



**Annual Report by the  
Engineering Associates Registration Board  
For the Period from 1 April 2015 to 31 March 2016**

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## **Executive Summary and Commentary**

The Engineering Associates Registration Board (the Board) is pleased to present the annual report reviewing the activities for the year to 31 March 2016.

### **Decline in Registered Engineering Technicians and Technologists**

The decline continues in the numbers of experienced engineering technicians and technologists seeking registration and is the prime matter for the Board's attention. As a voluntary career choice, the Technician and Technologist credential no longer has the attraction it enjoyed when it was a visible and critical step in a career pathway.

The rationalization of the technical engineering diploma courses together with the new 'practical element' of the three main diploma disciplines and the BEngTech 3 year degrees should combine to see an improvement in the availability of appropriate technical engineering courses that have consistent curricula throughout NZ. These developments should start to see an increase in the numbers of applicants eligible for registration over the medium term.

The Board is in discussion with the Minister and the Ministry to review the significance of the credential within the engineers' statutory registrations available in NZ.

### **Board Operations**

At 31 March 2016 there were 1157 registered REAs, 107 less than at the same time in 2015.

The Board operations resulted in a small surplus of \$4,879 for the financial year, increasing the Board's reserves to \$99,736. The annual audit by Audit NZ was completed during May 2016. The audit identified no matters of immediate concern, but the continuing decline in the numbers of REAs must be addressed.

# 1. Legislative Context

The Board is appointed under the Engineering Associates Act 1961 (The Act) to fulfill the requirements of The Act and establish and maintain a register of those persons who apply and qualify to be registered as Engineering Associates. The Board's objectives are to encourage, support and promote excellence in engineering technology in New Zealand.

Registration as an Engineering Associate is a quality credential providing evidence that the registered individual has met specified academic and practical engineering competency standards plus supervisory experience as described in The Act.

Registered Engineering Associates (REAs) are generally senior engineering technologists employed in a wide range of disciplines such as engineering infrastructure design, implementation and maintenance or in engineering management roles within New Zealand and around the world.

The Act is administered by the Ministry of Business, Innovation and Employment (MBIE) reporting to the Minister for Building & Construction.

## 2. REA Credential and Registration Trends

The Board operates under the The Act. The purpose of The Act is to encourage, support and promote excellence in engineering technology in New Zealand. The Act authorises the registration of persons with an academic-plus-practical-experience qualification, equivalent to New Zealand Certificate in Engineering (NZCE) who have also completed a significant period of "responsible experience" in the engineering workplace and who have indicated competence in their recognized discipline. The REA credential indicates that a person is a senior engineering technician or technologist. Most REAs are employed in infrastructure design and implementation and engineering management roles in New Zealand. There are many REAs working in the international engineering market.

The total number of registered persons continued to reduce during the 2015/2016 year. This trend is the result of:

- Changes to engineering training during the 1990's, restructure of those government departments that traditionally employed technical engineering graduates, resulted in a steady drop in numbers of persons entering this field. This decline has never recovered.
- The REA credential is no longer regarded as such an important element of a career pathway as in the latter half of the last century, when it was an integral part of organizational structures. Graduates entering the engineering workforce are not enthusiastic about gaining voluntary credentials when they cannot perceive to obtain any competitive career advantage.
- The new New Zealand Diploma in Engineering (NZDE) and its 'Practice' element replacing the NZCE and the various subsequent diplomas, has now gained nationwide acceptance but it will be some years before these graduates will be eligible for registration under the current criteria. Although industry is now encouraging new entrants to engineering, it is not keeping pace with the rate of retirement of older REAs.

As reported earlier the Board in conjunction with both the Minister and the Ministry, is reviewing the position of the credential within the NZ statutory occupational registrations.

## Registration Statistics

Registration categories under The Act:

- R(a) Engineering technicians and technologists who have not completed a recognized technical engineering education qualification but have completed basic engineering training, and have at least 12 years of engineering experience, including 6 years in a responsible position, and were born before 1 January 1936.
- R(b) Engineering technicians and technologists who have completed NZ Certificate of Engineering or First Class Marine Engineer's Certificate (or an equivalent qualification), plus a basic engineering training and at least 6 years of engineering experience, including 1 year in a position of responsibility.
- R(c) Engineering technicians and technologists who have not completed a recognized technical engineering education qualification but have completed a basic engineering training, and have at least 12 years of engineering experience, including 6 years in a responsible position. The (c) applicants submit a 4,000 word written statement on an approved engineering topic, in lieu of the education qualification.

Summary of registrations during the year:-

Number registered at 31 March 2015	1264
Plus new applicants registered between 1 April 2015 & 31 March 2016	5
Less nett reduction from deceased, retired, resigned & restored	<u>112</u>
Number registered at 31 March 2016	<u>1157</u>
Categories:	
R(a)	23
R(b)	1073
R(c)	<u>61</u>
<b>Total</b>	<b><u>1157</u></b>

## Code of Ethics

The Code of Ethics for REAs issued by the Board has remained unchanged for the period under review. The Code of Ethics is published on the Board's website and is in the information pack sent out to prospective applicants for registration. It is formally issued to all new REAs.

## Current Competency Assurance – REAcap

The REA competency assessed practitioner scheme (REAcap) was implemented by the Board to provide assurance to the public and potential engineering employers that a currently registered REA remains competent in their chosen discipline. REAcap is voluntary with competency reassessment undertaken every four years. The competency principles embedded in The Act for initial registration are also the standards used for REAcap competency assessment including knowledge development, experience and responsibility performance. Continuing work in the engineering industry is also a requirement for REAcap recognition.

The Board believes that, in the current engineering market, the lack of ongoing competency assessment provisions within The Act disadvantages the REA credential compared with other occupational registration legislation.

REAcap was implemented during 2005, and at 31 March 2016 the number of REAs with REAcap validation was 81. Reassessments continue as they fall due. The Board is concerned at the low level of new applications for REAcap validations and continues to endeavour to stimulate interest. The website list of REAs is regularly updated to indicate successful REAcap validations.

### 3. Board Business

The Board continued normal operations during the year.

#### Members of the Board

Following a process in which the Associations and Institutes named in The Act nominate suitable individuals, the Minister appoints a Board with a range of relevant knowledge and experience. Board Members' terms of appointment are for a nominal 2 years and can be extended at the discretion of the Minister.

The Members of the Board at 31 March 2016 were:

Board Member	Position - Date Appointed	Nominating Organisation
Dr R J Dunlop QSO; FNZIM; DistFIPENZ; FCILTNZ; CMinstD.	Chair – April 2010	Ministerial appointment
Ms D J Cranko NZ Reg Arch; BArch (hons) FNZIA	Member – December 2012 Deputy Chair February 2015	Ministerial appointment
Mr G M Cowley MNZIRHACE	Member – December 2012	NZ Inst Refrig Htng & Air Con Engineers Inc
Mr W G Crawley REA*	Member – March 2016	NZ Inst of Healthcare Engineering Inc
Mr V Gradowski REA; I Eng; DMS; MIGE&M; MBCS; CITP; MCIM	Member – December 2014	NZ Institution of Gas Engineers Inc
Mr R W Grant CEngFIMarEST(UK)	Member – April 2003	NZ Institute of Marine & Power Engineers Inc
Mr E B Hurley	Member – December 2014	NZ Electronics Institute Inc
Ms K D Hogan, MEng (Civil); MIPENZ; PrEng (SA)	Member December 2014	Ministerial appointment
Mr G D Wells REA; FDANZ	Member – August 2006	Design Association of NZ Inc

\*Mr W G Crawley replaced Mr A McKee who resigned during the year.\*

#### Committee Roles

- **Finance (& Audit Committee if required)** – Chair & Registrar
- **Staff Committee** – Ms D J Cranko & Mr R W Grant

#### Board Remuneration (per day attendance)

From 1 March 2014: Chair \$530.00; Deputy Chair \$386.00; Member \$309.00.

#### Responsibilities and Operation of the Board

The Members of the Board are accountable to the Minister for the performance of their duties including direction, oversight and implementation of The Act. The Board is responsible for the appointment of the Registrar. The Staff Committee is responsible for the annual review of the Registrar's conditions of employment. The Chair, Registrar and Board continue to have effective working relationships with MBIE.

The Act requires the establishment of an Investigation Committee if there are complaints against an REA, or appeals against decisions of the Board. The Committee had not been required prior to 2014, when a complaint was received against an REA. At the Board's request, the Investigation Committee was established with the Members appointed by the Minister in March 2015 as provided in The Act.

#### Registrar

The position of Registrar, held by Mr John V. Edgar REA, continued unchanged during the year. The EARB office remains staffed for 3 days per week.

## Technical Engineering Institutions Recognised in the Act

Technical Engineering Associations currently recognised under the Act are:

- Design Association of New Zealand Inc
- New Zealand Institute of Engineering Sciences (Struck-off the Register of Incorporated Societies).
- New Zealand Institute of Marine & Power Engineers Inc.
- New Zealand Institute of Healthcare Engineering Inc
- New Zealand Institute of Refrigeration, Heating & Air Conditioning Engineers Inc
- New Zealand Electronics Institute Inc
- Institute of Automotive Mechanical Engineers of New Zealand Inc
- New Zealand Institution of Gas Engineers Inc
- Society of Licensed Aircraft Engineers & Technologies (Struck-off the Register of Incorporated Societies).

The Board has an ongoing responsibility to keep the recognized associations informed of its activities and to encourage the advancement of technical engineering issues and standards.

### Board Meetings

The Board held four meetings during the year - May, August, December 2015, and February 2016. The Registrar attended all Board meetings. In addition to the routine overview and approval of the registration of REAs, the Board remained conversant with the MBIE investigation of the engineers' occupational registration legislation. Discussions with the Minister and the Ministry were initiated over the important issue of declining numbers of registrations.

### Promotional & Communication Activities

The Board continues to distribute a brochure promoting the values of the REA credential, updates the website, and ensures the REA applicants' information packs encourage registration and the REAcap scheme. Communication with REAs continues through the annual circular delivered with the annual fees renewal notice. This cost effective method, is limited to communication once per year. REA's email addresses are used for informal communications.

**Website** (<http://www.engineering-associates.org.nz>)

The Engineering Associates website, continues to receive a monthly average of about 30,000 'hits'. The 'List of REAs' is a feature of the website, providing web access to the list names of current REAs. Details provided include surname and initials, regional location (with non residents listed as overseas), registered engineering discipline, certificate of registration number, the commencement year for continuous registration and the applicable REAcap validation. This web listing is updated following each Board meeting.

### Investigation Committee

The Investigation Committee reviewed the first formal complaint against an REA, and determined that although the actions of the REA contravened the Code of Ethics for REAs, it was not deemed necessary to refer the matter to the Board. Another complaint was received during the year, necessitating the reappointment of the members of the Committee for a further term. That complaint is to be referred to the Board for determination.

## Accountability Agreement

An Accountability Agreement between the Board and the Minister is in place for the period to 31 March 2016. This documents the Minister's expectations of the Board's performance as follows.

### Governance

Conflicts of Interest Register in place and updated at the start of each meeting:-

*Introduced at the April 2009 Board Meeting and continues as Appendix VI to the Minutes.*

Board Self Review:-

*A yearly review of the Board's performance is carried out.*

Occupational Licensing Review:-

*Support the Ministry in their review.*

### Service Delivery

To determine the standards of training, experience, responsibility and technical qualifications necessary for registration as a REA:-

*Each applicant is considered individually and assessed by submission of written evidence of qualifications, experience and responsibility under a statutory declaration.*

To determine the standards of continuing training, experience, responsibility and technical qualifications necessary for voluntary competency assessment programme (REAcap). Standards for 'Ongoing Knowledge Development', continuing experience in the applicant's discipline', and continuing responsibility in the applicant's discipline':-

*No changes to the programme during the year.*

To maintain a register of registered persons, to issue certificates of registration and to keep other essential records. Register containing relevant details available to public:-

Projected numbers 2015/16:	Registrations:	1150	<i>Actual 1157</i>
	Nett Removals:	220	<i>Actual 112</i>
	New registrations:	10	<i>Actual 5</i>

*The register is held on 'M-S Access' database, and details can be obtained on request from the Registrar. Names of current REAs, their regional location, discipline, registration No, REAcap No, and year of commencement of continuous registration are available on the Board's website.*

### Strategy and Capability

Explore pathways to engage with industry and interested parties on use and value of REA credentials and increase awareness of REA and REAcap:-

*Continued during the year with informal discussions with interested parties.*

Provide an annual report (with Financial Statements):-

*Completed.*

Provide input to the review of engineers' occupational registration as requested by the Ministry.

*Submissions made as requested and ongoing awareness of the review's progress.*

Develop a working relationship with other occupational licensing boards in the Building and Construction sector.

*No joint meetings were arranged by MBIE during the year.*

## **5. Financial Aspects**

### **Auditors**

The Board has contracted Audit New Zealand as its auditors.

### **Financial Performance**

Fees charged for registration during the period were as per the Engineering Associates Fees Amendment Regulations 2013. Due to the decline in numbers registered, Revenue decreased by 8%. Expenses increased by 6% mainly due to the costs of the Investigation Committee. There was a small overall surplus of \$4,879 bringing the Accumulated Fund to \$99,736 at 31 March 2016.

The Board is concerned about the ability to continue to operate in a financial sustainable way and is attempting to address the decline in registrations with ongoing discussions with the Minister and the Ministry. Audited accounts for the Engineering Associates Registration Board for the year ended 31 March 2016 are available upon application to the Registrar. The annual audit by Audit NZ was conducted and completed during May 2016 and identified no other matters of concern.

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In conclusion, I would like to record my appreciation to the members of the Board and the Registrar, and to the staff of the MBIE for their advice and support.

**Dr R J Dunlop QSO, FNZIM, DistFIPENZ, FCILTNZ, CMinstD.**

Chair, Engineering Associates Registration Board.