

2019/2020



Annual Report

1 April 2019 - 31 March 2020

Engineering Associates Registration Board

Hiranga Tohu

to uphold and qualify excellence

engineering-associates.org.nz

2019/2020 Annual Report

Engineering Associates Registration Board

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1 Legislative Context

2019/2020

Legislative Context

The Board is appointed and operates under the Engineering Associates Act 1961 (the EA Act). The Board's role is to 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 recording that the registered individual has met specified academic and practical engineering competency standards as well as having supervisory experience as described in the EA Act.

Registered Engineering Associates (REAs) are generally senior engineering technicians or technologists employed in a wide range of disciplines. These include engineering infrastructure design, implementation and maintenance or in engineering management roles.

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

2 Executive Summary

2019/2020

Numbers of Registered Engineering Associates

As shown in the graph (refer page 12) numbers of engineering technicians and technologists seeking registration is not increasing. As the Chair notes, this is critical for the Board.

There are several reasons for the overall decline in numbers of REAs. When government agencies carried out major public works during the 1960s and 1970s, it was a visible and recognised career step for employees of agencies and the private sector. It was also recognised by territorial and local authorities.

Changes in polytechnic training did not promote or support attainment of this voluntary credential from the mid 1980s onwards. However, recent rationalisation of the New Zealand Diploma in Engineering (NZDE) courses as a result of the ROVE* review should result in greater availability of suitable technical engineering courses that have consistent curricula throughout Aotearoa New Zealand.

New 'practical elements' in the four main NZDE disciplines (Civil, Electrical, Electronics and Mechanical) and the BEngTech three-year degrees would enable technicians and technologists to meet the criteria for the REA credential. The Board hopes that there will be an increase in the numbers of applicants eligible for registration in the next few years. The Board expects to increase its promotion of the REA credential during the 2020-2021 year.

The Board maintains dialogue with the Minister of Building and 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.

* ROVE—Review of Vocational Education

3 From the Chair - Dr Robin Dunlop QSO

THE YEAR IN REVIEW 2019/2020

The Engineering Associates Registration Board is pleased to present the annual report reviewing the activities for the year to 31 March 2020.

Introduction

During 2019-2020, the Board has continued to actively promote the REA credential as a recognition of excellence for engineering technicians and technologists, through its website and stakeholder engagement. It approved modernisation of accounting systems, reviewed Human Resources and other policies, and after consultation, added a Maori by-line to the Board's name.

This has been against the backdrop of continuing reduction in numbers of Registered Engineering Associates (REAs) holding the credential. This is mainly due to retirements continuing to outnumber new registrations.

Financial Viability

Projections from the reducing numbers of REAs suggest a material risk that the Board faces is that its financial viability may not be secure.

Registration Numbers & Complaints Investigations

At 31 March 2020 there were 874 REAs on the register, which was 71 fewer than at the same time in 2019. There were no complaints about an REA received during the reporting period.

Engagement with Minister

The Board Chair and Registrar again met with the Hon Jenny Salesa, MP, the Minister of Building & Construction, in May 2019. The Minister suggested that she was looking for a licensing and regulatory framework with accountability for work undertaken. It did not seem that Government was planning to require the registration of engineering technicians and technologists.

Submission on Building System Legislative Reform

The Board made a submission to the Ministry of Business, Innovation & Employment (MBIE) on the occupational regulation part of the discussion paper *Building System Regulation Reform*. Although the proposed reforms do not explicitly refer to EARB, if engineering technicians and technicians who carry out restricted work were to be regulated by a separate regulatory body, then the functions of EARB could be taken over by such a new body.

New Zealand Transport Agency

Dialogue is continuing with NZTA about its recognition of the REA credential for sign-off for certain levels of design and construction monitoring, but no final agreement had been reached.

Human Resources Policies

More contemporary HR policies, namely the formalising of registers for workplace accidents, hazards & risks and a Time Off In Lieu (TOIL) policy were considered and approved by the Board.

Accounting Systems

The Board approved an upgrade of its business accounting software, including payroll, for the next financial year. The implementation of the software with support from a professional accountant will improve the efficiency, timeliness and accuracy of the Board's accounting and reduce costs.

Organisation Name

The Board adopted a Māori name *Hiranga Tohu* (which means to hold up and qualify excellence). *Hiranga Tohu* sits alongside the Board's existing name because it closely reflects the Board's function.

Board Appointments

The three Ministerial appointees had their terms extended until 31 March 2020. This extension enabled the selection of a new Chair and replacements for the other two appointees, all with effect from 1 April 2020.

With effect from 1 February 2020 four members from nominating associations were reappointed and one new appointment made to replace a retiring member.

Impact of Covid 19

The Board's office closed on 25 March 2020 due to the national Level 4 lockdown imposed by Government. This was only one week before the end of the 2019-2020 reporting period and so the impact of Covid 19 was minimal, since the Registrar was able to work from home until returning to the office at Alert level 2 on 14 May 2020.

Summary

I thank all Board members for their support during my ten-year term as Chair. My successor is Deborah Cranko who was appointed Chair with effect from 1 April 2020. Deborah has been a Ministerial nominee since 2012 and was Deputy Chair from 2015.

I would also like to thank the contribution during the year from our new Registrar, Roger Woods. He has helped the Board implement some systems and procedural changes.

The new Chair and Board members are well aware that largest issue they face is how to address the continuing decline in those seeking and maintaining REA registration. I sincerely wish them well for the future.

4 About Us - Board Member Profiles

2019/2020

Associations recognised under the EA Act nominate suitable individuals to be board members. The Minister then appoints those with a range of relevant knowledge and experience, with three members from outside the nominating associations. Board Members' terms of appointment are for 2 years and can be extended at the discretion of the Minister.



Dr Robin Dunlop (Chair)

Appointed by the Minister as Chair of the Board April 2010 and based in the Wairarapa, Dr Dunlop consults on management and transport issues. He has been involved in the transport sector for over 30 years covering strategic direction, funding, organisational form, asset management and research.

Dr Dunlop has a BE (Hons) in Civil Engineering and a PhD in Civil Engineering. He is Chairman of the Institute of Professional Engineers Heritage Board and Chairman of Destination Wairarapa. He is also the Director of four private companies and Deputy Chair of a charitable forestry trust. He was previously CEO/Secretary of Transport and CEO of Transit NZ.



Deborah Cranko (Deputy Chair)

A Ministerial appointment in 2012 as a member of the Board, Deborah is a registered practising architect working mainly in the Wellington region. She has extensive governance experience in the building sector, within her profession (NZRAB and NZACS), with the former BIA and also is member of the Plumbers Gasfitters and Drainlayers Board.

In practice projects, the architectural practice team works on a daily basis across many sectors of the construction industry, including REAs which include structural, geotechnical, mechanical and electrical engineering, and surveying and quantity surveying. She founded a consultancy with both architects and structural engineers.



Glynn Cowley

Appointed December 2012 as a member of the Board on the nomination of the Institute of Refrigeration Heating & Air Conditioning Engineers of NZ Inc (IRHACE), Glynn is currently Chair of the Refrigerant Licence Trust Board (RLTB).

With more than 40 years experience in the HVAC&R industry, Glynn is trade-qualified having completed his refrigeration apprenticeship with Ellis Hardie Symington. He founded Cowley Refrigeration Ltd and held the position of Managing Director and CEO until he retired in 2010. Glynn is actively involved within the HVAC&R Industry as an IRHACE Councillor and is its representative on IIR's NZ National Council. He brings wide-ranging experience to the Board, with a keen personal interest in ensuring that the HVAC industry maintains sustainable specific compliance training within a changing environment.



Warren Crawley

Appointed as a member of the Board March 2016 on the nomination of the NZ Institute of Healthcare Engineering. Warren started his career in the NZ Railways prior to entering the health industry in the late 1980's. He holds with NZCE (Electrical), REA and REAcap. He graduated from Massey University with a Diploma in Business Studies and a Master of Technology (with Distinction).

Warren is currently Technical Services Engineer employed by Spotless Services based at Mid-Central District Health Board's Palmerston North Hospital Campus. He is a member of the three Standards Committees overseeing four NZ and Australian Joints Standards and is Secretary of the NZ Institute of Healthcare Engineering.



Debbie Hogan

Debbie Hogan has been a Ministerial appointment on the Board since 2015. Debbie has a BScEng (Civil), MEng (Civil), PrEng (ECSA, SA) and MIPENZ. Debbie's early working career was in construction, research and as a consulting engineer before discovering the key role of teaching engineering students.

Debbie is Civil Engineering Co-ordinator and tutor at Nelson Marlborough Institute of Technology, teaching the NZ Diplomas in Engineering (Civil).

4 About Us - Board Member Profiles

2019/2020



Bruce Hurley

Bruce was appointed in December 2014 as a member on the nomination of the NZ Electronics Institute where he serves as National Secretary/Treasurer. He joined NZPO as a Radio Technician and is qualified with a Radio Technicians Certificate, NZCE (Telecoms) and holds REA.

He has a long career within the telecommunications industry undertaking a variety of technical and management roles as the NZPO transitioned to Telecom and, now, to Spark. His experience includes design and deployment of radio networks, field force management and commercial relationship management. Currently, Bruce is Strategic Projects and Performance Manager for Spark utilising his technical knowledge to get best value for supplier spend.

Photo not available

Phil Huse-White

Phil was appointed in February 2020 on the nomination of the Design Association of NZ (DANZ). Phil has NZCE (Civil), holds REA and REAcap. Phil started his career as a civil draughting officer working on major motorway projects. He later he moved to a smaller civil and structural engineering consultancy where he progressed from staff engineer to Associate Director over 14 years. Phil established his own civil consulting business in Auckland 8 years ago.

A recent highlight was working with WaterCare to ensure that REAs were included in the final version of their Compliance Statement Policy for Producing Water and Wastewater Infrastructure. Phil is keen to continue to work with other territorial authorities to ensure that the REA is continued to be recognised as a valuable professional registration within the industry.



Danny Muthumala

Danny Muthumala was appointed as a member of the Board in March 2018 on the nomination by the NZ Institution of Gas Engineers (NZIGE).

He has had a long career within the gas Industry undertaking a variety of technical and management roles over the past 35 years. His career in the gas Industry began in 1983 with the Natural Gas Corporation (NGC) in New Plymouth. In 1986 he joined the local Gas Distribution Company "City Gas" in New Plymouth and has continued his journey in the gas industry working for Powerco Ltd as a project engineer.

Danny is qualified with NZCE (Civil) and holds REA.



Graeme Wells

Appointed August 2006 as a member of the Board on the nomination of the Design Association of NZ. Graeme is qualified with NZCE (Civil), has REA, Registered Designer and FDANZ.

Graeme has over 46 years' experience in engineering, 16 in Central and Local Government, and the last period in private sector consultancies. He has wide civil infrastructure experience. He is currently an Associate with Beca and is mainly involved in construction monitoring of large wastewater treatment plants, condition assessment of infra-structure structures and process equipment. Graeme retired from the Board on 31 January 2020, which thanked him for his outstanding service

4 About Us - Office and Registrar

2019/2020

Office

The Board's office is staffed on Tuesdays, Wednesdays and Thursdays from 9.30 am to 3.30 pm (except public holidays and leave periods).

Registrar

The Board appointed Roger Woods as Registrar from July 2018 (after induction from May 2018). The Registrar is responsible to the Board for the register and to exercise the Board's directions and policies. The Registrar also acts as Secretary during Board meetings.



Roger Woods

Beginning his engineering career with five years in the fire protection & electronic security sector in Christchurch Roger moved to Wellington as a technical officer with a Government department. He became a senior adviser for physical security specialising in electronic systems. Subsequently Roger led a team providing protective security risk advice across Government departments. One highlight in his 34-year public service career was as an executive appointment as Acting Chief Information Officer for an agency within the New Zealand intelligence community.

An experienced manager and administrator Roger is qualified with ETC (Electrical), NZCE (Telecoms) and holds REA. He has also completed business studies at Massey University and has undertaken professional development in New Zealand and overseas.

5 Board Business

2019/2020

Board Responsibilities

The members of the Board are accountable to the Minister for the performance of their duties including direction, oversight and implementation of the EA 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 EA Act requires the establishment of an Investigation Committee if there are complaints against an REA, or appeals against decisions of the Board. There were no complaints or appeals received during the 2019-2020 period.

Board Meetings

The Board held four meetings during the year in June 2019, September 2019, November 2019 and March 2020. In addition to the routine overview and approval of the registration of REAs, discussions continued with the Minister and MBIE about the declining numbers of registrations.

Committees

The committees are:

- Finance (& Audit Committee if required) – Dr R J Dunlop & R A Woods
- Staff Committee – D J Cranko & G M Cowley

Board remuneration

Board remuneration rates are set by MBIE. The daily current rates were effective from March 2014:

- Chair \$530
- Deputy Chair \$386
- Member \$309

Travel costs are also generally paid by the Board.

Recognised Associations

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.

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. The Board is hopeful that Survey + Spatial NZ will be recognised as a nominating association as well.

5 Board Business

2019/2020

Promotion & Communication

The Board's website is its primary means of public communication and promotion of the REA credential. The Board also communicates with REAs through an annual newsletter included with the annual fees renewal notice. There is potential to cost-effectively increase the newsletter frequency as more REAs use email.

Website

www.engineering-associates.org.nz

The Board's website continues to receive a monthly average over 1,000 visits (and about 30,000 'hits'). The 'List of REAs' is often visited. This provides the public access to the details of current REAs, which include surname and initials, registration number, regional location (with non-residents listed as overseas), engineering discipline, commencement year for continuous registration and any applicable REAcap validation. The List of REAs is usually updated after Board meetings.

The Information Pack and relevant forms for REA applicants have been available on the website since 2018. It encourages initial registration and the REAcap scheme.

6 Accountability

Our Performance 2019/2020

The Board has an Accountability Agreement with the Minister of Building and Construction that records the Minister's expectations of the performance of the Board. The performance measures tabulated below record the Board's results against the outputs agreed with the Minister from April 2017. Financial performance is referred to separately in Section 9.

Output	Target	Performance Measure	2019/2020 Result
Registration System	Ensure the registration of engineering technicians / technologists is efficient, effective and balanced.	Applications for registration are considered within 100 days of receipt.	Achieved
Investigations into complaints	Ensure complaints regarding Registered Engineering Associates are investigated fairly and efficiently.	Complaints against REAs, investigations completed within 12 months.	No complaints were received
Governance	Provide advice on the effectiveness of the registration system.	Annual Report confirms registration system effective & shows assessment for: <ul style="list-style-type: none"> Registration & removals process Risks & opportunities & recommendations for future work 	Achieved
Governance	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.	Achieved
Governance	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.	Achieved
Governance	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.	Achieved

7 REA Credential and Registration Trends

2019/2020

REA Credential

The EA Act authorises the registration of competent persons with an academic qualification plus significant responsible practical experience in a recognised engineering or allied discipline. The benchmark qualification was originally New Zealand Certificate in Engineering (NZCE).

NZCE was progressively phased out at New Zealand technical institutes from 2000 and was last offered in 2008. However, the Board recognises the approximate equivalent New Zealand Diploma in Engineering (NZDE) which became available from 2011. The Board also recognises a large number of other engineering and allied educational qualifications, including overseas qualifications, that have been assessed at Level 6 or higher on the New Zealand Qualifications Framework or are recognised under one of the international engineering accords (i.e the Washington, Dublin and Sydney Accords).

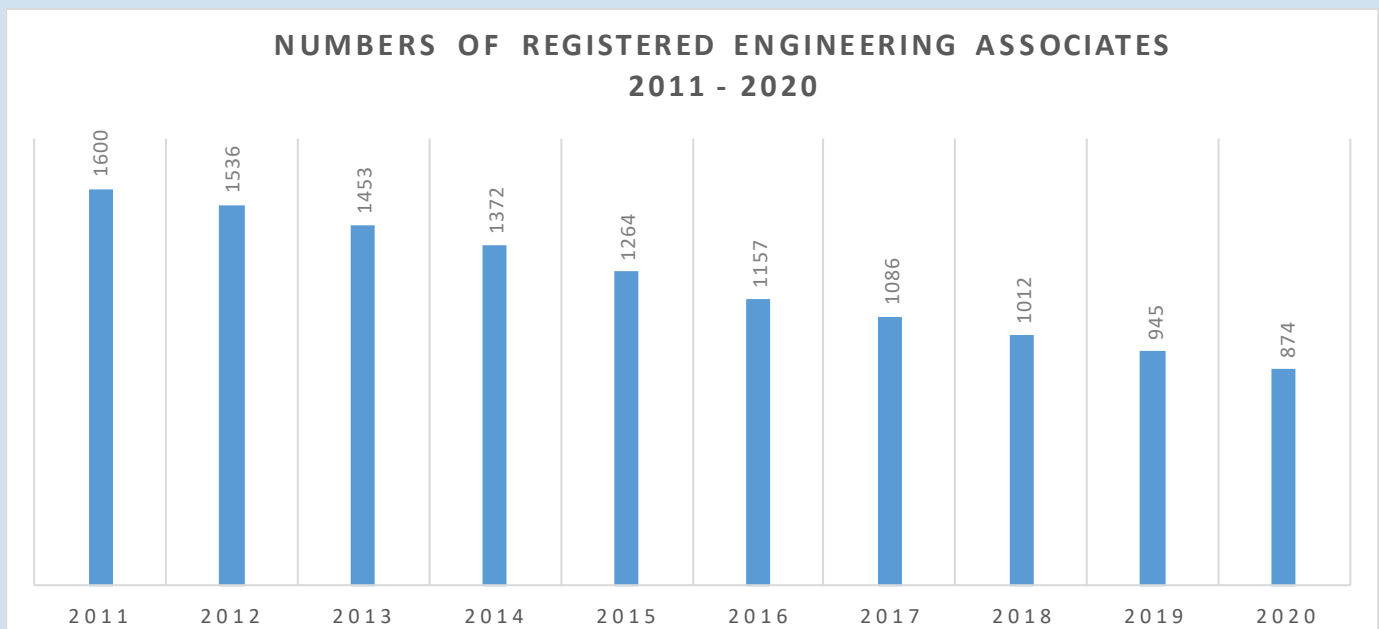
REA recognises that a person is a senior engineering technician or technologist. The majority of REAs are employed in infrastructure design, implementation and engineering management roles in New Zealand. There are also a number of REAs maintaining registration while working internationally, with most based in Australia.

The total number of registered persons continued to reduce during the 2019/2020 year. This trend:

- Began with changes to engineering training during the 1990's together with the restructuring and (in some cases) dissolution of government departments that had traditionally employed technical engineering graduates.
- Continues since REA is no longer regarded as such an important element of a career pathway as it was in the 1980s and 1990s when it was an integral part of organisational structures. Graduates entering the engineering workforce are not enthusiastic about gaining voluntary credentials when they do not perceive any career benefits.

Registration Trends

The graph below illustrates the gradual decline in numbers of REAs since 2011.



7 REA Credential and Registration Trends

2019/2020

Registration Categories

Registration categories for the REA credential as defined in the EA Act 1961 are:

- 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.

Registration Numbers by Category at 31 March 2020

R (a)	12
R (b)	821
R (c)	41
Total	<u>874</u>

Changes in Registration Numbers

REAs registered at 31 March 2019	945
New applicants registered 1 April 2019 to 31 March 2020	10
Net reduction from deceased, retired, resigned, restored & struck-off ¹	<u>-81</u>
REAs registered at 31 March 2020	<u>874</u>

Note

1: The term "struck-off" is used to describe removal of a name from the register for non-payment of annual registration fee

8 REA Code of Ethics and REAcap

2019/2020

Code of Ethics

The Code of Ethics is published on the Board's website and is in the information pack available to prospective applicants for registration. It is formally issued to all new REAs.

The Code of Ethics for REAs issued by the Board has remained unchanged for the 2019-2020 period.

Current Competency Assurance – REAcap

REAcap is a voluntary competency assessment or reassessment undertaken every four years (REA competency assessed practitioner scheme).

REAcap was established in 2005 by the Board as a way to assure the public and potential engineering employers that a currently registered REA remains competent in the specific work area. The initial registration competency criteria in the EA Act are also the standards used for REAcap competency assessment. These include current knowledge, experience and responsibility. Ongoing employment in the engineering industry is also a requirement for REAcap.

The Board considers that the absence of ongoing competency assessment requirements in the EA Act itself disadvantages the REA credential compared with other occupational registration legislation.

At 31 March 2020, the number of REAs with REAcap validation was 47. The Board is concerned at the low level of new applications for REAcap validations. It endeavours to stimulate interest. With around 50% of REAs aged between 60 and 70 years the ageing demographic of current REAs is a disincentive for those REAs to apply for REAcap. The names of those holding REAcap is included on the List of REAs and regularly updated on the website.

9 Financial Report

2019/2020

Auditors

The EA Act and the Public Audit Act 2001 requires that the Board engages Audit New Zealand as its auditor.

Financial Performance

Fees charged for registration during the period were as set out in the Engineering Associates Fees Amendment Regulations 2013. Due to the decline in numbers registered, revenue decreased by 11.3 %. Expenses were lower due to three Board meetings being held compared with four the previous year. There were additional Board fees payments made for interviewing Board member candidates required by the Minister. The Board reduced costs where possible. There was an overall deficit of \$14,938 bringing the Accumulated Fund to \$86,054 at 31 March 2020.

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, MBIE, stakeholder engagement and the development of a strategic plan.

Audited Financial Statements

Audited accounts for the Engineering Associates Registration Board for the year ended 31 March 2020 are available upon request to the Registrar. Audit New Zealand completed its annual Audit during December 2020 (delayed because of Covid 19 lockdowns). The audit identified no matters of immediate concern. The decline in the numbers of REAs is being monitored.

Application for Fee Increase

In September 2019 the Board made application via MBIE for an increase in the registration fees under the Engineering Associates Fees Regulations. Fees were last reviewed in 2013. MBIE have advised the process is lengthy and will not be in place for registrations for the financial year commencing 1 April 2021.

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