 100,000 individual members, nationally and internationally. We are one of the largest engineering professional associations in Australia and globally.

Established in 1919, Engineers Australia is a not-for-profit organisation, constituted by Royal Charter to advance the science and practice of engineering for the benefit of the community.

As an example of our work, Engineers Australia:

- maintains the largest voluntary register for engineering, the National Engineering Register (NER);
- is the largest provider of Continuous Professional Development (CPD) to the engineering profession;
- represents Australia in the International Engineering Alliance and develops agreements for global professional mobility;
- accredits engineering qualifications against the international benchmarks on behalf of the profession;
- undertakes 10,000+ migration skills assessments on behalf of the federal Government each year; and
- is located in every state and territory, plus in our overseas chapters in Asia, UK and Middle East.

Engineers Australia would like to thank the Victorian Government for their leadership in advancing registration of engineers in Australia. Engineering is one of the few professions in Australia without a national approach to registration to ensure the qualifications and experience of all practitioners, both national and international, is at the appropriate level for the engineering service delivered.

Given that Victoria is Australia's largest exporter of engineering services and the majority of our OECD trading partners have internationally benchmarked standards for engineers, it is time to introduce a statutory scheme for the registration of Victorian engineers.

We also wish to acknowledge that the proposed registration scheme is an election commitment and part of a suite of STEM reforms on engineering and infrastructure more broadly, including Infrastructure Victoria, Office of Projects Victoria, Office of the Chief Engineer, Major Projects Skills Guarantee, Tech Schools program and the Future Industries Fund to name a few. All form part of a broader strategy to grow our engineering workforce, ensure we have suitable controls to protect the public, deliver our pipeline of engineering work and expand the business opportunities in Australia and overseas.

Engineers Australia strongly supports

- the introduction of a co-regulatory registration model, closely aligned to the current Queensland Registration scheme to facilitate mutual recognition between jurisdictions;
- the proposal for registration to be restricted to technical registration of individuals;
- the scheme be broad-based as we do not believe it is appropriate to predetermine risk based on discipline;
- that the scheme be agile and flexible to enable assessing entities to submit new Areas of Practice for approval as a need is identified;
- qualifications and experience eligibility requirements that recognise international standards and align to other jurisdictions, eg BPEQ, to support mutual recognition;
- the registration of the full Engineering Team, however noting that the Professional Engineer category will be considered initially, we call for the scheme to be designed to accommodate additional occupational categories in the future;
- that government legislates engineers maintain their skills, recognises the role and expertise of the professional bodies to provide CPD aligned to international best practice and articulates a clear expectations of what skills maintenance means;
- the use of the Queensland definition of the provision of engineering services for the proposed statutory registration scheme for Victorian Engineers;
- the statutory authority having complaints-based investigation power with disciplinary powers, including deregulation; and
- the Government's national and international promotion of the skill and capability of Victoria's Registered Engineers to grow engineering services.

We provide the following information in response to the specific questions raised in the Victorian Government's consultation paper - *A statutory registration scheme for Victorian engineers* and would value the opportunity to discuss further as required.

## Question 1: What benefits and opportunities are likely to arise from a more highly skilled engineering workforce?

### *Public confidence*

The registration of Victorian engineers provide government and the community with the assurance that our engineering services are delivered by engineers with the appropriate qualifications, current knowledge and skills, who are committed to protecting the public as demonstrated by their agreeing to the Code of Ethics.

Engineering is a highly skilled, technical profession and there is often an imbalance of power between the skilled practitioner and the client and community. The proposed registration scheme will drive confidence of the technical capability in the profession.

### *Risk mitigation*

While our engineering education standards are benchmarked internationally and the general risk is low, the consequences of an engineering failure are very high in terms of public safety, consumer protection and international reputation.

There are a number of emerging trends that are potentially increasing the risks:

- As engineering firms are increasingly led by other professions and Boards have less technical experience than in the past, it is critical to ensure there is a highly skilled engineering workforce, underpinned by strong personal professional ethical practice, to provide robust advice to inform engineering leadership decisions.
- Increasingly international companies operate in Australia with work provided off-shore and an ongoing reliance on 457 visas to meet workforce demands. This will continue as the volume of engineering work significantly increases through the Victorian Government's pipeline of projects. This is also the case in a number of states and to meet the workforce demand we will need to continue to bring engineers from overseas. Currently, the appropriateness of the qualification or experience of engineers who work on 457 visas is determined by the employer with no independent review.
- The age profile of the engineering workforce is rapidly changing with the retirement of the baby boomers. A younger engineering workforce drives innovation but needs robust ethical frameworks and commitment to currency as they do not have the benefit of experience to inform decisions.

### *Cost reduction*

The 2012 Acil Tasman report, *The Economic Basis of the Case for National Registration of Engineers in Australia*<sup>1</sup> noted that while preventing catastrophic failure would have significant social and economic benefit for the community, the considerable cost saving for a mandatory scheme was in the reduction of 'botched' jobs.

*While spectacular but sporadic large-scale engineering failures command considerable public attention, the costs associated with "botched" engineering projects are often hidden. Assuming that the proposed national registration system once fully operational results in one per cent fewer engineering construction projects being botched (say, from 20 per cent to 19 per cent or from 15 per cent to 14 per cent) and that the cost of rectifying such projects is equal to 25 per cent of the value of the original project, the benefits that can be attributed to the proposed system is estimated to be \$207.08 million per annum.*

### *Increased export opportunities and business attraction to the State*

We recognise a scheme, underpinned by international standards, provides a significant opportunity to promote and demonstrate the capability of engineers nationally and internationally. A highly skilled engineering workforce, providing greater innovation with a pipeline from an internationally recognised education system will protect the current level of export and has the potential to significantly increase export revenue from this sector.

We would value the opportunity to discuss these benefits with government in more detail.

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<sup>1</sup> [www.engineersaustralia.org.au/sites/default/files/acil\\_tasman](http://www.engineersaustralia.org.au/sites/default/files/acil_tasman)

## Question 2: What eligibility requirements (such as qualifications and experience) are appropriate for registration to undertake engineering work?

Engineers Australia believes the minimum eligibility requirements appropriate for registration to undertake engineering work are those required by the National Engineers Register (NER) and the Chartered Engineer process<sup>2</sup>.

The NER is available to everyone and allows consumers to search for a qualified engineering professional by name, area of practice and geographic location. The requirements of the NER include:

- recognised qualification;
- relevant professional practice;
- currency of continuing professional development (CPD);
- a commitment to ethical practice; and
- the benefit of Professional Indemnity Insurance (PII).

*(We note that PII is not under consideration for the proposed Statutory Registration Scheme Victorian Engineers)*

These requirements are detailed below.

### 1. Qualifications recognised under the International Educational Accords

Engineers Australia strongly recommends that entry to the Register requires the qualifications recognised under the International Educational Accords. These qualifications are:

- Washington Accord for the international recognition of the occupational category of Professional Engineers  
**Note: this is the occupational category under consideration for the scheme.**
  - The qualification is a 4-year or 5-year undergraduate engineering degree
- Sydney Accord for the international recognition of the occupational category of Engineering Technologists
  - The qualification is a 3-year engineering degree
- Dublin Accord for the international recognition of the occupational category of Engineering Associates
  - The qualification is a 2-year Advanced Diploma or Associate degree

### 2. Relevant professional practice

Engineers Australia recommends the scheme should require engineers to have a minimum of 5-years relevant professional experience in each Area of Practice to be approved for Registration. Evidence should be provided via a certified CV or Statutory Declaration and assessed by an accredited and qualified assessment entity. This is the standard required by the NER and recognised by the BPEQ.

### 3. Currency of Continuing Professional Development (CPD)

Mandatory CPD is considered international best practiced for those delivering an engineering service. A commitment to currency is crucial in contemporary professional practice to ensure the practitioner is current in knowledge, skills and innovation to ensure effective judgment.

### 4. Ethical Practice

A commitment to ethical practice must underpin the registration scheme. This is the principle that protects the public. The engineers are bound to only practice in their area of competence or seek to address new competencies if required. They are also required to escalate matters of public risk. The proposed Code of Conduct should be benchmarked against Engineers Australia's Code of Ethics to facilitate mutual recognition.

### 5. Additional benefit of Professional Indemnity Insurance (PII)

It is worth noting that, while this is not a requirement of the proposed scheme, all engineers on the NER are required to be covered by PII.

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<sup>2</sup> BPEQ recognises engineers registered on the NER and Chartered Engineers

### Question 3: What types of registration or license should be included under an engineers' registration scheme?

Engineers Australia supports the proposal for registration to be restricted to technical registration of individuals, not businesses. Practicing in a professional capacity requires company commitment, underpinned by personal professional responsibility. Personal commitment to a Code of Ethics is essential for the governance of good practice, with numerous recent examples of large scale issues stemming from a reliance on company processes rather than ethical and professional responsibility.

We support a statutory co-regulatory scheme with the establishment of a government regulator to oversee registration and disciplinary aspects, but with the assessment of individual qualifications and experience to be carried out by assessment entities approved by the regulator. This avoids duplication and administrative burden between professional bodies and the regulator, gives industry and government access to the economies of scale of the processing of eligibility, as well as providing a platform for mutual recognition with other jurisdictions such as Queensland.

We believe the Victoria Government's Engineers Registration Scheme should be broad-based to ensure it covers all engineers delivering an engineering service, as per the Queensland scheme. Adopting a co-regulatory framework utilising registers such as the NER, used by other schemes, significantly reduces the burden and cost for engineers who also need to be registered in other jurisdictions.

While we continue to call for a National Engineers Registration Scheme, we applaud the Victorian government's leadership in the registration of engineers in Victoria and offer our assistance to government to obtain mutual recognition with other jurisdictions. Wherever possible we need to ensure engineers are not required to have multiple registration processes and associated costs and that collectively we are working towards a national scheme

The drivers licence process in Australia may provide a suitable model - the individual pays in their place of residence and the license is transferable between states

Engineers Australia supports:

- full registration for those that hold the required qualifications and meet the eligibility criteria
- Unregistered engineers to work only under a fully registered supervisor  
NOTE : a clear definition of supervision is required eg 'close supervision'
- Non-practising engineers remaining on the register, supported by a clear Careers Breaks Policy
- Graduates or *Engineers in Training* to be included, if not in the initial scheme, then that the scheme be designed to enable inclusion at a later date. Further comment on the value of Graduates in the scheme is provided below.

Having mandatory registration for *Engineers in Training* aligns to the Profession's concept of a period of professional formation and would facilitate the pathway. This would drive greater awareness of the requirements and obligations of a Registered Engineer. Our universities could inform student engineers as part of their course work and assist in educating future members of the engineering team in the high standards required of Registered Engineers and provide visibility of engineers who are in the pipeline leading towards future registrations.

### Question 4: What is the appropriate period of registration renewal for engineers?

Engineers Australia strongly supports the process of regular renewal of Registration.

Engineers on the NER are required to renew on an annual basis.

This requires the engineer to:

- confirm their commitment to currency,
- recommit to the Code of Ethics; and
- confirm they have current PI.

We note other jurisdictions such as QLD require an annual renewal and other bodies, such as the VBA, require reregistration every 3-years. To support the mutual recognition processes across borders, however, the alignment of the renewal period is preferred. We of course will support whatever renewal period is selected.

## Question 5: What role should professional engineering associations have (if any) in the registration process?

Engineers Australia strongly supports a co-regulatory model with a government regulator overseeing registration and disciplinary aspects and the assessment of each individual's qualification and experience carried out by approved assessment entities.

Professional engineering bodies such as Engineers Australia have a number of key roles in this registration model including:

- provide an **assessment regime for agreed areas of practice**
- provide **assessing services for entry into the scheme** including validation that
  - the qualification is from an accredited institution
  - the documentation is authenticated
  - the applicant is legitimate
  - the applicant has relevant work experience for independent practice
  - the applicant has a commitment to currency as demonstrated by relevant ongoing Continuing Professional Development
  - the applicant has a commitment to the Code of Ethics
- **Provide additional Areas of Practice** for approval for inclusion in the Scheme as a need is determined by industry or government
- **Provide appropriate representation on the Board** of the Statutory Authority to ensure a representative balance between the profession the community and the regulator

## Question 6: How important is skills maintenance/continuing professional development (CPD) for the engineering sector and to what degree is appropriate CPD reflected in current practice?

Engineering is highly technical and, while the laws of physics remain constant, the engineering body of knowledge is rapidly changing.

A commitment to currency is crucial in all contemporary professional practice to ensure the professional is current in knowledge, skills, innovations, technology, skill and judgment and enable the engineer to:

- Maintain technical competence
- Retain and enhance effectiveness in the workplace
- Be able to help, influence and lead others by example
- Better serve the community

Engineers Australia strongly supports the recommendation that government legislates that:

- engineers maintain their skills;
- recognises the role and expertise of the professional bodies to provide CPD aligned to international best practice; and
- articulates a clear expectations of what skills maintenance mean in a mandatory Code of Conduct.

Engineers who are Chartered or on the NER are required to undertake a 150hr of structured CPD over a 3-year period.

For all practitioners, of the 150 hours:

- At least 50 hours must relate to the Registered or Chartered Engineer's Area(s) of Practice
- At least 10 hours must cover risk management
- At least 15 hours must address business and management skills
- The remainder must cover a range of activities relevant to the individual's career & interests.

This is current international best practice for the engineering profession and is adopted by a many of assessing bodies both here and overseas.

It is a flexible process that can be tailored to the individuals needs and circumstance and recognises the considerable CPD that occurs in the modern engineering workplace.

There are a number of special provisions to accommodate a range of work circumstances, for example:

- Provisions apply for part time work
- Career Break Policy to accommodate breaks in professional practice eg family leave
- Provisions to accommodate those with more than one practice area
- Provisions to recognise CPD activity that overlaps a number of Areas of Practice

Engineers Australia audits the CPD of all engineers on the NER. We currently undertake over 5000 audits per year. The CPD failure to comply is very low given the breadth and access of CPD available to engineers and the commitment of most contemporary engineering organisations to support the growth of their staff. EA can provide CPD auditing services for other professional bodies and currently provides this service to the BPEQ.

### **Question 7: What is the most appropriate and practical approach to ensuring that necessary skills and knowledge are maintained?**

Engineers Australia recommends a regular, systematic review CPD process, supported by an audit function and underpinned by a robust Code of Ethics.

Given the numbers to be covered by the proposed scheme, Engineers Australia recommends Registered Engineers maintain a CPD Record or Log to record both formal and informal CPD activities. Engineers Australia, like many assessment bodies, provides electronic CPD record facilities and this could be modified to meet Government's requirements if needed.

The CPD Record should be submitted on Registration, Renewal or Audit. The submission of the CPD log should be accompanied with a guarantee of accuracy and recommitment to the Code of Ethics.

### **Question 8: How is the need for skills maintenance/ CPD being impacted by the current pace of technological change across industry sectors.**

The practice of engineering is rapidly transforming, and emerging technologies, materials and processes are facilitating innovation across all sectors of the engineering industry. This provides significant opportunities to engage in global engineering business opportunities and to sell into global supply chains. The pace of change also requires skilful, well informed judgement by the practitioner as new practices involve new risks.

While this technological transformation occurring across all engineering disciplines means the need for on-going CPD has never been more critical, the opportunity to access high calibre national and international CPD has never been easier, cheaper and more convenient.

Engineering like most professions will be significantly disrupted by Industry 4.0 and the IoT. The changes coming will mean many jobs will not exist and many new ones will emerge. In periods of disruption like the one we are entering, it is imperative that engineers maintain currency in their area of practice for both public safety and consumer protection as well as ensuring Victoria maximises the potential to engage with new and emerging and national and international markets.

### **Question 9: Would it benefit consumers and the industry for the regulator to have a complaints-based investigation power? What disciplinary actions should be available to the regulator?**

Engineers Australia strongly supports the regulator having a complaints based investigative power.

The Regulator is responsible for maintaining appropriate standards, this provides independence and allows Government to quickly identify systemic issues.

Disciplinary actions available to the regulator should include the ability to:

- impose conditions of practice for example education or supervision;
- suspend an individual;
- Impose fines;
- Deregulate an individual; and
- Remove from the Register if deregulated in other jurisdictions.

Periodic compliance audits may be appropriate. In addition, possible reporting requirements for major engineering employees could be beneficial along with close cooperation with WorkSafe to promote the need for Registration.

### Question 10: What is an appropriate basis for determining coverage of a statutory engineering scheme? If category-based, what engineering categories should be included?

Engineers Australia recommends a broad based scheme that is flexible, agile and adaptive to changes in industry. It is not appropriate to pre-determine what constitutes risk in terms of discipline, as many factors can impact risk and it will vary within a discipline. This should be the responsibility of the individual engineer who has the specific details of each project and can make a skilled, informed and ethical judgment. This will become increasingly the case in this period of rapid technological change we are entering.

The preferred model would enable assessing entities to submit new categories or Areas of Practice to government for approval to be included in the scheme when a need is identified by Government, industry or the profession.

#### *Additional Areas of Practice and Removal of Areas of Practice*

The NER currently caters for nineteen (19) areas of practice aligned to demonstrate professional competence and experience. Additional Areas of Practice will be added to the NER over time as the need is identified by government or industry.

In addition to the larger technical disciplines such as civil and structural engineering, Engineers Australia's also maintains a significant number of small registers. Maintaining standards is part of our remit to support the science and practice of engineering as required under our Royal Charter. Should another assessment body remove an area of practice from their Register, Engineers Australia would be pleased to work with government to ensure appropriate coverage is provided in the scheme.

While Engineers Australia acknowledges that the proposed scheme will initially address the occupational category of Professional Engineer, we advocate the registration of the engineering team including Professional Engineers, Engineering Technologists and Engineering Associates. A definition of these categories is provided in Appendix 2. This reflects contemporary engineering practice, particularly with new work practices enabled by technology such as BIM. The registration of Technologists and Associates is under consideration by a number of Australian jurisdictions. If the full engineering team is not covered by the initial scheme, Engineers Australia strongly recommends that the scheme is designed to accommodate additional engineering occupational categories to be incorporated in the future.

### Question 11: Is Queensland's definition of professional engineering services appropriate for a Victorian scheme?

Engineers Australia strongly supports the adoption of Queensland's definition of professional engineering services.

*An engineering service that requires, or is based on, the application of engineering principles, and data to a design or to a construction, production or maintenance activity, relating to engineering, and does not include an engineering service that is provided only in accordance with a prescriptive standard.*

High risk activities cannot be predefined as risk is often associated with context, environment and complexity that will vary within a discipline. It is essential that professional, ethical judgment is the responsibility of the individual, and the Queensland definition provides the framework for the registered engineer to make the determination.

It will also be important that, as mutual recognition is important for the profession, if a definition is included, then there needs to be consistency.

We would recommend some consideration of the word 'prescriptive' as clarification or explanation on what is and is not a prescriptive standard may be needed. Engineers Australia has prepared material for Queensland that may be of use and this will be submitted separately.

It is worth noting that we have received feedback from members that there is some confusion as to what constitutes *direct supervision* under the QLD Act. This is particularly pertinent in rural areas where traditional supervision can be unachievable. Engineers Australia suggest the term *close supervision* may resolve this issue

### Question 12: Given the social, economic and technological context, do you have a general view on how a registration scheme could assist to:

- Develop and grow the profession, including in relation to Victoria's export opportunities; &
- Build the resilience of the engineering profession in the face of the technological change currently occurring

#### *General reflections*

The RVEP Register will provide public access to registered engineers and their services. It will also provide assurance to consumers that Registered Engineers meet the high standards of professionalism expected in the engineering profession.

Victoria is Australia's largest exporter of engineering services and most of our OECD trading partners have internationally benchmarked standards for engineers. In the future Australian economy, occupations requiring technical expertise will continue to increase, and the demand for STEM skills will rise. We need to ensure our engineering workforce is seen as equal to if not better than our current and future trading partners.

In the United States, STEM occupations are projected to grow by 17 percent between 2008 and 2018, compared with 9.8 percent for non-STEM occupations, and STEM workers are expected to command 26 percent higher wages<sup>[1]</sup>. In Australia, jobs held by workers with STEM qualifications have already grown by 14 percent between 2006 and 2011, compared with just 9 percent for other occupations.<sup>[2]</sup>

It is beyond doubt we will need a more technically literate workforce if we are to enhance our engineering, technology and scientific capability, and advance as an innovative, high tech knowledge-based economy. Making sure we have robust processes to ensure all engineers practicing in Victoria have the appropriate qualifications and experience is an important step in that process. This will not only drive public confidence but send a signal to the next generation.

#### *International opportunities to promote the capability of the Victorian engineering workforce.*

The Australian engineering community is a world leader and Registration of engineers within a structured, credential framework gives credibility of those registered from an international perspective. The RPEV will enhance the quality of our engineers to improve access to national and international markets.

There many international opportunities to promote the capability of Victoria's registered engineering workforce, for example:

- In 2017 Engineers Australia Past President, Dr Marlene Kanga takes over the presidency of the World Federation of Engineering Organisation (WFEO) The World Federation of Engineering Organizations is an international, non-governmental organization representing the engineering profession worldwide.
  - the World Federation of Engineering Organizations (WFEO) brings together national engineering organizations from over 90 nations and represents some 20 million engineers from around the world. Victoria will host the WFEO World Congress in 2-years' time for over 10,000 delegates.

<sup>[1]</sup> US Department of Commerce, Economics and Statistics Administration 2014 *STEM: Good Jobs now and for the future*

<sup>[2]</sup> Australian Bureau of Statistics 2014 Perspectives on education and training with qualifications in Science, Technology, Engineering and Maths (STEM).

- In addition, Engineers Australia is the largest organiser of national and international engineering conferences in Australia
- In 2017 Engineers Australia Fellow Em Prof Elizabeth Taylor assumes the Chair of the International Education Alliance, the body that oversees the accreditation or recognition of tertiary-level engineering qualifications to assist the mobility of engineering practitioners
- Engineers Australia has over 5,000 members based in our international chapters in Asia, Middle East and the UK. These are mostly senior government and business leaders in their jurisdictions, many with a strong affiliation with Victoria.

### *Building Resilience*

A registration scheme builds resilience at both the individual and system level:

- Registration will identify those incompetent or inexperienced engineers that could be detrimental to the reputation of Victoria
- A commitment to currency will lift the knowledge and skill of the individual practitioner and, by addressing the many engineers not registered or Chartered and not undertaking CPD, it also lifts the knowledge and skill across the system
- CPD requirements enable the profession to disseminate information on emerging technological changes and other innovations that will impact the profession.

## APPENDIX 1 Current Areas of Practice on the NER

The NER currently caters for nineteen (19) areas of practice aligned to demonstrate professional competence and experience.

### General Areas of Practice

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

To be registered for these Special areas of Practice, the engineer needs to complete a Stage 2 Chartered assessment (which provides eligibility to the NER)

- Amusement Rides and Devices In-Service Inspection
- Building Services Engineering
- Fire Safety Engineering
- Heritage and Conservation Engineering
- Leadership and Management
- Naval Architecture
- Oil & Gas Pipeline Engineering
- Petroleum Engineering
- Pressure Equipment Design Verification
- Subdivisional Geotechnics

## Appendix 2      Engineering Occupational Categories and Grades of Registered Engineering Professionals

### Professional Engineer

Within his/her own field of professional practice, a Professional Engineer will apply professional judgment to an engineering task and match and integrate technologies with client needs to create verifiable solutions for practical implementation. A Professional Engineer will ensure all aspects of a project are soundly based in theory and fundamental principle. The hallmark of a Professional Engineer is the capacity to break new ground in an informed and responsible way. The Professional Engineer is the approving authority for the integrated engineering solution.

The Professional Engineer will typically hold a 4-year or 5-year Bachelor of Engineering Degree.

### Engineering Technologist

Within his/her own field of technical practice, an Engineering Technologist will apply technical judgment to an engineering task, and consider the specific technical issues that are critical to the task. The Engineering Technologist often approves and certifies technical operations and ensures compliance and design of components and sub systems that do not call for significant new development. The Engineering Technologist will have authority to approve designated aspects of the engineering solution.

An Engineering Technologist will typically hold a 3-year Bachelor of Engineering Technology degree.

### Engineering Associate

Within his/her own field of technical expertise, an Engineering Associate will apply technical expertise and skills in support of the engineering task, by creating technical information from design or engineering test work. The Engineering Associate may certify the quality of engineering work in defined circumstances, laid down in recognised Standards and Codes of Practice. The information created by an Engineering Associate will be assessed and approved by other authorised professionals in the engineering team.

The Engineering Associate will typically hold a 2-year associate degree or Advanced Diploma.

## Registered Engineering Professional

A Registered Engineering Professional has the prescribed qualifications and experience to practice independently within his/her field of practice or expertise.

A Registered Engineering Professional commits to ethical conduct, continuing professional development and possession of professional indemnity insurance.

## Registered Chartered Engineering Professional

A Chartered Engineering Professional is an experienced engineering professional with advanced skills and knowledge, whose competence is assessed against internationally benchmarked standards and by formal peer review.

A Chartered Engineering Professional has the capacity to provide professional leadership, including the ability to train, develop and supervise other engineering professionals within their field of practice or expertise.

A Chartered Engineering Professional is recognised as being globally competitive and able to operate internationally through Engineer Australia's global alliances and mutual recognition agreements.

A Registered Chartered Engineering Professional commits to ethical conduct, continuing professional development and possession of professional indemnity insurance.