THE FUTURE OF ENGINEERS' REGULATION IN NEW ZEALAND

Engineering New Zealand's response to MBIE's proposed reforms

The regulation of engineers is critically important to the public and everyone in the profession. Engineering New Zealand appreciates the Government's commitment to reform the building and construction sector, from these occupational regulation proposals to the Construction Industry Accord.

This paper responds to the Government's proposals to change the way engineers are regulated. Engineering New Zealand would like to thank the MBIE team for their engagement with us, and we look forward to continued collaboration on the next steps.

After an executive summary, this paper includes six parts. In these sections, we respond to the questions in MBIE's discussion paper. We outline the aspects we support, the aspects that need more thought, and the profession's reasons in each case.

Our submission is supported in principle by more than 25 industry leaders, including the Structural Engineering Society New Zealand, New Zealand Geotechnical Society, New Zealand Society for Earthquake Engineering, Society for Fire Protection Engineers, Institution of Fire Engineers, New Zealand Society on Large Dams, Heavy Vehicle Engineers, Recreational Safety Engineering, Association for Consulting and Engineering Professionals, CEAS, Property Council New Zealand, Auckland Council, Water NZ, Infrastructure NZ, Civil Contractors New Zealand, New Zealand Institute of Architects, New Zealand Registered Architects Board, Institute of Public Works Engineering Australasia, Building Officials Institute of New Zealand, Metals NZ, Institution of Civil Engineers, Engineering Council UK, Engineers Australia, Engineering Council South Africa, and the Royal Institution of Naval Architects.

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EXECUTIVE SUMMARY

THE ENGINEERING PROFESSION'S FUTURE

The regulation of engineers is a system that must be able to respond to an evolving public landscape. Regulation should be led by the profession, with appropriate government oversight. It should be clear and straightforward, both for the public and the engineers working within the system.

New Zealand needs strong regulation of engineering work where the risks are high, to better protect the public. This should take the form of a licensing framework that's flexible enough to accommodate other engineering disciplines and related professions.

Licensing must be supported by strong self-regulation, in the form of one quality mark that recognises professionalism and general technical competence. This should be the existing internationally benchmarked Chartered Member class (renamed Chartered Engineer), an assessed membership class of Engineering New Zealand that allows global mobility. It would be a prerequisite for licensing.

It's essential that practising engineers belong to a strong professional community that raises the bar and advances technical knowledge in every area.

This system must be underpinned by robust and proportionate accountability, governance and leadership.

OUR RESPONSE TO MBIE'S PROPOSAL

The profession supports licensing for safety-critical work. The proposal has generated debate about what "safety critical" means and where this threshold should be set. We have ideas about how to make this work in practice – and it must involve the profession.

The right place for government regulation is where the risks are high. Regulating general competence should sit with the profession, as is the case for other professions and international jurisdictions, rather than with the government.

The assessments for general competence must complement and feed into the assessments for licensing. Both processes need to be administered by one body – Engineering New Zealand – with government oversight at the licensing level.

A WAY FORWARD FOR GENERAL COMPETENCE

A new statutory-based, general competence certification is neither necessary nor desirable because Engineering New Zealand's Chartered Member (to be renamed Chartered Engineer) already regulates general competence and is recognised internationally.

All engineers would benefit from belonging to Engineering New Zealand. However, we would work with MBIE to create a pathway to being Chartered for non-members.

WE WANT TO COLLABORATE

For effective change, all parts of the system need to work together. The Government sets policy and the direction; Engineering New Zealand is the experienced and appropriate self-regulator that operates the system day in, day out, understands its shortcomings and is closely connected to our profession. We also know where our processes are limited by the current model and could be strengthened. We will partner with MBIE to get this right.

ENGINEERING NEW ZEALAND'S CRITICAL ROLE

Our submission needs to be read in the broader context of our role. Engineering New Zealand occupies a critical space in the regulatory system, and our reach expands far beyond engineers working in building and construction.

As New Zealand's professional home for engineers, we represent more than 23,000 engineering professionals from a wide range of disciplines, from structural and civil to biomedical, chemical and aeronautical engineering. We are an increasingly strong voice, well connected to the wider engineering sector and related industries. We know well the profession's susceptibility to both skill shortages and lack of diversity, both globally and locally, and we proactively drive the future pipeline of engineers.

Engineering New Zealand also regulates engineers, both as the Registration Authority for Chartered Professional Engineers (CPEng) and as the engineering profession's self-regulator. We know first-hand what it means to regulate this diverse profession.

Effectively regulating any profession requires a systemic response. The right legal framework is only one piece of a much larger set of interdependencies that encompasses training and education, collegiality, development and maintenance of standards and guidelines, accreditation and proportionate accountability, and integration across the different professions in the industry. These pieces must mesh together as a cohesive whole.

As the High Court recently stressed in its judicial review of our decision regarding the Alan Reay complaint, professional bodies have a crucial and broad role in this system.[1] Members of Engineering New Zealand[2] face obligations around standards, the Code of Ethical Conduct, continuing professional development and professional accountability. Membership of Engineering New Zealand links engineers and provides opportunities to learn and develop professional knowledge and skills, through wider branch and group networks.

We want a regulatory system that works for everyone – all engineers, all members of the public – both now and into the future.

[1] Attorney-General v Institution of Professional Engineers New Zealand Incorporated [2018] NZHC 3211 at 51.

[2] All paid member classes.

OUR CONSULTATION PROCESS

This proposal goes to the heart of our purpose and our role. So we have engaged as extensively as possible with our 23,000 members to produce a submission that reflects their many voices. This means not only engineers working in the building and construction sector but across all engineering disciplines.

We have represented MBIE's proposals and process as well as our own vision. This has been a significant undertaking, with a large amount of complex information for Engineering New Zealand to front and for engineers to digest and respond to, in a short space of time.

Our consultation process included:

- Branch sessions, from Auckland to Invercargill, dedicated to discussing occupational regulation. More than 550 engineers and other stakeholders attended across all sessions.
- Discussions at many of our technical groups' management committee meetings, including the Structural Engineering Society of New Zealand, New Zealand Society for Earthquake Engineering, Society of Fire Protection Engineers, Institution of Fire Engineers, New Zealand Geotechnical Society, New Zealand Society on Large Dams and the Transportation Group.
- Meetings in person or by teleconference with other key stakeholders, including the Association for Consulting and Engineering Professionals (ACENZ), territorial authorities, overseas engineering bodies, large engineering firms and engineering-adjacent industry bodies.
- Engagement with members at an individual level, through electronic newsletters, our website and social media, as well as a call for feedback that resulted in more than 130 individual submissions to us.

Many of our technical groups have developed submissions on behalf of their members, as well as endorsing our submission in principle.

Our branch committees also gathered and presented to us their members' views, which we have incorporated.

This consultation process has been no small undertaking, and our members have spent countless hours (sometimes late into the night) giving us valuable feedback on behalf of themselves and others.

We are grateful to every member who has contributed their views.

The principles and vision set out in this paper reflect the views of the vast majority of our members. Not all members agree on all aspects, and many found it difficult to comment on the framework without knowing more detail; for example, how thresholds for safety-critical work can be established and managed.

OUR PROPOSED FRAMEWORK FOR A STRONG, EFFECTIVE REGULATORY SYSTEM

Engineers, the public and the government all agree that a regulatory framework should be trusted and keep New Zealanders safe. This means engineers working within their competence, having high professional standards and being held to account when necessary. It means having confidence that engineers can undertake safety-critical work.

This framework is future-proofed, with an eye on how the profession is growing and changing. It accounts for the profession's depth and breadth. It sits seamlessly alongside the regulation of interdependent professions. And it fosters innovation, as engineers tackle the critical challenges facing New Zealand and New Zealanders.

Our realistic view of an effective regulatory system for engineers is **licensing supported by strong professional self-regulation**.

A PRINCIPLES-BASED REGULATORY FRAMEWORK

A strong regulatory framework for a profession:

- Is **simple to understand and operate**. Simple frameworks are more effective than frameworks with unnecessary layers of regulation that duplicate process and cost.
- Pitches **government oversight at the right level** of regulation, letting the profession take an appropriate amount of responsibility too.
- **Works for the whole profession (and wider industries)**. Fragmentation in regulation – for example, across building and construction, heavy vehicles, dams and amusement devices – is confusing and stretches the safety net too thin. In the interests of the public, the framework needs to make sense for the entire profession and across interdependent professions. This is consistent with the principles of the 2019 Construction Sector Accord.

ONE GENERAL QUALITY MARK, REGULATED BY THE PROFESSION

One component of this framework is a strong and credible quality mark for all engineers, regulated by the profession.

This means any engineer, engineering technician, engineering technologist or engineering geologist aspires to be accredited as a Chartered Engineer (or Chartered Engineering Technician, etc). Chartership is a quality mark that recognises professionalism and general technical competence in specific areas of practice. It is credible and internationally benchmarked, while tailored to New Zealand's needs, promoting global mobility.

While the current proposal is focused on building and construction, these engineers do not operate in isolation of the broader profession. The proposal needs to work for all engineers. **The answer is one general competency mark** (tailored to areas of practice) that is available and attractive to a broad range of engineering professionals – from heavy vehicle certifiers to water, chemical and dam engineers, and more.

One quality mark has many benefits:

- It's easy for the public to understand (like Chartered Accountant);

- It's efficient and cost-effective to administer;
- It offers clear expectations and accountabilities;
- It avoids fragmentation across the profession; and
- It strengthens the profession and raises the bar for all engineers, including those in the building sector.

This quality mark should be self regulated

In other jurisdictions (for example, Australia, the United Kingdom, Ireland and Hong Kong), a general quality mark like Chartership is taken care of through self-regulation by a professional body.

Engineering New Zealand already offers this quality mark through an existing framework: our Chartered Member class (which was reframed from Professional Member in 2017). Chartered Member is a credible, internationally benchmarked, quality mark that establishes a base level of professionalism and technical competence in an engineer's specific areas of practice. Chartered Members are competence-assessed to an internationally benchmarked standard at the same level as CPEng. The only differences between CPEng and Chartered Member assessments are that CPEng encompasses New Zealand-specific experience and requires reassessment, whereas Chartered Member currently does not. We have agreements with international bodies to support global mobility of our members, meaning our Chartered Members can practise across the world.

Chartered Members commit to a Code of Ethical Conduct and 40 hours professional development each year and can be held to account through a complaints and disciplinary process. These processes are a mark of the profession's responsibility to the public and underpin the trust that the public places in Engineering New Zealand.

As MBIE is aware, we always intended to rename our Chartered Member class "Chartered Engineer", in line with other professional engineering bodies internationally, once a licensing system was in place. Other current Chartered Member categories would also be renamed; for example, as Chartered Engineering Geologist, Chartered Engineering Technologist and Chartered Engineering Technician.

Owned by the profession, the general quality mark can work in tandem with the broader elements of the self-regulatory system – education and training, collegiality and peer support – to lift the bar. It is agile and allows for improvement as necessary.

Regulation by government at the quality-mark level is not practical or desirable. It also appears inconsistent with the government's own policy framework,[3] which states that government (rather than industry) intervention is generally required where: there are risks of significant harm to consumers or third parties; the existing means of protection from harm for consumers and third parties are insufficient; and intervention by government is likely to improve the outcomes; or the industry is unable to regulate itself because of the costs involved.

A strong and credible quality mark for all engineering professionals belongs with the profession – it should not be regulated by government.

[3] Cabinet Circular Policy Framework for Occupational Regulation (1999).

An opportunity to raise the bar

Decoupling Chartered Member from CPEng means we can raise the bar for Chartered Engineers. Our assessment process for our Chartered class has been constrained by the prescriptive processes set out in the CPEng Act: it doesn't make sense for us to move Chartered and CPEng out of line with each other. When CPEng is repealed, we can revise our assessment and requirements, with a view to strengthening them as required.

WHERE THE STAKES ARE HIGHER, GOVERNMENT OVERSIGHT IS APPROPRIATE

According to the government's own framework, if only a specific aspect of the practice of an occupation poses a threat to consumers or third parties, the best solution is to target that aspect rather than legislate to regulate the entire occupation.

The profession recognises that there are areas of engineering where the risks are higher. It's critical that engineers practising in those areas have demonstrated specific competence.

This requires a flexible framework that provides for closer scrutiny and oversight in specific areas where risks are heightened. This could be achieved through the proposed licensing system, which has oversight from government, in tandem with a self-regulated general quality mark.

Chartered is the base for licensing

Chartered Engineer would be the base requirement with licences required to do restricted work.

So you could, for example, be:

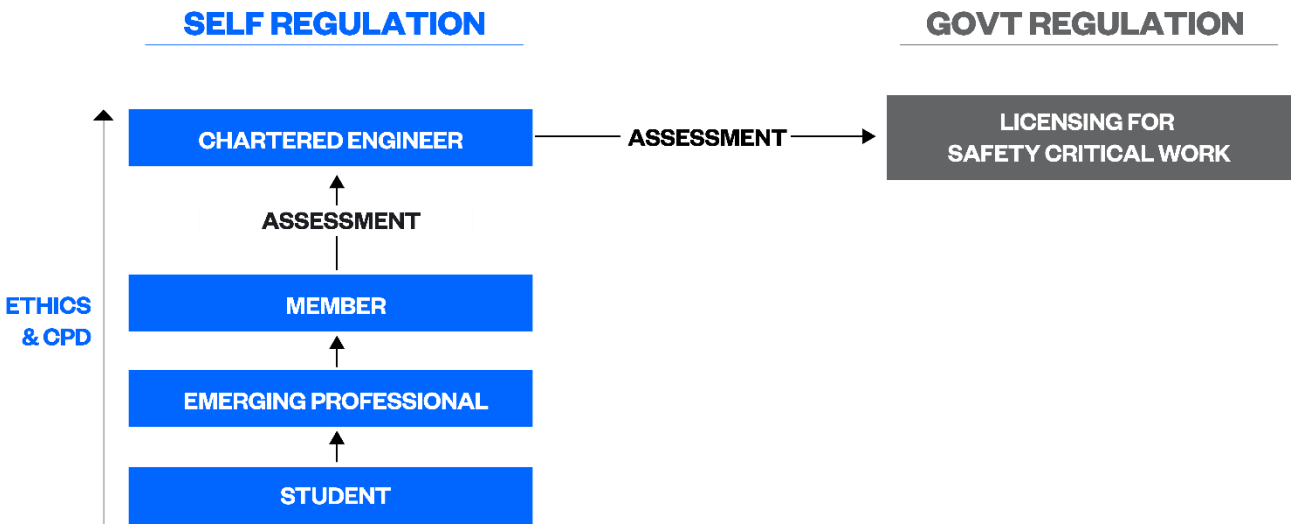
- a Chartered Engineer performing non-restricted work in your specific practice areas/areas of competence; or
- a Chartered Engineer with a licence to perform restricted work.

Who would be licensed?

As we see it, the need for licensing relates primarily to those engineers who take responsibility for design work (who oversee and sign it off) rather than employees who might carry out that work, who may be more junior.

In the building and construction industry, many firms have a large number of CPEng on staff, but only one or two are tasked with signing off work. Under a licensing model, the licensed engineers should be the ones with the specialised skills in overseeing work, monitoring, assuring quality, and taking responsibility. When signing off work, the licensed engineer would apply certain filters to assure themselves of the quality of the work they are signing off. One of those filters would be whether the design engineer is Chartered. So, a firm may have many Chartered Engineers (regulated by the profession), but only a handful of licensed engineers.

As one of our members said: *"Whichever system is chosen, it should be as straightforward as possible so members of the public can understand what level of engineer they are working with, and what is required for their project. It should not be a costly or difficult exercise to determine who is qualified to do a job."*



ALL LICENCED ENGINEERS SHOULD BE CONNECTED TO THEIR PROFESSIONAL COMMUNITY

The public would be better protected if all engineers practising in restricted areas were also connected to their profession through a professional body.

We see in our complaints that the greatest risk to the public comes from practitioners operating on their own, without a strong connection to their peers and industry developments.

We strongly recommend that membership of a professional body be mandatory for practising engineers.

ROBUST PROFESSIONAL STANDARDS AND QUALITY ASSURANCE ARE ESSENTIAL

Whatever the legal framework, for it to have impact it needs to be underpinned by robust professional practice. The profession is passionate about quality assurance and upholding standards. With Government support, the profession can lead initiatives to strengthen professional behaviour and the quality of outputs.

Across the building and construction sector, this includes peer review and audit. These are fundamental aspects of a high-functioning profession that need to be owned by the profession. It also includes continuous quality improvement in other areas such as producer statements, and construction monitoring by engineers and building consent authorities.

ENACTING OUR PROPOSED FRAMEWORK

PROTECTION OF TITLE FOR ONE QUALITY MARK

Chartered Engineer is the logical quality mark

Legislation should **protect the title Chartered Engineer** as a general quality mark and give administration and ownership of that title to Engineering New Zealand. This would be akin to the way legislation protects the title Chartered Accountant. As one member said: *"Industry needs to be self-regulated in order to be current. But [government] legislation needs to put the teeth into the self-regulation to enforce it."*

We understand MBIE's concern about regulating membership of a private body. But most members see membership of a professional body as a fundamental minimum expectation of someone who holds a licence. This means that engineers are connected to their peers and an environment that enhances professional development and growth, along with the other benefits to the profession and society that come with membership (as noted by Justice Collins). There are other areas of professional regulation where this happens – accountancy, for example. Protecting the title in legislation would mean Engineering New Zealand would be accountable for how it is administered.

While all engineers would benefit from belonging to Engineering New Zealand, we would work with MBIE to create a pathway to being Chartered for non-members.

The profession will set the standard

The profession is going to be involved in setting the standard. It will also be involved in assessing engineers against that bar and determining when engineers have fallen short. So much of the broader regulatory response – from setting standards and expectations, to peer review and audit – relies on the profession.

That's why the Government needs to enable the profession to hold that quality mark, in the same way that other international jurisdictions enable their engineering professions to regulate it. Uniting engineers under one mark will create a stronger profession and raise the bar across the board. The regulatory framework that the government proceeds with needs to enhance, rather than undermine, the role of the professional body, for both the good of the profession and the public.

We're mindful of the Cabinet Circular's principles for certification regimes: the need to ensure consumer participation in setting entry standards and discipline, ongoing competence of members, transparency of processes and decision-making, admission criteria based on relevant and objective data to ensure fair and consistent treatment, and impartiality. Engineering New Zealand can provide these assurances with minor changes to its Chartered Member (to be renamed Chartered Engineer) class, and indeed already delivers on most of these principles.

We're also mindful that some of our members see benefits in the current reassessment CPEng process being carried over to the new general competency mark. We would work with the Government, the profession and industry to ensure our quality mark is fit for purpose while still providing the simplicity that makes it an efficient and effective regulatory scheme.

The assessments for Chartered Engineer must complement and feed into the assessments for licensing. This is why both processes need to be administered by one body – Engineering New Zealand – with government oversight at the licensing level, in line with the government's own expectations, where the stakes are high.

A LEGISLATED FRAMEWORK FOR LICENSING

Complementing the quality mark should be a **legislated framework for licensing**. This legislation would provide a framework for assessment, governance and strong accountability that could be applied to other like-professions. It would be an omnibus Act, like the Health Practitioners Competence Assurance Act 2003, which allows for other professions, over time, to be added in under the auspices of the legislation.

We strongly believe that regulating engineers alone will not improve outcomes across the building and construction sector, and that the licensing framework should allow other professions (and engineering disciplines) to be added over time. This could include architects (with one body regulating architects, architectural designers and architectural technicians) and project managers, which the New Zealand Institute of Architects and the Registered Architects Board supports. Regulating interdependent professions under one piece of legislation would benefit the public and meet the objectives of the Construction Sector Accord, which calls for a systemic response to regulating the sector.

The legislation would incorporate the basic principles of ongoing competence and the separation of the registration process from the disciplinary process, and reflect government obligations to the public – with MBIE playing a role here. But the primary responsibility and accountability for regulating professions would be delegated by the Governor-General (on the recommendation of the Minister) to a regulatory authority. The legislation would provide the authority with the tools to ensure the members of the profession it regulates are and remain competent and safe to practise.

The regulatory authority would be responsible, within its particular profession, for:[4]

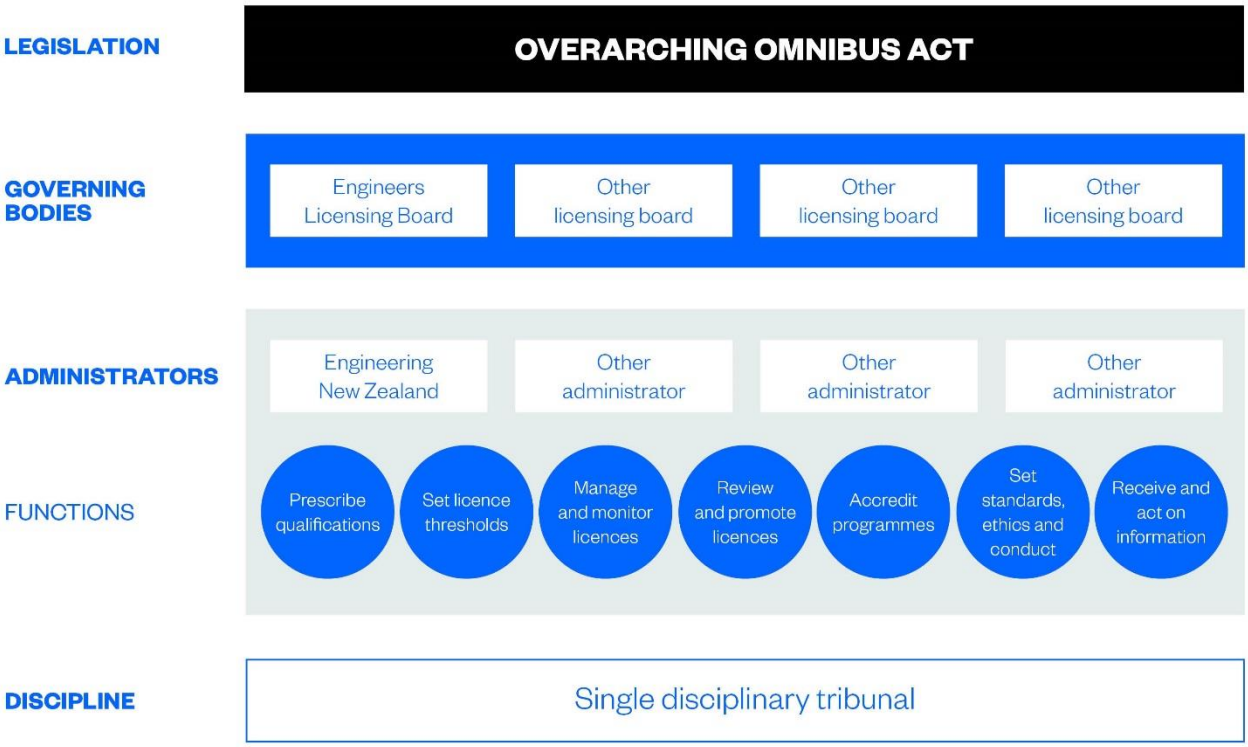
- prescribing the qualifications required to perform restricted work and, for that purpose, accrediting and monitoring educational institutions and degrees, courses of studies and programmes;
- setting the bar for licensing, drawing on the expertise of technical groups;
- setting standards of competence to be observed by licensed practitioners;
- ensuring licensed practitioners meet a professional ethical standard;
- managing and monitoring licences and maintaining registers;
- considering applications for licensing;
- reviewing and promoting the competence of licensed practitioners;
- recognising, accrediting and setting programmes (including auditing) to ensure the ongoing competence of licensed practitioners;
- receiving information from any person about the practice, conduct, or competence of a licensed practitioner and, if it is appropriate to do so, acting on that information;
- notifying other regulators that the practice of a licensed practitioner may pose a risk of harm to the public;
- considering the cases of licensed practitioners who may be unable to perform the functions required for the practice of the profession;
- liaising with other relevant bodies about matters of common interest;
- promoting and facilitating inter-disciplinary collaboration and co-operation in the delivery of services;

[4] These are analogous to the responsibilities of Authorities under the Health Practitioners Competence Assurance Act 2003.

- promoting education and training of licensed practitioners;
- promoting public awareness of the responsibilities of the authority; and
- exercising and performing any other functions, powers and duties conferred or imposed through the legislation or any other enactment.

Increased powers to ensure fitness for registration and competence to practise would come with checks and balances. These would ensure that the regulatory authorities are accountable for complying with the provisions of the Act, through the Minister to Parliament. They include the Minister's powers to appoint authority members, determine mechanisms to facilitate resolution of disputes over scopes of practice and gazette restricted activities that can be performed only by licensed professionals.

The Health Practitioners Competence Assurance Act 2003 is an excellent model that has been proven to work well across a range of health practitioner groups. Much of the wording of the HPCA Act could be copied over into our licensing legislation. It would look like this:



Examples of Other Licensing Boards above might include licensing boards for architects (and architectural designers and technicians), licensed building practitioners, surveyors and project managers.

A MODEL THAT MEETS GOVERNMENT EXPECTATIONS

In our view, this is the legislated framework that would best deliver on the principles in the Accord and meet the principles and objectives of occupational regulation in the Cabinet Circular. It would deliver a framework that could be trusted to keep New Zealanders safe, yet be simple to understand and operate. It would be effective and efficient, keep government oversight at the right level, and work for the whole

profession and associated industries. It would give us a framework flexible enough to provide for growth and innovation. And its consistent approach across like-professions creates certainty for the public.

OTHER LEGISLATION NEEDS TO BE INCORPORATED

Other legislation regulating engineering, including the Engineering Associates Act 1961 and the regulation of electrical engineers through the Electrical Workers Registration Board (under the Electricity Act 1992), needs to be considered to ensure future alignment.

WHERE THE CURRENT LEGAL FRAMEWORK IS LETTING US DOWN

THE SECTOR IS FRAGMENTED

Nearly all the time, engineering in New Zealand works well and delivers high-quality results. But cases like the design of the CTV building, Southland Stadium, the Masterton Inquiry buildings, and 230 High Street in Christchurch raise questions about the regulatory system.

Engineering design is part of a system from design to delivery. That system is intended to prevent delivery of inadequate design. But there have been cases where this system has failed. Inadequate engineering design has not been picked up when it should have been – at peer review, during the consenting process, construction and construction review, or at code compliance sign-off. Later this year, we'll be releasing a report that looks at some of the key lessons we can learn from our complaints cases about failures of the system.

There are multiple players in the building and construction sector, and to improve the regulatory system we need to understand all its dependencies and risks. While creating the right regulatory framework for engineers is a start, it isn't our only response. Human error and mistakes will happen regardless of the regulatory framework. The whole system should be designed to recognise mistakes as early as possible and respond effectively and efficiently. At the moment, that isn't happening. **Regulating engineers in isolation from these other systems and processes, while a good start, will not get us to where we need to be.**

CPENG IS NOT CONCEPTUALLY COHERENT

At the moment, we have two voluntary self-regulatory frameworks for engineers in New Zealand – Chartered Membership through Engineering New Zealand and CPEng (administered by Engineering New Zealand under the CPEng Act).

In the absence of mandatory professional regulation, people are trying to make CPEng fulfil a function it wasn't designed for. And some of CPEng's requirements, like ongoing reassessment, and the fact it is in legislation, are more aligned with what you would expect from a licensing regime (where you have to meet extra criteria to do certain types of work).

In fact, CPEng is a voluntary quality mark that conveys general technical competence and professionalism rather than proven ability to perform specific work. Although there are some specific tasks that require CPEng sign-off under legislation, CPEng itself is not designed to test whether engineers are capable of performing specific work. It is much more akin to a self-regulation model.

This lack of coherence between CPEng's characteristics as a licencing regime and its characteristics of a general quality mark has created confusion about its role.

CPEng also falls short on a number of fronts:

- It doesn't stop engineers operating outside their areas of competence (and the broader system isn't designed well enough to pick this up).
- When an engineer's competence is found wanting, CPEng doesn't allow us to immediately stop them practising to protect the public.

- It has led to workarounds because it doesn't provide enough assurance that an engineer can do specific, safety-critical work. A number of councils have created their own lists of "approved engineers", which adds more confusion and cost. Different council lists and different quality marks make it confusing for the public to understand who they should engage and when.
- While open to all engineers, CPEng has a strong structural/civil focus, which means it's become a quasi-licensing system for civil and structural work. This makes it an unattractive quality mark to the broader range of engineering professionals. If engineers don't need it to practise, they don't see it as relevant.

THE GOVERNANCE MODEL IS CONFUSING

The Chartered Professional Engineers Council acts as an appeals body for the Registration Authority but also has a governance role in relation to the Registration Authority's performance. However, CPEC isn't sufficiently resourced or empowered to perform either function to a high level. This creates inefficiency and duplication.

"CAN WE JUST FIX THE CURRENT CPENG FRAMEWORK?"

Our members support greater regulation of safety-critical areas of engineering through a licensing scheme. But some of our members are asking whether CPEng can be fixed, rather than creating a completely new framework. What sits behind these questions is recognition that CPEng has valuable aspects that we wouldn't want to lose in a new system. This includes the use of practice area assessors, reassessment, and the improvements we have made to our complaints and disciplinary processes in recent years. Reassessment would be an important part of a licensing framework.

We've previously discussed with MBIE whether making amendments to CPEng is an option. These discussions have shown that so much change would be required that starting afresh makes more sense. Some of the changes we think are needed, such as stronger accountability mechanisms, more streamlined and efficient processes (from governance through to delivery) and making the system work for the whole profession, won't be effective if they are just bolted on to the CPEng Act. New legislation that carries over the positive parts of CPEng is preferable to trying to wrangle the existing Act into a form that works for the profession.

Members are concerned about transitioning to a new system, and the cost and confusion that this could cause. The transition needs to be well planned, executed and communicated to be successful.

IS MBIE'S PROPOSAL THE ANSWER?

WE SUPPORT ITS DIRECTION AND PRINCIPLES

There are many aspects of MBIE's proposal that we support. These include providing stronger regulation in safety-critical areas, recognising the need for a general mark of competence, and providing strong accountability and governance mechanisms.

But aspects of the proposed model will undermine an effective regulatory system. Some relatively straightforward changes – like those we've discussed above – would enhance it significantly.

THE PROPOSED FRAMEWORK IS CONFUSING

MBIE is proposing a three-pronged framework:

- two marks of general technical competence and professionalism (Certified Engineer through government and Chartered Engineer through Engineering New Zealand); and
- licensing through government.

We strongly believe that the legal framework needs to be simple to understand and operate. We cannot see how the three-pronged system proposed by MBIE achieves this. It's complicated, more confusing than the current model and duplicates processes. It won't be clear and easy for the public to understand, and it affects the efficiency, responsiveness and cost of the whole regulatory system. As one member said: *"A two-tier system is good. Three is ridiculous."* Another member noted: *"Unintended consequence: layers (of regulation) deter people from [entering] structural engineering."*

The framework risks overloading regulation of engineers at the expense of the broader system and interdependent professions in building and construction. As one member said: *"Design professionals … should be working in an environment that provides control by means of peer review and the application of a formal quality control system subjected to external [verification]. These features are an established part of the modern world. Added to this is review of the design and documentation by the Building Consent Authority. If all these features are working, then there should be no need for another layer of control. Use these arrangements and make them work."*

We also think MBIE's proposal for a three-pronged framework is not consistent with the Construction Sector Accord nor the Cabinet Circular Policy Framework for Occupational Regulation.

WE SUPPORT LICENSING BUT IT NEEDS BETTER DEFINITION

In principle, our members support MBIE's proposal to create a robust framework for regulating certain work. This would be achieved through restricting that work so that it can only be done by licensed engineers. In our view, this is the right level for government oversight and involvement in regulating the profession.

How do we define what is "safety-critical"?

Many members raised questions about how the Government is intending to define what is "safety-critical", and many say the term "safety-critical" is not helpful in describing this kind of high-risk work because complex engineering is safety critical by definition. Much of the devil is in the detail. Some members' support for this proposal will depend on where the thresholds for restricted building work and the associated bar for licensing lie.

For example, the Structural Engineering Society (SESOC) says that for structural engineering design, there is already a working definition of restricted design work in the form of specific structural engineering design to B1/VM1 (or Alternative Solutions beyond) – and this is where the threshold should sit. Other members envisage that the threshold would sit at a different level, with the work under that level regulated by the profession through Chartered Engineer. Our members are thoughtful that scopes can't be so detailed and specific that they become unworkable, but also can't be so broad that they don't provide the meaningful assurance the public wants.

Much more work is needed to define the threshold of restricted work and the bar and scopes for licensing.

Delegation is one answer

In our proposed model, the licensing legislation would not define or set the bar for licensing, but rather would delegate responsibility for defining, scoping, managing and monitoring licenses to the regulatory authority, with accountability back to government. This allows for flexibility as the profession grows and develops over time, and is consistent with the health practitioners' legislation, which delegates responsibility for setting scopes of practice to the Registration Authorities.

Any licensing regime needs access to the best technical expertise, to set the standards and scopes of licenses and to manage them. Engineering New Zealand, with its strong and established links to the best technical expertise and experience in assessment, is the only professional body with the experience and access to the knowledge and skills required to administer the licensing regime.

We consider it appropriate that we lead this work from the outset with strong engagement and advice from our technical group partners. Establishment of a licensing regime needs to be informed by a comprehensive analysis of where the greatest risks lie. This would be done in concert with MBIE, through a co-design process.

Licensing needs to work in the real world

The Building Act definition of a 'building' is much broader than residential houses and commercial high-rises. The diagram in the discussion document of a multi-storey building ignores important structures like dams, tunnels, tanks etc, that could equally present high safety risk. While we appreciate MBIE's focus is on residential and commercial buildings and building systems, it's critical that engineers working in other areas are not overlooked at any stage of developing a new legislative framework.

We think it's also important to recognise that engineers often work in both the building and wider infrastructure sectors, and their skills may encompass several areas of future restricted work. Consideration must be given to how many licence classes an engineer may need to hold to perform their day-to-day work, and how this can be achieved without undue complexity and cost.

How do we recognise the responsibilities of other professionals in safety-critical work?

"Engineering relies on good teamwork to achieve good results. Good engineering is doing the right things at the right time in the right sequence. Most complex engineering activities are multi-discipline and rely on good processes, good communication and using the best and most experienced people in early design development. These simple measures have a huge influence on achieving successful project outcomes."

Engineering of building and construction work can't be neatly divided into structural, geotechnical and fire engineering. For example, mechanical and electrical engineers may be involved in aspects of a building's design that have a significant impact on safety. And architects (as well as architectural designers and

technicians) and project managers are key engineering partners in the building design process. Our engineers asked us how the licensing regime will respond in those areas. And that's a great illustration of why a systemic response is critical to overall improvement of the building and construction sector.

In line with our vision for a regulatory system for all engineers, the model developed for the licensing system must be able to extend into other disciplines that practice safety-critical engineering work over time. Engineering New Zealand has access to expertise in all fields of engineering.

WE DON'T SUPPORT CERTIFICATION AS PROPOSED

In addition to licensing, the Government has also proposed a voluntary statutory certification scheme to provide assurance of an engineer's professionalism and general competence.

As previously discussed, this means there would be two marks that recognise an engineer's professionalism and general competence: government oversight through its certification scheme and self-regulation as an assessed Chartered Member (to be renamed Chartered Engineer).

Our members are strongly united in their view that we don't need two schemes for recognising general professionalism and competence. We think this duplication would undermine licensing because:

- it creates confusion;
- it will increase cost and have unintended consequences that affect the system's responsiveness to emerging issues; and
- confusion, cost and consequences ultimately affect the public.

Typical comments from our members on this part of the proposal include:

- *"In the form of the proposal, it would be exceedingly damaging to the profession … The duplication of cost, options, lack of clarity and accountabilities are unworkable."*
- *"Three-tier system would lead to doubling up of resources in which one CPEng/certification equivalent could reduce this to a two tier. With it being a pre-requisite for licensing."*
- *"Not keen on doing same thing twice through two different organisations. MBIE is focusing totally on buildings."*
- *"Seems strange having two pathways. Will be confusing for clients."*
- *"Too many levels … how is it going to be implemented?"*
- *"The fewer registers engineers need to apply for the better."*
- *"We do not think that certified engineer is the right thing to do."*

Certification is not consistent with government guidelines about occupational regulation

The government's own framework[5] says government intervention should generally be used only where there is a risk of significant harm to consumers or the public that cannot be effectively or efficiently solved

[5] Cabinet Circular Policy Framework for Occupational Regulation (1999).

any other way. We strongly believe that the risk to the public lies in the safety-critical area, and that is the appropriate level for government to intervene with legislation to regulate the profession.

The Cabinet Circular provides that any intervention by government in the regulation of an occupation should be the minimum required to solve the problem. Pitching government intervention at the licensing level meets this requirement and is consistent with Cabinet's direction that if only a specific aspect of the practice of an occupation poses a threat to consumers or third parties, the best solution is to target that aspect rather than legislate to regulate the occupation.

General competence should sit with the profession, not government

Our members are almost entirely unanimous that the regulation of general competence and professionalism should sit with the professional body. We already have the expert knowledge and experience to administer this in an efficient and robust way. Our Chartered Member class was developed with the advent of licensing in mind, and the intention it would be renamed Chartered Engineer. It's a quality mark that's internationally benchmarked and accessible to all engineers. International recognition is critically important to the profession and broader, in terms of growth, and this is accessible through the professional body.

There is no reason for the government to intervene in the regulation of general engineering competence and professionalism. Any perceived issues with our quality mark predate our reforms of the past four years, which included making our complaints process more robust, introducing a new Code of Ethical Conduct that members must commit to, adding a professional development requirement for members, and strengthening our assessment processes.

As one member said: *"The MBIE document does not describe any advantages to replacing one voluntary certification scheme run by the industry with another voluntary scheme run by the government."*

Certification will have unintended consequences

The Cabinet Circular says that if government is to intervene, the benefits must exceed the costs. We understand certification is intended to underpin licensing by certifying engineers' general competence and professionalism. But Chartered Member already fulfils that function. If certification is a prerequisite for licensing, it would add a new and additional layer of regulation and cost. Running a general competence certification scheme that is attractive and accessible to a wide range of engineering disciplines will have a significant cost to the Government and the public. It is not clear that this cost has been quantified and balanced against the limited benefits that would come with government intervention at the general competence and professionalism level.

If cost forces engineers to choose between certification and membership, then the public loses the underpinning of professionalism, which will lower the bar. The benefits of a strong professional body in terms of lifting overall quality and professionalism cannot be underestimated. As one member said: *"Membership of a professional body is absolutely vital in my eyes and the existence of a strong, well-funded and reliable professional body is critical to the profession."* Our membership encompasses technicians and technologists, who play a key role in the industry, and undermining membership risks reducing their collegial support.

Engineers are also united in that they don't want to be called "certified". As one engineer said: "I am happy to be Chartered or licensed. I don't want to be certified!"

Certification isn't the answer to the issues MBIE has identified

MBIE's discussion document positions certification as a way of addressing the issues that have, for example, led to Council lists. None of these issues will be addressed through adding a government certification scheme into the mix. We think these issues can be addressed by the profession and industry – we don't need legislation to do this. The Councils we have spoken to agree with us on this. We are already working closely with the Metro Council Group to develop a way forward that works for everyone, and we are making positive progress.

Another of MBIE's justifications for certification is that it would accommodate areas of engineering outside the building and construction sector, where the current CPEng Register is called up under other regulations. These includes the certification of amusement devices, and the design verification of cranes, pressure equipment and passenger ropeways. In our members' view, these are areas of engineering work that should be covered by a licensing scheme rather than general certification. Member submissions, including from the Recreational Engineers Society, support our view on this.

WE SUPPORT STRONG ACCOUNTABILITY

We support strong accountability mechanisms for the licensing scheme. We also support strong accountability for the mark of general technical competence and professionalism as regulated by the profession. We have considerable experience with this and have built a robust and effective process that has won national awards from the In-house Lawyers Association of New Zealand and is delivering fair and efficient results.

We support a robust, fair, impartial, transparent and proportional complaints and disciplinary process that effectively manages risk to the public for safety-critical engineering in a licencing regime. The focus of an effective professional complaints and disciplinary process needs to be broad – it's about learning, quality improvement and appropriate accountability. The majority of complaints raised with us are matters that do not raise public-safety concerns. This means they can be effectively and efficiently resolved between the parties using early resolution processes, including mediation, apologies, education and training, and competence reviews. On average, around half of our complaints are resolved through our early-resolution process.

It is critical that any new accountability framework for licensing incorporates flexible mechanisms for resolving complaints, including alternative dispute resolution and efficient decision-making processes. We have significant in-house experience in professional complaints management within engineering and other professions.

We agree that decision-making on complaints should be independent. However, we don't fully understand the independence model proposed by MBIE, how it would add value to the process nor how it would provide a seamless journey for complainants. We need to be very mindful not to fragment the complaints process because this creates administrative inefficiencies, which affect how responsive and robust the system can be in responding to risk, and the costs involved.

Efficient and fair risk management needs to be a priority in any accountability setting. This includes requirements for organisations to share risk information, where appropriate. The current CPEng Act does not provide a process for us to share risk information with other regulators, and this hampers our role as the body responsible for upholding standards and promoting public safety in the engineering profession. If we want to share information about engineers, we need to rely on general legislation like the Privacy Act.

This lack of specific information-sharing provisions places us at risk of legal challenge if we share information about engineers that we consider necessary to prevent or reduce a risk to public health and safety. We would like to work closely with MBIE on an appropriate process for this.

WE SUPPORT STRONG GOVERNANCE AND LEADERSHIP

We also support strong governance and leadership. We agree that the licensing regime have independent oversight, in the same way many other professional regulatory schemes do. This role must not get confused by assigning it decision-making responsibilities on competence or complaints, as is currently the case with CPEC.

Decision-making should be delegated through the governing body to an administrative body that is accountable back to the governing body. We believe that the skill and experience of Engineering New Zealand, as the current administrator of the Chartered Professional Engineers regime, and regulator of its members should be used to lead and operate the licensing regime.

NEXT STEPS

We remain dedicated to working with MBIE to find the right solution to how engineers (and engineering-adjacent industries) should be regulated. This is a challenge but we are confident the approach we've discussed in this paper presents the best way forward.

We ask that the Government takes time to design a strong and sustainable solution that works for everyone **– all engineers, all members of the public – both now and into the future.**