THE FUTURE OF ENGINEERS' REGULATION IN NEW ZEALAND

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

Regulating the profession is a matter of critical importance to all New Zealand's engineers. Engineering New Zealand appreciates the Government's commitment to reform the building and construction sector, from occupational regulation proposals to the Construction Industry Accord.

This paper responds to the Government's proposals for the occupational regulation of engineers. We are grateful for the opportunity to work with you on this proposal and would like to thank your team for their engagement with us so far.

After an executive summary, this paper includes six parts. In working through these sections, we respond to the questions in your discussion paper. We outline the aspects we support, the aspects we think need more thought, and the professions' reasons in each case.

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EXECUTIVE SUMMARY

WE SUPPORT MANY ASPECTS OF MBIE'S PROPOSAL

There are many parts of this proposal we support, including stronger regulation of engineering work where the risks are high, and strong accountability, governance and leadership.

BUT WE HAVE SIGNIFICANT HIGH-LEVEL CONCERNS

We don't think the overall proposal is fit-for-purpose yet. The areas that concern us include:

- the high level of **uncertainty** around how licensing thresholds will be set and work in practice;
- the **duplication of process and cost** that would arise from having two marks of general technical competence and professionalism – Certified Engineers and Chartered Engineers;
- the potential unintended consequence of **undermining the engineering community** created by Engineering New Zealand, which ensures that engineers are connected to their peers and an environment that enhances professional development and growth; and
- the **potential for fragmentation**. Engineers work in both the building and wider infrastructure sectors, as well as in many other sectors. It's unclear how the model is sufficiently flexible to be extended to engineers working outside the building and construction sector and to interdependent professions.

A WAY FORWARD

Licensing needs to sit alongside strong professional self-regulation.

The licensing framework must be flexible enough to accommodate other engineering disciplines and related professions.

Licensing is underpinned by one quality mark recognising professionalism and general technical competence (tailored to specific practice areas) called Chartered Engineer. Engineers can access this through membership of Engineering New Zealand. We believe the public is best protected if all practising engineers are connected to their profession through membership of a professional body, particularly those practising in high-risk areas

We think this is the only realistic, operationally viable and proportionate way to achieve effective regulation.

OUR CONSULTATION PROCESS

This proposal goes to the heart of our purpose and our role as the peak professional body for and regulator of engineering professionals in New Zealand. 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 members across engineering disciplines.

Our consultation included:

- Branch sessions from Auckland to Invercargill, dedicated to the topic of occupational regulation. More than 550 members attended across all sessions.
- Engagement at management committee meetings of many of our technical groups, 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, extensive information on our website, and a call for feedback, which resulted in more than 130 individual submissions to us.

Many of our technical groups presented submissions to us on behalf of their members. Where those groups are broadly in alignment with our vision, we have obtained their permission to add their backing to this submission. Our branch committees also engaged with us in gathering and presenting their members' views on the proposal, which have been incorporated in our submission.

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 the detail sitting beneath, for example, how thresholds for licensing can be established and managed.

ENGINEERING NEW ZEALAND'S ROLE

Engineering New Zealand is New Zealand's professional home for engineers. We represent more than 23,000 engineering professionals from a wide range of engineering disciplines, from structural and civil to biomedical, chemical and aeronautical engineering. We are also a leader in the sector, with strong connections within and across it – we also represent the wider sector.

Engineering New Zealand regulates the profession, 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 operate a regulatory system for this diverse profession.

Effectively regulating a 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. Effective regulation of a profession relies on these pieces acting as a cohesive whole, rather than a disjointed and piecemeal approach.

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] Membership of Engineering New Zealand carries obligations in all paid member categories around standards, commitment to the Code of Ethical Conduct, continuing professional development obligations and a robust accountability process. The Chartered Member class is an assessed, internationally benchmarked, technical and general competence quality mark. Membership of Engineering New Zealand also provides collegial links across the profession and provides engineers with the opportunity to learn and develop their professional knowledge and skills through our training and development programmes and wider branch and group networks.

Our submission needs to be read in this broader context. We occupy a critical space in the regulatory system of engineers, and our reach expands far beyond engineers working in building and construction. **We want a regulatory system that works for everyone – all engineers, all members of the public – all of the time.**

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

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 specific high-risk work. It also means having a regulatory framework that works seamlessly alongside the regulation of interdependent professions.

We have a clear view of what that framework should look like. It looks ahead, with an eye on how the profession is growing and changing. It takes in the profession's depth and breadth, the role of innovation in solving the critical challenges facing New Zealand and New Zealanders, and the role of interdependent professions and how we can best protect the public.

Our realistic **view of an effective regulatory system for engineers** is licensing supported by strong professional self-regulation. This is what we think this looks like in concrete and achievable terms:

PRINCIPLES-BASED

The key principles of a strong regulatory framework for professions are:

- Being **simple to understand and operate**. Simple frameworks are more effective than frameworks with unnecessary layers of regulation that duplicate process and cost.
- Pitching **government oversight at the right level** of regulation, letting the profession take an appropriate amount of responsibility too. Professional bodies play an essential role in the broader regulatory system and it is important that any future framework does not inadvertently undermine this.
- **Working for the whole profession (and wider industries)**. Fragmentation in regulation, which is seen in this context across building and construction, heavy vehicles, dams and amusement devices, for example, is confusing and stretches the safety net too thin. In the interests of the public, the framework needs to allow for integration and coordination within and across the profession and interdependent professions. This is consistent with the principles of the 2019 Construction Sector Accord.

A STRONG AND CREDIBLE QUALITY MARK FOR ALL ENGINEERS THAT IS REGULATED BY THE PROFESSION

One quality mark

For a properly regulated profession, we want any engineer, engineering technician, engineering technologist or engineering geologist to aspire 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, tailored to meet New Zealand's needs.

While we know the focus of the current proposal is restricted to building, these engineers do not operate in isolation of the broader profession and the proposal needs to work for all engineers.

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:

- strengthens the profession as a whole and raises the bar for all engineers, including those in the building sector;
- is easy for the public to understand (like Chartered Accountant);
- is efficient and cost-effective to administer;
- offers clarity of expectations and accountabilities; and
- avoids fragmentation across the profession.

Although in theory CPEng could provide this, in practice it isn't attractive to all engineers. CPEng also has several flaws because of the limitations of the CPEng Act, which we'll discuss later.

In other jurisdictions (for example, Australia, the United Kingdom, Ireland and Hong Kong), a general quality mark like Chartership is typically taken care of through self-regulation by a professional body, not through government regulation.

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

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

Regulation by government at the quality-mark level is not consistent with the government's own policy framework,[2] 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.

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.

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

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

profession's responsibility to the public and underpin the trust that the public places on Engineering New Zealand.[3]

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. Our assessment process for our Chartered Member classes has been somewhat limited by the prescriptive processes set out in the CPEng Act, as it doesn't make sense for us to move out of line with those processes while that legislation remains in place. When CPEng is repealed, we can revise our assessment and requirements, potentially strengthening them, as required.

GOVERNMENT REGULATION WHERE THE STAKES ARE HIGHER

According to the government's own policy framework,[4] 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.

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.

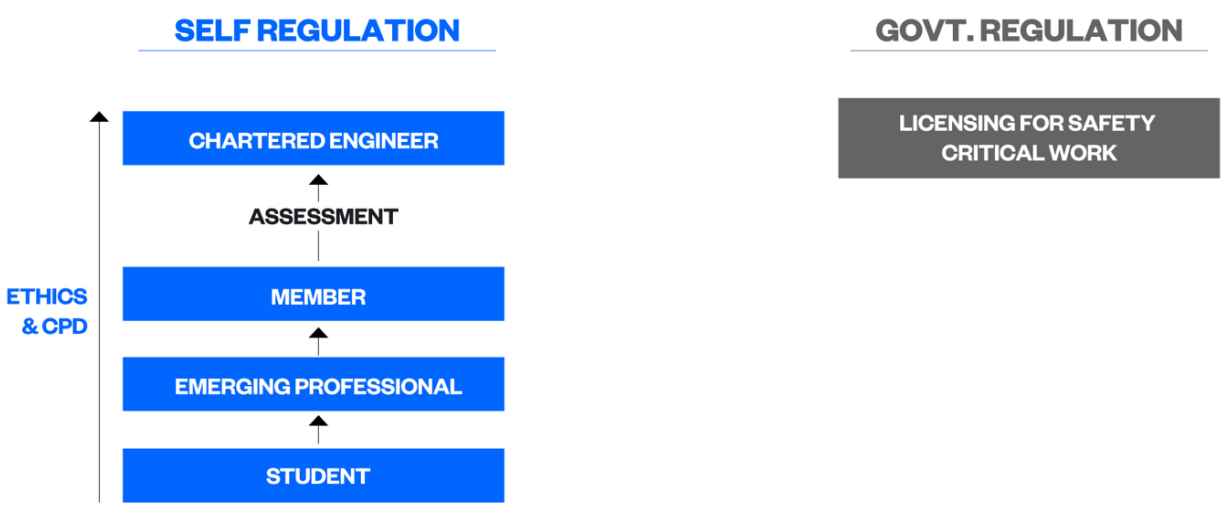
A flexible framework provides for closer scrutiny and oversight in specific areas where risks are heightened. It is a framework that allows the public to have greater confidence where there are significant risks of harm, while being flexible for what the future may hold. This would be achieved through the proposed licensing system, which has oversight from government.

Chartered Engineer would be the base, 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 certain high-risk work.

A licensing system aligned to the Chartered Engineer class would provide a robust, easy to understand and credible system of regulation for engineering, pitching government oversight at the right level (licensing) and allowing the profession to take an appropriate level of responsibility. 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."*

[3] Attorney-General v Institution of Professional Engineers New Zealand Incorporated [2018] NZHC 3211.
[4] Cabinet Circular Policy Framework for Occupational Regulation (1999).



CONNECTION TO THE PROFESSIONAL BODY

We believe the public would be better protected if engineers practising in high-risk areas were connected to their profession through a professional body. What we see in our complaints is 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 think membership of a professional body should be mandatory for practising engineers.

UNDERPINNED BY STRONG PROFESSIONAL PRACTICE

Whatever the legal framework, for it to have impact it needs to be underpinned by strong 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 – both of which are fundamental aspects of a high-functioning profession but which 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

Legislation should protect the title Chartered Engineer as a general quality mark and give ownership of that title to Engineering New Zealand, in much the same way that legislation protects the title Chartered Accountant. Ownership and administration of that title should sit with the professional body. 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 that Justice Collins notes. There are other areas of professional regulation where this happens – accountancy and law, for example.

Regardless of whether there are two quality marks or one, 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 of it. So much of the broader regulatory response – from setting standards and expectations, to peer review and audit – relies on the profession.

We are asking the Government 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. We believe 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.

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

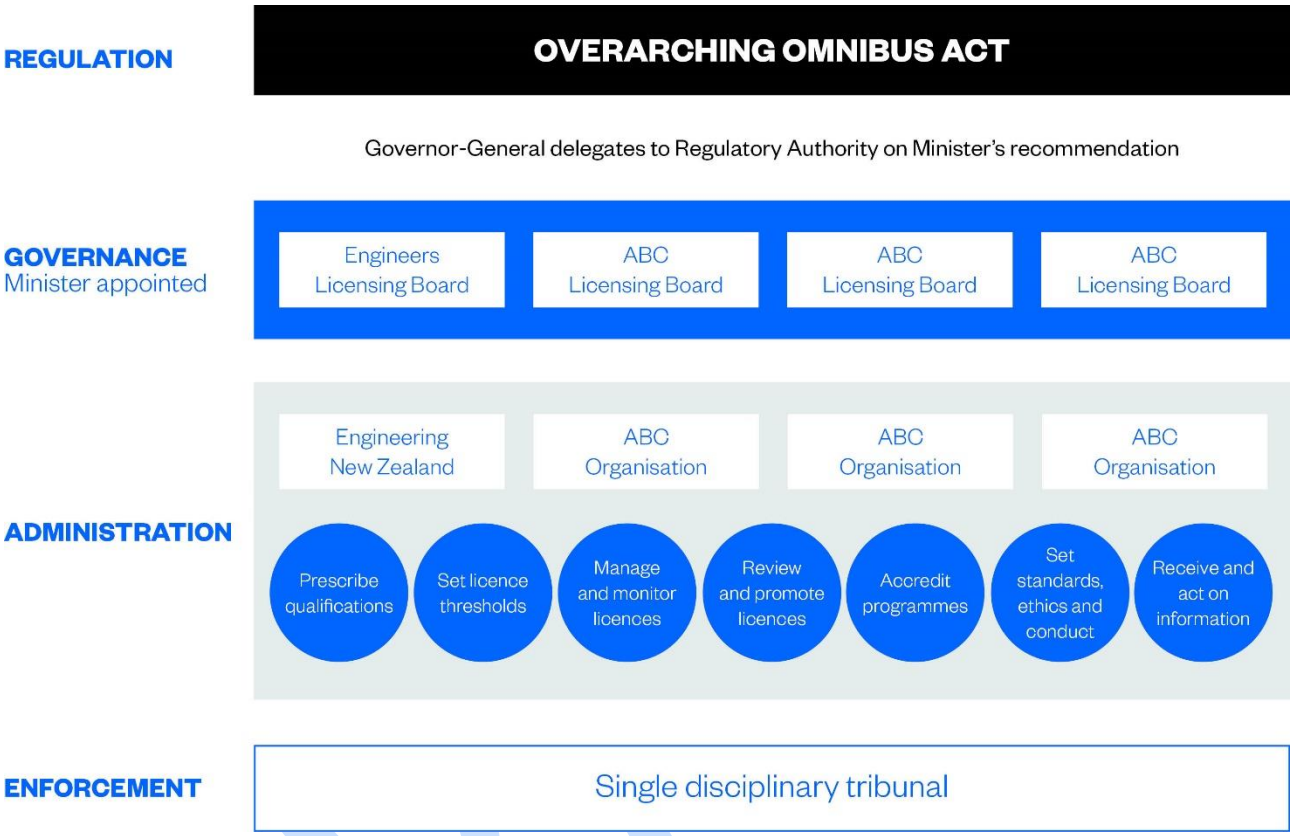
disciplines) to be added over time. This could include architects (with one body regulating architects, architectural designers and architectural technicians) and project managers, which we understand the New Zealand Institute of Architects and the Registered Architects Board supports. Regulating interdependent 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 would be delegated by the Governor-General (on the recommendation of the Minister) to a regulatory authority. In the case of engineering, this would be Engineering New Zealand with an independent board or council appointed by the Minister. 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 authority would be responsible, within its particular profession, for:

- prescribing the qualifications required for licensing and, for that purpose, accrediting and monitoring educational institutions and degrees, courses of studies and programmes;
- setting licensing thresholds, drawing on the expertise of technical groups;
- 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;
- setting standards of competence and ethical conduct to be observed by licensed practitioners;
- liaising with other relevant bodies about matters of common interest;
- promoting and facilitating inter-disciplinary collaboration and co-operation in the delivery of services;
- 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 for professions to ensure fitness for registration and competence to practise would come with checks and balances. These would ensure that regulatory authorities are held 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:



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 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.

WHERE THE CURRENT LEGAL FRAMEWORK IS LETTING US DOWN

THE SECTOR IS FRAGMENTED

Nearly all the time, engineering works well and high-quality results are delivered. 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, while a good start, will not get us to where we need to be.**

CPENG IS NOT CONCEPTUALLY COHERENT

There is no mandatory professional regulation of engineers carrying out high-risk work in New Zealand. 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. It is much more akin to a self- regulation model.

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

CPEng also fails 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, high-risk 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. In turn, it is not an attractive quality mark for a broader range of engineering professionals. This means engineers who don't need it to practise don't see it as relevant.

Having a quality mark that the whole profession can aspire to would lift the bar and create a stronger profession, which ultimately benefits the public.

CAN WE JUST FIX THE CURRENT CPENG FRAMEWORK?

Our members support greater regulation of high-risk 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 some of our members' questions about fixing CPEng is recognition that there are aspects to CPEng that we wouldn't want to lose in the 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.

We've previously discussed with MBIE whether making amendments to CPEng is an option. These discussions have reflected the fact 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 to effectively respond to risk, more streamlined and efficient processes (from independence governance through to delivery) and making the system work for the whole profession (and reduce confusion), won't be effective if they are just bolted on to the CPEng Act. New legislation will ensure people focus on the change.

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

IS MBIE'S PROPOSAL THE ANSWER?

WE SUPPORT THE DIRECTION AND PRINCIPLES

As we've said, there are many aspects of MBIE's proposal that we support. These include providing for stronger regulation in high-risk areas, recognising the need for a general mark of competence, and providing for strong accountability and governance mechanisms. Its intent is good. But we also think aspects of the proposed model could unintentionally undermine an effective regulatory system. Some relatively straightforward changes could 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 regulatory system as a whole. 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 certification. 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 Accord or Cabinet framework.

WE SUPPORT LICENSING BUT IT NEEDS BETTER DEFINITION

In principle, our members support MBIE's proposal to create a robust framework for regulating high-risk work. This would be achieved through licensing. 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" or "high-risk"?

Many members raised questions about how the Government is intending to define what is safety-critical or high-risk. Much of the devil is in the detail. Some members' support for this proposal will depend on where the licensing thresholds lie. For example, the Structural Engineering Society (SESOC) says that for structural engineering design, we already have a threshold in legislation – B1/VM1 – 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.

The Building Act definition of a 'building' is much broader than residential houses and commercial high-rises. The diagram in the discussion document[5] 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 high-risk 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.

Much more work is needed to define the scope and threshold of licences.

In our proposed model, the licensing legislation would not define or set the thresholds, but rather would delegate responsibility for defining, scoping, managing and monitoring licensing thresholds 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 to the Registration Authorities the responsibility for setting scopes of practice.

Any licensing regime needs access to the best technical expertise, to set the thresholds and scopes of licenses and to manage them. This is why Engineering New Zealand is best placed to administer the licensing regime, because we have strong and established links to the best technical expertise and experience in assessment.

We consider it appropriate that we lead this work from the outset with strong engagement and advice from our technical group partners. It 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.

How do we recognise the responsibilities of other professionals in high-risk 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 high-risk 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.

[5] MBIE discussion document Part Three, p35

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

WE DON'T SUPPORT CERTIFICATION

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. This model means there would be two schemes for recognising an engineer's professionalism and general competence that could act as the base for licensing: government oversight through its certification scheme and self-regulation as an assessed Chartered Member (to be Chartered Engineer) of Engineering New Zealand.

Our members are strongly united in their view that we don't need two schemes for recognising general professionalism and competence. We think having two schemes for providing assurance of an engineer's professionalism and general technical competence has the potential to undermine the strength of licensing and a simple two-tier process:

- it is a duplication of process;
- it will increase cost and have unintended consequences that affect the system's responsiveness to emerging issues; and
- two schemes are confusing for the public and not in their interest – as cost and consequences ultimately affect the public.

Typical comments our members have made 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 Cabinet circular provides that 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 any other way. We strongly believe that the risk to the public lies in the high-risk area, and that is the appropriate level for government to intervene with legislation to regulate the profession. And the right place for the regulation of general competence and professionalism sits with the professional body. We have the expert knowledge and experience to administer this in an efficient and robust way. As we noted earlier, we already have a framework in place for this, which was developed with licensing in mind. Our Chartered Member class, which would be renamed Chartered Engineer, is a quality mark of professional recognition and technical competence scheme that's internationally benchmarked and accessible to all engineers. International recognition is of critical importance to the profession and the growth and development of the

profession and broader industry, and this is offered through the professional body not government schemes. Our members are almost entirely unanimous on this.

The Cabinet framework states that in deciding whether government should get involved, a key question is whether there are circumstances that would make intervention by government rather than industry necessary or appropriate. We can't see a reason why the government should concern itself with regulation of general engineering competence and professionalism. Any perceived issues with our current quality mark relate to a time before our reforms, which included making our complaints process more robust, introducing a new Code of Ethical Conduct that members must commit to, adding the requirement for members to complete CPD, and strengthening our assessment processes.

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.

The Cabinet Circular further provides 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 profession loses as a whole, as do the public. 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."*

We believe that government-led certification is inconsistent with government expectations as set out in the Cabinet circular. When you look at the big picture, certification creates a more confusing system, and it's not clear what problem it's trying to solve. 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."*

Consider this in a practical way with the following examples:

Chris is a structural engineer doing non-licensed work:

- Currently Chris is a Chartered Member with CPEng.
- In our ideal future model, Chris would be a Chartered Engineer.
- Under MBIE's proposed model, Chris would be Chartered Engineer and a certified engineer

Emily is a fire engineer who does restricted work:

- Emily is currently a Chartered Member with CPEng, just like Chris.
- In our ideal future model, Emily would a Chartered Engineer and hold a license for high-risk fire design.
- Under MBIE's proposed model, Emily would be a Chartered Engineer and a certified engineer and hold a license for high-risk fire design

This example clearly illustrates how certification creates a more confusing system for the public, engineers and the industry. 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, lead 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. We are already working closely with the Metro Council Group to develop a way forward that works for everyone and making positive progress.

Another of MBIE's justification 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, heavy vehicles and the design verification of cranes, pressure equipment and passenger ropeways. In our members' view, these are areas of high-risk engineering work and should be covered by a licensing scheme rather than general certification. The submissions from the Recreational Engineers Society and the Transport 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 more 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 new 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 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. We would like to work much more 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 should be independently governed, in the same way many other professional regulatory schemes are. But it is important that the governor sticks to governance, and that its role doesn't get confused by assigning it decision-making responsibilities on competence or complaints.

Decision-making should be delegated through the governor to an administrative body that is accountable to the governor. 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 should be regulated. It is difficult but possible. MBIE's proposal makes progress in the right direction but will have some foreseeable negative consequences in its current form. These include generating confusion, duplication and cost as well as diluting the value of the professional framework that the professional body embodies.

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