



# 2023 Annual Report



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 2023

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 21st year of operation of the Chartered Professional Engineers (CPEng) Register.

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 Te Ao Rangahau).



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# Overview

## Introduction

The Registration Authority (RA) is pleased to confirm that all CPEng reassessments due have occurred and most registration applications are being progressed within a much-improved median timeframe of three months or less. As well as improved processing efficiency, we have worked to further strengthen the quality and consistency of the CPEng assessment process through:

- » better support and training for assessors
- » improved application guidance documents for applicants
- » more stringent CPD requirements
- » regular reporting and management of the Register
- » strengthened internal operations
- » quality assurance
- » proactive planning for upcoming assessments.

We are developing closer relationships with key industry stakeholders to understand opportunities for improvement of public safety outcomes.

## Key activities

Our key activities in 2023 were:

- » Completing over 1,200 CPEng assessments, registering 366 new CPEngs.
- » Improving training and support for assessors.
- » RA staff presenting at several industry seminars and conferences to educate stakeholders and the profession on CPEng registration.
- » Several meetings with Building Consent Authorities to improve relationships and understand the needs of stakeholders.
- » More frequent communications to the sector on improvements to CPEng.
- » Receiving 38 complaints about Chartered Professional Engineers and closing 24 complaints.
- » Consolidating the legal and complaints team; acknowledging the departure of two legal advisors and a senior legal advisor, and the hiring of a new manager, two new legal advisors, and establishing and recruiting a complaints officer.

## Highlights

Some of the highlights of our work in 2023 were:

- » Assessment process median timeframe of three months or less.
- » Two-day training workshop held with all Lead Assessors and quarterly refresher sessions held with Practice Area Assessors.
- » Lead Assessor operating manual reviewed and updated.
- » Policy for the appointment and onboarding of new assessors reviewed and updated.
- » Recruited and appointed six new Competency Assessment Board members to keep up with monthly reporting reviews
- » Draft Competence Assessment Framework developed, and bodies of knowledge and skill templates drafted for use.
- » Recognised Engineer (Dam Safety) assessment process implemented, and register established.
- » AI Policy published.
- » Initiated to implement identity verification as part of the assessment process, given recent fraud concerns and the increase in the use of AI tools which may pose a risk to the authenticity of assessment applications.
- » Initiated to introduce standardised questions for interactive interviews, as well as interviews with referees.
- » Initiated to review referee input as this is one of the key levers that can be used to verify the authenticity of applications.

## Challenges

In 2023, we focused our efforts on strengthening the quality, consistency and efficiency of the assessment process; and establishing closer relationships with key industry stakeholders. A key challenge that has come to light is a lack of alignment between CPEng registration and the building regulatory system. As part of the application, candidates need to write a Practice Area Description (PAD) – a short description of the area in which they have engineering knowledge and skills and the nature of their professional engineering activities. This is the area in which the engineer's competence is assessed, and the PAD enables the RA to assign the right assessment panel to evaluate the application.

The PAD is not published on the Register, as it was intended to be used for internal purposes only; namely to assign an appropriate assessment panel to an application. However, councils have been requesting the Registration Authority to confirm engineers' practice areas and, over time, have come to rely on the PAD as a quasi-license. Auckland Council maintains its own list of engineers which includes the engineer's practice area description. The Competency Assessment Board (CAB) has responded to the sector's reliance on practice area descriptions by paying closer attention to practice area descriptions, requiring engineers to prove competency in the years following the last assessment, limiting the practice area description to the work samples provided and having a determinative view on the practice area description which has led to disagreements with applicants.

We are currently exploring options for the introduction of registration classes that would better align with the requirements of Building Consent Authorities (BCAs), using the National Building Consent Competency Assessment System as a starting point for the development of the classes. This work will begin with identifying structural registration classes and will then be expanded to include classes for geotechnical and fire engineering.

Defining specific registration classes within the field of structural engineering offers several benefits including:

- » Improved clarity for applicants, providing clear guidance on the requirements for registering within a specialised structural engineering class.
- » Enhanced clarity and consistency among assessors, ensuring a unified understanding of the core competencies applicants must demonstrate for registration in these classes.
- » Increased transparency in the assessment process, fostering openness and accountability.
- » Strengthened trust in the assessment process, assuring stakeholders of its reliability and integrity.
- » Enhanced capacity of the CPEng register to meet the needs of councils, aligning with their requirements and streamlining the registration process.
- » Reduction in the need for additional engineering competence assessments from councils, potentially eliminating the necessity for separate council-specific registers.
- » Improved public knowledge and understanding of the significance and value of being registered in these specialised classes, promoting awareness and appreciation for the profession.

By actively pursuing the establishment of specific registration classes, the engineering community aims to enhance the overall effectiveness and efficiency of the competency assessment process while ensuring a robust framework for the recognition of specialised expertise in the structural engineering field.

## Financial challenges

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Although the backlog of assessments and reassessments has been cleared, this has come at a financial cost. We ended the financial year with a net financial deficit of \$214,919 on CPEng related activities (Appendix 2). From 1 January 2023 all fees increased by 10%. Although we incurred a deficit of \$214,919, the deficit incurred would have been approximately \$193,000 more had we not increased fees.

A key focus for 2024 will be to review the CPEng Rules to refine the assessment process and ensure that it manages risk and uses resources more effectively. A detailed review of assessment fees will be included in this work to ensure there is good alignment with fees charged and the actual cost to run the Registration Authority.

## Key statistics at a glance

At the end of the reporting period:

Number of registered CPEngS	4,532
Number of first-time applicants registered	432
Number of applicants declined registration	32
Number of engineers resigned or removed from the register	200
Number of registrations placed in abeyance	24
Number of registrations suspended	55
Number of disciplinary findings made against registered CPEngS <sup>1</sup>	0
<b>Charges payable for registration (less any rebates)<sup>2*</sup></b>	\$1,721.50
Charges payable for the issue of a registration certificate*	\$506.00

<sup>1</sup> This is down from 2 in 2022.

<sup>2</sup> \* Charges are set out in Schedule 2 of the Chartered Professional Engineers of New Zealand Rules (No.2) 2002.

# CPEng Review

Engineering New Zealand supports regulation of the engineering professionals in the interests of public safety. For the last decade, we have been working with government to change the way engineers are regulated. In 2024, Engineering New Zealand will focus on strengthening the CPEng regulations to achieve many of the reform objectives with minimal disruption. Engineering New Zealand has already established a new Chartered Professional Engineers Board to provide independent governance of the Registration Authority. It has also focused on improvements to both the registration and disciplinary processes. This process improvement work will continue.

In addition to improving processes, Engineering New Zealand will begin advocating to Ministers and officials for changes to the CPEng Act to strengthen its purpose and levers, as well as a review and rewrite of the CPEng Rules. Details are outlined below. Changes to the CPEng Act require the leadership of MBIE's policy teams and Ministerial sign-off. These changes may or may not happen in this next term of Government. Changes to the CPEng Rules can be led by Engineering New Zealand but require the support of MBIE and the Parliamentary Counsel Office. All changes require consultation with the engineering profession and industry.

## Chartered Professional Engineers Act of New Zealand 2002

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Proposed changes include:

- » Changes to the purpose of the Act (section 3) to establish the title of Chartered Professional Engineer as a mark of quality and to protect the health and safety of the public by ensuring the competency of Chartered Professional Engineers
- » Increased fines for anyone using the title of Chartered Professional Engineer without being registered (clause 7) and increased disciplinary penalties (section 22)
- » Changes to liability settings (section 33).

## Chartered Professional Engineers Rules (No 2) 2002

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Rewrite to implement procedural changes to streamline the system and better address risk across both registration and disciplinary procedures.

# Strategic priorities for 2024

The Registration Authority will prioritise its own occupational regulation work under the current CPEng Act. In the first quarter of 2024, we will establish a work programme that involves:

- » Advocating for changes to the CPEng Act, noting that this may take years as it is unlikely to be a priority for this Government.
- » Improve regulation under the current regime, reviewing and rewriting the CPEng Rules to improve CPEng regulation for public safety.
- » Changes to the Code of Ethical Conduct to include public safety, and other New Zealand-specific considerations.
- » Consequential membership class changes.

Engineering New Zealand will also consider consequential changes to its membership classes including the possible disestablishment of its Chartered Member class to ensure that confusion between the Chartered Membership class and CPEng registration is mitigated.

# Competence assessment

## Applications for initial registration

During 2023, 432 first-time applicants successfully gained CPEng registration, exceeding our annual target of 400. We no longer use monthly 'assessment rounds' for first-time applicants as we now have capacity to manage all new applications submitted when they are received, which number about 40 per month.

## Applications for continued registration

There is no longer any backlog of reassessments, and careful planning has been done to ensure capacity is managed over the next two years. Almost 800 reassessments are due in 2024 (compared to 553 due in 2022). Six cohorts have been planned for the year and all Registrants have been notified of their respective due dates. Names of Registrants currently going through the assessment process are published on the Engineering New Zealand Te Ao Rangahau [website](#). The list is also sent to building consent authorities (BCAs) to encourage feedback on applicants.

The table below shows the number of registrants due over the next five years.

*Table 1: Number of registrants due over the next 5 years*

2024	2025	2026	2027	2028 <sup>3</sup>
798	999	719	775	593

## Registration of Recognised Engineers – Dam Safety

In 2022, the Government approved new regulations on dam safety (Building (Dam safety) Regulations 2022) that take effect on 13 May 2024. Under the regulations, engineers will be registered to audit and certify potential impact classifications (PIC) and/or dam safety assurance programmes (DSAP). All Recognised Engineers must be Chartered Professional Engineers (CPEng).

Engineering New Zealand Te Ao Rangahau, as the Registration Authority for Chartered Professional Engineers, is responsible for assessing and registering Recognised Engineers. Together with the New Zealand Society on Large Dams (NZSOLD), and supported by the Ministry of Business, Innovation & Employment (MBIE), we have developed the framework for the required Recognised Engineer qualifications and competencies to be assessed.

In 2023, the RA published application guidance and a knowledge base for Recognised Engineers, held a webinar, and presented at the NZSOLD symposium. We registered the first eight Recognised Engineers and trained them to be the first Practice Area Assessors (PAAs) to evaluate applications. The register for Recognised Engineers has been established. At the time of reporting<sup>4</sup> there were 16 registered Recognised Engineers (Potential Impact Classification), and 16 registered Recognised Engineers (Dam Safety Assurance Programmes).

## CPEng Board

The CPEng Board currently comprises of the following members:

- » Keryn Kliskey (Chair, civil)
- » Debbie Scott (Deputy Chair, fire)
- » Avik Halder (SAB representative, civil)
- » Matt Harris (CAB representative, civil)
- » Geoff Farquhar (geotechnical)
- » Paul Campbell (structural)
- » Mel Orange (lawyer)
- » Stewart Gutsell (mechanical)

<sup>3</sup> Likely to increase as new registrants from 2024 will be due in 2028.

<sup>4</sup> 7 March 2024

Appointments to the CPEng Board were made in December 2021 by the Governing Board following an expression of interest process managed by Engineering New Zealand. The Chair and Deputy Chair were selected by the CPEng Board during its inaugural meeting in February 2022.

Having a cohesive board with the right mix of skills, experience, and knowledge is a fundamental requirement for a governance board in achieving good performance. In 2023 the CPEng Board increased its technical diversity in the geotechnical discipline with an additional appointment of Geoff Farquhar. The Board also amended its terms of reference to include the appointment of a consumer representative such as a representative from a Building Consent Authority.

## Competency Assessment Board

The Competency Assessment Board (CAB) operates in accordance with the provisions outlined in the Chartered Professional Engineers of New Zealand Act 2002, and the Chartered Professional Engineers of New Zealand Rules (No 2) 2002 (Rules).

The CAB's primary responsibility is to moderate the process of assessments conducted and reported by the Assessment Panels. Subsequently, the CAB decides whether a candidate's application, as evaluated by the Assessment Panels, aligns with the minimum requirements specified in the Rules. This scrutiny by the CAB is essential for ensuring consistency across applications and making informed decisions regarding the approval or decline of a candidate's application for chartered engineer status in New Zealand.

In 2023, improved processing efficiency and an increasing number of assessment applications meant that the CAB needed more members to assist with monthly reviews of assessment reports. The CAB appointed an additional six members, bringing the total to 12 members by the end of 2023. The CAB met monthly during the reporting period (except for January where there was no meeting) to consider recommendations from Assessment Panels.

The CAB is looking forward to welcoming Brady Cosgrove as the new Chair in April 2024, taking over from Daniel Kennett. With application numbers set to increase in 2024 and 2025, the CAB plans to seek an additional two members in 2024. CAB Members are Chartered Professional Engineers with extensive experience in, and knowledge of, professional engineering. In appointing members, the Registration Authority looks for candidates with experience in competency assessments and quality assurance of competency assessments. Consideration is given to geographical representation, diversity, and inclusivity within the CAB membership.

*Table 2: Current CAB members*

Name	Field(s)	Location	Date first appointed	Reappointed	Expiry date of present term
Daniel Kennett (Chair)	Structural	Christchurch	1/04/2018	1/04/2020 1/04/2022	1/04/2024 (final term)
Sisira Jayanatha	Civil, Environmental	Wellington	1/04/2019	1/04/2021 1/04/2023	1/04/2025 (final term)
Dominique Therandt	Chemical	Timaru	1/04/2020	1/04/2022	1/04/2024 with possibility of renewal for another term.
Brady Cosgrove	Fire	Christchurch	1/04/2020	1/04/2022	
Matt Harris (CPEng Board rep)	Civil, Structural	Christchurch	1/04/2020	1/04/2022	
Rachel Wright	Civil, Geotechnical, Structural	Whangarei	1/04/2022	Possible renewal for 2 more terms.	1/04/2024
Jan Kupec	Geotechnical, Engineering Management	Christchurch	1/04/2023		1/04/2025
Victor Mthamo	Civil, Environmental	Rolleston	1/04/2023		1/04/2025
Alasdair Sinclair	Structural	Wellington	1/04/2023		1/04/2025
Richard Snow	Electrical, Engineering Management	Auckland	1/04/2023		1/04/2025
Vincent Wong	Structural	Christchurch	1/07/2023		1/07/2025
Brandon Ducharme	Engineering Management	Queenstown	1/08/2023		1/08/2025

## Assessors

The policy for appointing and onboarding assessors was reviewed and updated in 2023. The number of assessors is shown below.

*Table 3: Summary of assessor numbers as at end of 2023*

Assessor Type	2020	2021	2022	2023
Practice Area Assessor	448	464	416	438
Contract Lead Assessor	24	23	40	43
Engineering New Zealand Staff Lead Assessor	3	2	2	2
Knowledge Assessor	4	4	4	5

### Lead Assessors

A detailed new assessor manual was written in 2023 and a two-day workshop was held with all lead assessors in March 2023. The training enabled assessors to learn from each other and has led to improvements in the consistency of evaluations, and the quality of reporting. Lead assessors also met monthly in 2023 to share knowledge, discuss challenges, and receive updates from the CAB and Registrar.

### Practice Area Assessors

Practice Area Assessors (PAAs) are expected to work on at least two assessments per year to stay up to date with assessment processes and expectations. The RA provides quarterly refresher training sessions, and these have been optional in the past. The RA is considering making attendance at refresher sessions mandatory and is also initiating work to further improve the onboarding and training provided to PAAs. The RA reviews the list of (PAAs) quarterly and would like to include key industry stakeholders (for example, technical groups, building consent authorities) in these reviews to ensure that the right people are serving the industry in this crucial role. In 2024, we plan to establish a mechanism for the list of PAAs to be endorsed by industry.

### Structural triage panel

We currently have two Lead Assessors and 10 expert structural PAAs on the structural triage panel. Now that the backlog of reassessments has been eliminated, the Structural Triage team are able to work through reassessments as they come through and there is no current need to boost numbers on the Panel. The names of the expert structural assessors on the triage panel are published on Engineering New Zealand's [website](#).

# Register/assessment trends

Table 4 provides a summary of key registration and assessment statistics, including those required by section 52(2) of the CPEng Act.

*Table 4: Registration statistics*

Registration statistics for	2019	2020	2021	2022	2023
(A) Chartered Professional Engineers at the end of the reporting period (see figure 1 for longer-term-trend)	3,879	4010	4,251	4,300	4,532
(B) Applicants (first) registered during the reporting period	247	398	421	247	432
(C) Applicants (first) registered via mutual recognition (subset of B)	31	31	36	33	66
(D) Applicants declined registration during the reporting period	6	23	25	21	23
(E) Total Assessments for Admission completed (B+D) - (see Figure 2 for longer-term trend)	253	421	446	268	464
(F) Assessment for Admission pass rate	97.5%	95%	95%	92%	95%
(G) Continued Registration Assessments completed (See figure 2 for longer term trend)	507	587	461	836	750
(H) Registrants resigned or removed during the reporting period (see note 1)	153	79	89	157	209
(I) Registrants suspended during the reporting period	133	117	92	72	55
(J) Registrants placed in abeyance during the reporting period	48	36	42	30	24
Median Processing times (business days)					
Assessments for Admission	120 days	101 days	116 days	139 days	65 days
Continued Registration Assessment	160 days	147 days	151 days	238 days	47 days

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 number of registrants who resigned or were removed from the register during a year includes registrants whose registration was already in suspension at the beginning of that year.

## Overall registration numbers

In 2023, the growth rate of CPEng registration has picked up again, after easing in 2022 due to our focus on eliminating the reassessment backlog. The growth in CPEng registration numbers is now back on trend, as illustrated in Figure 1.

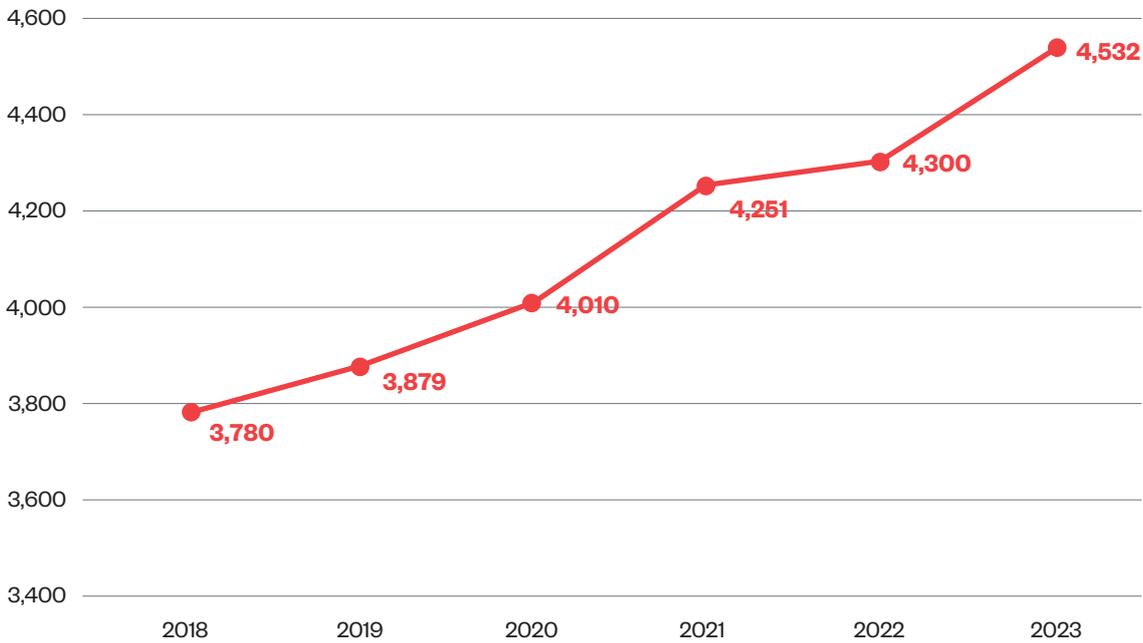


Figure 1: Number of CPEng Registrants

## Assessment numbers

With the elimination of the backlog of reassessments, we have been able to complete more first-time assessments in 2023.

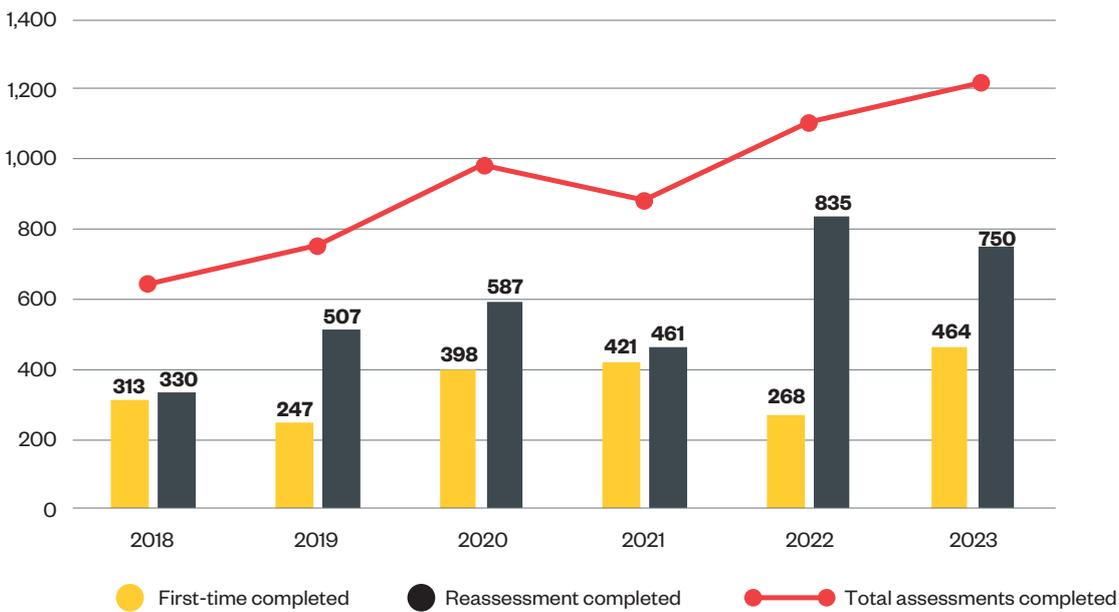


Figure 2: Number of assessments processed

## CPEng Registration under Mutual Recognition

Sixty-six engineers successfully applied for CPEng under mutual recognition schemes in 2023. The successful applicants came via the Trans-Tasman Mutual Recognition Act (TTMRA) or through mutual recognition from other jurisdictions.

We continue to apply the policy developed in 2004 for handling applications for CPEng from Registered Professional Engineers Queensland (RPEQ) in compliance with the TTMRA. The same principles are applied to those who have attained registration in other jurisdictions that require an equivalent level of competence to CPEng.

Significantly, in 2023 the Board of Professional Engineers of Queensland (BPEQ) began refusing CPEng's applications to become Registered Professional Engineers of Queensland (RPEQ) under section 18 of the TTMRA 1997. BPEQ justified its refusal on the basis that registration as a CPEng under the Chartered Professional Engineers of New Zealand Act 2002 (the CPEng Act) is not equivalent to or substantially the same as registration as an RPEQ under Professional Engineers Act 2002 (Qld).

We sent a letter of appeal to the BPEQ. They responded they are maintaining their position to no longer recognise CPEng on the basis they believe the TTMRA only applies to the mutual recognition of compulsory registration regimes. We are now considering next steps and will be working on a potential pathway for CPEngs with the support of Engineers Australia. It is understood there may be similar issues with mutual recognition of registration schemes between Australian states.

## Assessment processing times

In 2023 we successfully reached our goal of completing CPEng assessments within a three-month timeframe. This was made possible through increased lead assessor capacity, increased CAB capacity, improved candidate guidance to uplift the quality of submitted portfolios, provision of a detailed assessor manual, and optimising internal processes. Initial applications for registration are now being processed in a median timeframe of 65 days, while reassessments are processed in a median timeframe of 47 days – a significant improvement from previous years (see Table 2 for year-on-year comparison).

## Assessment pass rates

The pass rate for CPEng improved in 2023, from 92% in 2022 to 95% in 2023. This might be attributed to much clearer guidelines for applications, which has led to a notable improvement in the quality of applications submitted.

## Gender breakdown

There are currently 510 females registered as CPEng, compared with 480 in 2022. The proportion of female CPEngs increased slightly from 11% in 2022 to 11.2% in 2023.

Increasing the representation of women in the engineering profession remains a critical issue, but one that requires a sustained, multi-faceted approach. The Diversity Agenda is Engineering New Zealand's key leadership initiative for the profession and has over 160 firms committed to driving change. In 2020 the Diversity Agenda was enhanced by the launch of the Diversity Agenda Accord, which has drawn formal commitments from chief executives and business owners to diversity objectives and targets.

Engineering New Zealand's work on the Diversity Agenda and Accord helps the Registration Authority achieve its wider targets for diversity across CPEng.

Beyond that, Engineering New Zealand's innovative schools programme, the Wonder Project, focuses on engaging young people – particularly girls, Māori and Pasifika – to shift perceptions about STEM subjects and the impact that engineers can have on society. The aim is that the Wonder Project will eventually have a positive flow-on effect for the CPEng register.

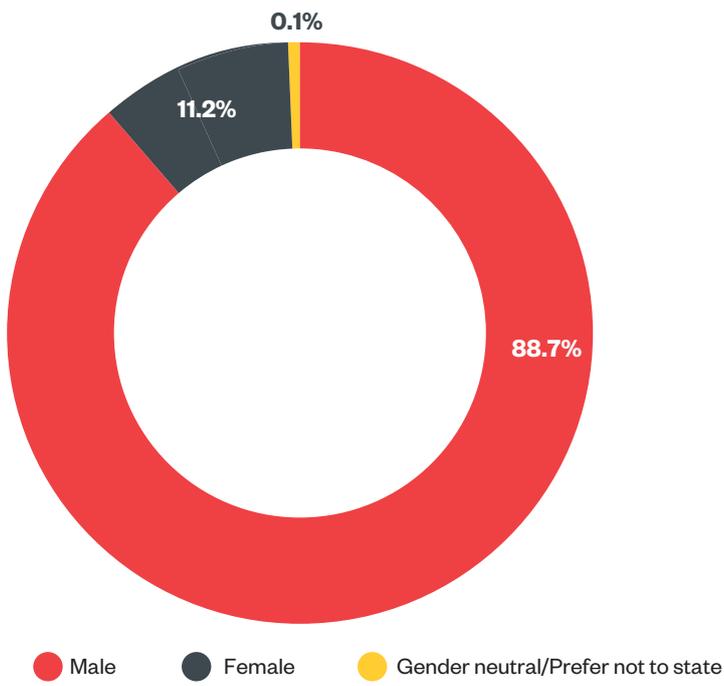


Figure 3: Gender breakdown of CPEng registrants

Table 5: Gender breakdown of CPEng registrants 2018–2023

	Female	Male	Gender diverse/ Prefer not to state
<b>2023</b>	11.2%	88.7%	0.1%
<b>2022</b>	11%	88.9%	
<b>2021</b>	10.6%	89.4%	
<b>2020</b>	9.8%	90.2%	Not available
<b>2019</b>	9.7%	90.3%	
<b>2018</b>	9.2%	90.8%	

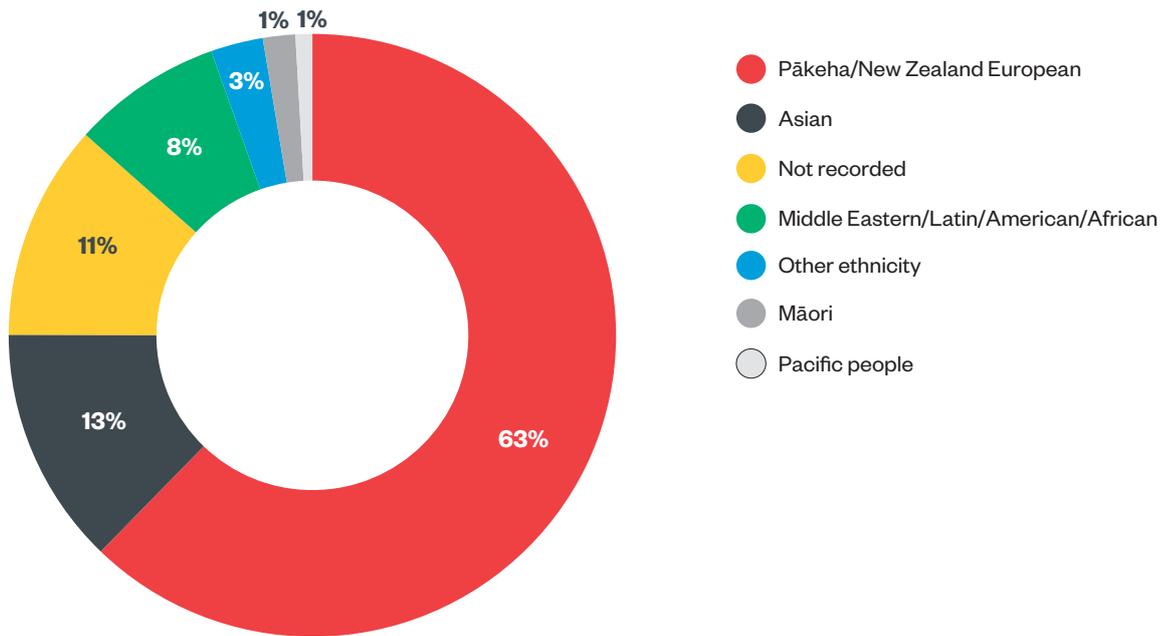
# Te Ao Māori

Māori have been, and continue to be, underrepresented in the profession. While providing ethnicity data to the Registration Authority is optional, the data we hold show only 2% of CPEngS identify as Māori, a slight increase from last year (1%).

Engineering New Zealand's Te Ao Māori strategy is [Kimihiā Rangahaua](#), guided by an external advisory group, Papaki Parihau. A work plan is now being developed for implementing its strategy. Work being scoped in the RA includes upskilling assessors and strengthening our guidance material/assessment processes. Current actions related to CPEng are given below.

<p><b>We hold the profession and ourselves to account for our collective responsibilities under Te Tiriti o Waitangi</b></p>	<p>» Our Code of Ethical Conduct is updated to reflect Te Tiriti</p>	<p>» To be scoped in the 2023/24 financial year.</p>	<p>» Plan presented to Papaki Parihau for advice in September 2024.</p>
	<p>» Cultural competency, including an understanding of Te Tiriti and mātauranga (Māori worldview as relevant to engineering discipline) is a core skill for chartership assessments.</p>	<p>» Assessors undertake Te Tiriti training</p> <p>» CPEng assessment guidance updated to include Te Tiriti and mātauranga</p> <p>» Assessment questions to include prompts for discussion on Te Tiriti and mātauranga</p>	<p>» Assessors all undertake introduction course (September 2024)</p> <p>» Guidance updates to Papaki Parihau by February 2024 and incorporated by March 2024</p> <p>» Assessment questions to be provided to Papaki Parihau by February 2024 and incorporated by March 2024</p>

Figure 4: Ethnicity of CPEng registrants



## Age distribution

Figure 5 below shows a distributed age profile of CPEng's. Engineers tend to follow wider workforce trends of working longer, with 4% of registrants working and contributing to the profession in the 70–89 age bracket. The age distribution of registrants remained relatively stable in 2023 compared with previous years.

Figure 5: Age distribution of CPEng registrants

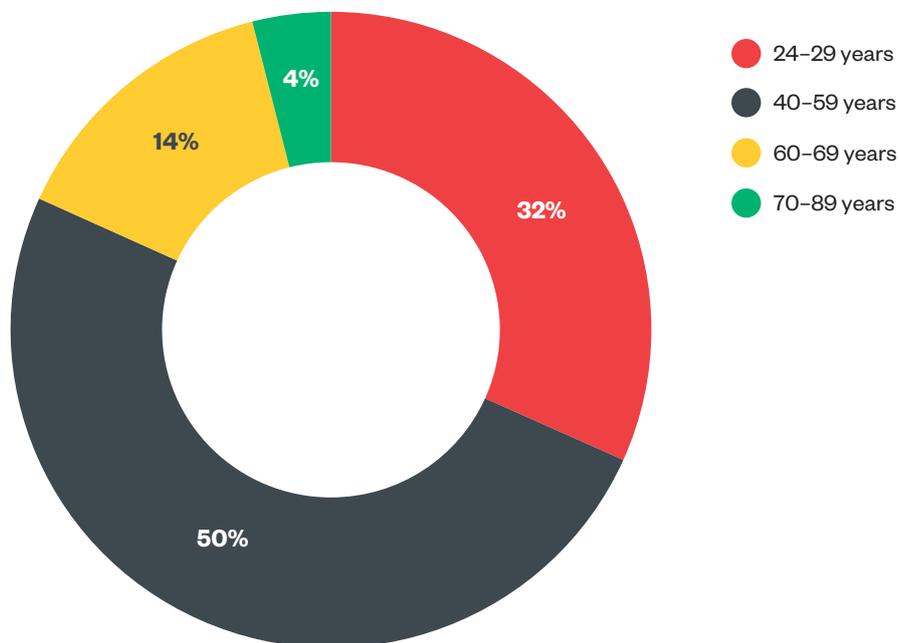


Table 6: Age distribution of CPEng registrants 2017–2023

	24–39 years	40–59 years	60–69 years	70–89 years
<b>2023</b>	31.7%	50.1%	14.3%	4.0%
<b>2022</b>	30.7%	50.4%	15%	3.9%
<b>2021</b>	32.0%	49.1%	14.6%	4.1%
<b>2020</b>	30.1%	49.2%	15.9%	4.8%
<b>2019</b>	29.1%	50.1%	16.3%	4.5%
<b>2018</b>	28.8%	50.9%	16%	4.3%
<b>2017</b>	27.6%	51.6%	16.7%	4.3%

## Fields of engineering practice

As part of their portfolio of evidence for either their first-time assessment or reassessment, candidates self-declare the practice field they consider their practice area best aligns. Candidates are also able to select more than one practice field. From January 2023, we began requiring candidates applying for more than one practice field to provide an additional 15 hours of CPD per year for each additional practice field.

The information in Table 7 provides the number of current registrants in a practice field. NB: totalling the number of registrants across all fields will exceed the total number of current CPEng registrants.

*Table 7: Distribution of CPEng registrants by practice field*

	2018	2019	2020	2021	2022	2023
<b>Structural</b>	1,199	1,258	1,402	1,457	1,471	1,542
<b>Civil</b>	1,439	1,427	1,505	1,415	1,336	1,349
<b>Management</b>	562	520	499	420	421	439
<b>Geotechnical</b>	337	354	392	401	406	427
<b>Transportation</b>	323	311	352	345	344	359
<b>Water</b>	0	2	48	126*	220	304
<b>Mechanical</b>	298	285	306	315	317	300
<b>Electrical</b>	248	241	277	270	267	299
<b>Environmental</b>	392	382	380	312	276	254
<b>Building Services</b>	160	187	224	227	238	246
<b>Fire</b>	91	93	97	108	110	120
<b>Industrial</b>	116	113	119	123	107	102
<b>Chemical</b>	37	31	35	31	22	30
<b>Petroleum</b>	36	34	33	32	27	21
<b>Construction Engineering (NEW)</b>	0	0	0	0	0	19
<b>Academic</b>	5	6	1	1	10	15
<b>Information</b>	21	20	17	14	14	14
<b>Aerospace</b>	12	11	11	10	8	7
<b>Mining</b>	8	6	6	7	6	5
<b>Mechatronics</b>	0	0	0	0	3	3
<b>Bio</b>	2	0	1	1	0	0
<b>Software</b>	0	0	0	0	0	0

\*The increase in the number of CPEngs in the Water Discipline in 2021 can be attributed to a general desire to have a recognised water and waste workforce stemming from the previous Government's Three Waters reform programme. The demand for CPEng Water engineers with recognised skills and experience continued in 2022 and 2023.

## Geographical distribution

Table 7 shows the geographical distribution of CPEng registrants that are also members of Engineering New Zealand Te Ao Rangahau. When undertaking reassessments, a challenge for engineers practicing overseas is demonstrating that they are still able to comprehend and apply knowledge of accepted principles underpinning widely-applied good practice for professional engineering specific to Aotearoa. In 2023 we published new guidance for international applicants to define New Zealand specific competencies for professional engineers, and the evidence that is required to demonstrate these.

*Table 8: Geographical distribution of CPEng registrants*

	2018	2019	2020	2021	2022	2023
<b>Northland</b>	64	60	68	71	71	72
<b>Auckland</b>	1358	1,390	1,558	1,628	1,642	1,803
<b>Waikato-Bay of Plenty – Hamilton</b>	216	225	248	254	250	273
<b>Waikato-Bay of Plenty – Tauranga</b>	117	123	136	157	162	188
<b>East Coast</b>	4	4	6	6	5	5
<b>Taranaki</b>	78	76	79	80	80	84
<b>Hawke's Bay</b>	78	67	75	82	84	90
<b>Whanganui</b>	11	11	11	11	9	11
<b>Manawatu</b>	44	42	42	36	36	41
<b>Wellington</b>	439	430	464	486	489	537
<b>Nelson-Marlborough</b>	79	80	88	93	87	93
<b>West Coast</b>	10	11	12	10	9	9
<b>Canterbury</b>	618	645	742	728	737	795
<b>South Canterbury</b>	13	12	15	20	19	19
<b>Otago</b>	120	117	128	122	126	134
<b>Southland</b>	23	19	21	21	20	19
<b>United Kingdom</b>	39	46	47	32	30	29
<b>No branch*</b>	351	200	200	257	149	159
<b>CPEng Non-members**</b>	118	321	227	157	295***	171
<b>TOTAL</b>	3780	3,879	4,167	4,251***	4,300	4,532

\*CPEng/Engineering New Zealand members overseas (outside of the UK) or not affiliated to a branch in Aotearoa.

\*\*Registered CPEng who are not Engineering New Zealand members and therefore not members of a branch

\*\*\*The increase in the number of CPEngs who are not members of Engineering New Zealand may be attributed to the increasing cost of living, or potentially due to them not seeing the need to be both CPEng and Engineering New Zealand members.

\*\*\*\*The 2021 total included those CPEng on voluntary hold (4), in abeyance (42) and suspended (117).

# Complaints and disciplinary activity

## Key themes and highlights

The theme of 2022 in the complaints and disciplinary space was noted as being **disruption**, a theme which has more or less continued, but with more of a focus on moving towards reformation and improvement. As such, the theme for 2023 was **change**.

The 2022 report noted the high level of staff turnover, including the departure of the legal team's two most senior members. Compounding the challenges associated with recruiting and upskilling new staff was an influx of new complaints in the last third of the year.

It was hoped that 2023 would be a return to form with the full staffing of the legal team, and for a time the legal team was fully staffed with the hiring of a new legal team manager, who had arrived shortly after the new General Counsel in March 2023. Unfortunately, towards the end of the year three legal advisors (including the senior legal advisor) resigned. In the intervening period, the team had been focused on familiarising themselves with the complaints process, while at the same time looking for ways of improving that process both in terms of efficiency and regulatory efficacy. As such, the new vacancies presented an opportunity to introduce a structural change to the process, and along with the hiring of two new legal advisors was the hiring of a complaints officer in October and November.

After a long year of learning, listening and brainstorming, the establishment of this position represented the first concrete step towards the reformation of the complaints process, a journey which will continue at least for most of 2024. With the introduction of a KPI for reducing the median time to complete a complaint by 10%, we look forward to a faster closure rate as the changes to the process begin to be realised. This is on top of other beneficial outcomes that we aim to bring about with the changes, ultimately making the process a better experience for all participants.

# Complaints snapshot

## Concerns/complaints received

We received 38 concerns/complaints about Chartered Professional Engineers during the 2023 calendar year.<sup>5</sup> This is 13 more than in 2022 and five more than in 2021. The majority of concerns and complaints continue to come from engineers' private clients, but we also have a mix of concerns from other engineers, building consent authorities and other third parties.

## Jurisdiction

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We set clear boundaries and manage complainants' expectations by explaining our role and powers – we only have the jurisdiction granted to us under the Chartered Professional Engineers of New Zealand Act 2002 and the associated Rules, including to investigate whether there has been a breach of the Code of Ethical Conduct or a failure to meet the competency standards – we do not have the power to resolve commercial disputes. We encourage complainants who are seeking financial outcomes to consider other options, such as the Disputes Tribunal. Complainants who come to our process with financial goals at front of mind are often dissatisfied with the eventual outcome, particularly as the disciplinary process does not include any powers or penalties that involve compelling an engineer to take any particular action (eg doing particular work), or to financially compensate a complainant.

## Concerns/complaints closed

We are obliged to respond to all complaints we receive.

Our first step on receiving concerns is to undertake an initial investigation. During this stage we ascertain if the Registration Authority has the jurisdiction to investigate the complaint and whether it is suited for our early resolution procedures. More than half of the complaints we receive are resolved before they get to the Investigating Committee stage, through jurisdictional dismissals, early resolution, there being no applicable ground of discipline, or other similar reasons. We remain proud of our efforts to encourage parties to resolve matters between themselves, rather than resorting to more adversarial outcomes available through the formal process. While the formal process certainly has its place (we take care to ensure legitimate competency or behavioural concerns are appropriately handled), it does not promote the restoration of trust and confidence between a client and engineer. For low-level concerns regarding communication or client care, early resolution is a valuable tool, as can be seen from the case study later in the report.

As noted in previous annual reports, the only limitation of early resolution of low-level concerns is the parties' willingness to engage; both parties need to agree to concerns being resolved this way. We will continue to work with parties to help them see the value in this method of resolution where possible.

Any complaints which are not resolved by some form of early resolution are then referred to an adjudicator then potentially to an investigating committee. Both of those decision makers have the ability to recommend the parties attempt alternative dispute resolution, though that option is typically exhausted by the time a dispute reaches the investigating committee.

The formal complaints process has three decision-making stages: initial investigation (culminating in a decision of the chair of investigating committees); investigating committee; and disciplinary committee. A complaint may be dismissed at any of these three stages but can only be upheld by a disciplinary committee. As can be seen in Figure 6 below, it is very rare for a complaint to be dismissed by a disciplinary committee. If the complaint has not been able to be dismissed by an adjudicator or investigating committee, it is more likely that not that there is sufficient evidence and gravity to uphold the complaint, although this is not a foregone conclusion.

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<sup>5</sup> We interpret this literally as the number of complaints about CPENg, rather than the number of CPENgs who have complaints against them. We calculate this by counting the number of complaints raised that involve a CPENg, by reference number, rather than the number of CPENgs complained about. For example, we might have a single complaint (under one reference number) about three different engineers (hypothetically, the engineer who did the work, the peer reviewer, and the director of the firm), two being CPENgs, and one only being a member. As there is only one reference number, this would count as one complaint about CPENgs, rather than two.

## Manner of resolution

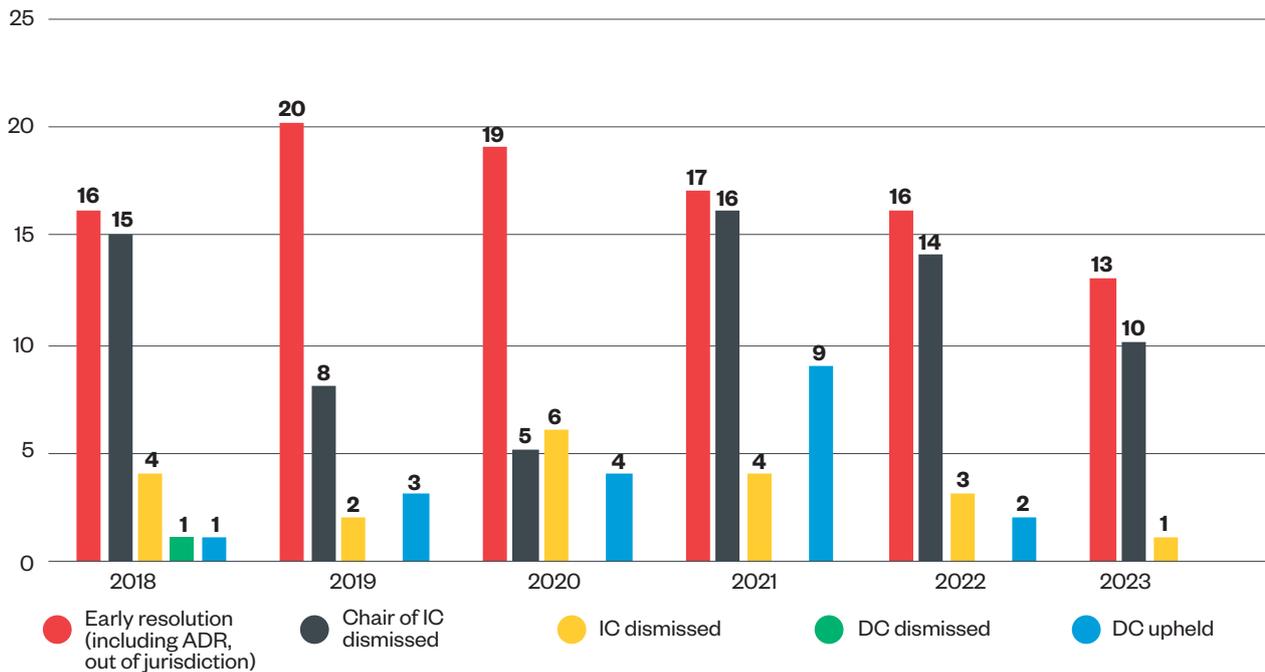


Figure 6: Manner of resolution of complaints files

The figure above shows the manner of resolution for concerns/complaints. The proportion of matters being resolved at an early stage remains pleasing.

Disciplinary committees did not make any decisions about CPEng in 2023. However, by the end of 2023, there were three matters involving CPEngs before disciplinary committees, so it is expected that 2024 will yield more disciplinary committee decisions. Where possible, these decisions will be published on Engineering New Zealand's website.

At the end of 2023, nine CPEng complaints were being considered by investigating committees.

## Year on year comparison: Open files, concerns received, and files closed

In 2022 we closed 37 complaints about CPEngs and received 25 complaints. 2023 saw a reversal of fortunes, as we received more concerns about CPEngs (38) than we closed (24). The total number of open CPEng complaint files at the end of 2023 was 49.

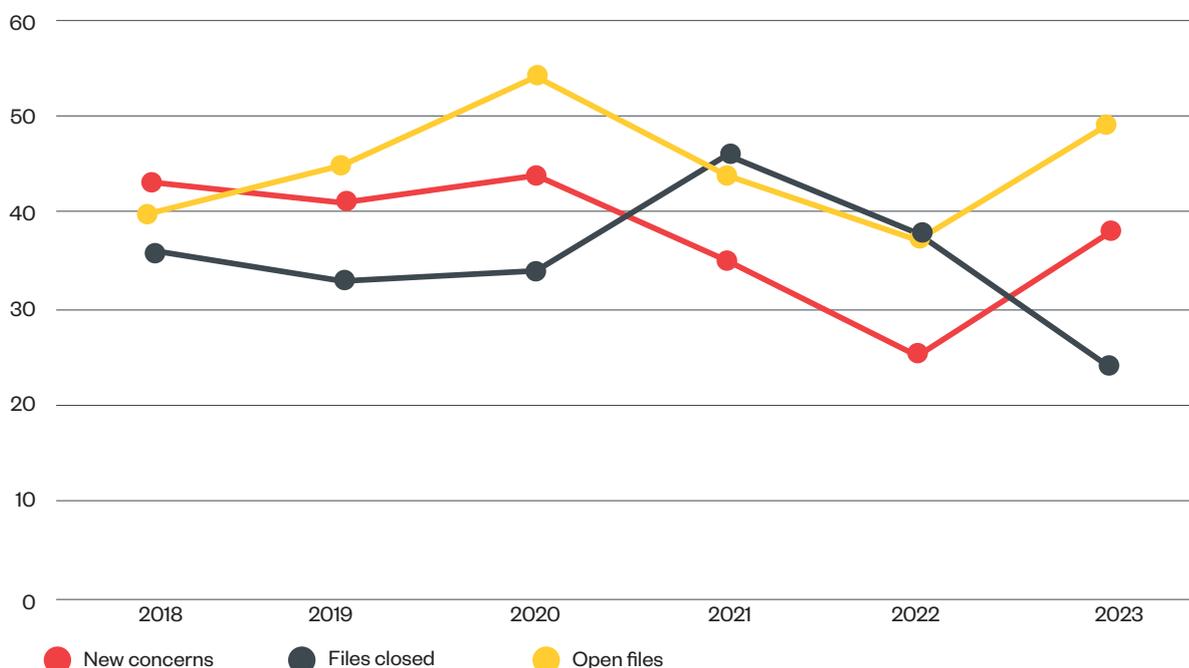


Figure 7: Comparison of open files, concerns received, and files closed: 2018–2023

The length of time it takes to resolve a complaint varies due to factors including:

- » the technical complexity of the subject matter
- » the responsiveness and engagement of the parties
- » the availability of decision-makers and expert advisors
- » time spent exploring the possibility of early resolution; and
- » the complaints team's case load.

We look forward to continuing to implement improvements to the complaints process, to allow us to reverse course and return to closing at least as many complaints as are received. This should also naturally occur as our new legal advisors become more accustomed to the complaints space.

## Decision maker capability

In accordance with the Rules, we keep a list of Investigating Committee Chairs and Disciplinary Committee Chairs, along with a list of engineers who have agreed to be members of these committees. These are volunteer positions.

We work closely with our decision makers to ensure robust, fair, and proportional decision-making. While the team tries to move complaints through the process quickly, one of the factors that contributes to the length of time a complaint takes to move through the process is the availability of our decision makers. As of December 2023, we had five active Investigating Committee Chairs (three less than at the same time the year before),<sup>6</sup> and three Disciplinary Committee Chairs.<sup>7</sup> Investigating Committee Chairs also act as decision makers as to when complaints are referred to Investigating Committees and are therefore expected to make a large number of decisions.

We are committed to ensuring the roles of our decision makers are sustainable ones. We have been working to increase the number of members available to sit on committees, with the intention that they will eventually become Chairs.

<sup>6</sup> One has had their term expire and has indicated that he is unsure if they want to continue. Another wishes to step down

<sup>7</sup> There are two other disciplinary committee chairs, but for singular specific files, and so are excluded from this count.

## Themes and trends

The 24 concerns/complaints closed in 2023 have been categorised according to the practice field of the engineer involved.

Consistent with previous years, the greatest number of complaints we receive are about structural engineers. We believe this is largely due to there simply being a greater number of structural engineers in practice, as opposed to the quality of structural engineers. Similarly, structural engineers often have more direct and frequent contact with their clients, who are usually members of the public. Structural engineers also have more public visibility than other parts of the profession.

*Table 9: Practice fields relating to complaints closed<sup>8</sup>*

Year	2018	2019	2020	2021	2022	2023
<b>Structural</b>	33	22	24	18	21	16
<b>Civil</b>	2	6	6	1	5	5
<b>Geotechnical</b>	2	1	3	2	8	3
<b>Water</b>	-	-	1	-	-	-
<b>Transport</b>	-	2	-	1	2	-
<b>Fire</b>	-	1	-	-	1	1
<b>Environmental</b>	-	-	-	-	-	1

## Appeals to CPEC

Until recently, the number of appeals to CPEC on complaints matters had historically been around three a year. This spiked in 2021 to a record of 12 appeals. We were pleased to see that number reduce in 2022 with only four new appeals being received, and only three in 2023.<sup>9</sup>

Two of the appeals were brought by complainants unsatisfied that the Chair of the Investigating Committee had dismissed their complaints, while the third was by a respondent engineer who was appealing a decision to refer the complaint about them to an investigating committee. The decision to refer the matter to an investigating committee was overturned, and the appeal upheld. While both of the decisions to dismiss complaints were upheld, and the appeals dismissed.

A significant majority of the verdicts of our decision makers continue to be upheld on appeal. We are confident the credibility of our decision makers, and the robustness of our process, is reflected in the low numbers of successful appeals to CPEC arising from complaints decisions.

## Learning from complaints

The legal team continues to include a regular column in Engineering New Zealand's quarterly EG magazine, building on case studies and emerging legal issues, and the Registration Authority sometimes contributes to Engineering New Zealand's fortnightly newsletter, Discover.

<sup>8</sup> Please note that there are 26 areas counted (with 24 complaints) as two complaints were multidisciplinary.

<sup>9</sup> The number is two/three because two of the appeals were combined – they involved reciprocal complaints when one engineer complained about the other, and the other complained about the original complainant in turn. Both complaints were appealed.

## GCCRS and CEIT

Engineering New Zealand has been assisting the Government with its Greater Christchurch Claims Resolution Service (GCCRS) since late 2018. Engineering New Zealand was very pleased to be working with the Government to extend the GCCRS model into a nationwide New Zealand Claims Resolution Service (NZCRS) in 2023.

The GCCRS provided a free case management service for residential homeowners in Christchurch who need assistance to resolve outstanding insurance claims. Engineering New Zealand administered an expert engineering Panel to assist the GCCRS with claims resolution. The panel offered peer review and expert advice. In addition, Engineering New Zealand operated a service to facilitate between engineers who have different opinions on earthquake damage and reinstatement. The facilitators are senior engineers specifically trained in facilitation and mediation techniques.

The services of the Panel were extended to the Canterbury Earthquake Insurance Tribunal (CEIT) when it was established in 2019. The Panel has provided engineering services to over 400 homeowners in resolving their claims. Feedback on the service continues to be extremely positive. The Panel's work is a direct response to what the Registration Authority has seen through complaints and has contributed to the successful resolution of some long-standing disputes between homeowners and insurance companies.

We look forward to assisting with the NZCRS in 2024 and beyond.

## Case study

As noted above, there were no disciplinary committee decisions in respect of CPENs in 2023. Thus, the following case study from 2023 illustrates how complaints are resolved in other, more amicable ways other than through the full disciplinary process. Encouraging the parties to achieve resolution between themselves helps to build trust and confidence in the profession.

### Work completed after complaint lodged

An engineering firm was engaged to complete a geotechnical assessment on the complainant's property. Communication from the firm was alleged to be poor, with work not commencing in a reasonable time due to an administrative oversight on the part of the firm. The report that was received out of the process contained errors, as did the second, third and fourth attempts at the report that the company provided when the errors were pointed out. At one point in this process, the firm stopped communicating with the complainants directly, and the complainants had to negotiate with them through a third party surveyor. The complainants were not satisfied with the situation and raised a complaint with Engineering New Zealand.

The complainants sought an accurate, fit for purpose geotechnical report from the firm, or a full refund. It was explained to the complainants that, even if disciplinary grounds are found, the Registration Authority would be limited by the orders that can be made under the Chartered Professional Engineers of New Zealand Act 2002, and a disciplinary committee could not order the engineers at the firm to issue a refund or issue an accurate report.

Nevertheless, an accurate report is what the complainants ended up receiving. After the complaint was forwarded to the firm, they produced a fit for purpose report that satisfied the complainants, who then requested the withdrawal of their complaint.

It is pleasing to see that the complaint process can be helpful in indirectly resolving the issues between engineers and their clients, even if the specific powers available through the disciplinary system are somewhat circumscribed.

# Financials

## Appendix 1: CPEng fees for 2023 (unchanged since 2022)

### INITIAL REGISTRATION

Charge or Rebate	Amount (\$) Excl. GST
Registration application charge	3,578.30
less any of the following rebates that apply:	
if there is no engineering knowledge assessment	1,292.50
if there is no interactive assessment	297.00
for each assessor (if any) who is not remunerated for an assessment during which there is an interactive assessment	564.30
for each assessor (if any) who is not remunerated for an assessment during which there is no interactive assessment	415.80
for applicants excused under rule 9(2) from having to provide certain information, if the assessment panel uses only a single interactive assessment	385.00

### REGISTRATION CERTIFICATES

Charge	Amount (\$) Excl. GST
Registration certificate charge for a certificate issued for 1 year commencing 1 January	506.00
Registration certificate charge for each calendar month, or part of a calendar month, for which a certificate is issued, if issued for less than 1 year	44.00

### CONTINUED REGISTRATION

Charge or rebate	Amount (\$) Excl. GST
Further interactive assessment charge	704.00
less the following rebate if it applies:	
for each assessor (if any) who is not remunerated for the further interactive assessment	247.50

### REVIEW OF REGISTRATION DECISION PROCEDURES

Charge	Amount (\$) Excl. GST
Charge for review of decision procedures	1,100.00

### VOLUNTARY ABEYANCE

Charge	Amount (\$) Excl. GST
Charge for each 12-month period of abeyance	317.90

## Appendix 2: Summary of fee income and costs incurred 2023

CPEng Annual Summary

Summary of fee income and costs incurred	2023	2022
	\$	\$
<b>Revenue from annual CPEng fees, fines and admission applications</b>	<b>3,051,552</b>	<b>2,441,353</b>
Less:		
Operational costs	1,041,899	871,658
Professional standards costs	2,029,201	1,393,068
Complaints and litigation	195,371	326,634
<b>Total Expenditure</b>	<b>3,266,471</b>	<b>2,591,360</b>
<b>Net Deficit</b>	<b>(214,919)</b>	<b>(150,008)</b>
Carry forward loss	(2,531,666)	(2,316,747)

### Notes:

- 1 All figures are for the year ended 30 September 2023 and are taken from The Institution of Professional Engineers New Zealand Incorporated (Engineering New Zealand) 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.

There is a carried-forward deficit of \$2,531,666 after this year's result.







**REGISTRATION  
AUTHORITY**  
FOR CHARTERED PROFESSIONAL ENGINEERS



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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).