



**Annual Report by the  
Engineering Associates Registration Board  
For the Period from 1 April 2018 to 31 March 2019**

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## **1. 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 2019.

### **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 REA credential no longer has the attraction it enjoyed when it was a visible and critical step in a career pathway.

The rationalisation 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 continues in discussion with the Minister of Building & Construction and the Ministry of Business, Innovation and Employment (MBIE) to review the significance of the credential within the engineers' statutory registrations available in New Zealand.

### **Board Operations**

At 31 March 2019 there were 945 registered REAs, 67 less than at the same time in 2018.

The Board operations resulted in a deficit of \$17,833 for the financial year, which reduced the Board's reserves to \$100,991. Audited accounts for the Board for the year ended 31 March 2019 are appended to this report. The annual audit by Audit NZ was completed during July 2019. The audit identified no matters of immediate concern, but the continuing decline in the numbers of REAs is being closely monitored.

## 2. Legislative Context

The Board is appointed under the Engineering Associates Act 1961 (The Act) to fulfil 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 technicians or 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.

## 3. REA Credential and Registration Trends

The Board operates under The Act. The purpose of The Act is to encourage, support and promote excellence in engineering technology in New Zealand. The Act authorizes the registration of persons with an academic-plus-practical-experience qualification, equivalent to at least the 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 2018/2019 year. This trend:

- Commenced with the changes to engineering training during the 1990's and the restructure of those government departments that traditionally employed technical engineering graduates.
- Continues as 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 organisational structures. Graduates entering the engineering workforce are not enthusiastic about gaining voluntary credentials when they cannot perceive to obtain any competitive career advantage.
- May improve with the New Zealand Diploma in Engineering (NZDE) and its 'Practice' element replacing the NZCE and the various subsequent diplomas, which is gaining nationwide acceptance. The earliest of these graduates are only now beginning to become eligible for registration under the current criteria. Although industry is 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 New Zealand statutory occupational registrations.

## Registration Statistics

Registration categories under The Act:

- R(a) Engineering technicians and technologists who have not completed a recognised 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 a New Zealand Certificate of Engineering (NZCE), 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 recognised technical engineering academic 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 2018	1012
Plus new applicants registered between 1 April 2018 & 31 March 2019	6
Less net reduction from deceased, retired, resigned, restored & struck-off <sup>1</sup>	<u>73</u>
Number registered at 31 March 2019	<u>945</u>

Categories:	R (a)	13
	R (b)	886
	R (c)	<u>46</u>
	<b>Total</b>	<b><u>945</u></b>

Note 1: The term "struck-off" is used to describe removal from the register for non-payment of annual fees

## 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 2019 the number of REAs with REAcap validation was 52. 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 but recognises that the age profile of current REAs has an adverse influence. The website list of REAs is regularly updated to indicate successful REAcap validations.

## 4. Board Business

The Board continued normal operations during the year.

### Members of the Board

Following a process in which the Associations and Institutes recognised under 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 2 years and can be extended at the discretion of the Minister.

The Members of the Board at 31 March 2019 were:

Board Member	Position - Date Appointed	Nominating Organisation
Dr R J Dunlop QSO; IMLANZ Life Member; DistFEngNZ; FCILT NZ; CMIInstD.	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 D Muthumula REA	Member – December 2017	NZ Institution of Gas Engineers Inc
Ms K D Hogan, MEng (Civil); CMEngNZ; PrEng (SA)	Member December 2014	Ministerial appointment
Mr E B Hurley REA	Member – December 2014	NZ Electronics Institute Inc.
Mr G D Wells REA; FDANZ	Member – August 2006	Design Association of NZ Inc

Note 1: Mr G W Inkster and the NZ Institute of Marine and Power Engineers Inc. resigned from the Board in March 2019.

Note 2: The Minister extended the terms of the current board expiring on 19 September 2019.

### Committee Roles

- **Finance (& Audit Committee if required)** – Chair & Registrar.
- **Staff Committee** – Ms D J Cranko & Mr G M Cowley.

### 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 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. In response to the first complaints ever received against an REA, the Investigation Committee was established with the Members appointed by the Minister in March 2015 and reappointed in March 2016, lapsing in March 2017.

## **Registrar**

Mr John V. Edgar REA retired from the Registrar's position in July 2018 after 20 years of service which followed 24 years as a Board member. Following a selection process the Board appointed Mr Roger Woods REA in May 2018. After a period of familiarisation Mr Woods assumed the role of Registrar from July 2018. The EARB office is staffed for 3 days per week.

## **Technical Engineering Associations Recognised under the Act**

Technical Engineering Associations currently recognised under the Act are:

- Design Association of New Zealand 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.

Note: The New Zealand Institute of Marine & Power Engineers Inc. resigned from the Board in March 2019 advising MBIE it no longer met the criteria for recognition under the Act.

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

## **“REA - A Chronicle of the Credential”**

A booklet entitled “REA - A Chronicle of the Credential” was made available on the Boards’ website in July 2018. The booklet details the background that led to the passing of the Engineering Associates Act in 1961 and the establishment of the Engineering Associates Registration Board in 1962. It follows with a chronology of significant events which has shaped the EARB and the REA credential into what they have become today. This insightful record was compiled by John V. Edgar REA.

## **Watercare Compliance Statement**

Success for those with REA or REAcap with inclusion in the final version of the (Auckland Council) Watercare Compliance Statement Policy for Producing Water and Wastewater Infrastructure. This is a milestone for REAs having these credentials recognised in the statement as having sign-off authority for design and construction monitoring to certain levels.

The EARB has worked on this project with Watercare for a period of two years, and whilst accepted in the draft document, were later excluded in the first issue. The EARB challenged this, and with the support of a REAcap in Auckland, we met with Watercare and presented our case which was accepted, and with further consideration incorporated in the final document now in use.

## Board Meetings

The Board held three routine meetings during the year – July 2018, November 2018, and February 2019. 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 continued over the important issue of declining numbers of registrations.

## Promotional & Communication Activities

The Board's promotion of the REA credential predominantly relies on 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 [www.engineering-associates.org.nz](http://www.engineering-associates.org.nz)

The Engineering Associates website, continues to receive a monthly average of about 30,000 'hits' and just over 1,000 visits. 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 usually updated following each Board meeting.

## Investigation Committee

The Investigation Committee was not required during the year under review and the respective appointments by the Minister have now lapsed and the Committee disbanded.

## Accountability Agreement

An Accountability Agreement between the Board and the Minister is in place, ongoing from 1 April 2017. This documents the Minister's expectations of the Board's performance as follows.

### Registration System

Ensure the registration of engineering technicians / technologists is efficient, effective and balanced.

*Applications for registration are approved or declined within 100 days of receipt.*

### Investigations unto complaints

Ensure complaints regarding Registered Engineering Associates are investigated fairly and efficiently.

*Investigations are completed within 12 months from receipt of the complaint.*

### Governance

Provide advice on the effectiveness of the registration system.

*Annual report shows how the registration system is performing over time, by showing relevant assessment for;*

- *Registration and removal process*
- *Risks and opportunities in the industry, with recommendations for future work.*

Undertake an annual self-appraisal of the Board's performance and provide a summary to MBIE.

*The summary of the self-appraisal identifies areas which are working well, areas for improvement, and the action the Board intends to take as a result.*

Provide MBIE with the Board's view on the current skills and experience of Board members.

*The Board's view shows the current skills and experience of Board Members and identifies any gaps and proposals for the Minister to consider in future appointment rounds. The Board is reviewing its current skills and assisting the Ministry in establishing an 'Attribute' profile for appointment of Board Members.*

Meet all obligations under relevant legislation, including financial reporting and maintaining the Register in accordance with the Engineering Associates Act 1961.

*All legislative obligations are met.*

## 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 5.4%. Expenses remained constant. There was an overall deficit of \$17,833 bringing the Accumulated Fund to \$100,991 at 31 March 2019.

The Board remains concerned about the long term financial sustainability 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 2019 are appended to this report. The annual audit by Audit NZ was conducted and completed during July 2019 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 MBIE for their advice and support.

Dr R J Dunlop QSO, IMLANZ Life Member, DistFEngNZ, FCILT NZ, CMInstD.

Chair

Engineering Associates Registration Board

24 July 2019

Audited Financial Statements are available upon application to the Registrar