MEMBER CONNECT 2020
Q&A

Check out the answers to questions from the four webinar sessions.

STRATEGY

Has Covid-19 changed the strategy?

We were finalising our review of the **strategy** when Covid-19 hit and it did have an impact. As the situation evolved, it was evident our new "thriving" ambition would be even more important, with its focus on members' career and wellbeing. Like any strategy, ours will continue to adapt over time, as the world changes around us.

What opportunities has Covid-19 given New Zealand and the engineering profession?

Richard provided an example from Fisher & Paykel Healthcare: as manufacturers of healthcare equipment based on engineering, research and quality of science and analysis, they have noted an increase in profit of $225 million.

New Zealand has a great reputation based on how we've handled Covid-19, and we can anticipate other opportunities because of that.

What are the biggest challenges/risks/opportunities facing Engineering New Zealand in 2021?

Covid-19 nationally and globally has had an impact on us all. There are challenges and opportunities and it's how we as a profession respond that's the key thing. How we can increase the resilience of our members, businesses and community, in a way which will help us deal with future dramatic changes? How can we continue to advocate effectively to Government on key issues for the profession and New Zealand?

What is Engineering New Zealand doing to focus on the thriving ambition?

We will continue to develop our **wellbeing initiative,** with emphasis on how we can normalise the wellbeing conversation and support our employers.

Our student members have had the opportunity to apply to be next year's student rep for their institution. Their feedback and thoughts will be used to develop our student pathway. Member feedback will also help us ensure we focus on what is important. We will continue to work with our employers to provide assistance, so members feel supported wherever they are in their career.

We are also working with the Engineering New Zealand Foundation to explore next steps around providing career growth learnings to our members.

Does Engineering New Zealand have a strategy on working closer with tangata whenua to ensure true kaitiakitanga is achieved through Engineering New Zealand's and engineers' work?

Looking at the long-term opportunities through social, cultural, economic and environmental solutions, this automatically connects with tangata whenua and mana whenua. Richard was fortunate to work in this space in his previous innovation and local government roles and looks forward to building on this work.

What does Engineering New Zealand offer to engineers that are not from a civil discipline?

There are a wide range of things we offer. These include thought leadership and advocacy for all engineers, varied technical interest **groups** that are discipline-specific, an opportunity to learn from and network with your colleagues via branches, and professional development offerings. There's also a chance to give back, as we look to inspire the next generation and encourage diversity and inclusion in engineering. And opportunities to share your stories through our channels, and be recognised for your professional excellence through awards and Fellowships.

What is the strategy for how the profession is perceived, noting that CTV is still in the news and unresolved?

We engage with the public and the media on many other issues to enhance and protect the reputation of engineers, with many more engineers appearing in the media over the past few years thanks to this work. We also speak out on issues that matter to engineers.

In terms of the CTV Building tragedy, we reopened the complaints against Alan Reay after the Court of Appeal decision in late 2019 and this is progressing. It's really important this a fair, robust and transparent process.

I see a need for technical leadership in NZ, especially navigating climate change and RMA reform. Does Engineering New Zealand strategy respond directly to either of these?

Those are key issues that sit across a number of pieces of work we do. We're really interested in hearing from members about how you'd like us to advocate so please get in touch.

OPERATIONAL UPDATES

How would you rate the roll out of the new IT system or is it too early to judge?

We have received great feedback from members who have used the new system and would encourage all members to log in and check out the new functionality. We're also keen to receive feedback so please **get in touch** if you have any thoughts or ideas. If you haven't activated your account we'll be sending an email in the New Year; alternatively please send an email to our **membership team.**

There's been glitches with the new IT system with people being left off the bulk invoices sent to companies. What is being done to rectify this going into 2021?

Like all new systems there has been some glitches, but we are in the process of reviewing this year's invoicing to ensure these are rectified for next year. Please **get in touch** if you have any concerns.

Is there a strategy to improve CPD material to make it relevant to all engineering disciplines and experience levels?

Professional development is a key workstream under our Member Pathway goal. Our aim as your professional home is to deliver a blend of development relevant to our broad membership base while working with our groups to deliver development relevant to your various disciplines. We'll be seeking input from members and our employers as we develop our CPD strategy.

CPENG AND CHARTERED MEMBERSHIP

Full information on the CPEng Review proposal can be found **here.**

I missed the CPEng consultation webinar; how can I still find out about the proposed changes?

All information can be found on our **website,** and this includes the recorded version of the webinar and the proposal. Please provide feedback by 20 January 2021.

There is some confusion between CMEngNZ and CPEng. Some state they are equivalent. Is this being addressed?

We understand there is confusion: Chartered Members belong to Engineering New Zealand and CPEng is a registration under the CPEng Act 2002. It isn't yet clear to us how CPEng should sit alongside Engineering New Zealand's membership pathway, and whether the Chartered Member class should continue in some form or be dis-established. We are interested in whether the profession thinks a new and improved CPEng could be the only quality mark for professional engineers, alongside complementary new quality mark registers for technologists, technicians and engineering geologists, and whether on this basis the member class of Chartered Member should be renamed or dis-established. There's a lot more detail on this in our discussion document.

It's my perception that there is a reluctance to recognise engineering geologists with Chartered status. Doesn't the PEngGeol category belittle the importance of this discipline to engineering?

That is certainly not the intention. The proposed changes to the CPEng assessment process do not impact on engineering geologists directly, but our Professional Engineering Geologist category of Chartered membership was developed with the express aim of recognising this important role.

We have yet to develop detailed proposals for altering or replacing Chartered membership (if such a move is supported by feedback), and while there is a strong desire to avoid confusion between professional titles for different occupational roles, Chartered Engineering Geologist is certainly an option that we would propose to ensure engineering geologists are appropriately recognised.

What is the strategy to monitor and improve member numbers and Chartered registrations per industry to get better and more diverse engagement across the engineering spectrum?

We're conscious that CPEng needs work to appeal to a broader range of engineers – this is part of the CPEng Review discussion document, and we'd appreciate your feedback on these issues.

When is it envisaged that the assessment process and registration categories for CPEng will change?

Once consultation closes, we'll provide a summary of the feedback received. Some changes that are operational can be made quite quickly, for Rules or legislative change these would take longer. We'll keep you up to date.

How could these changes affect my career?

Ultimately, we're wanting to raise the bar and support the credibility of the profession. More specific questions re licensing, who can sign off on work etc, will flow on from the work we're doing, and these will be discussed with MBIE as things progress.

If I'm applying for CPEng should I continue?

Yes. Timelines will differ depending on the changes, some we can amend and others relating to Rules and or Act would take longer. We will keep you up to date with any changes.

What is Engineering New Zealand doing, as the representative of about 22,000 professionals, to establish itself and the CPEng Registration Authority as the only bodies that can assess engineering competence?

Our aspiration is to create a clear unambiguous Chartered mark for all members to strive towards, like the model used for Chartered Accountants – this is a volunteer quality mark that all accountants strive towards and employers look for.

What is Engineering New Zealand doing to ensure that ad-hoc engineers registration authorities are stamped out and that Engineering New Zealand and its close-linked body the Registration Authority for chartered Professional Engineers, vigorously re-assert themselves as the ONLY bodies able to properly judge Professional Engineering competence?

Please take a look at our CPEng Review discussion document. The first step is making sure the system works for all engineers and the bar is appropriately high. We're interested in feedback on these issues.

I am a CPEng practice area assessor. Will Engineering New Zealand engage with us to seek input to the proposed changes? If not (and that's okay) will there be further assessor training rolled out to reflect changes?

All members are encouraged to provide feedback on the proposal, especially assessors. If change is introduced, training will be provided to all assessors as part of its roll out.

We have been raising the bar on every reassessment since 2002 CPEng. We have the most onerous reassessment process of any profession. The Australian system is working; why don't we adopt theirs?

The proposed changes are on a risk and audit-based approach, which will assist with the reassessment process. Australia is not same as it's not a statutory scheme, but they are moving to introduce CPD audits.

What are the next steps after the consultation period?

After 20 January, we will collate all feedback received. We'll engage with the Board and map out our next steps, and we'll communicate with our members to keep you up to date.

Some changes could be made relatively quickly, whereas others might require Act and/or Rules changes.

Are there any Engineering New Zealand-endorsed apprenticeships that work towards a Chartered Member or CPEng level?

No, not currently, although there is the Bachelor of Engineering Technology Apprenticeship model that has recently been launched by Otago Polytechnic and Weltec. This has a pathway in asset management.

Is it mandatory to hold an EWRB license for a graduate electrical engineer?

No, registration as an electrical worker with the EWRB is not required for graduate electrical engineers.

However, it is their responsibility, as an engineer (designer), to understand the legal and regulatory framework in New Zealand. As a guideline, please check out **Electricity Act 1992** and **Electricity (Safety) Regulations 2010**

SECTOR PROGRAMMES AND ENGINEERING PRACTICE

How do I find out more about Sector Programmes?

We are planning to add more information to our website soon but in the meantime please contact Eleanor Laban, Sector Programmes Manager.

Have the Producer Statement templates been peer reviewed?

These templates have been produced with Engineering New Zealand members for Engineering New Zealand members, drawing on expertise from within Engineering New Zealand technical groups. If you have any feedback, please contact **Martin Pratchett**, Engineering Practice Manager

How do I get involved in engineering practice?

Our Engineering Practice Manager **Martin Pratchett** would love to hear from any engineer who has questions or would like to be involved.

Will Engineering New Zealand consider the provision of technical information and access to technical resources? For practising engineers this is vital, especially for mechanical and electrical engineers not covered by SESOC and NZGS.

Our groups have huge wealth of knowledge, which is all accessible via our **website,** and we will continue to build on the technical information available. We have 20 **Practice Notes,** some of which are generic; for instance, peer review Practice Notes. If you have any specific requests, please get in touch with **Martin Pratchett**, Engineering Practice Manager.

ADVOCACY

How is Engineering New Zealand supporting engineers who speak out?

If people have concerns about engineering quality – we're keen to hear from them. This can lead to us commencing investigations or other work.

In terms of speaking out more generally – we're always interested in hearing from members and if your advocacy lines up with Engineering New Zealand's policy platform then we're happy to give you advice and support.

Engineering New Zealand supports **CROSS-AUS**, which is a confidential reporting scheme that captures and shares lessons learned from structural safety incidents, to help prevent future failures.

In terms of engaging with the media – we offer media training for Engineering New Zealand technical group spokespeople and support when there are live media issues.

Why does Engineering New Zealand tell the Ministers that engineering contributes a few billion dollars to the economy when the economy and whole of the modern world is entirely dependent on engineering?

Our PwC report released in 2020 determined that engineering contributes $15B to the NZ economy. That's 5% of GPD and equivalent to the primary sector. Determining the magnitude of this contribution has been very useful in our advocacy work into Government.

What are the key messages from Engineering New Zealand and the Board re the 10-year anniversary of the Christchurch earthquake?

This is significant to the country and the profession, and we are working closely with the Canterbury Branch to ensure we commemorate the 10-year anniversary in a way that resonates with members and strikes the right note with the public. We look forward to sharing more information soon.

DIVERSITY AND SUSTAINABILITY

The gender pay gap looks terrible! Is this skewed by the small number of female managers? How can this be improved? 2021 is the year where we were supposed to reach 20% female engineers target. Are there any further advancements in the industry which makes this a reality?

Yes, the gender pay gap is terrible, we agree with you. It's something **The Diversity Agenda**, Engineering New Zealand's diversity and inclusion initiative together with ACE New Zealand and New Zealand Institute of Architects, is trying to help firms change.

The lack of women in senior leadership positions doesn't help the gap – and we also have a gender pay equity gap in the New Zealand engineering profession, which is when you take a direct 'role for role' salary comparison between men and women. For example, this year's survey of Diversity Agenda Accord signatory firms found an engineering gender pay equity gap of 13.4%.

You can also see in this year's Remuneration Survey that the level of average income for each career stage starts off similar for male and female, but then the gap grows with each career stage. We deem this to be unacceptable and a gap that should be closed immediately – as there is no justification for a difference in salary if doing the same job, regardless of gender.

And in fact, we know the gender pay equity gap can be closed almost overnight. WSP reviewed all their employee salaries in 2018 and discovered a 7.5% difference in salary for male and females in the same roles. They reviewed every individual occurrence of a salary difference, and when no clear reason was given (such as less hours, more responsibility, etc), they immediately adjusted employees' pay to make even. WSP increased the pay for 55 women and 5 men as a result of this work. We urge all engineering firms to conduct a gender pay equity gap review, as all Diversity Agenda Accord signatory firms are required to do, and then remove any instances of pay disparity.

With regards to senior leadership positions, we know that females are much less represented than males – as Engineering New Zealand Accord signatory survey showed 17.8% of leadership roles were held by women. We also know based on various studies, that firms with diverse leadership perform better. So, we encourage all engineering firms to review their leadership teams and recruitment practices to make sure equal opportunities are being given. And if we can close the gender pay equity gap, together with seeing an increase in female representation within leadership roles, we'll be able to close the gender pay gap.

What is Engineering New Zealand doing to encourage us to work sustainably?

SESOC's been working with IStructE on this – they've put out a carbon calculator for buildings, and we'd encourage you to look at this.

ICE is putting out resources around getting to net carbon zero by 2050 – we're interested in collaborating on this. Their resources are free to access. The more we can change construction, the better, because it's a significant contributor – materials, how we do things.

If you're passionate about sustainability, we'd encourage you to get in touch with The Sustainability Society – our technical group devoted to this issue.

How do we go about consciously addressing all 4 sustainability pillars (economic, environment, social, cultural)?

It's thinking before we design and build. When working with clients, encourage them at the beginning to think about this space, so it's not just an economic benefit that is at the forefront of their mind. At the design stage we automatically think of life cycle, what happens at the end of the life and the impact on the environment. Also, the cultural opportunities of the design, manufacture, service and maintenance, so they have a greater social benefit.

As world temperatures are quite stable and sea level rise is a steady 1.8 mm per year what evidence does Engineering New Zealand have that supports a "climate emergency" declaration?

Engineering New Zealand relies on the evidence provided by the Intergovernmental Panel on Climate Change, who in their Summary for Policy Makers [1] state "Human activities are estimated to have caused approximately 1.0°C of global warming5 above pre-industrial levels, with a likely range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate. (high confidence)" and "Reflecting the long-term warming trend since pre-industrial times, observed global mean surface temperature (GMST) for the decade 2006–2015 was 0.87°C (likely between 0.75°C and 0.99°C)6 higher than the average over the 1850–1900 period (very high confidence). Estimated anthropogenic global warming matches the level of observed warming to within ±20% (likely range). Estimated anthropogenic global warming is currently increasing at 0.2°C (likely between 0.1°C and 0.3°C) per decade due to past and ongoing emissions (high confidence)"

[1] IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.

TECHNICAL GROUPS

We are hearing a lot about technical groups. The offerings from each are variable. For many it is easier to join Engineering New Zealand and one of the US or UK societies. How do we even out the playing field?

We resource all our groups with administration, communications and event set up, including webinars. Different disciplines need different things, some groups concentrate on innovation, networking etc. If you have any thoughts, please get in touch with the **group** committee or us.

What can committees, including Young Engineers, do to promote their technical groups?

Young Engineer, Branch Committees and Group Chairs are encouraged to collaborate with the Groups on events in their area. All Chairs have access to a contact list.

Are there plans to regulate the software/IT industry? It's not just physical health, but also mental health, social stability and inclusive design requirements software products need to address.

If you're interested in this issue, please get in touch with our recently formed IT Engineers Group, as it's something they are also very interesting in and will look to engage with.

STARTING YOUR CAREER

We received several questions relating to how graduates find work and what Engineering New Zealand is doing to help.

We understand the transition into the workforce can be difficult, especially in the current climate. Joining a group that aligns with your discipline is a great way to meet other technical professionals – and don't forget your interpersonal skills are also an essential element. We strongly recommend you attend your local branch and Young Engineer events. These networking opportunities provide a valuable source to interact with other industry professionals and are a great way to build relationships with your peers.

To help get up to speed with work life, Engineering New Zealand has started a series of videos featuring experienced engineers, managers and HR staff sharing their tips and advice. They cover topics such as the realities of working life, the importance of business and teamwork skills, and the need to maintain personal wellbeing. All are vital to being the best you can be. Find out more **here.**

We also have **Shape up your LinkedIn** webinar that looks at how to best sell yourself and what engineering recruiters are looking for. We hope to expand on this next year with more tips and tricks.

There are a lot of young engineers looking for mentors. Can you outline how members and branches can assist in linking with these young engineers?

Mentor::Me is a formalised programme over 10 months. We match mentors and mentees and try to do so per region and discipline.

This year's Mentor::Me is drawing to a close and we will be asking in February/March for mentors and mentees to join next year's programme. Updates will be provided early next year. Please note mentees must be an emerging professional and we can't always guarantee a match.

I tried to search the structural engineering firms using my student membership account but couldn't find anything. Can I be advised if there are such lists from Engineering New Zealand?

The best source would be ACE New Zealand with a list of consulting engineering firms. Engineering New Zealand does not hold a list of firms on the website**.**

SUPPORTING BRANCHES

The success of small regional branches often relies on a few individuals. How will Engineering New Zealand support branches to ensure the regions don't get left behind main centres & technical excellence is widespread?

We are aware of these concerns and our team will offer support and direction, to ensure all our members can connect with fellow professionals. We will continue to offer webinars, which have reached more members, and this has also allowed branch and Young Engineer committees to piggyback and live stream these events. Members do not have to be on the committee to assist with events or present at an event. If you have any thoughts, then please get in **touch.**

How are branch events becoming more inclusive to engineers at different career stages and from different disciplines?

Get involved in your local branch events. If you have any suggestions the branch and Young Engineer committees would love to hear from you; for instance, you or a colleague may have an interesting project you wish to talk about. This can be made available for your branch or we can live stream for all members.

BUDGETS AND MEMBERSHIP FEES

Branch budgets have been cut but membership fees not cut. How can branches still provide the events when they don't have the budget. Will there be a review of branches budgeting and allowances to empower them alignment with the new strategy?

Expenditure has been looked at very carefully across the board for this financial year. Because we invoice in October, and it's hard to foresee what our revenue will look like (especially this year), our budget is conservative. We will continue to support the branches and Young Engineers to connect with their members and offer other avenues such as webinars to reach more members than before. Groups and other organisations are always keen to collaborate on events, which can assist with the costs. In addition, many companies may become sponsors or provide venues at no cost. Should branch and Young Engineer Chairs have any concerns or want to fund something specific, then please get in touch.

Will the cost of membership decrease given we have an increase in members?

No – but our member benefits continue to grow. Providing a clear member pathway for all our members is a key workstream at the moment, and in turn the benefits for individuals in each membership class will grow. Check out our **annual reports** to see the huge range of activities that Engineering New Zealand does to support the profession.

My CPEng and Chartered Member fees plus technical group memberships are over $1300 per year. What can Engineering New Zealand do to reduce fees by sticking to core business?

Our fees fund our core operations, with many of our other initiatives being externally or self-funded. For example, the Wonder Project is supported by Callaghan and other partners like Transpower, firms contribute to the Diversity Agenda programme, and Sector Programmes is fully self-funded. You can see more detail about this in our **annual reports**.

How are my membership fees spent? What percentage of my fees goes towards administration costs, branch events, free CPD for members and Engineering New Zealand staff costs?

We provide this information in our annual reports – you can see all of them, including our most recent financial year, here:
https://www.engineeringnz.org/public-tools/publications/annual-reports/

BOARD ELECTIONS

I'm interested in joining the Board but live in a smaller region. How do I increase my votes?

Nominations are now **open** to join the Board and close 29 January 2021. We recommend engaging with your local branch to raise your profile and ensure your summary of why you are standing and what you hope to achieve is clear and concise. This year we will be provided some targeted guidance to help all candidates (and especially candidates in regions) campaign effectively.