



**Annual Report by the  
Engineering Associates Registration Board  
For the Period from 1 April 2012 to 31 March 2013**

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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 2013.

### **Fiftieth Anniversary of First Board Meeting**

To mark the 50<sup>th</sup> anniversary of the first Board Meeting, a function was held on 22 August 2012 at The Grand Hall at Parliament hosted by the Hon Maurice Williamson, Minister for Building & Construction. Guests included representatives from the Building & Housing Group of the Ministry of Business Innovation & Employment, the Associations, and members from other Occupational Licensing Boards. There were about 22 current REAs, as well as previous and present EARB Board Members.

### **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.

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.

### **Board Operations**

At 31 March 2013 there were 1453 registered REAs, 83 less than at the same time in 2012.

The Board operations resulted in a deficit of \$4,800 for the financial year, reducing the Board's reserves to \$102,853. The annual audit by Audit NZ was completed during July 2013. The audit identified no matters of immediate concern, but the continuing decline in the numbers of REAs has been noted.

In response to the Board's application for an increase in the registration fees under the Engineering Associates Fees Regulations, the Government has announced new fees to become effective 1 July 2013.

### **Strategic Plan**

The final report from the Technologist Registration Task Force has been adopted by the Board, and the first recommendation to consider amendments to the titles of registration under the EA Act is being developed and discussed with the Minister..

An earlier proposal to attract technician / technologist students who have or are about to graduate to be listed with the Board is being further investigated. The Board continues to influence employers on the benefits of the statutory registration.

## **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. Fiftieth Anniversary**

To mark the 50<sup>th</sup> anniversary of the first Board Meeting of the EARB, a function was held on 22 August 2012 at The Grand Hall at Parliament hosted by the Hon Maurice Williamson, Minister for Building & Construction. About 50 guests attended including representatives from the MBIE, the Associations recognized under The Act, and members from other Occupational Licensing Boards. There were about 22 current REAs, as well as previous and present Board Members.

### **Board Chair**

The Board Chair, Dr Robin Dunlop welcomed everyone and mentioned that it was a significant occasion for any statutory Board to achieve. He briefly outlined the history behind the establishment of the REA credential and its development over the ensuing years with registrations reaching a peak of 3261 in 1989. The number subsequently declined through the demise of the Government Departments in the nineties, and the change of NZCE to independent tertiary provider certificates and diplomas and the number of REAs is now less than half that peak figure.

Industry has over the years a tendency to remove the middle management tier from their structures, relying on top management to hold the qualifications and experience, and the trades to assume more responsibility at the work face. The latter was further complicated by the fragmentation of the trades' apprenticeship system.

The challenge for this Board and indeed the country is to re-establish a productive arrangement in industry whereby the accepted delegation of duties is better structured to achieve improvements in more economic employment of skills appropriate to the tasks. Over the last year or so, the gap left by the demise of the NZCE has been partially closed, but it still requires a major shift in attitudes to accept that Level 6 & 7 diplomas are an attractive occupational goal coupled with many years of practical experience.

The problems in mining and cool stores, and now the huge task facing Canterbury although not directly attributable to the current shortage of middle group technicians & technologists, is going to be all the more difficult to rectify without a larger number of people with these skills than appears to be currently available. The Board recognises these problems and is anxious to work with employers to try to assist in improving the situation and to reinforce the advantages of peer review and the recognition of ongoing knowledge and professional development

## **Hon M Williamson**

In his address, the Hon M Williamson commented it's quite an achievement to have reached your 50 year anniversary. I'm aware that you've got over 1500 members and that's surely a testament to both the great need for the skills of senior engineering technologists, and of the benefits of registration. It tells customers that they can depend that the work done by your members will be up to standard – and that type of quality assurance of practitioners is something I've been working on hard in other parts of the building and construction sector.

If a customer gets work done by a Registered Engineering Associate, they can take comfort in knowing that the engineer will have met appropriate academic and practical engineering standards. In short, they can trust that they're in the hands of an expert. And your skills are in demand. Your board's own annual report has noted a shortage of experienced engineering technologists.

We're here to celebrate 50 years. And in that time, I'm sure your members have seen and been part of many changes. One change you might be wondering about is the absorption of the Department of Building and Housing into the new Ministry of Business, Innovation and Employment, and how that will affect the building sector.

### ***Ministry of Business Innovation and Employment***

The Government remains committed to its goals for the building and construction sector, including the Canterbury earthquake recovery. What has changed is that the importance of the building sector to New Zealand's economic and social health has been recognised. The driving goal of this change is to develop a single dedicated business-facing ministry which will strengthen policy capability, improve the regulatory environment, bring together business-facing services, and improve the Government's own internal co-ordination.

### ***The Ministry's investigation of the CTV Building collapse***

Also high on the agenda are the Canterbury earthquake investigations and the rebuild of Christchurch. Following the 22 February 2011 earthquake, the former Department of Building and Housing commissioned a series of technical investigations to look at the performance of four relatively modern multi-story buildings in the central business district that had serious structural failures. These included the CTV Building.

The Building Amendment Act 2012 more clearly signals and reinforces accountabilities for building work and Building Code compliance of all the parties involved in construction projects. It also introduces the framework for a risk-based approach to building consent and inspection requirements, so that these are aligned to the risk and consequences of building defects and the skills and capabilities of those doing the work.

The expectation is that there will be earlier identification and consideration of project risks, greater accountability by designers, documented means of managing those project risks, and transparency on liability. However, risk based consenting will not be introduced until the sector is ready and the drafting of regulations will be informed by lessons learnt from the Canterbury earthquake recovery.

### ***GeoBuild***

Another exciting transformation hitting the sector is GeoBuild. The GeoBuild strategy will mean all location information is available from one website, which could considerably reduce construction costs. GeoBuild contributes directly to the new results-driven focus for the public service announced by the Prime Minister, and for my stated priorities for the building and construction sector, which include delivering better, smarter public services for less cost.

### ***Finally***

Once again I thank you for giving me the opportunity to part of this event today. I congratulate you on reaching this milestone and the contribution you have made to the sector.

### **Mr David Millard (current REA)**

At the invitation of the Board Chair, David Millard reviewed his experience as a REA in the position of CEO of a dynamic specialist electrical and mechanical equipment supply company. He stressed the importance of the technician group in their organization to be able to provide the specialist knowledge associated with the application, installation and subsequent servicing of their equipment. Much of the ongoing knowledge and personal development that is so essential in the field of modern technology is provided by their overseas suppliers and the experience gained within NZ is used to the best advantage with continued training.

Mr Millard stressed the importance of the credential to their business, and that they are actively working with the tertiary providers and training facilitators to ensure that the technician group continues to be appropriately recognized in today's environment.

### **Mr John L Gordon**

John Gordon was asked by the Chair to recall the experiences many years ago when applying for the new registration and receiving his Certificate of Registration (No 9) at the first presentation ceremony 30 April 1963. Mr Gordon was able to produce that Certificate and recounted how as an ex marine engineer he became a lubricants engineer with an oil company. His expertise was in working closely with the new pulp and paper industries in the central North Island to solve their lubricating and servicing problems with the new expensive and highly complicated production machinery.

Over the subsequent years until his retirement, the REA proved to be an important element of his career. John congratulated the Board in achieving this milestone and expressed his thanks for the opportunity to provide a brief outline of his practical use of the credential over many years.

## **3. 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 2013 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. Although industry is now encouraging new entrants it is not keeping pace with the rate of retirement of older REAs. The Act does not include mechanisms to facilitate the Board remaining in touch with new technical engineering graduates until they meet the "10 years experience" period for new REA applicants. The Board is considering proposals to provide a mechanism whereby this important early communication is able to be developed.
- The new New Zealand Diploma in Engineering (NZDE) and its new '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.

## 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 2012	1536
Plus new applicants registered between 1 April 2012 & 31 March 2013	3
Less nett reduction from deceased, retired, resigned & restored	<u>80</u>
Number registered at 31 March 2012	<u>1453</u>

Categories:	R(a)	47
	R(b)	1321
	R(c)	<u>85</u>
	<b>Total</b>	<b><u>1453</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 2013 the number of REAs with REAcap validation was 111. 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.

## 4. 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. During the year a number of new appointments were made to the Board replacing those whose terms had expired

The Members of the Board at 31 March 2013 were:

Board Member	Position - Date Appointed	Nominating Organisation
Dr R J Dunlop QSO; FNZIM; FIPENZ; FCILTNZ; MIOD.	Chair – April 2010	Ministerial appointment
Mr A D Blackler REA; MNZIHEEM	Member – August 2006 Deputy Chair February 2013	NZ Institute of Healthcare Engineering Inc
Mr G M Cowley MNZIRHACE	Member – December 2013	NZ Inst Refrig Htng & Air Con Engineers Inc
Ms D J Cranko NZ Reg Arch; BArch (hons) FNZIA	Member – December 2013	Ministerial appointment
Mr R W Grant CEngFIMarEST(UK)	Member – April 2003	NZ Institute of Marine & Power Engineers Inc
Mr D R McArthur NZDEP(Civil); CertETn; AIPENZ	Member – December 2013	Ministerial appointment
Mr G D Wells REA; FDANZ	Member – August 2006	Design Association of NZ Inc
Mr M B Wheeler	Member – August 2006	NZ Electronics Institute Inc

### Committee Roles

- **Finance (& Audit Committee if required)** – Chair & Registrar
- **Staff Committee** – Ms D J Cranko & Mr R W Grant
- **Technologist Registration Task Force** – Chair Mr G D Wells

### Board Remuneration (per day attendance)

Chair \$515.00; Deputy Chair \$375.00; Member \$300.00

### 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 (effectively a tribunal) if there are appeals against decisions of the Board. The Committee has not been required to date and there were no appeals against any decision of the Board during the year.

### 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 Electrical Institute Inc
- New Zealand Institute of Engineering Sciences Inc
- 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 (has been 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 - April, July, November 2012 and February 2013. The Registrar attended all Board meetings. In addition to the routine overview and approval of the registration of REAs, the Board has continued developing the major outcomes of the Strategic Plan and the REA credential.

## Accountability Agreement

An Accountability Agreement between the Board and the Minister is in place for the period to 31 March 2013. 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.*

### 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.*

## Engineering Associates Registration Board - Annual Report 31 March 2013

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 2012/13:	Registrations:	1600	<i>Actual 1453</i>
	Nett Removals:	50	<i>Actual 80</i>
	New registrations:	20	<i>Actual 3</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.*

Review level of fees charged to REAs.

*In December 2012 the Government Gazetted an increase in the Fees under the Engineering Associates Fees Amendment Regulations 2013 to become effective 1 July 2013.*

### 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 presentations to the AGM's of some of the Associations recognized under the Act, and to other interested parties.*

Provide an annual report (with Financial Statements):-

*Completed.*

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

*Members of the Board attended the joint meetings arranged by MBIE to discuss common policies and matters of interest.*

### **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.

During the year, the Chair attended the AGM of a number of Associations recognised under The Act, and other interested parties and gave presentations on the Board, possible future directions and the REA credential including ongoing professional development.

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

The Engineering Associates website, continues to receive a monthly average of over 14,000 '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.

### **Strategic Planning Exercise**

In February 2009, the Board commenced the development of a Strategic Plan for the REA credential and the Board. This led to the establishment of a Technologist Registration Task Force chaired by Board Member Mr G D Wells and comprising some Board members together with other persons from appropriate sectors.

The final recommendations from Task Force have been adopted by the Board and are being further developed.

## **5. Financial Aspects**

### **Auditors**

The Board has contracted Audit New Zealand as its auditors.

### **Financial Performance**

Fees charged for registration during the period remained as in the Engineering Associates Fees Amendment Regulations 2006, increased in accordance with the provisions of the GST Act following the increase in GST from 12.5% to 15%. The routine annual operations show a decrease of 3% in revenue and 2% decrease in expenses. There was a net deficit of \$4,800 for the current financial year and the total net assets, were \$102,853 at the end of the year.

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. Audited accounts for the Engineering Associates Registration Board for the year ended 31 March 2013 are available upon request to the Registrar. The annual audit by Audit NZ was conducted during May 2013 and completed in July 2013. The audit 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, FIPENZ, FCILT NZ, MIOD.  
Chair, Engineering Associates Registration Board.