REGISTRATION AUTHORITY
FOR CHARTERED PROFESSIONAL ENGINEERS

2017 Annual Report

1 JANUARY – 31 DECEMBER 2017

Under the Chartered Professional Engineers of New Zealand Act 2002, the Registration Authority reports to the Chartered Professional Engineers Council each year on its administration of the Register of Chartered Professional Engineers. This report covers the 15th year of operation of the Chartered Professional Engineers (CPEng) Register.

The Registration Authority is The Institution of Professional Engineers New Zealand (trading as Engineering New Zealand).

Contents

Annual Report of the Registration Authority to the Chartered Professional Engineers Council pursuant to section 52 of the Chartered Professional Engineers of New Zealand Act 2002.

1 January – 31 December 2017.

Strategic overview

2017 was a year of significant change for Engineering New Zealand. We are proud to report highlights including:

A change to our trading name and brand – the Institution of Professional Engineers New Zealand now trades as Engineering New Zealand.

The implementation of a more representative and inclusive Engineering New Zealand Membership Pathway, which sits alongside the CPEng register.

The introduction of a streamlined assessment application system to make the application process more accessible and user friendly.

An increase in the number of Chartered Professional Engineers from 3,495 to 3,610.

A further reduction in the average processing time for assessment applications.

The development of a toolkit for engineers to help them resolve complaints early and effectively at the front line, to avoid issues escalating.

The finalisation of a handbook for Investigating Committee and Disciplinary Committee Chairs to help guide them in making robust decisions.

An increased focus on learning and quality improvement driven from complaints.

54% of concerns resolved directly between the parties through the new early resolution process.

Engineering New Zealand rebrand

On 1 October 2017, Engineering New Zealand introduced a new name as part of a bold new brand, symbolised by a bright blue butterfly. The new name and brand aligns with a new vision and mission for the organisation, with a focus on engineering better lives for New Zealanders by bringing engineering life.

Alongside the rebrand, Engineering New Zealand also launched a new Membership Pathway, website and refined assessment portal. Over the past few months, additional refinements have been made to the assessment portal, including the development of updated guidance material, to improve the user experience. Getting the assessment process and criteria right is a priority for Engineering New Zealand.

Membership Pathway

The new membership structure aims to provide a more inclusive and compelling Membership Pathway for a broader range of engineers and disciplines. Crucially, it aligned with the Registration Authority's view of the future of occupational regulation. Recognising the Government's objective of strengthened licensing arrangements, we are advocating for the CPEng Act to be repealed and replaced by licensing for safety-critical engineering work, underpinned by membership-based Chartered status conferred through Engineering New Zealand. We liaised closely with MBIE over the development of our new Membership Pathway, and MBIE were supportive of the changes, which align with their own vision for licensing of the profession.

Refined assessment portal

We needed to change the assessment portal to reflect Engineering New Zealand's new Membership Pathway. At the same time, the opportunity was taken to streamline the application process to make it more accessible and user friendly. This streamlining process did not involve any change to the competence standard against which engineers are assessed. The key change has been to consolidate the candidate self-review template: applicants are now required to provide evidence of their competence in relation to four logical groupings of competencies, rather than against each of 12 competencies.

Engineering knowledge

Application of knowledge, comprehension and maintenance of current professional engineering good practice.

Professional acumen

Communicating clearly with other engineers and the public and conducting professional engineering activities within the code of ethical conduct with consideration to social, cultural, and environmental effects.

Engineering management

Applying sound professional engineering judgement in managing risk and making decisions involving complex engineering activities.

Technical competence

Defining, investigating, analysing and designing or developing solutions to complex engineering problems in accordance with current good practice for professional engineering.

The revised assessment portal and associated promotional activity has generated renewed interest in the assessment process. More than 400 new applications were started in the new system after 1 October. Most of these applicants have signalled they intend to apply for both CPEng and Chartered Membership of Engineering New Zealand.

Professional standards

Bodies of Knowledge

In response to the Canterbury Earthquakes Royal Commission, the Ministry of Business, Innovation and Employment (MBIE) commenced work to develop Bodies of Knowledge (BOKS) to better define the skills and knowledge required for specialist geotechnical and structural engineering work.

This work is expected to be completed during 2018. Once the BOKS have been finalised, we will work with members of the relevant technical societies to discuss and define how they will be used for assessment purposes.

What we learn from the creation of the first BOKS will be used to help develop BOKS for other disciplines or areas of practice. It's important that BOKS are consistent in approach across different engineering fields and support setting a mark of assurance for the public.

Engineering New Zealand Competence Assessment Guidance

A Competence Assessment Guidance document has been created to guide first-time assessment candidates through the assessment process. Guidance documents for reassessment, knowledge assessment and academic assessment have also been created and shared.

Assessment process

Development of the streamlined assessment process, to sit alongside the new membership pathway, was a key area of focus for the team during the year

The reintroduction of regular surveying of applicants was deferred during the transition to the streamlined assessment portal. It will be implemented in 2018 to coincide with the completion of the first applications received through the revised process. Anecdotal feedback received from candidates and assessors who have used the new system has been increasingly positive.

A key performance target for the Registration Authority is to complete assessments within 84 days. In 2017 the average time to assess an application for initial registration was 81 days from receipt of a full application. Continued registration assessments were processed in an average of 68 days. This represents an ongoing improvement in processing times for applications.

However, analysis of this data has highlighted delays in the receipt of referee statements, which are required to be submitted independent of the applicant. This delay (often more than a month) holds up the assessment process and is a source of frustration for applicants. We will investigate ways to streamline this stage of the process during 2018.

Assessment for initial registration

The average processing time for applications for initial registration completed during the reporting period was 81 days. The 2017 average completion for initial registrations has bested the Registration Authority's targeted average turnaround time of 84 days.

Throughout the 2017 year, the Competency Assessment Advisors and assessors delivered regular presentations (titled Take the Next Step) to engineers considering undertaking an assessment for registration. These presentations included a focus on the incoming changes to the competence assessment format. Public sessions were held in the main centres and several provincial centres with an Engineering New Zealand Branch. Numerous sessions were also delivered inhouse for larger engineering employers.

At the beginning of 2017, there were 71 applications for first-time assessment and admission to the CPEng Register pending. During the year, a further 316 engineers applied. In total, 242 applications were approved, six were declined, and 10 applications were withdrawn before processing was completed. At the end of the year, 129 applications were still being processed.

Assessment for continued registration

The average processing time for assessments completed during the year was 68 days which in comparison to the previous year's average completion time of 86 days is a significant improvement.

Five hundred registrants were due to undertake an assessment for continued registration during 2017 to remain on the register. During the year, 376 applications for continued registration were completed (including some assessments initially due to be completed in 2016). 16 registrants chose not to renew their registration and three had applications for continued registration declined.

At the end of the year, 163 continued registration assessments (CRA) were still under consideration by assessment panels. Completion of these outstanding CRAs will be a priority in the first part of 2018, along with identifying ways to ensure that reassessments are completed within the year in which they fall due.

142 registrants (137 in 2016) did not submit a portfolio of evidence for reassessment and will have their registration suspended.

CPEng registration under mutual recognition

Of the total number of applications processed, 43 engineers successfully applied for CPEng under mutual recognition provisions in 2017.

The Registration Authority continues to apply the policy developed in 2004 for handling applications for CPEng from Registered Professional Engineers Queensland (RPEQ) in compliance with the Trans-Tasman Mutual Recognition Act (TTMRA).

The same principles are applied to those who have attained registration in other jurisdictions that require an equivalent level of competence to CPEng.

Appeals against registration decisions

During the year, one appeal was lodged with the Chartered Professional Engineers Council against an assessment decision made by the Registration Authority. This appeal was still under consideration at the end of the reporting period.

Competency Assessment Board

The Competency Assessment Board (CAB) met monthly during the reporting period (except for January – no meeting, and December – two meetings) to approve recommendations for registration and continued registration from Assessment Panels.

The members who served on the CAB during 2017 were:

- **Stephen Jenkins:** re-appointed in 2017 for two years and Chair for two years
- **Hamish Denize:** re-appointed in 2016 for two years, term expires March 2018
- **Gijs Hovens:** re-appointed in 2016 for two years, term expires March 2018
- **Don Tate:** appointed in 2017 for two years, term expires March 2019
- **Kathryn Ward:** appointed in 2017 for two years, term expires March 2019
- **Branko Veljanovski:** appointed in 2017 for two years, term expires March 2019
- **Stewart Hobbs:** appointed in 2016 for two years, term expires March 2018
- **Tom Qi:** appointed in 2017 for two years, term expires March 2019
- **John Burden:** Governing Board representative, appointed as Board representative in 2017 for one year, term expires March 2018

The Registration Authority has appointed members who are Chartered Professional Engineers. We have considered the extent of their experience in, and knowledge of, professional engineering, along with their experience in competency assessments and quality assurance of competency assessments. Consideration has also been given to geographical representation.

Assessors

The assessment workload during 2017 was similar to previous years. While there was a slight reduction in the number of reassessments, there was an increase in the number of first-time assessments. To help manage future workload, an initial training session for new Practice Area Assessors (PAA) was held in December. The training focussed on the assessment process and the pivotal role that PAAs play in assessing to a consistent level. It also covered the concept of complexity and the minimum standard of a reasonable professional engineer.

Table 1: Summary of assessor numbers at the end of 2017

Assessor Type (Current CPEng)	Available
Practice Area	374
Contract Lead	17
Permanent Engineering New Zealand Staff Lead	2
Knowledge	4

To ensure there is enough resource to manage the peak flow of reassessments expected in 2019, we aim to recruit a third Lead Assessor onto the Engineering New Zealand staff. Additional training sessions to recruit Practice Area Assessors will also be delivered during the year to boost Practice Area Assessor numbers.

New Registrar

In June, the Registration Authority said farewell to Registrar Mike Fermanis. Mike made a significant contribution to the implementation of the new membership pathway, assessment reporting and the decision-making process.

In August a new Registrar, Peter Lourié, was appointed to the role. Peter comes from a background in competence assessment and has experience in the development of gold-standard assessment models in the health sector.

Registration Authority's assessment expectations for 2018

In 2018, we expect to receive:

» 250 applications from engineers for first-time assessment for CPEng. These will be mostly from members of Engineering New Zealand.

» 494 applications for Continued Registration Assessments, with 163 carried over from 2017.

One of the objectives of Engineering New Zealand's new Membership Pathway is to promote progression to competence-based Chartered Membership by engineers who do not need CPEng registration. This includes academics and engineers in company leadership roles. Growth in the number of Chartered-Member-only competence assessment applications has the potential to increase assessment workloads.

Our key priorities for 2018 are:

Assessor training on the new Pathway and assessment process

The Registration Authority has enhanced both first-time assessments and reassessments through applying good practice to the assessment process, improving consistency between assessors and the CAB, improving consistency of CAB decision making and ensuring a robust approach in the assessment process. Increasing training of assessors and investigating fit-for-purpose moderation methodologies will also improve consistency.

Integration of Bodies of Knowledge and Skills into the current CPEng assessment process

Once the Geotechnical and Structural BOKS have been completed, these will be integrated into the assessment process for applicants working at a specialist level in these fields.

Any changes to the current CPEng assessment model will be designed to align with any future licensing model. We will continue to work proactively with MBIE to support the development of a future occupational licensing model.

Closer monitoring of customer satisfaction

We are creating a survey to measure how satisfied people are with the assessment process. This will be in place from April 2018 and will provide feedback on the new assessment pathway, portal and process.

Streamline processes for receipt of referee statements

As noted above, delays in this area create frustration for applicants and staff. Opportunities for streamlining will be investigated.

Processing of continued registration assessments

While we have met our performance target for completion of CRA applications, delays with the receipt of applications mean that too many applications are being carried over to the following year. Addressing this issue will be another priority during 2018.

Register trends

Registration statistics as required by s. 52(2) of the Act

Figure 1: Number of assessments processed each year

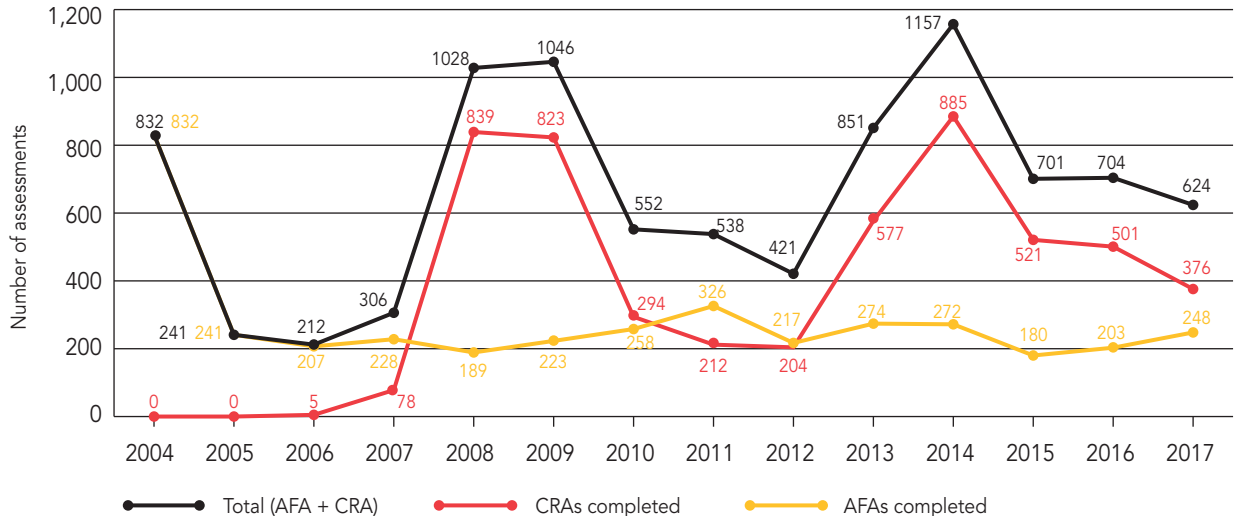


Figure 1 shows an increase in the number of first-time assessments, with a reduction in the total number of reassessments due to the dip in timing and the total number of combined assessments, in comparison to 2016. However, this has not had an adverse effect in the total number of registrants.

Table 2 provides a summary of the registration statistics required by section 52(2) of the Act for the reporting period (2017).

Table 2: Registration statistics for 2017

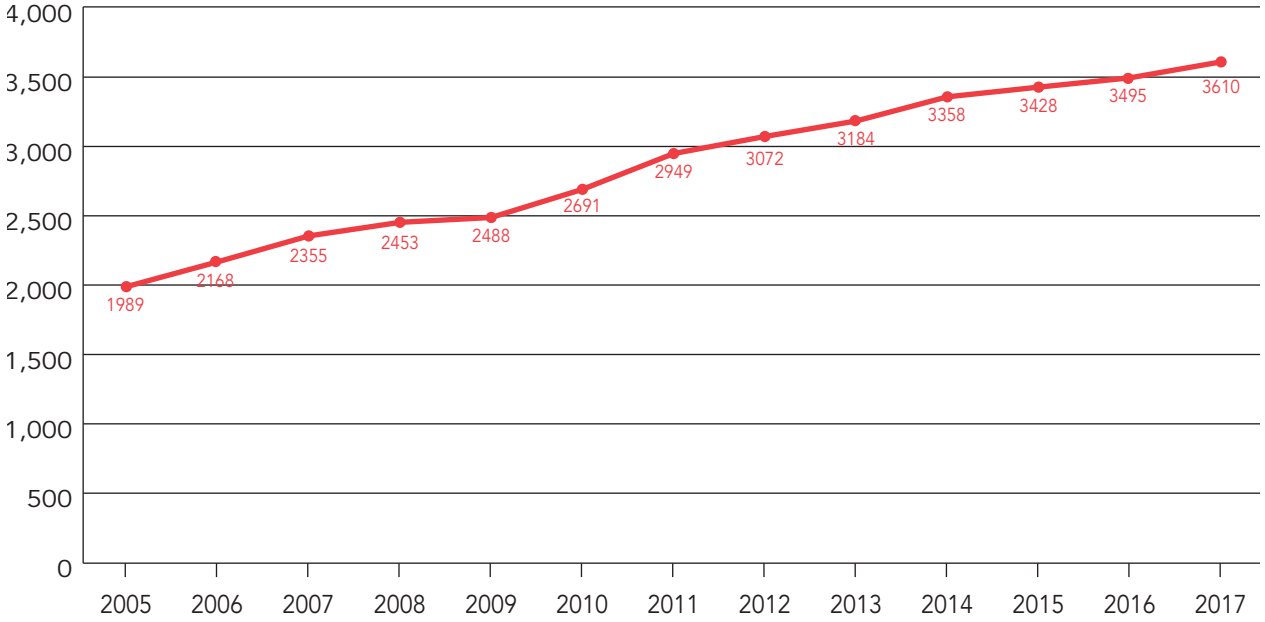
Registration Statistics for 2017	Number
Chartered Professional Engineers at the end of the reporting period	3,610
Applicants registered for the first time during the reporting period	205
Applicants declined registration during the reporting period	43
Registrants resigned or removed during the reporting period. Refer note 1	107
Registrants suspended during the reporting period	62
Registrants placed in abeyance during the reporting period	31

Note 1: Reasons for removal from the register can include:

- *Resignation*
- *Death*
- *Registration Authority action due to non-payment of fees, inability to meet the standard for continued registration or disciplinary action*

The count of registrants who resigned or were removed from the register during 2017 includes registrants whose registration was already in suspension at the beginning of the reporting period.

Figure 2: Number of CPEng registrants



Age distribution and gender breakdown

The number of female engineers on the register is still disproportionate and there is a lot of work to be done in this space. Addressing this challenge is a strategic priority for Engineering New Zealand. Key elements of our work programme in this area include:

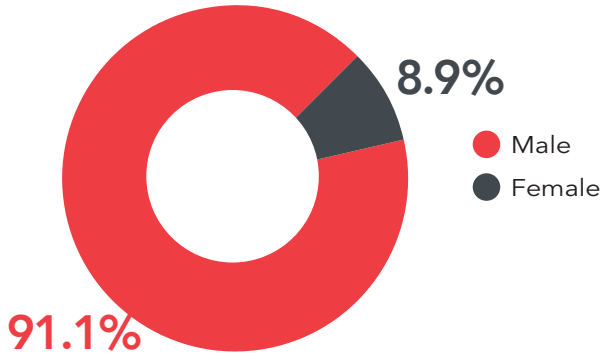
- Collaborating with engineering firms who have established diversity and inclusion programmes, to raise awareness and share best practice.
- Creating a resource kit of tools and information for engineering firms struggling to understand and implement diversity initiatives.
- Connecting all women engineers currently running independent programmes, to create a broad and compelling movement that encourages women into the profession.
- Discussing diversity and inclusion in everything we do, including our member magazine, *EG*.

Data in Table 3 shows a distributed age profile of CPEngs. Engineers are following the wider workforce trend of working longer, with 4.3% of registrants aged 70–89. Like other occupations critical to public safety, we need to reassure the public of engineers' ongoing competence. The reassessment process is one way to do this.

Table 3: Breakdown of CPEng registrants by age

Age Band	Total Count	%
24–39	988	27.6%
40–59	1,863	51.6%
60–69	602	16.7%
70–89	157	4.3%
CPEng	3,610	100%

Figure 3: Binary gender breakdown of CPEng registrants



Fields of engineering practice

Candidates declare one or two practice fields that their practice area best aligns with, as part of their portfolio of evidence. This happens for both first-time assessment and reassessment.

While many engineers have previously declared more than one practice field, we are now telling assessors and candidates that having more than one practice field should be an exception.

The information in Table 4 provides the number of current registrants in each practice field. Please note totalling the number of registrants across all fields exceeds the total number of current CPEng registrants. This is because some people have selected more than one field.

During the year, the number of engineers in the Geotechnical field became larger than the number in the Mechanical field. This might reflect increasing use of the register by Councils in their consenting processes, thereby increasing the requirement on geotechnical engineers to hold registration. Specialist areas of mechanical engineering do however, continue to require CPEng for certification purposes.

Table 4: Distribution of CPEng registrants by practice field

Practice field	Number of CPEng 2016	Number of CPEng 2017	Ranking (out of 17)
Aerospace	14	13	15
Bio	3	3	17
Building Services	154	155	9
Chemical	32	32	13
Civil	1,503	1,471	1
Electrical	240	238	8
Environmental	436	414	4
Fire	82	85	11
Geotechnical	300	314	6
Industrial	118	120	10
Information	24	23	14
Management	631	590	3
Mechanical	306	298	7
Mining	10	9	16
Petroleum	33	35	12
Structural	1,094	1,154	2
Transportation	332	331	5

Geographical distribution

Table 5 shows the geographical distribution of CPEng registrants who are members of Engineering New Zealand. It can be challenging for engineers practising overseas to demonstrate they comprehend and apply the principles that underpin good practice specific to New Zealand. Being able to conduct reassessments using online video conferencing is a distinct advantage for these engineers.

Table 5: Geographical distribution of CPEng registrants

Engineering New Zealand branch	Count	%
Northland	60	1.6%
Auckland	1,332	36.9%
Waikato-Bay of Plenty – Hamilton	221	6%
Waikato-Bay of Plenty – Tauranga	122	3.4%
East Coast	6	0.1%
Taranaki	74	2%
Hawke's Bay	73	2%
Whanganui	11	0.3%
Manawatu	46	1.2%
Wellington	439	12.1%
Nelson-Marlborough	86	2.4%
West Coast	11	0.3%
Canterbury	619	17.1%
South Canterbury	14	0.3%
Otago	110	3%
Southland	25	0.7%
United Kingdom	42	1.1%
No branch*	319	8.8%
TOTAL	**3,610**	**100%**

*CPEng/Engineering New Zealand members overseas or not affiliated to a New Zealand branch

Other CPEng-based or related quality marks

Design Verifiers

At the end of the reporting period, 24 individuals held certification as Design Verifiers, two in more than one of the categories of certification (pressure equipment, cranes and passenger ropeways). There is some concern that the register has only one Design Verifier with certification for passenger ropeways. How this concern is to be addressed is yet to be confirmed, but the Registration Authority will initiate discussions with WorkSafe New Zealand.

International benchmarking

Engineering New Zealand's active involvement with the international engineering community supports the international benchmarking and recognition of CPEng. Key relationships relating to engineering education and competence standards are fostered through Engineering New Zealand's membership of the various Accords and Agreements under the International Engineering Alliance.

Active liaison is maintained with Engineers Australia, with a view to identifying areas where co-operation may improve efficiencies in assessment processes.

Summary of responses to CPEC recommendations

In its 2016 report, CPEC asked about the potential confusion of having two "Chartered statuses with differing requirements".

To address this concern, Engineering New Zealand employed a comprehensive communications strategy to make all stakeholders aware of the changes and the requirements of each Chartered status. This included communicating with Engineering New Zealand members, CPEngs, territorial authorities, MBIE, chief executives of engineering firms and other industry leaders.

We are planning more communication around the new Membership Pathway and the difference between Chartered Member and CPEng in 2018.

Complaints/disciplinary activity

In 2017, the Registration Authority continued the success of its 2016 review of its complaints resolution process. Our focus this year was on building capability within the profession to resolve complaints directly at the front line, and on the capability of our decision-makers to make robust and fair decisions that withstand scrutiny. We've also been taking steps to improve the way we use complaints for learning and quality improvement purposes.

Profession's capability for resolving complaints

In October 2017, we published a toolkit for engineers to assist them with complaints resolution. The toolkit, which is available on our website, gives engineers practical tips on how to recognise when someone is dissatisfied, and what action they can take to resolve things in the best possible way to avoid a formal complaint. It covers topics such as why complaints matter and the importance of maintaining a professional approach in response. It encourages engineers to have systems and processes in place to respond to complaints effectively, some dos and don'ts for responding to complaints, and tips for how to best engage with us if concerns are raised with Engineering New Zealand.

Decision-maker capability

We finalised our Chairs Handbook, which is a resource for our Investigating and Disciplinary Committee Chairs. It gives them guidance on a range of topics to support them in making robust, fair and proportional decisions. It includes topics such as natural justice, evidence, disciplinary thresholds, penalties and orders, and easy-to-use checklists.

In August 2017, we held a further workshop with our Investigating and Disciplinary Committee Chairs to further strengthen their decision-making capabilities. The workshop included a presentation from the Banking Ombudsman, sharing her learnings on effective decision-making, and a workshop from the Write Group giving strategies and tips for communicating decisions in a clear, effective way.

Learning from complaints

We introduced a simple mechanism for coding complaints to ensure that themes and learnings are better captured. For each complaint received, we now record the engineer's field of practice, and a primary issue and secondary issue. Engineering New Zealand is looking at ways to incorporate themes into its quality improvement initiatives; for example, through directed publications and presentation sessions. In addition, some of this data was recently shared with a member and used in a presentation on resilience of the structural engineering profession at the 2017 Structural Engineers Society of New Zealand Conference.

The complaints resolution team writes a column in every issue of Engineering New Zealand's quarterly member magazine, *EG*. Building on particular case studies, topics this year have included:

- successfully resolving complaints;
- responding to mistakes and supporting a culture of openness and quality improvement;
- what alternative dispute resolution is and how to incorporate it into your everyday practice;
- competence and negligence in professional discipline; and
- how to handle a complaint against you – a reflection from a current Investigating Committee Chair.

Complaints statistics and trends

Statistics

Forty concerns/complaints about Chartered Professional Engineers were received during the 2017 calendar year.

Concerns raised with the Registration Authority first undergo a Triage assessment. The purpose of the Triage assessment is to gather preliminary information about the concerns to ascertain jurisdiction, and to decide whether to offer the parties the option of early resolution (for example, alternative dispute resolution, or an educational approach).

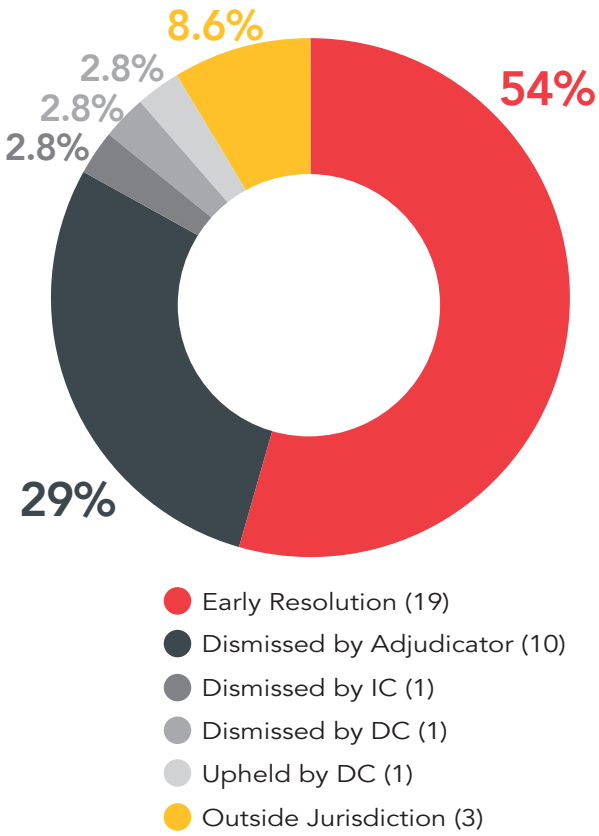
If early resolution is not an appropriate option given the nature of the concerns, or the complainant or engineer is not interested in early resolution, the matter proceeds as a complaint to be considered in accordance with the formal complaints and disciplinary process set out in the Chartered Professional Engineers of New Zealand Act and Rules.

The complaints process has four stages: initial investigation; adjudicator; Investigating Committee; and Disciplinary Committee. A complaint may be dismissed at either the adjudicator, Investigating Committee or Disciplinary Committee stages.

Thirty-five concerns/complaints about Chartered Professional Engineers were closed in the 2017 calendar year. This includes concerns/complaints received both during and prior to 2017. The manner of resolution for these concerns/complaints is set out in the chart below.

We are continuing to have significant success resolving concerns directly between the parties through our new early resolution process (54% of concerns were resolved this way). This has greatly improved the efficiency of our decision-making and satisfaction with concern/complaint outcomes, which is evident in the low number of appeals lodged against the Registration Authority's decisions. In 2017, two appeals against decisions of the Registration Authority were lodged with CPEC (representing 6% of total decisions). Both appeals were dismissed, which reinforces the progress the Registration Authority has made in making fair and robust decisions. Neither of these decisions were appealed to the District Court.

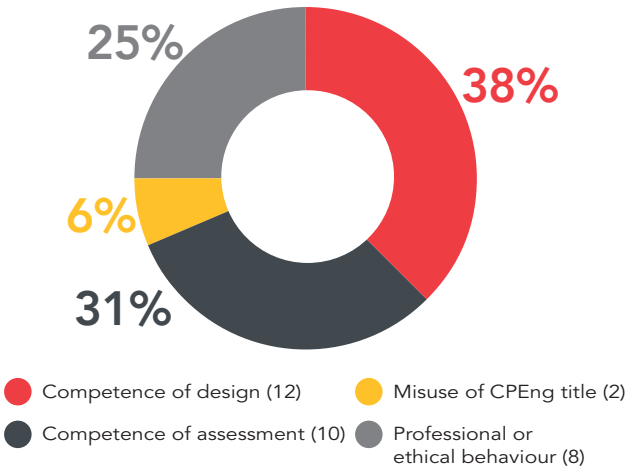
Figure 4: Manner of resolution



Themes and trends

The 32 concerns/complaints closed in 2017 that were within our jurisdiction have been categorised according to the primary issue and the practice field of the engineer involved. This helps us to identify any trends or issues, and to focus quality improvement initiatives. The data is captured in the following charts.

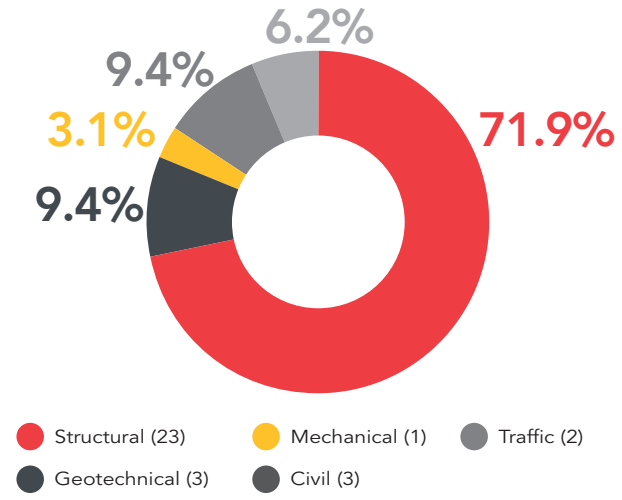
Figure 5: Primary issue



The majority of concerns/complaints are primarily about engineering competence in design or assessment. This includes engineering assessment of damage to structures following a natural disaster, traffic impact assessments, verification of scaffolding or safety systems, and engineering design including structural design, wastewater systems, installations or amusement equipment.

Professional or ethical behaviour includes criminal convictions, conflicts of interest, communication and delays.

Figure 6: Field of practice



The majority of concerns/complaints received are about structural engineers. This is not surprising, given that structural engineers have a high level of interaction with members of the public compared with other engineering disciplines. In addition, structural engineers have been under increased scrutiny following recent earthquakes. However, it is something that Engineering New Zealand is mindful of when thinking about where to direct communications and quality improvement initiatives.

Own motion inquiry

In December 2016 Engineering New Zealand commenced an Own Motion Inquiry into the engineering design of six buildings in Masterton. The Inquiry is ongoing. It has two parts. The Registration Authority's responsibility is to investigate matters as they relate to individual engineers, and three engineers are being formally investigated in relation to the Inquiry. But engineers are part of a system and it is important that the Inquiry understands the relevant context at an individual, system and sector-wide level. We expect the Inquiry to be completed in mid-2018.

Enquiries

The complaints resolution team also receives enquiries from engineers and members of the public about the ethical obligations of engineers and the complaints resolution process. These enquiries may involve multiple contacts and often require action, such as reviewing information and advising the enquirer on options or providing a written response. Enquiries are not classified in accordance with whether the engineer concerned is a Chartered Professional Engineer or member of Engineering New Zealand. The complaints resolution team responded to more than 120 enquiries in 2017.

Complaints case studies

Complaints case studies

CASE STUDY ONE

Quality improvement and systemic considerations

Engineering New Zealand's complaints process is focused on individual competence. However, within the complaints process there is scope to recognise and understand the system influences at play.

A young engineer undertook a subfloor assessment, inspecting work carried out as part of relevelling works on a residential house following the Christchurch earthquakes. The work included relevelling the concrete strip foundation, packing the internal piles, and filling the cracks in the concrete strip foundation. The engineer had provided two drawings for the detailing recommended for the foundations. The works were exempt from building consent.

The engineer carried out his inspection after the work on the piles had been completed, but while construction on the site was ongoing. The engineer inspected a sample of the piles but it is unclear exactly which piles he inspected, as he did not record this. Following his inspection, the engineer considered that the works were "generally in line with the sketches [he] had prepared and considered structurally fit for purpose".

At completion of the works, the property owner raised concerns about the quality of the works carried out. Two external reviews of the work identified problems with its quality, including the wrong type of strapping used to tie down the piles, inadequate packing of a number of piles and some full width cracks in the perimeter foundation that had only been superficially repaired.

The Investigating Committee had concerns that the engineer did not identify that some of the works had not been completed to an adequate standard. However, because it was unable to determine which piles the engineer had inspected, it was unable to make a finding as to whether his inspection was reasonable in the circumstances.

The Investigating Committee dismissed the complaint but recommended that the engineer involved reflect on what happened in this case, including ensuring clear and written instructions from clients, better record keeping, and robust approaches to inspections. The engineer advised that when assessing a sample of work he now inspects a larger sample size, takes more photos to capture relevant information, and when inspecting subfloor areas he inspects work throughout the entire subfloor, including areas difficult to access.

Engineers work as part of a system, and it has been said that every system is perfectly designed to get the results it gets. While the engineer in this case didn't pick up the poor workmanship, the Investigating Committee expressed significant concern that the system designed to efficiently repair the house failed in this case. The Investigating Committee felt that, while relatively experienced, the engineer was still essentially placed in a position of responsibility, with little oversight and supervision. The Investigating Committee suggested that the engineering firm review its internal systems for supervision, which it agreed to do. Furthermore, on the recommendation of the Investigating Committee, both the engineer and the firm provided written apologies to the home owner, and advised her of their learnings from the case.

CASE STUDY TWO

Alternative dispute resolution

An individual raised concerns with the Registration Authority that a chartered professional engineer had issued an inaccurate report about his property. The report was commissioned by the individual's insurer to assess post-earthquake damage to the property. The engineer accepted that the report was inaccurate but noted that the errors were easily made due to the limited information available at the time.

Before the matter could be referred to an Adjudicator, the complainant provided some further submissions. The complainant explained that he had been having some personal problems as a result of the inaccurate report and asked for the opportunity to convey the impact of the report to the engineer. In light of this further submission, the Registration Authority decided it would be appropriate to offer alternative dispute resolution to the parties. The parties agreed to a meeting with a trained facilitator engaged by the Registration Authority. The matter was resolved between the parties at the facilitation. The complainant thanked the Registration Authority for organising the meeting and said that he found it worthwhile and helpful.

Appendices

Appendix 1
CPEng fees for 2017

Initial registration

Charge or rebate	Amount (excl GST)
	($)
Registration application charge	3,253
less any of the following rebates that apply:	
if there is no engineering knowledge assessment	1,175
if there is no interactive assessment	270
for each assessor (if any) who is not remunerated for an assessment during which there is an interactive assessment	513
for each assessor (if any) who is not remunerated for an assessment during which there is no interactive assessment	378
for applicants exempted under rule 9(2) from having to provide certain information, if the assessment panel uses only a single interactive assessment	350

Registration certificates

Charge	Amount (excl GST)
	($)
Registration certificate charge for a certificate issued for one year commencing 1 January	460
Registration certificate charge for each calendar month, or part of a calendar month, for which a certificate is issued if issued for less than one year	40

Continued registration

Charge or rebate	Amount (excl GST)
	($)
Further interactive assessment charge	640
less the following rebate if it applies:	
for each assessor (if any) who is not remunerated for the further interactive assessment	225

Review of registration decision procedures

Charge	Amount (excl GST)
	($)
Charge for review of decision procedures	1,000

Voluntary abeyance

Charge	Amount (excl GST)
	($)
Charge for each 12-month period of abeyance	289

Appendix 2
Summary of fee income and costs incurred

	($)
Revenue from annual CPEng fees, fines and admission applications	**1,765,945**
Less:	
Operational costs	668,919
Professional standards costs	851,147
Complaints and litigation costs	72,009
Total Expenditure	**1,592,075**
Net Surplus	**173,870**

Notes:

1. All figures are for the year ended 30 September 2017 and are taken from the IPENZ audited accounts and associated management reporting.
2. Operational costs are an allocation of costs based on the relative membership numbers.
3. Professional standards costs are based on a direct allocation of costs associated with CPEng professional standards activity.
4. Complaints and litigation costs are the direct costs associated with receiving and processing complaints and costs associated with individual hearings.

This year's surplus of $173,870 compares favourably to last year's surplus of $74,561. The improvement in position is mainly due to the reduction in external legal costs associated with disciplinary hearings.

When the surplus for the year is added to the accumulated deficit from previous years it results in a carried forward deficit of $1,029,409. This deficit largely reflects un-recovered establishment costs (database, systems, standards development) and a shortfall in assessment fee charges relative to assessment costs, particularly in the early years of the register's operation.

REGISTRATION AUTHORITY
FOR CHARTERED PROFESSIONAL ENGINEERS

engineering new zealand
Institute of Engineering Professionals

The Registration Authority under the Chartered Professional Engineers of New Zealand Act 2002 is the Institution of Professional Engineers New Zealand (trading as Engineering New Zealand).

Registration Authority
PO Box 12 245, Wellington 6144
P 04 473 9444
E assessment@engineeringnz.org
www.registrationauthority.org.nz