


Professional Standards Framework



ENGINEERS
AUSTRALIA





Engineering is essential to meeting the needs of people, economic development, and the provision of services to society.

While bringing benefits, engineering activity has potential adverse consequences.

Engineering therefore must be carried out responsibly and ethically, use available resources efficiently, be economic, safeguard health and safety, be environmentally sound and sustainable and generally manage risks throughout the entire lifecycle of a system. ^[1]

Engineering is delivered by engineering teams that include Professional Engineers, Engineering Technologists, Engineering Associates, paraprofessionals and those with interdisciplinary expertise.

Engineers Australia Professional Standards Framework

The Engineers Australia Professional Standards Framework (EA PSF) is the integrated system of policies, processes and resources that guide and support engineers to practice ethically and competently and to contribute high value engineering. It applies throughout their careers from pre-qualification (student) through to advanced practice and executive management and leadership.

The EA PSF is designed to set, uphold, and enhance standards that protect and serve the public and to build resilience and trust in the profession.

The value of the EA PSF to individual practitioners is the interconnected elements that support them throughout their career.

Purpose

The EA PSF is integral to the quality of engineering in Australia. It:

- Helps consumers and clients of engineering work to understand what is expected of engineering practitioners.
- Underpins the continuum of developing professional capability across the career stages from entry to practice and early career, registered practice, Chartered practice and then to expert practice and executive management and leadership.
- Is used as the basis for professional accountability for individual members of Engineers Australia, helping them to demonstrate appropriate levels of professional knowledge, professional practice and professional engagement at each career stage.
- Underpins the processes for statutory registration in Australia and supports the requirements for nationally consistent registration of engineers in Australia.
- Improves confidence in the profession and business efficiency and efficacy through a higher-performing workforce which is engaged and credentialled.
- Is a guide to continuing professional development and training providing a range of general, technical and personal resources for individual practitioners so they can maintain their competence in our dynamic profession or reskill in nominated Areas of Practice (AoPs) and Areas of Engineering (AoEs). AoEs are prescribed by government for statutory registration purposes.
- Facilitates mobility to enable practice in global contexts, ensuring that engineering accreditation and professional practice standards in Australia meet the standards set out in the International Engineering Alliance (IEA) Accords and Agreements.

Elements and domains

The elements of the EA PSF have existed in various forms since Engineers Australia was founded in 1919 to become the recognised custodian of professional standards with jurisdictional authority for the engineering profession in Australia.

All elements have evolved through a process of continuous improvement and new ones are added in response to identified needs and opportunities to reflect contemporary engineering practice.

Elements in the EA PSF are grouped into domains. Some domains and elements are relevant only at certain career stages and others are relevant across the entire career pathway.

The domains are:

- Ethical practice
- Competent practice
- High value practice
- Accountability
- Quality assurance mechanisms

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Ethical practice	Competent practice	High value practice
Code of Ethics	Competency standards <ul style="list-style-type: none"> ▶ Entry to practice - graduates ▶ Independent practice - experienced ▶ Expert practice Competency assessment <ul style="list-style-type: none"> ▶ Entry to practice - qualifications and accreditation ▶ Independent practice <ul style="list-style-type: none"> ▶ Registration ▶ Chartered ▶ Expert practice - EngExec, Technical (forthcoming) ▶ CPD audits and practice reviews ▶ Areas of Engineering, Areas of Practice and industry specialisations 	Engineering resources Discovery of practice Best practice and innovation
	Professional development <ul style="list-style-type: none"> ▶ Capabilities framework ▶ CPD programs and courses 	<ul style="list-style-type: none"> ▶ Program endorsement framework
Accountability	<ul style="list-style-type: none"> ▶ Complaints process and disciplinary proceedings ▶ Environmental scan 	
Quality assurance mechanisms	<ul style="list-style-type: none"> ▶ International Engineering Alliance periodic reviews and international context ▶ Engineers Australia systems and standards audits and reviews 	<ul style="list-style-type: none"> ▶ ISO9001 alignment ▶ Continuous improvement and lessons learned process ▶ Governance and authorisation framework

Elements and domains of the EA PSF.

Ethical practice

All professionals are bound by a set of common ethical values. The Engineers Australia Code of Ethics is one of the most important elements of the EA PSF. It defines the values and principles against which members should exercise their judgment in engineering practice as members of Engineers Australia. All members of Engineers Australia commit to abiding by the Code of Ethics.

Competent practice

Engineers Australia competency standards

Engineers Australia competency standards exist at three levels or stages for each of the occupational categories – professional engineer, engineering technologist, engineering associate.

- **Entry to practice**

Graduate competencies are usually achieved through an [accredited program](#) or assessed equivalent.

- **Independent practice**

Consolidation of knowledge and skills gained through formal qualifications and the practical experience of working in an engineering context, and development of competencies deemed necessary to practice independently. Demonstration of 16 competencies is required for recognition to practice independently as a Chartered Engineer. Demonstration of a subset of five of these competencies is required to practice independently as a registered engineer on the National Engineering Register (NER) and for statutory registration.

- **Expert practice**

Currently this exists for leadership and management via the EngExec credential. Engineers Australia has identified a third stage of expert practice and is exploring credentials to recognise deeper or more specialised competencies.

The currency of credentials awarded by assessments against the competency standards is maintained through continuing professional development (CPD) and periodic CPD audits for all Chartered and NER members.

Importantly, the Engineers Australia National Competency Standard (EA NCS) is aligned with the International Engineering Alliance (IEA) Graduate Attributes (entry to practice) and Professional Practice Competencies (independent practice) which were updated in June 2021.

High value practice

Some elements of the EA PSF set baseline competencies expected of a proficient engineer and others support engineers to attain higher levels of performance.

The EA PSF includes a broad library of engineering practice guides and other resources related to professional knowledge, professional practice and professional engagement. These include:

- Engineers Australia Capability Framework
- Program Endorsement Framework
- Professional Performance, Innovation and Risk Protocol (PPIR), which provides a performance standard to guide engineers when acting in a professional capacity, offering both a public benefit and value to the profession.

All engineers should aspire to high value engineering and the resources in this domain support engineers to do their best work and reach their highest potential, contributing significant value to the community.

Accountability

Accountability ensures that engineering professionals meet the expectations placed on them and the EA PSF accountability systems provide a way to investigate concerns in engineering practice.

The Engineers Australia [complaints process](#) deals with complaints about members who allegedly have not abided by their responsibilities under the Engineers Australia Code of Ethics.

Our complaints process is investigative and cannot provide financial compensation.

We can only consider complaints against members or office bearers who have been considered to have:

- engaged in unacceptable conduct
- breached the Code of Ethics
- breached the Office Bearer Code of Conduct set out in the general regulations.

Environment scans maintain an awareness of issues emerging in engineering practice, including the international context. This informs future development of the EA PSF and its constituent elements.

Quality assurance mechanisms

Engineers Australia quality assurance mechanisms work together to ensure the EA PSF remains current, relevant, resilient and robust:

- IEA Periodic Reviews against the three IEA Accords (entry to practice) and four Agreements (independent practice) requirements every six years (each).
- Quality Assurance audits and reviews.
- Continuous improvement and lessons learned.
- Professional Standards Committee governance oversight.
- Future ISO 9001 alignment and compliance.

Engineers Australia is committed to continuous improvement of all elements of the EA PSF, improved accessibility of elements for our members, and the development of versions that the public and other stakeholders can engage with.

[1] [Graduate Attributes and Professional Competencies](#), International Engineering Alliance Version 2021.1 (June 2021)



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