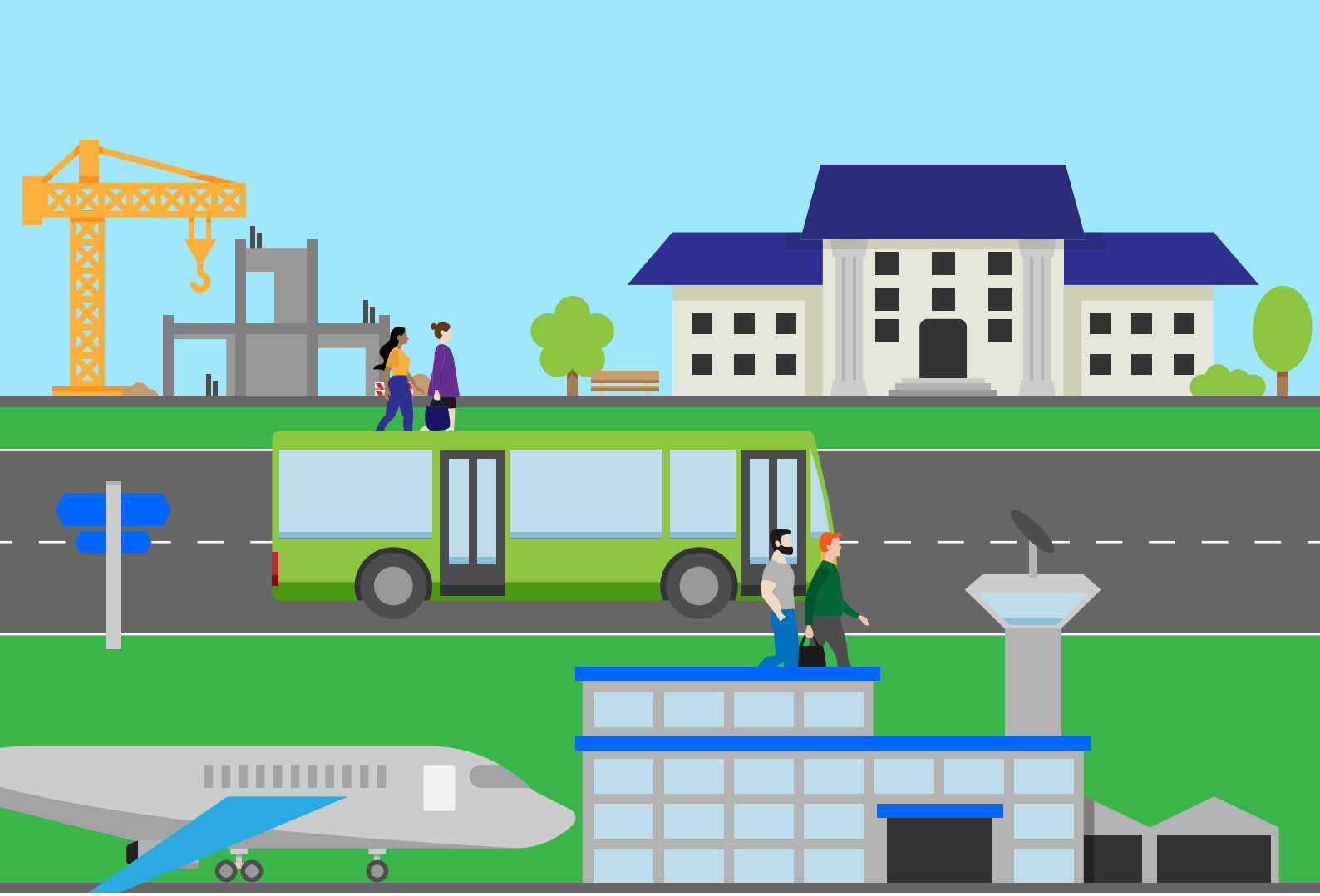

Engineering workforce long-term skills shortage

Action Plan 2025

engineering new zealand
te ao rangahau

ACE

WAIHANGA ARA RAU
Construction and Infrastructure
Workforce Development Council

Introduction

The engineering profession and workforce are incredibly important for New Zealand's development and economy – it is estimated that engineering contributes to around $16 billion of GDP.[1] This is in jeopardy.

New Zealand is experiencing a long-term engineering skills shortage, and this problem is increasing. It is estimated that New Zealand needs between 1,500 and 2,300 additional engineers each year to meet industry demands and support ongoing economic growth (2021).[2]

Historically these additional engineers come through the education system, as well as immigration. However, we are facing challenges in these areas.

In addition to this, we have an ageing workforce, a large and growing infrastructure deficit, and a growing population. The current downturn in Government work also means engineers are being lost through firms having to restructure to stay afloat, staff leaving for opportunities overseas and graduates are not being recruited.

Without enough engineers, New Zealand will not be able to address the infrastructure deficit we are facing, drive innovation-led economic growth or meet our climate change responsibilities.[3] We will also not be able to deliver and maintain the infrastructure we need.

The causes of this skills shortage are complex and multifaceted. Addressing the workforce challenges we are facing will require collaboration between professional associations, the government, the education sector and industry.

This action plan sets out how Engineering New Zealand Te Ao Rangahau, Waihanga Ara Rau and ACE New Zealand (the Association of Consulting and Engineering) are working together to address the long-term engineering skills shortage challenges New Zealand is facing. This will continue to be a long-term problem unless there is systemic change as discussed in this report.

1 For the year ending March 2021, it was estimated that engineering contributes around $16.3 billion (5%) of GDP.

2 engineeringnz.org/public-tools/engineering-for-everyone/pwc-report

3 An ACE New Zealand survey in 2023 of over 100 firms, covering 14, 123 staff and 67 job codes showed that in 2023:
- 80% of respondents reported vacancies in professional engineer roles, with the average number of vacancies per firm being 5.5
- 66% of respondents reported vacancies in graduate engineers, with the average number of vacancies per firm being 4.7.

About this plan

This plan has been developed by Engineering New Zealand Te Ao Rangahau, Waihanga Ara Rau and ACE New Zealand to address the long-term skills shortage the engineering profession is facing. It aims to raise awareness of the challenges we are facing, actions already underway and where further work by us is planned.

This long-term skills action plan:

- outlines the key areas we have identified from our analysis to help address the long-term engineering workforce shortage
- sets out the main challenges in the pathway to becoming an engineer across the training and workforce journey of engineers
- sets out the actions our three organisations are currently undertaking or exploring as part of our future work planning.

This plan is solutions focused and sets out actions that:

- are already underway or we propose to initiate this year
- target areas where qualitative and quantitative data show intervention is warranted
- align with the skills, knowledge, strategy, resourcing and levers of our organisations.

It is a first step towards outlining and addressing the priority challenges. The future initiatives in this plan will be further developed collaboratively in the coming years.

This plan complements skills shortage initiatives in adjacent areas[4] and we acknowledge the great work being done by many in the sector to address the engineering workforce challenges.

Methodology

The shortage of engineers has been an ongoing issue of concern for us for some time. In 2010, the Institution of Professional Engineers New Zealand (now Engineering New Zealand) published the National Engineering Education Plan (NEEP) report, which identified a shortfall of between 2,000 and 2,750 technicians, technologists, and engineers just to maintain existing output, with even greater numbers needed to support growth. Some great progress occurred following this, but the problem never went away.

In 2021, Engineering New Zealand commissioned PwC New Zealand to quantify the overall shortage problem with their conclusion being between 1,500 and 2,300 additional engineers being needed each year. In 2024, our three organisations commissioned further data from Scarlatti[5] to help tease out the problem and inform our intervention strategy. The results from Scarlatti's research were derived from analysis of data from the Tertiary Education Commission, Ministry of Education, Inland Revenue and through the Government's Integrated Data Infrastructure administered by Statistics New Zealand. This research identified that of the approximately 3,400 people starting tertiary study each year, only 855 (25%) remain in core engineering roles two years after graduation.

It has been difficult getting data and evidence to quantify the full suite of challenges in the journey of an engineer from school to being established in the industry. Therefore, some of the challenges listed in this plan have been informed by the wealth of conversations with members, stakeholders, partners, literature reviews, overseas experiences and our knowledge of the system.

About the organisations

Engineering New Zealand Te Ao Rangahau is a non-profit membership organisation that supports over 23,000 engineers in shaping a better New Zealand. As New Zealand's professional body for engineers, Engineering New Zealand Te Ao Rangahau creates a community of learning, collaboration, and support for engineers from all disciplines throughout their careers. It also has a regulatory role.

4 Such as trades-based engineering roles (Hanga Aro Rau skills shortage action plan, wider professional services roles (Waihanga Ara Rau Construction & Infrastructure Services, Māori and Pacific, Workforce Development Plans, TEC's National Careers System Strategy Action plan).

5 workforce.nz/_files/ugd/bc11a0_0d60400de59a4614ac7816d4b7089bff.pdf

Waihanga Ara Rau is a Workforce Development Council that ensures qualifications align with industry demands and empower Māori business and iwi development. Waihanga Ara Rau boosts confidence and outcomes for employers, providers, and learners, ensuring programs are employer-relevant, industry-endorsed, and qualifications meet national standards.

ACE New Zealand is the Association of Consulting and Engineering, representing around 270 businesses that employ more than 16,000 engineers, project managers, planners, scientists, architects, surveyors and other technical disciplines who provide specialist services across the built and natural environment.

Plan structure

This plan is divided into six parts.

- Part 1 provides the background for the long-term skills shortage we are facing and sets out the need for this action plan.
- Part 2 looks at the challenges we are facing in primary and secondary education and what needs to be done to support more students to study STEM.
- Part 3 sets out the challenges we are facing in tertiary education and what actions are needed to support and encourage more learners to enrol in, complete and use their engineering tertiary education.
- Part 4 looks at what is happening with regards to the engineering workforce, including the transition into the workforce. It sets out what is needed to encourage more people into engineering roles and support them to remain in them.
- Part 5 sets out what we are seeing with regards to engineers migrating to New Zealand and highlights actions to support and increase the number of migrant engineers within New Zealand.
- Part 6 sets out the next steps for this work.

Part 1: Background

What we mean by engineering in this plan

Engineering is not a defined or protected word in New Zealand legislation. For the purposes of this work, we have defined engineers as engineering professionals with a minimum of a Level 6 Diploma (ie BE (Hons), BEngTech, New Zealand Diploma in Engineering (NZDE), or overseas equivalent).

Engineers make up approximately 3% of the workforce. For the purposes of this work, we have broken the data up as follows.

- 30,000 people working in 'core' engineering roles within New Zealand. These are roles that fall traditionally within classic engineering disciplines (for example, structural engineering or electrical engineering design). Workforce challenges are more likely in these roles.
- 30,000 – 50,000 people working in roles that are 'engineering-adjacent' occupations. These people are likely to hold other qualifications as well as engineering, but the roles are not traditional engineering ones (for example, software engineering or engineering project management).[6]

Workforce shortages are wider than just engineering, with the construction sector and many other industries facing similar challenges.

We are facing a long-term engineering skills shortage

New Zealand is experiencing a long-term engineering skills shortage, and this problem is increasing. It is estimated that New Zealand needs between 1,500 and 2,300 additional engineers each year to meet industry demands and support ongoing economic growth (2021).[7]

6 workforce.nz/_files/ugd/bc11a0_0d60400de59a4614ac7816d4b7089bff.pdf
7 engineeringnz.org/public-tools/engineering-for-everyone/pwc-report

Historically these additional engineers come through the education system, as well as immigration. However, we are facing challenges in these areas.

- Young people aren't pursuing engineering careers, and many students are not interested in STEM[8] subjects at school.
- There is limited STEM training for teachers and a lack of curriculum specificity.
- Fewer people are completing engineering degrees.
- Many people leave the engineering profession in the first two years of work.
- Engineering is a sought after qualification by many other sectors.
- New Zealand is dependent on overseas trained engineers to fill skill shortages – and many engineering disciplines are on Immigration New Zealand's long term, immediate skills shortfall lists. However, migrants can face challenges.

In addition to this, we have an ageing workforce, a large and growing infrastructure deficit, and a growing population. The current downturn in Government work also means engineers are being lost through firms having to restructure to stay afloat, staff are leaving to opportunities overseas and graduates are not being recruited.[9]

It is difficult to forecast the future demand for engineers. But in the construction sector Waihanga Ara Rau is forecasting construction activity and associated workforce and training demand to come back to 2023 levels during the 2026 calendar year, and have forecasted training volumes in line with this.[10]

Part 2: Primary and secondary school

Key challenges

1. Young people aren't pursuing engineering careers

Not enough young New Zealanders are aspiring to STEM jobs – and we know that students who do not choose or achieve in STEM subjects are unlikely to move into STEM employment pathways.

Only 1.8% of children aged 7 to 13 in New Zealand aspire to pursue engineering careers, ranking the profession 15 out of 50 career options.[11]

2. Many students are not interested in or passing STEM subjects

Not enough students choose to continue with STEM subjects, particularly physics and maths, beyond the compulsory years (Year 1-10). We need more students interested in STEM subjects (physics and maths), especially before Year 12.

We also know that achievement rates are low – there are not enough students passing STEM subjects (this is particularly an issue in schools in lower socioeconomic areas).

- Ministry of Education assessments in October 2023 showed that less than a quarter of students are meeting the expected maths curriculum level for their age, with Year 3 at 20%, Year 6 at 28% and Year 8 at 22%.[12]
- New Zealand's 2022 PISA results show 29% of 15-year-olds as low performers in maths. We also saw a drop in high performers from 21% in 2003 to 10% in 2022, highlighting ongoing challenges in maths education.[13]
- Students in schools in low socioeconomic and rural areas face barriers to exploring engineering careers, including a shortfall of maths and physics teachers.

There is also a lack of support to meet tertiary entry requirements and a need for more opportunities to upskill students to meet base entry requirements to study engineering (for both school leavers and mature students).

8 STEM refers to science, technology, engineering and mathematics.
9 A series of surveys undertaken by ACE New Zealand in 2024 show that in the last six months of 2024 more than 700 employees, which include engineers, have been lost to either redundancies or opportunities overseas.
10 Advice to the Tertiary Education Commission for training investment in 2026
11 tec.govt.nz/assets/Publications-and-others/TEC-Drawing-the-Future-Report-v3.pdf
12 educationcounts.govt.nz/publications/series/curriculum-insights-and-progress-study/curriculum-insights-and-progress-study-foundational-area-mathematics-2023
13 educationcounts.govt.nz/__data/assets/pdf_file/0015/224601/PISA-2022-summary-report.pdf

3. There is limited STEM training for teachers and a lack of curriculum specificity

There is limited confidence in teaching STEM subjects, particularly among primary and intermediate teachers who do not specialise in STEM. This is in part due to limited teacher training and support. This impacts the quality of STEM education and affects student confidence in STEM.

Additionally, the curriculum lacks specificity and supporting resources for both teachers and students. Further, there are not enough secondary STEM teachers and schools struggle to source the teachers they need.

While a National Curriculum refresh is underway, further actions are needed to ensure teachers receive the necessary support to strengthen STEM education.

What we are doing to address the challenges

We have a range of actions underway and a number of future initiatives to support and encourage more children to study and pass STEM subjects.

Work already underway to address the challenges

Engineering New Zealand will continue with four key areas of work.

- The Wonder Project[14] – our free schools programme designed to inspire young students with STEM. It includes New Zealand curriculum-aligned programmes that provide hands-on STEM learning experiences to Years 5–8 students across New Zealand, with career pathway support for senior students. The Wonder Project Impact Report[15] shows positive results in confidence in STEM subjects, perceptions and interest in STEM careers and improved primary teachers' confidence teaching STEM.
- Advocacy to, and support for, the Ministry of Education improvements to the STEM curriculum. This includes advocating for additional resources and training that empower teachers to effectively deliver STEM education.
- Support for the Engineering New Zealand Foundation as it delivers the Matata Initiative, a programme helping Māori and Pacific young people into professional careers in engineering and technology.[16]
- Support for Technology Education New Zealand (TENZ) and its work in promoting and supporting all levels of technology education in New Zealand.[17]

Waihanga Ara Rau and its potential successor organisations will continue:

- researching educational and vocational pathways from school through tertiary education into the engineering workforce, focusing on the transitions, completions and retention
- exploring work-integrated learning options within vocational pathways, particularly for the NZDE with a focus on civil and electrical engineering.

Next steps and future initiatives

Engineering New Zealand will:

- scope potential work to further support students in Years 9 and 10 when final subjects, and tertiary and job options are being considered
- continue to seek funding to maintain and extend the reach of the Wonder Project
- promote the Tahatū Career Navigator website[18] when complete in 2025 and continue to advocate for information on roles with skills shortage to be included
- learn from the BeLongEng Project, which tracks engineers over time to understand changes in practice and integrate insights to support both students and the workforce.

ACE New Zealand and Engineering New Zealand will:

- continue to attract and retain STEM/engineering interest by promoting the work and stories of engineers – highlighting that it's a role for everyone and showcasing the critical role that engineers play in all aspects of societal health and prosperity.

Waihanga Ara Rau and its potential successor organisations will:

- assess the need to repeat perception research in 2025
- publish findings on educational and vocational pathways – focusing on the transitions through secondary and tertiary education into the workforce, completions of qualifications and retention in the workforce.

14 wonderproject.nz
15 wonderproject.nz/documents/408/Wonder_Project_Impact_Report_2024.pdf
16 The Matata Initiative is generously funded by Dick Earle and his late wife Mary engineeringnz.org/programmes/foundation/matata-initiative/
17 tenz.org.nz
18 This is a new interactive careers website connecting NCEA school subjects, qualifications and careers that the Tertiary Education Commission is developing.

Part 3: Tertiary education

Key challenges

1. Enrolments, retention and completion rates need to improve

Enrolment rates in engineering degrees and diplomas need to increase to meet workforce demand. Retention and completion rates within engineering degrees and diploma programmes need improvement to support a sustainable pipeline.

- On average 68% of students completed degree level or higher training and 48% completed their diploma training. These figures fall short of meeting New Zealand's increasing demand for engineering skills.[19]
- New Zealand lags behind the OECD in the number of engineering graduates. In 2020, 9% of our graduates at degree level or higher had studied engineering, compared to the OECD average of 14%.

Engineering programmes also face low representation from women, Māori and Pacific peoples.

2. There are financial barriers for students and for tertiary institutions

The cost of pursuing an engineering degree and diploma is a significant barrier for many students. Tuition fees, combined with high living expenses, create substantial financial strain. This disproportionately affects lower-income students and widens equity gaps.

In addition to this, engineering programmes are expensive to resource and tertiary institutions face funding pressures, increasing the risk we will not be able to meet training demands and growth.

3. There are difficulties in securing work experience

Engineering degree and diploma students can face challenges in securing work placements, limiting practical experience and workforce readiness upon graduation. Engineering students need more work-integrated learning opportunities to support enrolment growth, regional programme delivery, iwi engagement, and practical skill development.

4. Better data is needed from universities to better understand the challenges

More data is needed on learner demographics, reasons for withdrawal, retention rates, graduate outcomes, and programme capacity to understand the challenges in both diploma and degree programmes. Additionally, we need to know the Government and universities' future plans for funding and course numbers.

19 These figures vary between providers.

What we are doing to address the challenges

We have a range of actions underway and several future initiatives to support and encourage more learners to enrol, complete and use their engineering tertiary education.

Work already underway to address the challenges
Engineering New Zealand will continue its support for students and young engineers by: • maintaining our internationally recognised accreditation programme that ensures students graduate with a qualification that is valued by employers and regulators, both here and overseas • continuing our free student membership – offering networks, awards, scholarships and resources • continuing our student ambassadors[20] programme in universities across New Zealand to support engineering students on campus • providing interview support through speed interviewing events[21] across the country to support students to practice interview skills, receive valuable feedback and gain industry experience. **ACE New Zealand and Engineering New Zealand will both continue:** • advocacy to promote careers in the engineering consulting sector. **Waihanga Ara Rau has three key initiatives.** • Work-integrated model for NZDE – conducting research to develop a work-integrated model for delivering the NZDE with a civil and electrical focus. Phase one of this work is already underway and involves developing a framework based on stakeholder feedback to identify key enablers and barriers. • Developing a career pathways model, including learning pathway components based on contracted research. • Advocating for increased learner funding for the NZDE in line with industry need.
Next steps and future initiatives

Engineering New Zealand will:
• gather tertiary data on student volumes and performance to help us better understand and respond to the challenges
• scope opportunities to support the transition of tertiary students to the workforce
• continue to advocate for funding reform to better support engineering courses and students.
 	
Waihanga Ara Rau and potential successor organisations will:
• progress to phase two of the work-integrated learning model for the NZDE – preparing a delivery plan, which includes:
  • integration with other initiatives in engineering education
  • alignment with the broader degree-level apprenticeship pilots and community of practice
  • identification of a development and delivery pathway
• continue to monitor and publish data on school to work pathways.

20 engineeringnz.org/programmes/student-ambassadors
21 engineeringnz.org/programmes/speed-interviews

Part 4: Workforce, including transition to workforce

Key challenges

1. There is work uncertainty and a lack of a definitive infrastructure pipeline

The boom bust cycles that occur in New Zealand, with Government halting and delaying many major infrastructure projects or changing strategies post elections, have detrimental impacts on workforce development and welfare, and industry sustainability.[22]

2. Many engineering graduates either don't enter the profession or leave after only a few years

Many engineering graduates do not enter the profession or face challenges entering the workforce. In addition to this, many engineers leave the profession after only a few years.

We see significant attrition of graduates— with 63% of diploma graduates and 32% of degree graduates moving into non-engineering roles within two years of graduating. In addition to this, 17% of diploma and 21% of degree graduates leave for overseas in the first two years after completing their qualification.

This may be attributed to a lack of infrastructure pipeline and job certainty, as well as more competitive salaries and opportunities overseas.

3. There is a lack of support and mentorship

There are a lack of support structures for early-career engineers, which affects long-term retention. In particular, there is a lack of support and mentorship for women, Māori, and Pacific engineers.

4. There are a lack of clear career and progression opportunities

Data shows that role clarity and clear career progression pathways are an important part of recruiting and retaining talent.

5. There is a lack of representative diversity in the engineering profession

Women, Māori and Pacific people are significantly underrepresented in engineering. Approximately only 8.9% of the engineering workforce are women, only 9% are Māori, and only 4% are Pacific peoples.

Barriers include long hours, inflexible work schedules, cultural safety, harassment and a lack of role models. Research also shows inequality in career progression and the gender pay equity gap as factors.

There is an opportunity to address this, retaining and bringing in new and diverse talent into the sector. For more information on this, see the Workforce and Waihanga Ara Rau websites.

22 See Infrastructure New Zealand, Estimating the Costs of an Uncertain Infrastructure Pipelines (September 2023).

What we are doing to address the challenges

We have a range of actions underway and a number of future initiatives to support and encourage more people to enter and remain in engineering roles.

Work already underway to address the challenges

ACE New Zealand and Engineering New Zealand will both continue with the following areas of work.

- The Diversity Agenda – a programme that includes Te Kāhui Whaihanga the New Zealand Institute of Architects and supports firms to become more diverse and inclusive. It does this through raising awareness of the issues facing the sector – empowering firms to drive this work through providing data, resources and networks, and setting targets for firms to hold themselves and each other to account for their actions.
- Advocating for infrastructure pipeline certainty – meeting with Ministers and Government officials to highlight the problems, and offer solutions and the support of our members to help make positive change.

Engineering New Zealand will continue four key initiatives.

- Kimihia Rangahaua strategy – embedding Te Ao Māori (Māori world views) into our work, our organisation and the engineering profession.
- Mentorship Programme (Mentor : : ME)[23] mentorship for early-career engineers to support professional growth.
- Continuing Professional Development (CPD) for Emerging Professionals – supporting early-career engineers (with less than five years' experience) with their CPD by updating the graduate programme. The development programme aligns with the CPD framework and will give guidance for graduates to fast-track from an emerging professional membership to full member class. It is anticipated the graduate programme will be released mid-to-late 2025.
- Engineering New Zealand's 18 branches and Young Engineers committees support and connect members across all career stages. Branches offer regional networking, professional development, and collaboration on local issues. Young Engineers committees focus on early-career support for engineers under 35, providing opportunities to connect and develop together.

ACE New Zealand will continue three key initiatives.

- Supporting workplace wellbeing through Mindspace,[24] a program developed to help business owners design mentally healthy workplaces.
- Delivering The Pillars Competency Framework[25] which sets out the non-technical skills and behaviours needed to be a successful consultant. This supports career development, as well as attraction and recruitment.
- Supporting the Māori Leadership Forum which connects Māori professionals working across Aotearoa New Zealand's built and natural environment.

Waihanga Ara Rau and its potential successor organisations will continue to:

- develop and maintain wider professional services workforce development planning
- implement Māori and Pacific Workforce Development Planning, including recommendations which could augment activity already underway in the engineering sector
- work to unlock the potential of disabled people in the construction and infrastructure sector[26] through research and the development of Disability Action Plans
- advocate for safe, supportive and respectful workplaces for everyone through programmes like its Active Bystander Intervention Guidelines.[27]

Next steps and future initiatives

ACE New Zealand is exploring:

- developing a Future Leaders Programme to support future business leaders transitioning into leadership positions working in the consulting engineering sector
- initiatives to support career changes and returning professionals into the engineering profession
- developing a campaign to attract people into the consulting engineering industry.

23 engineeringnz.org/programmes/mentor-me
24 mindspace.nz
25 acenz.org.nz/the_pillars_competency_framework
26 waihangaararau.nz/joint-wdc-approach-for-disabled/
27 waihangaararau.nz/wp-content/uploads/2023/07/Keep-it-Decent-Bystander-Accountability-Guidelines-2023.pdf

Part 5: Migrants

Key challenges

1. New Zealand relies on migrant engineers and faces challenges attracting them

New Zealand is dependent on overseas trained engineers to fill skill shortages. Around 30% of New Zealand's engineering workforce consists of individuals trained overseas.

New Zealand relies heavily on overseas trained engineers to meet domestic demand, with engineering roles consistently featuring in the skills shortage list.

However, New Zealand competes with other countries for skilled migrants – particularly with the international surge in work following the COVID-19 pandemic and as the world's population increases. These other countries often have bigger and more attractive projects, easier immigration processes and pay higher wages.

2. Migrants can struggle with a lack of local experience and professional network

Skilled immigrant engineers can face difficulties securing employment in New Zealand due to their limited local experience, which can overshadow their qualifications and expertise. Additionally, upon immigrating to New Zealand, migrants must familiarise themselves with and apply New Zealand Codes and Standards, which can be a complex adjustment.

Migrant engineers are also limited with their professional network, which is important for tapping into the industry's hidden job market. This is significant as, anecdotally, less than half of all roles get publicly advertised.

3. Recognition of international qualifications can be a barrier

Skilled immigrant engineers can struggle to secure employment because their universities are not widely recognised by New Zealand employers, making it harder for them to demonstrate their competency.

4. Migrants can face barriers in the recruitment process

Migrants can struggle to understand and navigate the New Zealand approach to recruitment (CVs, letters, interviews, language, the sector), which can limit their work opportunities.

5. Migrants can be challenged with workplace bias (both conscious and unconscious)

New migrant engineers tell us they need to work hard to overcome stereotypes. Plus, conscious or unconscious bias can lead to these engineers being underpaid, missing out on opportunities and becoming isolated.

What we are doing to address the challenges

We have a range of actions underway and a number of future initiatives to support and increase the number of migrant engineers within New Zealand.

Work already underway to address the challenges
Engineering New Zealand will continue work in three key areas. • Supporting its Special Interest Group for Immigrant Engineers (SIGIE)[28] which assists immigrant engineers in their search for professional employment. This includes local experience and knowledge gap analysis, and identifying quick wins that could be achieved via foundation/basic training for upskilling immigrant engineers to local standards and codes. • Connect migrant engineers with New Zealand-based professionals to grow their network. • Provide The Treaty of Waitangi and Te Tiriti o Waitangi free CPD module[29] for our members, to introduce Te Tiriti and The Treaty, and ways to apply Te Tiriti in the work of engineers. **Engineering New Zealand, Waihanga Ara Rau and ACE New Zealand will continue to:** • advocate for responsive immigration settings and work with relevant agencies to address workforce needs • work with Statistics New Zealand on the development and maintenance of the National Occupation List (NOL) as occupational classifications and data transitions from the Australian and New Zealand Standard Industrial Classification (ANZSIC) occupational codes to the NOL.
Next steps and future initiatives
Engineering New Zealand, in partnership with SIGIE, will: • scope a project aimed at further supporting migrants to help transition to New Zealand and secure engineering employment • look to increase our ways of seeking feedback from recently migrated engineers to validate and adjust support projects, initiatives and plans accordingly.

Part 6: Conclusion

The engineering profession and workforce is incredibly important for both New Zealand's development and economy. Concerningly, New Zealand is experiencing a long-term engineering skills shortage, and this problem is increasing. Without enough engineers, New Zealand will not be able to address the infrastructure deficit we are facing, drive innovation-led economic growth or meet our climate change responsibilities.

The causes of this skills shortage are complex and multifaceted. Addressing the workforce challenges we are facing will require collaboration between professional associations, the Government, the education sector and industry.

Next steps

We welcome ideas and input to this work. Please email advocacy@engineeringnz.org if you wish to participate in future discussions and develop solutions to address our long-term engineering skills shortage.

Engineering New Zealand Te Ao Rangahau, Waihanga Ara Rau and ACE New Zealand will continue to work collaboratively and report on this pressing issue. We will also continue to reach out to others undertaking work in this space, so we can develop a systemic approach together that is coordinated and effective. Further information on the roles of the parties to this action plan can be found on our respective websites.[30]

28 sigie.org.nz
29 engineeringnz.org/courses-events/online/te-tiriti-o-waitangi-introduction-for-engineers
30 engineeringnz.org acenz.org.nz waihangaararau.nz

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