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PROPOSED ENGINEERING OCCUPATIONAL REGULATORY REGIME

SUBMISSION FROM ACE NEW ZEALAND

Thank you for the opportunity to submit on MBIE's proposals for the occupational regulatory regime for engineers in Aotearoa.

ACE New Zealand (the Association of Consulting and Engineering) is a firm-based membership association representing over 220 consulting and engineering firms – from large global firms to employee-owned SMEs and sole traders.

Our members employ approximately 13,500 staff, including engineers, project managers, planners, scientists, architects, surveyors and other technical disciplines relating to the construction and infrastructure sectors. Our teams work together to advise, design and deliver on critical technology, policies and practices, construction and infrastructure, across the built and natural environment in Aotearoa.

Many of the engineering staff of our member firms are also members of Engineering New Zealand. Engineering New Zealand and ACE New Zealand have coordinated on our responses. Engineering New Zealand's submission focuses on the impacts of the proposals on the profession, and our submission focuses on the impact of the proposals on the businesses and market sectors we operate in more broadly. Our submissions are complementary.

We also note our support for CEAS's submission, as it relates to the potential liability and insurance implications of these proposals, which are of significant concern to our members also.

EXECUTIVE SUMMARY

To inform this submission we've carried out a large number of in-depth conversations with a range of our member firms, representing different scale, disciplines, and regional locations. Our submission reflects the views obtained from our members throughout this qualitative engagement. Our position is:

We support:

- restricting certain high risk or safety critical engineering work to persons who have regularly demonstrated their competence to perform that work,

- capturing a wide pool of engineering professionals into an *affordable* system that puts a strong emphasis on ethics and professionalism after a sustained period of development and mentorship, not on graduation,
- maintaining a mark of general competence within the system, either as part of a tiered registration or tiered licensing regime,
- including all engineering professionals within the regulatory regime (engineers, engineering technicians, engineering geologists, and engineering technologists), and
- the Government's proposal for a two-tiered regulator, with a governing or oversight board that includes members of the profession, and a regulatory service provider which is Engineering New Zealand.

We are concerned about:

- ensuring that regulatory attempts to minimise quality risk, which is complex and already well managed through quality assurance systems, aren't so onerous that they slow or bar engineers from doing their work, creating a corresponding delivery risk that impedes the Government's infrastructure agenda,
- the market scale and size of New Zealand making it cost prohibitive to define specific aspects of a licensed activity in any detailed way, and that any attempt to define this by regulation is likely to impose costs and slow projects, increasing delivery risk, especially for complex major projects,
- ensuring implementation is done in a fair and equitable way so that there is no "first to market" competitive differentiator for early adopters of the new system that would negatively impact smaller and regional service providers, and slow down the professions' ability to deliver to the current market,
- whether the system should be administered by a Minister with a broader portfolio than building and construction, to remove the perception that this is for building and construction engineers only, and
- preserving the mobility of engineering professionals to and from international markets, noting that cost-effective and timely access to international talent is vital for the engineering profession to be able to make its contribution to the delivery of Government's infrastructure ambitions.

We're keen to continue work with you to ensure the introduction of a new regulatory regime is planned and coordinated in a way that supports all our businesses and markets to prepare for it and participate equally, for the overall health of our sector.

OUR OVERALL POSITION

We support raising the bar

Our member firms support actions to raise the bar and lift the quality of engineering in Aotearoa. To deliver projects of a high quality to our clients, we need competent professionals working within competent systems. Competent systems mean, for example, firms with fit for purpose quality assurance systems and strong cultures of compliance and professionalism, up to date and relevant standards, and robust environmental settings including consenting processes, procurement, and fair transfer of risk. Alongside a culture of accountability to adhere to these.

Competent professionals

Effective occupational regulation can contribute to creating the right settings for lifting the competence and professionalism of a profession – from setting clear expectations through to providing accountability mechanisms. For this reason, we broadly support Government's proposals for occupational regulation, to ensure engineers working within our system are competent and professional.

Like Engineering New Zealand, we want a system that is simple to understand and operate and pitches government oversight at the right level. What's also important to our member firms is that the regulatory system for engineers achieves an appropriate balance between protecting the public where there is real risk, and the practical implications of introducing licensing and registration into the businesses and sectors we work within.

Any regulatory system can impose significant costs on the profession, its employers and ultimately the client. While our businesses are prepared to adapt and support this cost, they are keen to ensure that it is being introduced for the right reasons and clearly targeted to where the problems sit and where we will see the greatest improvement in quality. There must be a compelling return on investment.

Recognising this, for the regulation of engineers, we support:

- restricting certain high risk or safety critical engineering work to persons who have regularly demonstrated their competence to perform that work,
- capturing a wide pool of engineering professionals into an affordable system that puts a strong emphasis on ethics and professionalism after a sustained period of development and mentorship, not on graduation,
- maintaining a mark of general competence within the system, either as part of a tiered registration or tiered licensing regime, and
- including all engineering professionals within the regulatory regime (engineers, engineering technicians, engineering geologists, and engineering technologists).

We also support Government's proposal for a two-tiered regulator, with a governing or oversight board and a regulatory service provider. We support:

- Engineering New Zealand acting as the regulatory service provider, and
- oversight of the performance of the regulatory service provider in a way that is independent of the Engineering New Zealand Board, but not completely independent of the profession.

The detailed reasons for our views are set out below.

Competent systems

Quality outcomes are about more than having professional and competent individuals. Where we see issues arising is in the overall project performance within this system. It's not just the ability of our engineering teams to deliver a good technical solution, but also the way they work we with their clients to define and interpret the brief, to look holistically at the project and the outcomes sought, and the application of that through the design and delivery process and systems, along with the systems surrounding the project at a higher level like the way we manage procurement and risk.

That's why we need to couple the regulation of individual engineers with the sector's own leadership in ensuring the competence of their firms' systems and processes. It also needs to be coupled with a commitment from Government to improve the broader influencers in the systems we work within, that are within their control. This includes greater capability and consistency in building consenting processes, strengthening the role and system for developing standards, as well as greater momentum behind the Construction Sector Accord's work to see transformational change in the way we procure and contract projects in Aotearoa. If we want a step-change in outcomes, we need to address this full picture.

We talk more about the complexity of engineering systems and projects below, as this reflects the key lens by which our member firms view this proposal. It also provides important context to Government's consideration of how to apply occupational regulation in engineering.

THE ENGINEERING SYSTEM

Engineering projects often include a multitude of engineering professionals (engineers and engineering technicians, technologists, and/or geologists) of varying experience levels working alongside professionals from other disciplines in a collaborative way, across multiple decision points, in complex environments where we are dealing with unique designs based on variable and assumed factors. Within this context, we see collective decisions being made by a multi-disciplinary team, rather than decisions being directed by a single professional. It is difficult within this complex and collaborative project system to pinpoint an exact point where a "professional engineering service" to the project starts and stops, and where accountability might pass from one professional to another. This is particularly the case with the high risk and safety critical projects Government is seeking to capture through the proposed licensing regime. We would not like to see a move away from collaborative multi-consultant and multi-disciplined project teams working together to achieve holistic outcomes for their clients.

Engineering services are also broader than design and build. For example, one of our firms is providing advice, based on their engineering expertise, to local government and central Government on drinking water policies and procedures. They are not designing or delivering anything. They are using their engineering expertise collaboratively with other companies, other professionals including scientists, and council operators, to develop procedures, policies and risk management plans around water services and water treatment. This is a typical example of the work engineering firms do today, and the type of advisory work our firms will do more of into the future as systems become automated and design services become more commoditised. It is unclear to our members where that type of engineering service falls within the spectrum of what Government is trying to capture, and how it would play out in an accountability sense.

The current discussion document expresses concern that many unregulated individuals are practising engineering without checks and balances on their work. This just isn't the reality of the majority of our member firms. What we expect in our firms are robust quality assurance systems that include several checks of any work product (whether it has been prepared by a regulated or unregulated professional) before it is signed out. In many firms, even a chartered professional engineer does not have automatic sign-out authority. Sign out is a stepped and controlled process, and many contracts require external peer review on top of internal review. Many of our firms opt into quality accreditation programmes and are ISO 9001 (Quality Management System) certified and/or are required to submit evidence of their quality assurance systems to their insurer for insurance renewals each year. Technical design issues, which are to be expected as our members work across complex engineering projects and systems, are identified, and captured in review and checking processes.

Our experience is that, in general, robust quality assurance systems and external peer review processes capture issues well. However, the reality of the work we do means that no matter what quality assurance system is in place we will still see problems arising because our work is complex, and situations are unknown and often based on a set of assumptions and risks. ACE New Zealand works with its member firms to enhance the way businesses are run, to ensure quality outcomes. The profession and sectors we work within are also already undertaking a lot of other work to raise the bar.

We must be careful that regulatory attempts to minimise quality risk, which is already well managed through quality assurance systems, aren't so onerous that they slow or bar engineers from doing their work, creating delivery risk that impedes Government's infrastructure agenda.

We welcome conversations with Government on where we can work together to lift the whole system in a way that supports (not frustrates) Government's infrastructure agenda.

REGISTRATION

The proposal

Government proposes to establish a new mandatory registration scheme for all engineers to ensure a base level of competence and professionalism. Government asserts this would address the issue of engineers practising outside of a regulatory system and the public lacking information on who is competent to practise.

Our comments

While the discussion document speaks to this new system assuring competence *and* professionalism, our conversations with MBIE suggest that Government's current preference is for a professionalism-based registration system only. It is not proposed that registration be based on a competence assessment and therefore registration alone will not give the public assurance of engineers' competence.

The discussion document states that the nature of professional engineering services can make it difficult for consumers to determine whether an engineer is suitable, and that the need for the public to engage an engineering service is often infrequent. We note that majority of high risk or safety critical engineering projects are commissioned by informed clients (local and central government or professional developer / construction clients), who are regularly engaging engineering consultants for these works. The comment regarding the frequency of engineering engagements applies to the general public and small-scale projects, mostly residential, where the risk is far lower.

On balance, we support mandatory registration for engineering professionals, although we agree that there may be certain disciplines or projects or exceptions to the regime.

Government has asked what the minimum standards for registration should be. There are arguments for and against setting the minimum standards at a universal level or a level of competence and/or experience. Our businesses can adapt to either model, but both offer different costs and benefits into our engineering businesses and markets that should be carefully considered.

Professionalism-based registration

A mandatory professionalism-based registration scheme for all engineering professionals, including new graduates, introduces significant cost into the system through both the annual registration fee and the additional administration and operational adjustments our businesses may need to make to accommodate it. Depending on the annual registration fee,[1] for our largest firms, if registration encompasses all degree qualified engineers including graduates, this cost could be upwards of $500k or $600k every year for registration alone. It is even higher if we include all engineering professionals. This is a significant addition to their bottom line. While our businesses are prepared to adapt and support this cost, they are keen to ensure that it is being introduced for the right reasons and clearly targeted to where the problems sit and where we will see the greatest improvement in quality.

If you look across our membership, our members employ 6930 engineers, so the total annual cost to our member firms for a registration system that captures all engineers from graduation would be $4,158,000. This is a significant sum.

[1] For the purposes of our conversations with members, we assumed the cost of annual registration may sit around $600 per year, being close to the mid-point between the current annual registration fee for CPEng ($460) and the current annual registration fee for registered architects ($724.50).

While the registration of engineers early in their career to bring them into a system that prioritises professionalism is supported, it is not supported for graduates. This is because there is a low return on investment for requiring graduates to be registered. In practice, graduate engineers do not place risk into the system and their mandatory registration is not balanced against a real risk or problem that we need to solve. Having a degree does not make someone a professional or competent practitioner, and not having a degree doesn't make someone incompetent or unprofessional. Graduates enter engineering practice with base technical skills, but work for a prolonged period under the supervision and mentorship of senior engineers. It is during this period of mentorship where they learn to practically apply their technical skills, and broaden their professional skills to become competent practitioners, delivering quality solutions for their clients.

We understand that registering everybody puts a clear line in the sand. But we consider the appropriate point to enter our emerging professionals into a professionalism-based registration system is after a period of learning, development and mentorship – much like the Chartered Accountant model where an eligible person completes three years of mentored practical experience before being able to apply be a Chartered Accountant.

If Government is to proceed with a registration system that captures new graduates, it should be built to recognise the prolonged professional development pathways of our graduate engineers and the mature development systems the sector already provides in this regard. The fees model for registration must not introduce a significant cost into the system by requiring registration of graduates, because at this level there is no tangible return on investment in terms of quality improvement.

Competence-based registration

Another option for the mandatory registration of engineering professionals is a regime based on competence and/or experience as well as professionalism. The minimum standard for registration would include an assessment of the engineering professional's general competence.

Many of our members prefer a mandatory model that pitches registration several years into engineering practise, and that is competence-assessed. Pitching registration at a level of general competence and professionalism ensures we are investing in the area that can make the most difference to raising the quality of engineering practise, and therefore from a business perspective is more tenable from a cost/benefit perspective. Our member's preference for this model also reflects a strong concern that removing a general competence mark from the system (noting the proposal to repeal CPEng) will leave a significant gap. New Zealand's current general competence mark provides an important pathway for engineers' career development and provides a market differentiator for engineering professionals who don't require the mark for compliance purposes (such as coastal engineers), and for emerging disciplines. Many of our members' staff are CPEng engineers who would not need to be licensed and would be disappointed to lose the mark they have worked towards and that is held in high regard by their peers and clients, if a new system were to repeal CPEng and not create an equivalent space for the recognition of general competence.

Pitching registration at a level requiring a competence assessment is a next level intrusion on business in terms of cost. This cost sits across lost hours to prepare for assessments, opportunity cost, cost of assessment and registration maintenance. However, it is seen by our members to be a good investment, having a more long-term and material impact on raising the bar, and more likely to achieve MBIE's outcomes of assurance to the public of engineers' competence. There is also a strong sense that if the design of the system is about providing accountability, that accountability sits at the level where engineers are working in a more senior and supervisory level – our CPEng engineers – not those engineers working under supervision.

Most of our members support registration sitting at a level of competence and/or experience, though are wary of the costs to the profession in supporting a regime that would increase the number of competency

assessments. Engineering New Zealand already have a shortage of practice area assessors for CPEng assessments, and the cost to the profession is not insignificant. In 2020, the profession volunteered approximately 3500 hours for just 421 CPEng first time assessments, a cost of approximately $670k.[2] While our member firms support providing their staff to volunteer hours into the system it needs to be balanced against the opportunity cost, and at a time when our people are already over-worked with a shortage of skilled staff across the sector generally. This would be a real issue if mandatory registration sits at a competence-assessed level, and we would need to see corresponding efficiencies into the system to accommodate this – the current CPEng assessment model wouldn't be appropriate as it is too resource intensive.

We appreciate that Government has proposed a two-tired system, and in conversation has suggested that if there is a need for a mark of general competence then that can be owned by the profession through Engineering New Zealand's membership process. We think having different systems adds complexity and does not achieve our goal of a simple system that is easy for the profession and the public to understand. In a sector that is already straining to keep up with the ambition for infrastructure investment, imposing too much time and monetary cost on engineers risks diverting them from helping to deliver those projects. In our view, the regulatory system should sit together and be designed to best suit the needs of the public, profession, and our businesses and markets in an affordable way from the outset.

A tiered system

A neat way to achieve both objectives – bringing everyone into a system that sets minimum expectations on professionalism and ethics, while providing clarity to the public on who can do what – is to move towards a tired registration/licensing system. A tiered system could capture early professionals at the ethics and professionalism level, moving through a sustained mentoring and development programme to a general competence mark, and then through to licensing where required.

If designed and communicated well, a tiered system would better achieve Government's stated outcomes for this work and would ensure the costs to the profession – its businesses and markets – are targeted to the right problem areas. This could be achieved through tiered registration, or through tiered licensing.

LICENSING

The proposal

Government has proposed a new licensing regime to regulate who can carry out or supervise engineering work in specified practise fields that have a higher risk of harm to the public. Government asserts this will address the issue of the current system which has few restrictions on who can practise in specialised fields.

Our comments

At a principled level, we support restricting work in high risk or safety-critical areas to people who have had their competency to work in those areas regularly tested and approved (noting however the complexity in defining safety-critical across the work all engineers do). This could either be delivered through a separate licensing regime, or through endorsements on an improved CPEng, which is what Engineering New Zealand is currently working towards.

We are thoughtful that it is difficult to define in advance a person's capability to do certain work at the safety-critical level, because this is where each project is usually so varied, projects are significantly complex and

[2] Assuming the average charge out rate for an engineer with the right level of experience to act as an assessor sits at a minimum of $200 per hour.

require assumptions, a multi-disciplinary approach, and collective decision-making. The market scale and size of New Zealand makes it cost prohibitive to define specific aspects of a licensed activity in any detailed way. An attempt to define this by regulation is likely to impose costs and slow projects, increasing delivery risk, especially for complex major projects. It will always come down to an individual making decisions about the bounds and limitations of their competence – that's how it is now with CPEng, and it will be the same with licensing. That's why many of our members support retaining (an improved) CPEng as the competency mark and requiring more work to be verified or signed off by someone with CPEng.

Much of the devil is in the detail. The licensing regime will need to be pragmatic, and we need to make sure we can deliver it in a way that meets supply and demand and is equitable to the different markets our engineering professionals operate across. We are happy to provide further advice and support to Government as this proposal develops.

REGULATOR

The proposal

Government has proposed to establish a new regulator to oversee the registration and licensing process and investigate complaints. Government asserts this will address the issue of the current governance structure not providing sufficient accountability, transparency, and independence from the profession.

Our comments

We support Government's proposals regarding the oversight and delivery of the regulatory functions, and the powers the regulator will need to ensure it can effectively manage risk.

We agree Engineering New Zealand is much better placed to continue the role of regulatory services provider than for this function to move into MBIE. The profession has already invested significant time and cost to develop the systems the regulator would need to carry out its functions well – there is not a strong case for moving that function versus the cost and resource implications of doing so.

While we agree the oversight should be independent from Engineering New Zealand, we do not agree it should be independent from the engineers it regulates. As noted above, it is imperative the oversight board includes professionals practising within the system to ensure the system is performing consistent with the realities of engineering practice. Any disconnect between the practise of the profession and its regulators introduces further risk into the system. This is consistent with the regulatory boards of other professions, such as the Medical Council.

We support Engineering New Zealand's submission that the board should not be the arbitrator of complaints, for the reasons outlined in its submission.

IMPLEMENTATION AND OTHER CONSIDERATIONS

Implementation

If these proposals progress, considerable work will be needed to implement the proposals and introduce the new regime. We want to ensure implementation is done in a fair and equitable way so that there is no "first to market" competitive differentiator for early adopters of the new system that would negatively impact smaller and regional service providers. As our sector faces significant skills shortages and an ambitious programme of

works for Covid-19 economic stimulus, it is critical that implementation doesn't slow down the professions' ability to deliver to the current market.

We're keen to continue work with you to ensure the introduction of a new regulatory regime is planned and coordinated in a way that supports all our businesses and markets to prepare for it and participate equally, for the overall health of our sector.

System oversight

Our members have expressed concern that we won't move out from the perception of engineering regulation as being for engineers practising only in the built environment as long as the regulator sits under the auspices of MBIE. Engineers working in fresh water, environmental engineering, megatronics, software and other broader areas of engineering have difficulty seeing themselves in an MBIE-led system. Consideration ought to be given as to whether the system should be administered by a Minister with a broader portfolio than building and construction.

International mobility

It is not unusual in large engineering projects for detailed design work to be offshored. This is particularly the case where specific expertise is needed that is not readily available in New Zealand, and where services are being provided by our multi-national firms. Access to the skills of these offshore engineers is crucial to the delivery of major infrastructure projects. It is important that our regulatory settings for engineers do not restrict our ability to tap into the international engineering market for the expertise and resource we need to deliver quality projects for Aotearoa.

A similar detail to work through includes the mobility of engineering professionals to international markets and into the New Zealand system. The percentage of staff typically hired from overseas varies greatly depending upon the firm size, the nature of the work undertaken, and the forward pipeline's complexity. Increasingly more and more staff are being brought in from offshore due to the changing nature of work and the lack of suitably skilled local expertise – and for some firms this number is up at 20 per cent. This workforce is vital for the engineering profession to be able to make its contribution to the delivery of Government's infrastructure ambitions.

There is a significant cost to employers to bring engineers into the country, and when we do, we need them to be able to practise within the New Zealand system quickly. A significant part of this is how our system meets the international benchmarks of the international engineering alliance. It is critical that whatever regulatory system we adopt does not disrupt our place on those international accords and our mobility agreements. Professionalism-based registration would not be sufficient for our Trans-Tasman mutual recognition agreements if it isn't pitched at least equivalent to the registered engineer marks in Australia where there is a level of competence assessment. This would have a significant impact given the amount of Trans-Tasman work our members undertake.

CONCLUDING COMMENTS

We commend MBIE on the clarity of the proposals, which have assisted our ability to clearly work through how they might impact our businesses and market sectors. Thank you for the opportunity to comment.

If you have any questions, please contact our Chief Executive Helen Davidson at helen@acenz.org.nz.

APPENDIX ONE: RESPONSES TO SPECIFIC CONSULTATION QUESTIONS

THE CASE FOR INTERVENTION

1. Do you agree there is a case for occupational regulation of professional engineers? Why do you think so?

   We agree there is a case for the occupational regulation of engineers, but the regulation of engineers in isolation of the other factors that support the systems our engineers operate within won't improve quality in engineering outcomes. Please see our comments above.

2. Have we identified the issues with the status quo correctly? Are there any issues that we have not included?

   MBIE has correctly identified several issues with the current status of engineering regulation in New Zealand, but as outlined above, occupational regulation is only one mechanism to strengthen the quality of engineering output. In MBIE's conversations about addressing issues of quality we continue to encourage a holistic, system view and subsequent problem definition.

3. We are unable to verify the number of practising engineers and those who may be operating at substandard levels. Can you suggest information sources for us?

   We have no specific information on the number of engineers practising unregulated (i.e outside of the CPEng or Engineering New Zealand system), but our members do not consider that we have a significant competence issue in New Zealand engineering.

   We can provide MBIE with information about the number of engineering professionals employed in our member firms, and how many years' experience they have. This could possibly be cross-referenced with Engineering New Zealand's database for membership and CPEng. Many of the firms we spoke to for the purposes of preparing our submission have indicated that the proportion of engineering professionals within their firms who are CPEng sit between 10 and 67 per cent of their total engineering staff, with 25 per cent being the average.

4. What is your perception of the overall performance of engineers? Does your perception depend on the engineering discipline? Do you have examples of poor engineering you can share?

   As noted above, our members do not consider there is a significant competence issue in New Zealand engineering. Engineering New Zealand, in its role as a membership body and as the Registration Authority for Chartered Professional Engineers manage about 50 complaints a year. This is only a tiny proportion of the thousands and thousands of engineering activities and services provided across New Zealand every year, and only a handful of those raise issues of serious concern. Regulation must be careful not to use a sledgehammer to crack a nut, imposing compliance burdens on engineers that delay delivery of projects.

PROPOSAL 1: ESTABLISH A NEW REGISTRATION REQUIREMENT FOR PERSONS WHO PRACTISE PROFESSIONAL ENGINEERING

5. Does our working definition of professional engineer and professional engineering services adequately reflect the profession? Can you suggest any changes?

   We support Engineering New Zealand's submission on this point.

6. Do you agree that the regime should cover all professional engineers? Are there any disciplines that should be exempted and why?

   The regime should cover all engineering professionals, but the Regulator should be able to able to offer exemptions, for example where overseas-based engineers are providing input into a project in New Zealand as part of a wider project team. These overseas-based engineers are vital for project delivery, particularly in major, complex projects.

7. Do you agree with establishing a new protected title? Do you have a preference for what it is?

   We support Engineering New Zealand's submission on this point.

8. Is a qualification enough for registration? Should we also include experience and an assessment of competence?

   Please see our comments above. Our members propose that a degree, in itself, does not make someone a competent or professional practitioner, and not having a degree doesn't make someone incompetent or unprofessional. There are many engineering related activities that would fall into the proposed definition of professional engineering services that can be well performed by people without a degree or qualification, or that you can't get a degree or qualification for.

9. Would limiting registration to those with an engineering qualification (such as a Washington Accord level degree or equivalent) exclude some engineers in the profession? How can we recognise those engineers?

   Yes, as noted above engineering technicians, engineering technologists, and engineering geologists play a critical role in the delivery of engineering services and should be included in the regulatory regime. This could be done by creating different registers for them, under the same regulatory framework.

10. Do you engage engineers from overseas? Would requiring them to be registered affect your ability to engage their services? Or would overseas engineers be able to work under the supervision of a local engineer?

    Please see our comments above. Engineers based overseas providing services for New Zealand clients or as part of a team delivering a project in New Zealand may be one of the 'exemptions' the Regulator establishes. It would create delivery risk if regulation makes access to these overseas skills too onerous.

11. Do you agree that all engineers should be subject to a code of conduct and continuing professional development obligations? Please share your reasons if you disagree.

    We agree that commitment to a code of ethical conduct and continuing professional development must be mandatory for the ongoing registration and licensing of engineering professionals, but we note our comments above about where registration should sit.

12. Do you agree with the proposal for a practising certificate? Do you have any other suggestions for how we can link registration to continuing professional development?

We agree with Engineering New Zealand's submission on this point.

13. How often should an engineer need to renew their practising certificate?

    We agree with Engineering New Zealand's submission on this point.

14. Should issuing a practising certificate be contingent on an engineer completing their continuing professional development commitments?

    Yes. It should also be contingent on a declaration that no issues have arisen over the year that the regulator should be aware of and a commitment to the Code of Ethical Conduct (see the annual declarations for practising lawyers for an example of what this might look like).

15. Should electrical engineers registered by the Electrical Workers Registration Board continue under that regime rather than the new one proposed?

    Electrical engineers should be included in the new regulatory regime proposed – the goal should be to consolidate the regulatory regimes for engineers to make the system for simple, efficient, and easier to understand, and easier for our firms to ensure their staff comply. This includes removing the need for Councils to have their own Producer Statement Author lists - multiple regulators for different disciplines and types of work add complexity and confusion and are administratively burdensome for employers.

16. Are there other engineering practice fields that should also be recognised for similar reasons? What are they, and why should they be recognised?

    We agree with Engineering New Zealand's submission on this point.

17. Should we include engineering associates, engineering technologists, engineering technicians and/or engineering geologists in the new regime?

    Yes. Please see our comments above.

18. If we expand the scope, should we make registration mandatory for those practising in these additional areas?

    Registration – at whatever level is chosen – should be mandatory for professional engineers, engineering technicians, engineering technologists and engineering geologists.

19. Is a recognised statutory credential of value for engineering associates, technologists, technicians, and engineering geologists? Why?

    We agree with Engineering New Zealand's submission on this point. These engineering professionals have a significant role in much safety critical work, and should be included in the system.

PROPOSAL 2: RESTRICT WHO CAN CARRY OUT OR SUPERVISE HIGH RISK ENGINEERING WORK

20. Do you support the Minister being able to decide what practice fields should be licensed? Or would you prefer greater certainty by setting out licensed practice fields in the primary legislation?

    We agree with Engineering New Zealand's submission on this point.

21. Do you agree with the proposed list of criteria that the Minister would use to prioritise the development of licence classes? Are there other criteria that should be considered?

    We agree with Engineering New Zealand's submission on this point.

22. What sort of eligibility requirements for licensing would provide a suitable level of assurance on an engineer's expertise? Should they differ depending on the practice field?

    We agree with Engineering New Zealand's submission on this point. However, we note our comment above that the market scale and size of New Zealand makes is cost prohibitive to define specific aspects of a licensed activity in any detailed way. It will always come down to an individual making decisions about the bounds and limitations of their competence. Attempting to define this exhaustively by regulation may impose too onerous a compliance burden on engineers and delay work.

23. Should licensed engineers undergo regular checks of their continued competency?

    Yes, but there are several mechanisms by which these checks could be achieved. The system for checking on competence needs to be risk based to get an appropriate balance between public safety and the cost to businesses and the profession of regular checks.

24. How often should the regulator check a licensed engineers' competency?

    We agree with Engineering New Zealand's submission on this point.

25. What tools would be most useful to check competency in your practice field?

    We agree with Engineering New Zealand's submission on this point.

26. Would you prefer using the Chartered Professional Engineering (CPEng) credential for licensing classes rather than creating a new credential? Why?

    We agree with Engineering New Zealand's submission on this point.

27. Do you prefer the option of licensing companies instead of individuals? Why?

    We agree that there is a place for regulating individuals and that assurance for this comes through an independent regulator rather than a company.

    Companies play a critical role in the safety of the systems that the professionals they employ operate within. They need to have quality systems in place and organisational cultures of compliance. Assurance for the quality systems engineering firms have in place does not sit with Government, but is the responsibility of the firms and is largely market driven (including by insurance requirements).

    We agree with Engineering New Zealand that MBIE may wish to restrict the ability of businesses to advertise engineering services to those whose engineers are registered or hold a licence. However, consideration would need to be given to how that works in the case of in-house engineers (engineers providing engineering services to local or central government, or within private businesses such as Fisher & Paykel and Air New Zealand, and large contractor organisations).

PROPOSAL 3: ESTABLISH A NEW TWO-TIERED REGULATOR COMPRISED OF AN INDEPENDENT REGULATORY BOARD AND A REGULATORY SERVICE PROVIDER

28. Do you agree with the proposed two-tier regulator model of a regulatory board and a regulatory services provider? Are there any other models we should consider?

    We agree with the two-tier regulator model of a regulatory board and a regulatory service provider.

29. Do you have a preference for who the regulatory service provider should be?

Engineering New Zealand should be the regulatory service provider.

Changing the regulatory service provider to MBIE would introduce unnecessary cost into the system for no apparent benefit (there is no compelling reason why the regulatory service provider should not be Engineering New Zealand that would outweigh this cost).

30. Do you agree with the proposed functions of the regulator and regulatory service provider? Can you suggest any different functions?

    We agree with Engineering New Zealand's submission on this point.

31. Have we missed any other grounds for discipline? Have we proposed grounds for discipline that you think should be modified or removed?

    We agree with Engineering New Zealand's submission on this point.

IMPLEMENTATION

32. Should the regulator have the flexibility to recognise and automatically deem some existing practitioners as registered and/or licensed?

    We agree with Engineering New Zealand's submission on this point. It is important that any transition doesn't place a burden on companies and add unnecessary delay and cost into the system.

33. Do you have any suggestions for other ways to transition the profession to the new regime?

    We support MBIE's high-level transition plans as outlined in the consultation document, but we take this opportunity to reemphasise the importance that implementation is done in a fair and equitable way so there is no "first to market" competitive differentiator for early adopters. We're keen to continue work with MBIE to ensure the introduction of a new regulatory regime is planned and coordinated in a way that supports all our businesses and markets to prepare for it and participate equally, for the overall health of our sector.

34. Should we retain the Chartered Professional Engineer credential in the longer term? If we do, what role should it play?

    Please see our comments above regarding the value the profession and the businesses they work within place on a general mark of competency. That general mark could either be built into the registration system as a tiered registration, or into a tiered licensing system.