

REPORT ON PROCEEDINGS BEFORE

**LEGISLATIVE ASSEMBLY COMMITTEE ON
ENVIRONMENT AND PLANNING**

PROFESSIONAL ENGINEERS REGISTRATION BILL 2019

At Macquarie Room, Parliament House, Sydney, on Friday 21 February 2020

The Committee met at 10:00

PRESENT

Mr Alex Greenwich (Chair)
Ms Yasmin Catley
Mr James Griffin
Mr Nathaniel Smith
Ms Felicity Wilson (Deputy Chair)

The CHAIR: Good morning everybody and thank you for attending this public hearing for the inquiry into the Professional Engineers Registration Bill. The hearing is open to the public and broadcast on Parliament's website. Before we start I would like to acknowledge the Gadigal people, who are the traditional custodians of this land. I pay my respects to elders of the Eora nation, past, present and emerging, and extend that respect to other Aboriginal and Torres Strait Islander people who are present. Today we are hearing from key engineering bodies, the Department of Customer Service, Professor Mark Hoffman and, first up this morning, the Association of Professional Engineers and the Local Government Engineers Association.

GORDON BROCK, Director, NSW, Association of Professional Engineers Australia, affirmed and examined

BEDE SPANNAGLE, President, Local Government Engineers Association, Association of Professional Engineers Australia, affirmed and examined

The CHAIR: Before we start, gentlemen, do you have any questions about the hearing process?

Mr BROCK: No.

The CHAIR: Do you have anything to add regarding your position?

Mr SPANNAGLE: I am also the director of engineering at Riverina Water County Council.

The CHAIR: Would either or both of you like to make an opening statement?

Mr BROCK: I will, thank you, Chair. Thank you for inviting us to appear. The Association of Professional Engineers Australia is a registered organisation representing degree qualified professional engineers in Australia. The Local Government Engineers Association is a division of that broader organisation. Engineers have been telling us and we have been telling the government for a number of years now that there is a regulatory loophole in New South Wales which needs to be closed. That loophole is very simple. An engineer sits at the top of the tree in terms of decision-making about the scope, design and construction of major infrastructure, buildings, utilities and a whole host of community assets.

Every other profession working under the engineer's guidance has a form of registration or licensing which requires them to be qualified, to maintain their professional standards through continuing professional development [CPD] and to show their experience. Electricians, plumbers, architects, builders—all need to be licensed before they can operate in New South Wales. Every professional working under the engineer must be licensed or registered, but the engineer, whether they are working on a vertical apartment, a road, a train line, a water pipeline or any other form of public infrastructure—that person whose job it is to scope, design, oversee, assure the work—does not. It is a crazy situation from our point of view.

When you ask the general public what they think about this, the reaction is not to weigh up the pros and cons. They just cannot believe it. We asked the community and we have been polling the community on this issue for some time now and, if anything, the views are hardening. Our recent polling told us that 98 per cent support the introduction of a registration system for engineers working in New South Wales.

Some people will say, "Well, there is Chartered Professional Engineer [CPEng] and there is Registered Professional Engineer of Professionals Australia [RPEng]. Both forms of registration are available to engineers." And that is true, but they are voluntary, which means that there is an unknown number of engineers working on major projects across the state, many funded by the New South Wales Government, whose qualifications are unknown, where we have no idea whether they have done any professional development in the last five, 10 or 20 years, where we do not even know if they have ever practiced before taking on their current job.

Some will say, "That is what employers do—they check qualifications." Well, one thing we know from experience is that some employers check their prospective employees' qualifications, CPD, and experience carefully and some do not. That is of course why we have registration and licensing schemes for every other profession that works on bridges, roads, water infrastructure, gas pipelines, energy transmission and distribution and, of course, buildings. The argument to leave this to employers is also an argument to get rid of licensing of electricians because, if we do not need a government licensing system for engineers, why do we need it for electricians, builders or plumbers? No-one is making that argument, because it does not make sense.

One thing that we want to leave with the Committee today is that this Bill is not political and it should not be political—it is just common sense. It simply closes a glaring loophole to protect public safety, to protect the taxpayer from badly scoped and badly designed work and to elevate the status of the engineering profession alongside their professional colleagues already recognised in this state. I also want to point out and make it very clear that we also support the government's Design and Building Practitioners Bill which is currently before the

Parliament. The two bills work very well together. But it is also our view that if you were serious about introducing a robust registration scheme for engineers working in the building industry or elsewhere then it is critical that the two bills are passed together. I want to explain why.

Under part 4 of the government's Design and Building Practitioners Bill the secretary is required to assess a building professional's eligibility for recognition as a registered practitioner under the proposed Act. Section 35 of the proposed Act provides that in order to grant that recognition the secretary must be of the opinion that the applicant has the qualifications, skills, knowledge and experience to carry out the work for which they are seeking registration. We know that in order to convince the secretary of their merit electricians will present their licence, as will plumbers, as will builders. Architects will confirm that they are registered under the Architects Act and so on. But how will the secretary assess the eligibility of an engineer?

In fact, to make a proper assessment the secretary will need to, quite literally, reinvent the wheel. They will need to duplicate precisely the process that already exists for engineers to apply for CPEng and RPEng, the voluntary registration systems that already exist. This is precisely why the Bill before this Committee has been drafted in the way it has. It effectively capitalises on the fact that there are existing systems to assess an engineer's suitability to practice and then sits a regulatory framework over the top of that. That makes it streamlined and it makes it efficient. It also minimises the cost to the taxpayer. Without the Professional Engineers Registration Bill, the Design and Building Practitioners Bill will not be as effective. It will at best be an expensive and time-consuming process used to determine an applicant engineer's qualifications and competence but more likely it will be ineffective and the loophole will remain.

But there is a bigger issue with passing the Design and Building Practitioners Bill without also passing the Bill before this Committee. It would leave every other engineer in the state except those working on vertical buildings completely uncovered and unregistered. It would mean that a so-called "engineer" seeking work in the building industry could be told that their application for registration had been rejected due to a lack of qualifications and/or skills simply applying for and gaining work on a different type of infrastructure project like a bridge, a road or a dam, where the risks are arguably higher and the potential for loss of life is greater. If an engineer needs to be registered to work on an apartment complex they should also need to be registered to work on a road tunnel, a rail line, a gas pipeline, a bridge or Sydney's water system.

This is an issue that needs the politics taken out of it. We have tried to engage across the political spectrum over a number of years now. There are two good bills before the Parliament, which together will help solve the building crisis in New South Wales. We think both should be passed. If they are not passed, if we allowed unqualified engineers to continue to practise in New South Wales, then the public's confidence in engineering services will continue to suffer, costs will escalate, and money will be wasted. But above all of that, the safety of the community will be compromised. We will see a major disaster in New South Wales, whether that is a bridge collapse, a tunnel collapse, or a malfunction of the city's water system. Those sorts of disasters usually cost lives. We hope the Parliament sees the sense in protecting the public from those risks, as states like Queensland and Victoria have. Thank you.

The CHAIR: Thank you, Mr Brock. I might begin by asking you to expand a bit on some of the comments in your opening statement, particularly around the co-regulatory model that you support that is similar to what is in place in Queensland and Victoria. Could you outline how co-regulation works in practice and what the benefits of this process are?

Mr BROCK: We think it is an efficient system because what it allows in Queensland is for the professional engineers board to do what it is good at—that is, looking at compliance and enforcement—but allowing industry bodies to do what they are good at—that is, assessing qualifications, education, skills, and competence. So in that sense, it is a fairly efficient process because of that burden—and as I said in the opening remarks, it can be a time-consuming process for a statutory organisation to be responsible for. In Queensland and Victoria, they have taken the view that that is best left to the industry bodies. Under the Queensland Act and under the Victorian Act, there is a process for assessing entities to apply to become assessing entities. Then there is a process by which those assessing entities go about the business of assessing applications for registration.

The CHAIR: On the Queensland and Victoria schemes, would you like to see a process of mutual recognition should New South Wales adopt a scheme for the registration of engineers? How do you see that process working?

Mr BROCK: Absolutely, because what I think—and what we know—is that our members are not just operating in the state of New South Wales. We have members who work in consulting businesses. We have members who do work already in Queensland and in Victoria. So there are requirements on industry to look to register engineers doing work in those states, already in place now. It makes sense—and it is cost effective—that

mutual recognition be in place. I might also add that mutual recognition exists already between the Queensland scheme and the New Zealand scheme. There is already a process of mutual recognition in place.

The CHAIR: We have heard comment, particularly throughout yesterday, about some areas that could or should be included in the registration of engineers—that being, the need for professional indemnity insurance and potentially some stronger enforcement and compliance tools, with the ability to issue stop-work orders and to not provide advance notice of investigations. Would those be items that you would support the inclusion of, and are there any other areas of enforcement or compliance that you feel need to be considered in this discussion?

Mr BROCK: I will deal with the insurance question first, if I may. The Bill does not introduce any new insurance requirements for engineers. We do not propose that it should. Engineers are usually covered by their employers' insurance. It is consistent with the approach taken in both the Victoria and Queensland schemes for precisely that reason, so we do not say that they should be required to get insurance. Having said that, in our discussions with Queensland insurers, the fact that there is a registration scheme in place there has reduced risk. We have information to suggest that the insurance premiums have reduced as a result of that scheme, because this is about risk management. We are happy to have those discussions and provide that information later.

In relation to the other questions in terms of the types of enforcement or compliance issues, we do not have a problem with extending some of the enforcement powers in the Bill. We think some of the feedback—I think it was in the New South Wales Government's submission—could be quite useful in that regard. We do think that the requirement to give notice of investigations should be maintained. That is common practice in many jurisdictions in Australia.

In relation to the Government submission's comments about potential criminal prosecutions and offences, the offences in this Bill relate to unregistered practice, representing that a person could practise without being registered and providing false and misleading information. That is what this Bill is about. If you want to look for criminal proceedings or civil proceedings or remedies, there are other Acts that cover the field in relation to that. So we do not necessarily see that as being something that you would go forward with.

The CHAIR: Mr Spannagle, we heard yesterday from Local Government NSW [LGNSW] about the importance to consult fully and thoroughly with the local government sector for the implementation and transition to such a scheme. Could you comment and give your views on that and on how you feel that would work in practice?

Mr SPANNAGLE: I think local government certainly has an awareness of the importance of engineering. The introduction of a registration scheme has not stopped it from already putting things in place to ensure that their engineers are kept up-to-date with their skills and knowledge and those sorts of things. My council, for example, has a clause in its enterprise award that three key engineering positions—we will pay for their registration. It is expected that they will become registered engineers with either scheme—we do not discriminate which scheme they use. The reason for that is that—I notice you are having a drink of water—we want our community to have the confidence and not have to think about whether their water is safe or not. Part of ensuring that community confidence is making sure that we have got specialist engineers looking after those key areas.

So I do not think local government—I mean, I cannot speak for LGNSW, but from an executive practitioner in the industry, we are always going to have challenges with recruiting specialist engineers. We compete with the private sector, we compete with the state government. Registration will not change that. Those challenges will always be there. A lot of the engineers themselves—the people that I deal with on a day-to-day basis—are already registered because it is a professional recognition that goes well on your resumé. They do not see it as an imposition. I think it will be good for local government, the image of local government and the confidence for the communities in which we work in the long run. I think it will be a good thing.

Ms FELICITY WILSON: Mr Brock, in response to one of the Chair's questions, you said that you thought that we should maintain a requirement to give notice of investigations. Could you outline the reasoning behind that perspective that you hold?

Mr BROCK: I'll take us back to what this Bill is about. This Bill is about whether or not someone is a registered professional engineer. It is about whether they have been assessed as having the skills, the qualifications, and the experience to practise as an engineer; it is no more than that. It does not go to other matters that might be dealt with more competently through other Acts of Parliament, in terms of negligence and potential criminal proceedings. If it is just about whether they are registered or not, then we do not believe that is a requirement that is necessary.

Ms FELICITY WILSON: We are looking at both of the bills and we are looking at, I guess, the broader question of building and construction as well. I know in your submission you referred to—I cannot remember the terminology—but it was a crisis, the emergent crisis.

Mr BROCK: Yes.

Ms FELICITY WILSON: What is your view, if it is not specifically in this Bill, about requiring notice of investigations, enabling stop-work orders, and those kinds of practices on job sites?

Mr BROCK: If it is in the building practitioner's Bill, we are not opposed to it in that context.

Ms FELICITY WILSON: So it is about which legislation.

Mr BROCK: It is about that piece of legislation.

Ms FELICITY WILSON: Thank you for clarifying for me. It also talked about wanting to see individual registration of engineers. You also mentioned in relation to professional indemnity insurance, you thought that was best covered by the organisation that would employ the engineer.

Mr BROCK: Yes.

Ms FELICITY WILSON: We heard quite a bit of testimony yesterday that professional indemnity insurance was crucial. I am not sure if that is a contradictory position to take, or if I am misunderstanding. Can you let me know why you would want individuals registered, but you would want employers to hold the professional indemnity insurance?

Mr BROCK: Well, as I understand the schemes in Queensland and Victoria, there was no requirement as part of the introduction of their professional engineer registration Acts, as titled, to require engineers to obtain individual professional indemnity insurance. If they are working as employees of an organisation they tend to be covered by the insurance arrangements of the employer. So in that sense we do not see that it is necessary for the Bill to require individual engineers to obtain individual insurance.

Ms FELICITY WILSON: Do you believe that engineers should be required to be covered by insurance and the mechanism by which they are covered for them be dependent upon their employment status?

Mr BROCK: That would be right.

Ms FELICITY WILSON: My last question is, you spoke in your submission about some of the case studies, which I thought were interesting. Thank you for keeping them brief for us. Also, because they were brief, I do not have a lot of background knowledge in all of them. I thought it was interesting when you talked about—if we just look at the Lane Cove Tunnel collapse. I was a little bit young for that, but I remember it occurring. The reference you have in the submission to flaws in the civil engineering design and the geotechnical engineering assessment were found to be among several causes of the collapse.

Can you talk through your recollection, what followed the collapse of the Lane Cove Tunnel, were there any changes in practice or changes internally within registration amongst engineers to respond to that collapse? You talked quite a bit today about the risk that we have to public infrastructure collapsing, as Lane Cove Tunnel did. Was there a response from the industry at the time?

Mr BROCK: I would have to take that on notice, aspects of that. But what I can confirm is that there was no comprehensive registration scheme introduced as a result of this, because we do not have one in New South Wales. So I can confidently say that. But as for what the organisations involved did in terms of ensuring that these things do not occur in the future, I am not aware of that. I do not have that information at hand.

Ms FELICITY WILSON: You talk here that your organisation represents degree-qualified professional engineers working across a whole pile of different industries.

Mr BROCK: Yes.

Ms FELICITY WILSON: You mentioned construction. Does that cover residential?

Mr BROCK: We do have members working in residential, but the bulk of our membership work in the bigger sectors, so energy, water, local government obviously, road, rail, those sorts of things.

Ms FELICITY WILSON: We are hearing quite a bit of testimony that there is a greater concern about the issues in the residential high-rise development sector.

Mr BROCK: That is not a view we hold.

Ms FELICITY WILSON: You would disagree with that? You think there is a greater risk in other infrastructure?

Mr BROCK: I think there is risk all round. This is a massive, massive loophole, and the answer is fairly simple and obvious to at least reduce that risk. We do not say it is the silver bullet, we do not say that registering engineers is of its own going to remove all risk. What we say is that it is an easy way, and it is a way that has been adopted by other states, to minimise that risk and help reduce that risk. The Government's own Bill before Parliament is restricted to the vertical build. People's engagement in the community with engineering services goes well beyond the building industry. That is the start of it. They get on roads, they go on trains, they access water, they turn on electricity. The engineering services are things that we engage with daily in a broad way and we think there should be a scheme, fundamentally, that underpins and identifies and recognises qualifications, skills and competence of the people who are charged with the responsibility to provide those engineering services.

Mr JAMES GRIFFIN: I think we would all agree that the registration scheme goes a large way in managing the risk, as you put it. My question and observation of the testimony yesterday was around enforcement and the next step of if and when a registration scheme comes into play, the board, its makeup and how and what enforcement of various regulations would take place. Do you have a view, perhaps based on the Victorian and Queensland models, as to what you see an appropriate means of perhaps the make-up of the board, or how enforcement of it might unfold?

Mr BROCK: In our submission we deal with some of those matters. We talk about ensuring that the board is reflective of the industry. We talk about some of the aspects of that. At a minimum, we propose the structure of the board to consist of - an independent chairperson appointed by the government, equal representation from the assessment entities, a representative from an engineering consulting association, a lawyer who is properly experienced in building construction, and a consumer representative; the way in which we are comfortable with what the Bill does in terms of explaining the functions and responsibilities of the board and how it would go about dealing with and administering and discharging its obligations, including complaint handling and so on. That would be our position in relation to those matters.

Mr JAMES GRIFFIN: Do you have a view on the Queensland experience, any learnings from that?

Mr BROCK: We do. The consultation within the industry in terms of the engineering profession and those organisations and those people who are involved in it, has been ongoing for some time because the Victorian Bill was modelled on the Queensland Act. As I said—

The CHAIR: Point of order! Could I ask that the conversation in the public gallery move outside. Excuse me, sorry, could I ask that the conversation move outside. The public gallery is not a place to have conversations. If you do need to talk to someone, please go outside.

Mr BROCK: So a lot of that thinking and that review went into the work that led to the consultation and ultimate passing of the Victorian legislation. You will note, and I think it is picked up in the Government's own submission, that there are a couple of distinctions between the proposed Bill in New South Wales and the Victorian legislation.

Ms YASMIN CATLEY: Mr Spannagle, you talked about the fact that you in local government insist that your engineers are registered, because that brings greater community safety and that would be the community's expectation. Do you see that this Bill will address that entirely, that it will register all engineers and therefore support the view of local government, particularly in your council?

Mr SPANNAGLE: Yes. Ultimately, I think what councils would do would be to say that they need to have one registered engineer on their staff and that registered engineer would be a senior, either director or senior manager. They would then hold the responsibility for the registration, and would mentor and supervise other engineers. I do not think there would ever be a requirement for every engineer to be registered, because on particularly larger councils—I have 12 engineers who work for me—there might be 30, 40, 50 engineers, and you have a range of graduates and engineers with lesser experience, and senior engineers with experience. You do not expect all of those to be registered because often they are working under the guidance and supervision of more senior engineers.

Ms YASMIN CATLEY: Would that include some of those in the building industry as well?

Mr SPANNAGLE: I would think so, yes.

Ms YASMIN CATLEY: Mr Brock, you talked in your opening remarks that the public find it quite unacceptable, they are quite surprised when they are told that engineers are not registered. Do you think they will be equally as surprised once they learn that only a very narrow focus of engineers are going to actually be

registered in the Design and Building Practitioners Bill and therefore that there would be a greater acceptance of engineers being registered across the board?

Mr BROCK: Absolutely. They would not see a distinction between just making sure that people working in the building industry are qualified and those working in bridges, dams, roads and rail. The expectation is that there is a comprehensive registration scheme.

Ms YASMIN CATLEY: You have also said that you have been talking about this and working on this and working with governments of all persuasions for quite some time. How urgent do you think it is that we implement the registration of engineers?

Mr BROCK: I think it is absolutely urgent. We first approached the government back in 2013 on this. For us, there is a major infrastructure program, and it is absolutely critical that if we are going to be rolling out infrastructure then we make sure the people that are providing it are competent and qualified.

Ms YASMIN CATLEY: You also said that 95 per cent of your membership agree that this—

Mr BROCK: It was 98 per cent of the community when we last polled. We have done polling of our own membership and it is close to 90 per cent of our members, when polled. We have been engaging really well with our members over a long period of time. They are driving this.

Ms YASMIN CATLEY: Do you think your members who are only covered by the Design and Building Practitioners Bill will be disappointed that they are not covered in the registration scheme?

Mr BROCK: Sorry, that they are only covered—

Ms YASMIN CATLEY: Those that will not be, do you think they will be disappointed?

Mr BROCK: I think there is an absolute expectation from the profession that a scheme is introduced covering all engineering services.

Ms YASMIN CATLEY: Do you have any reports back from your membership in relation to that and any statistical information? How many of your members would actually be covered by the government's proposal in the Design and Building Practitioners Bill? Do you know the proportion? If you do not, you can take it on notice.

Mr BROCK: I will take it on notice but, as I said to an earlier question, we have members working across a range of industries. It is a bit hard because some in local government might actually be covered by it insofar as building, but they will not when they come to build a road. So I will take it on notice but it would be a smaller proportion of our members because of the nature of the infrastructure business.

Mr SPANNAGLE: May I add that I would think it would be in the order of 20 per cent. Eighty per cent of our members are involved in infrastructure projects with certainly a lesser proportion involved in the vertical building industry.

Ms YASMIN CATLEY: You are saying that 80 per cent of engineers will not be registered as a result of—

Mr BROCK: Will not be required to be registered.

Ms YASMIN CATLEY: Sorry, yes. Thank you.

Ms FELICITY WILSON: Mr Brock, you said that all engineers should be registered immediately. I am paraphrasing, but you think it should be broad and inclusive.

Mr BROCK: When I say "engineers" it is that you would not limit it just to the building industry. As Mr Spannagle pointed out, the Bill does not work in requiring every person within an organisation to be registered. Those that are acting under supervision are perhaps not required to be registered but those that are providing supervision would be required to be registered. We do not see that as—

Ms FELICITY WILSON: Are you talking about the breadth of engineering?

Mr BROCK: Yes: structural, civil.

Ms FELICITY WILSON: I just wanted to check, because the Victorian Bill limits its co-regulatory scheme to five categories of engineers: civil, structural, mechanical, electrical and fire safety. Do you support the Victorian Bill?

Mr BROCK: Yes, we did. But in the regulations they are able to extend those classifications.

Ms FELICITY WILSON: Over time.

Mr BROCK: Over time. So those categories were chosen initially because of the impact that they have in terms of the infrastructure space. But, like in Queensland, there will be an expectation that there be an extension of the categories over time.

Ms FELICITY WILSON: You agree that we would make decisions about who would be covered by a bill or legislation like this, based upon the impacts of the work that they undertake, as you just said.

Mr BROCK: We are comfortable with where the proposed Bill sits. We understand why it covers the categories it includes at the moment. I know there have been some submissions in relation to geotech and a few other—aeronautical, I think, from memory. Certainly in Queensland we have been working with the Queensland board to try to extend the categories of engineering covered.

The CHAIR: To wrap up where your position is, you would like to see the New South Wales Government apply the proper resources to, with the appropriate promptness, implement a broad scale registration scheme for all engineers.

Mr BROCK: Yes.

Mr SPANNAGLE: Yes.

The CHAIR: Thank you. We really appreciate your time this morning. We may seek that there be additional questions and we will send those to you in writing. Your replies will form part of the evidence and be made public. These are questions in addition to those you have taken on notice today. Would you be happy to provide a written reply to any further questions?

Mr BROCK: Yes.

Mr SPANNAGLE: Yes.

(The witnesses withdrew.)

JONATHAN RUSSELL, National Manager of Public Affairs, Engineers Australia, sworn and examined

BRONWYN EVANS, CEO, Engineers Australia, affirmed and examined

The CHAIR: Good afternoon. Thank you very much for joining us. Before we begin, do you have any questions about the hearing process?

Dr EVANS: No.

Mr RUSSELL: No.

The CHAIR: Would you like to begin with a short introductory statement?

Dr EVANS: I would, thank you. Thank you for the invitation to appear before the Committee this morning. Engineers Australia is the peak body for the engineering profession. We are a professional association. We have around 100,000 individual members. We were established in 1919 and we are a not-for-profit constituted by royal charter to advance the science and practice of engineering for the benefit of the community. One of the important roles for us is the setting and maintenance of professional standards. Amongst other things we do this by accrediting all university engineering courses in Australia to international standards and we act as an assessment entity for the Board of Professional Engineers Queensland.

We are therefore well placed to discuss the objectives of the Professional Engineers Registration Bill today. Before we take questions I would like to share some of the key factors for a successful registration scheme. To lift public confidence in the engineering profession, we should implement a government-run registration of engineers modelled on what is the operation in Queensland. Engineers should be regulated by a standalone Act for that purpose. Registration should apply to anyone who provides professional engineering services, unless they are working under the supervision of a registered engineer, or if they are applying a prescriptive standard or design. Assessments should be conducted to verify the individual's qualifications and experience. Thank you.

The CHAIR: Thank you very much. In terms of how a co-regulatory model would work and the role that Engineers Australia would play in that, could you take us through what you see as the benefits and how that would work in practice?

Dr EVANS: Perhaps Mr Russell could give an example of the way we work in Queensland.

Mr RUSSELL: Under the Queensland legislation, they have the board that is obviously in control of things, and then they have assessment entities to conduct the assessments of the applicants to determine that they are, in fact, appropriately qualified and experienced as they claim. In Queensland the board identifies the assessment entities. There are at the moment, I think, at least half a dozen. I think there might actually be about nine. Engineers Australia is one of those, together with the organisation that appeared here just before, and others, like the Civil Aviation Safety Authority. If the same is replicated in New South Wales, an individual would come to Engineers Australia. We would assess that they actually meet the minimum criteria that are set by the board and through legislation, and then give them a letter of assessment. We will either approve or deny that they are suitable. They then take that to the board as the regulator, and then the board as the regulator—if they have additional criteria that are less to do with their competence as an engineer, then they might apply those. They then pay the fee, and then on they go.

The CHAIR: In terms of the Queensland scheme and how it may interact with any New South Wales or Victorian scheme, would you support a process that allowed for mutual recognition across the various schemes for registration of engineers?

Dr EVANS: Certainly mutual recognition is almost essential for business efficiency and effectiveness, so we would.

Mr RUSSELL: The Mutual Recognition Act exists already, so it is a given that if this system comes into place in New South Wales, someone who is already registered in Queensland will be entitled to be recognised as an engineer in New South Wales. That is going to happen no matter what. If we can move over time to a place where there is even more seamless mutual recognition, that is, of course, fantastic. If we get an east coast registration scheme that covers 75 per cent of the economy, it makes sense that that is where we will end up in short order.

The CHAIR: I asked that question because the legislation to do with the registration of architects actually spells out a process for mutual recognition. So that is something that you would support inclusion in any bill going forward?

Mr RUSSELL: Of course.

The CHAIR: We have also had discussion about the need for professional indemnity insurance for engineers who are registered. Would that be something that Engineers Australia would support?

Dr EVANS: Yes, in a similar way to the answer that we heard from the evidence before. When someone is working, they would be working under a professional indemnity scheme, depending on the style of employment they have. If they were in an organisation, they would be covered by that organisation's professional indemnity. If they were a sole practitioner, they would have their own.

The CHAIR: So there should be a requirement for coverage, either at the individual or corporate level?

Dr EVANS: Yes.

The CHAIR: There has also been some comment around the enforcement and compliance regarding the ability for a board to issue a stop-work order, potentially, and the notification for investigations. What is the view of Engineers Australia on those, or any other enforcement or compliance issues that you think would strengthen the proposal that we have been asked to look into?

Dr EVANS: Certainly a board is a suitable mechanism to regulate engineers. It is a tried and tested method that is used, and we certainly see that in Queensland and in various other sorts of boards, such as the architect boards. So these are a very appropriate way to enact that system.

The CHAIR: So, essentially, a process where there is a regulatory power, which then provides the board with a variety of enforcement powers that is then set by that board?

Dr EVANS: Yes.

The CHAIR: Dr Evans, in your opening remarks you talked about the need for this to be done as a standalone Act.

Dr EVANS: Yes.

The CHAIR: You also, in your submissions, have spoken about the Design and Building Practitioners Bill. They are clearly interconnected, because we keep talking about both of them. Is it your view that they should be dealt with as separate items of legislation, with a separate Act created for the registration of engineers, which would potentially encompass some of the improvements or recommendations from this inquiry?

Dr EVANS: We certainly see them as complementary.

Mr RUSSELL: Our longstanding position with these two interrelated pieces of legislation is that they should go together in tandem. We see that a standalone Act for engineers' registration makes the most sense. You have heard evidence yesterday about the complexity of engineering. It is not homogenous, and it is not unique to just the building sector. Something like a specialised board is going to be best placed to ensure that standards are continually reviewed and ensure the maintenance of them across a broad field of areas of practice.

The Bill that we are examining today is, I think, complementary to the Design and Building Practitioners Bill, not in conflict with it at all. I think that needs to be made very clear. If both Bills pass as they are right now, I think that would be a suitable outcome and they would knit together. If this Bill that we are examining today requires further amendment, if that is some of your recommendations, then of course that works. It is important to ensure that regulation of engineers legislation knits and is complementary with wider building sector reforms. That is possible; you could see that with the Architects Act. It is going to conform very neatly with what the government is proposing to do, and this should be just the same.

The CHAIR: You would support the government applying the proper resources, promptness and processes around consultation and building of regulations to the establishment of a broad-based scheme to register engineers?

Dr EVANS: Yes.

Ms FELICITY WILSON: Thank you both for being here. In one of the early references in your submission, you say that you do not promote registration as a silver bullet; I do not think that anyone does. But you say:

... it creates a system to recognise people likely to perform competently, and a mechanism to exclude those found to be unsuitable to work as an engineer.

Some of the feedback that we have received, and some of the evidence, is quite concerned about the enforcement and compliance mechanisms within the Bill as it currently stands, including very few penalties for compliance breaches and no ability for the board to issue a stop-work order. Those are a couple of the examples. What is your view on the enforcement and compliance mechanisms that exist? Would you have some advice about how to further strengthen those, if you believe they should be strengthened?

Dr EVANS: Starting with your first point, it is not a silver bullet, but it is part of what a responsible profession does. We look at a whole range of ways to ensure that the engineers who are practising are able to practise well. The registration scheme is about, if you like, setting the minimum standards. Then, of course, any engineer—as I am one—wants to do the very best they can and continue to do professional development. That goes beyond what is in a registration. I think with this Bill focusing on "Have we got the right people doing engineering work?", that is absolutely appropriate, which I think is quite separate to the stop-work order type of legislation, which, as I understand it, would be separate.

Mr RUSSELL: Obviously, I agree with Dr Evans' comments. We were consulted quite heavily in the development of this Bill. I thought it was excellent engagement. The starting point for our advice was to model this Bill on what is in place in Victoria and in Queensland, obviously recognising that Parliamentary Counsel's Office would need to contextualise it for the New South Wales context. We did see in other submissions, and have heard in other testimony, that there may be merit in tweaking some of the enforcement and also the review processes. The Law Society brought up some good points there. I do not think we would object to that. Our expertise is in setting and maintaining professional standards, and assessing whether or not people are actually suitable to work as an engineer independently. Other bodies, like the Law Society and the Parliamentary Counsel's Office, are the experts in determining what is an appropriate enforcement and review process. I think we would defer to them and would not object to that sort of expert advice.

Ms FELICITY WILSON: We have also heard quite a bit of views on the way in which we approach the two pieces of reform that are underway. There are some views that the crisis, as some people have said, within the building and construction industry requires paramount and primacy of our focus in trying to address some of the challenges there. I know that you have said that you believe both Bills should succeed; both Bills, maybe with some amendments, are looking at addressing different but complementary issues. Do you see that there is a greater risk amongst building and construction industry engineering, or do you see that there is a risk across other forms of engineering? If so—I know you have some case studies—can you talk through what you think is the most profound and where we should be spending our time first?

Dr EVANS: I certainly see the built environment as an area where, appropriately, there is focus. Any engineering will always do a risk assessment to look at what are the high-risk elements of the work that you are doing. So, in this case, addressing the building sector is very appropriate, and there are a whole range of areas that

would be covered by that. So I think the approach that the government is proposing and this Bill is proposing is certainly appropriate.

Mr RUSSELL: There is obviously a lot of attention on class 2 apartment buildings. That is what has been the catalyst for this discussion. Whilst it is the catalyst for the discussion, you also heard testimony yesterday about how nobody knows where the next problems are going to arise. It just so happens that at the moment we are talking about class 2 apartments. It is in that context that I obviously agree with Dr Evans - that if we are to stage this, then it is appropriate to start with this very real and present danger, if you like, but it would be unwise to unnecessarily delay. We are not talking about doing this now and in the next decade taking care of all the other parts of engineering. We mean an appropriately and a timely staged approach. If we can create a piece of legislation that covers the full breadth of engineering work, then it is possible through legislation to have Acts commence at different periods, if you wish. There are ways to stage this so that it works for the community.

Ms FELICITY WILSON: Thank you.

Mr NATHANIEL SMITH: We understand that Engineers Australia operated and approved a Professional Standards Scheme between 1997 and 2016. Can you explain how that scheme worked and why it was not continued?

Mr RUSSELL: I should explain for you that Dr Evans joined the organisation just a few—

Dr EVANS: Four months ago.

Ms FELICITY WILSON: You cannot tell.

Mr NATHANIEL SMITH: You can take that on notice.

Mr RUSSELL: I can give you a high level, if you like. Also it is not my expertise, so if this answer is not sufficiently detailed for you then we can take the question on notice. We did have the Professional Standards Scheme in the period you talked about. We decided to discontinue it because, in fact, the take-up from our members was extremely low—we are talking in at most double digits of engineers willing to sign up. The reason was that they found that clients were requiring them to contract out of the limited liability. If they maintained their membership of the Professional Standards Scheme, they would not get the job. This goes to a massive problem for the engineering profession, especially in New South Wales, which is the only state that allows someone to contract out of their proportionate liability. That meant that the Professional Standards Scheme at that time just did not work with the engineering profession for very relevant market reasons. Maybe the system has changed; I do not know. That is a question more appropriately put to them. But that is the context for why we had one and we ceased the operation.

Ms YASMIN CATLEY: Good morning, Mr Russell. Good morning, Dr Evans. Thank you for coming. Mr Russell, yesterday we heard that unregistered engineers are crossing the border into New South Wales from both Queensland and Victoria. Are you aware of this?

Mr RUSSELL: There is no direct evidence that we are seeing that this has happened. I believe you got that evidence from the public works engineers association, so I think for details they would have to provide that. Conceptually it is possible. If something is unregulated at one place but it is at another then, like pressure systems, it flows from high to low. However, there could be other reasons for the movement of engineers into New South Wales, such as the significant infrastructure investment in New South Wales in the past several years.

Ms FELICITY WILSON: Hear, hear!

Mr RUSSELL: Significant infrastructure is to be applauded but there are multiple reasons. It is a reasonable consideration. I think it is a fair question to ask.

Ms YASMIN CATLEY: Dr Evans, would you agree that the Professional Engineers Registration Bill 2019 addresses the registration scheme that you talked about in your initial statement?

Dr EVANS: I think it is part of addressing that scheme. I think that, as we discussed, complementarity of the two Bills would really make the scheme work well.

Ms YASMIN CATLEY: What is missing in the Professional Engineers Registration Bill that did not address what you were referring to in your opening comments?

Mr RUSSELL: I think we support the Professional Engineers Registration Bill. Similar comments were heard in just the last set of evidence where the Queensland model is the ideal model. Where we got to with the Professional Engineers Registration Bill was sort of between Victoria and Queensland, starting off with the five areas of practice but extending to every sector, not just the building sector but if you are a civil engineer working anywhere then under this Bill you would be required to practise. There is a clause—I think it is 6(1)(f)—which

means that you can extend that to other areas of practice over time. If we are looking for a comprehensive registration for engineering practice, this Bill will deliver that over time. I think what Dr Evans was pointing to is that we need a Bill that is compatible with the broader reforms, and also the initial focus on class 2 apartments and the building sector. I think this Bill will do that and, like any piece of legislation, it will be improved over time.

Ms YASMIN CATLEY: You were just talking about a staged approach, which is something that the government obviously is going to do, given the narrow focus of the specific classes of engineers being registered in the Design and Building Practitioners Bill. Is it best practice to initiate both pieces of legislation? Would that be the best practice for New South Wales to have the Professional Engineers Registration Bill along with the Design and Building Practitioners Bill?

Mr RUSSELL: If I think about the Design and Building Practitioners Bill's provisions—therefore what would be the Act if it passes—it requires people who declare plans on a building element to be registered, but the registration scheme is not part of that Bill. So through regulation the next phase will be to create a registration scheme. The Bill that Labor has proposed would meet that requirement. So, yes, in that sense, the two can go through. The precise timing I am not best placed to say. I think that would all depend on when the government wishes to switch on the benefits of its reform. It cannot switch it on until there is a registration scheme. Whether it happens with one and then six months later the other or both on the same day, until the registration Bill comes forward you cannot switch on the government's reforms.

Ms YASMIN CATLEY: So that would be best practice?

Mr RUSSELL: Yes.

Mr JAMES GRIFFIN: Further to that comment, the theory of government policy is fantastic, but often putting it into practice is somewhat of a challenge. You would appreciate the scope and scale of, for example, the scheme in Queensland. The other observation over the past day has been this issue around insurance and making sure that that is addressed effectively and appropriately in the engineers Bill. From a practical point of view, do you not think there would be merit in, just as you have outlined, originally standing up the government's scheme and giving the government time to develop up and understand how it would then implement a broader professional engineers registration?

Mr RUSSELL: There are three elements to this all working together: what the regulator and the government can do, what assessment entities can do—that is, organisations like ours—and what the effect is on the individual engineer who needs to be registered. From the government's point of view, of course it will take time to set up a board of professional engineers, but that is entirely within the scope of government's power and resources. I do not see how there could be a problem there. From the point of view of the assessment entities like ours, we already have several in Queensland operating. I know from our own organisation, it would not take a whole lot of time and effort to tool up, if you like—expand the assessment team that we have.

The second element, part B to that, is that we already do have a voluntary registration scheme that we manage, called the National Engineering Register. It is only voluntary, which means you do not have to be on it, but we do have—it is in our submission on page 15—about 5,500 New South Wales-based engineers on the register already. It is difficult to imagine that those people would not be pretty much automatically recognised by the board as having already been assessed. There are those two elements and then you get to the individual. As soon as this Bill is enacted, every engineer is on notice that it is time to get serious about proving that they are competent. It is hard to imagine there would not be a lead-in time—at least six months if not 12 months, I would have thought; that seems to be the usual thing.

Engineers will be able to have time to make sure that the evidence of their qualifications is in order and make sure that they are up to date on their continuing professional development, which they should be anyway, by the way. If they do not consider themselves fully competent, it is time for them and their supervisor to start thinking seriously about what is the professional development that I and your team members need to be ready to be assessed. I actually do not see a massive problem for those three arms of the system to come together in a timely fashion. While some phasing might be preferable, a little bit of test and adjust, I do not see that being a long phase at all.

Ms YASMIN CATLEY: Mr Russell, you said you represent 100,000 engineers across Australia, what percentage of that will be covered by the Design and Building Practitioners Bill?

Mr RUSSELL: I kind of anticipated this question when I was sitting in the gallery. I would not be able to take it as a question on notice because I do not think we would be able to find out precisely. If you think not so much about our members, but the engineering fraternity at large in Australia, and break it down to New South Wales, there were 60,000 roughly engineers in the workforce in New South Wales at the time of the last census.

The majority of those are professional engineers. A small cohort would be engineering technologists and associates, that are not proposed to be subject to the legislation. Let us just say 55,000. If you look at the average across the country, about 52 per cent are probably working as engineers, about 27,000 engineers in New South Wales are probably working as professional engineers. Of that 27,000, a large number will be working under supervision. It might be a third at least. We are looking at about 18,000 professional engineers who are quite likely to be subject to this proposed regulation.

Dr EVANS: At the top side.

Mr RUSSELL: Yes.

Dr EVANS: As per his maths.

Ms YASMIN CATLEY: In the Design and Building Practitioners Bill? That was the question.

Mr RUSSELL: No, sorry.

Dr EVANS: We have to do a similar sort of analysis.

Mr RUSSELL: And it would be similarly rough.

Dr EVANS: We will take that on notice.

The CHAIR: You acknowledge that the Design and Building Practitioners Bill registers more professions than just engineers?

Mr RUSSELL: And trades.

Dr EVANS: Yes, but we are just speaking about engineering.

The CHAIR: You understand the government's priority in which they are dealing with the built environment?

Mr RUSSELL: You did note that the Design and Building Practitioners Bill will require more than just engineers to be registered as professions. But everyone else is already registered: architects are already registered, builders are already licensed and the vast majority of trades are already licensed. I think a simple example might be waterproofers, for example, are going to require greater scrutiny and regulation but it is not like everyone in the building sector needs to step up and be regulated. There are actually only a few gaps left.

The CHAIR: The point here also, would you agree, is that in the Design and Building Practitioners Bill we are basically dealing with registration schemes that already exist in many cases, as you just said, and indeed with additional requirements in relation to the built environment in terms of registration?

Mr RUSSELL: Yes.

Ms FELICITY WILSON: If you are going to do some of the figures on the proportion of engineers you believe would be covered by the Design and Building Practitioners Bill, would you also provide the figures for the Professional Engineers Registration Bill, noting that it is limited to five categories of engineers?

Mr RUSSELL: Yes.

Ms FELICITY WILSON: And others that may be prescribed by regulation. But there are no others prescribed by regulation being that there is no regulation.

Ms YASMIN CATLEY: The problem will be that none of them is actually prescribed—

Ms FELICITY WILSON: Can I finish my sentence?

The CHAIR: The question on notice is: in the additional tranche what you believe is the number of engineers that would immediately be covered by the Bill? Obviously we acknowledge there is a regulatory-making power in the Bill to incorporate other issues.

Ms YASMIN CATLEY: Just for clarification, the actual Design and Building Practitioners Bill does not list any engineers in it at all. It is all for regulation.

The CHAIR: Sure.

Ms YASMIN CATLEY: So it is same-same.

The CHAIR: The point is that there is a regulatory power to establish that, just as there is a regulatory power—

Ms YASMIN CATLEY: Correct.

The CHAIR: We really appreciate that maths on the fly.

Mr RUSSELL: I have an arts degree too.

The CHAIR: So do I. Thank you for appearing before us today. The Committee may send you further questions in addition to those we have asked on notice. Your replies will form part of your evidence and may be made public. Would you be happy to provide a written reply to any further questions?

Dr EVANS: Indeed, we would.

(The witnesses withdrew.)

MARK HOFFMAN, former Dean of Engineering, University of New South Wales, and incoming Vice President, University of Newcastle, sworn and examined

The CHAIR: Before we start, do you have any questions about the hearing process?

Professor HOFFMAN: No.

The CHAIR: Would you like to begin with a short introductory statement?

Professor HOFFMAN: Sure. I believe I was asked to talk here in particular because of the work that I did with the Opal Tower and currently with Mascot Towers, and also because I was in charge of educating Australia's largest single cohort of engineers at UNSW, and my new role is in charge of a lot of professions that do have registration. I believe the registration of engineers is long, long overdue. The other aspect that I would probably like to mention is I have been reading through the Bill and what we need with the engineering profession. It would be preferable to see something more comprehensive but there is a balance, I understand, between other issues in train. I think it is really important that this ends up becoming effectively a national registration. Even though it has to be state based, we need to have the engineers able to move between states seamlessly. Also, those that work under the supervision of registered engineers should be dealt with completely separately from this Bill.

The CHAIR: Thank you very much. I might just ask you to expand on your point about a more comprehensive approach. The remit of this Committee is that we have been referred this legislation. That is done so that committees can make improvement suggestions and then those can be dealt with appropriately by the Parliament and the government. What would you address there?

Professor HOFFMAN: My main concern looking at this is that it picks five groups of engineers that it focuses on and then says, "We'll do the rest by regulation." In my view that does give the flexibility to expand, but it would not be a significantly greater step to basically say, "Well, let's look at all the people who practice as professional engineers and let's register them and not leave it to regulation and take it down the road." That is my main concern with this Bill—the fact that it focuses on five and says, "We'll sort out the others later."

The CHAIR: You note that engineering technologists and technicians should be differentiated from professional engineers, as you alluded to in your opening remarks. Can you expand on that?

Professor HOFFMAN: Registered professional engineers should be those who have, essentially, studied a degree that has already been recognised, for example, by the Washington Accord, which is the international acknowledgement of the skills of engineers. There are other people who call themselves engineers—technologists—which is fine, but they would not have the same level of training or expected competence and they should be treated separately from registered engineers.

The CHAIR: Going back to my first question and your answer to that, in terms of the process of building out that list of types of engineers that should be included, what would be your recommendation be in terms of the process for that?

Professor HOFFMAN: I would go out to the profession. I think Engineers Australia—who were just here—would probably be the easiest place to start because they actually have all of these colleges of particular types of specific engineers. My concern is—and I mentioned it in my submission—that we want to be fostering innovation. I gave the example that we are building buildings and we want to put telecommunications in there so that people can have their health checked and that sort of thing. For example, it would be really good if we had telecommunications engineers already registered. Then they could just move in and out of the building profession, for example. That is one of the concerns I have. It is a pretty narrow group and I am concerned that it will slow up a lot of the innovation processes because the minute we want to bring something else in that needs the security of registration we then have to go through a process. It would be good to have registered engineers working in lots of industries so they can move in and out of the various industries that require them.

The CHAIR: Are you suggesting that the Bill as it currently exists risks creating two classes of engineers—those registered in these professions, and every other engineer—until they are picked up?

Professor HOFFMAN: Until they are picked up, yes—until they are picked up would be the phrase. Then it very much hangs off the process for regulation. I do not think it would be a significantly larger step to pick them up is the point that I want to make.

The CHAIR: And, of course, they are currently not registered. So it is an improvement.

Professor HOFFMAN: Yes.

The CHAIR: Obviously there has been much discussion about the proposed legislation, a broad-scale scheme and how that would interact with the Design and Building Practitioners Bill. Do you see those Bills as being compatible pieces of legislation and, in that, are there any additional gaps that should be picked up by either Bill?

Professor HOFFMAN: I see them, I suppose, as complementary, and they have to be complementary, particularly this Bill with the Design and Building Practitioners Bill. In terms of the additions to make to them, it would actually help the building practitioners process to add a few more types of engineers into this, particularly geotechnical engineers, who look at the ground underneath the foundations. That actually seems like it is quite a gap. You can say that they are a subset of civil engineers but civil engineers also look at, for example, water systems, and I would not want someone who is registered for a water system to be signing off on the ground underneath the foundations of a high-rise tower. That is the reason why structural engineers, who are similarly a subset of civil engineers, are actually separated out in this Bill. There is a bit of inconsistency there. That said, I am not disagreeing with the classes that are there; we just need to flesh it out a bit more.

The CHAIR: Another two items that have been raised—and feel free to address them combined or separately—are the importance of mutual recognition with other schemes, and the need for professional indemnity insurance for engineers practicing within the scheme.

Professor HOFFMAN: The compatibility with other schemes, given we work in a federation, is imperative. Even the two examples I gave there, which I have been closely involved with, involved engineers from a number of states. Frankly, it is an international profession, so to have it working in just one state is not particularly helpful. In terms of professional indemnity insurance, I have to say that it is not my area. But to have people doing work and then not being able to essentially deal with recourse with the state is very problematic. I have seen that in the work I am doing at the moment.

Ms FELICITY WILSON: Thank you very much, Professor Hoffman. I am a layperson when it comes to some of the commentary and analysis that you have undertaken, particularly in recent years around class 2 buildings, for instance the Opal Tower. But in reading some of your analysis and trying to understand it, you have made some very clear recommendations or suggestions, by my interpretation, about this part of engineering—the building and construction sector.

One of the items in your submissions states, "Registration is needed furthermore not only for the (a) original design process, but also to define those professionals who should (b) independently check designs and (c) confirm that the construction process is following the design, as recommended in our Opal Tower report." I understand that in the Opal Tower circumstance, the drawings were changed over time and it did not have accurate reflections of the loads and the loads were changed over time, which lead to the significant issues that occurred later on. The original engineering—I think you said—was quite sound, but the changes that occurred throughout the construction process and the documentation of the changes to the design were in fact what led to the final problem. Is that a fair layperson's summation?

Professor HOFFMAN: It is. The only thing that we never sought to identify was who made those changes and who signed them off. We never looked into that. But that is a fair enough summation.

Ms FELICITY WILSON: So I am understanding from that that you obviously very strongly support the registration of engineers, as you outlined in your submission. But when it comes to something like the Opal Tower and our high-rise residential apartment buildings—the class 2 buildings themselves, where we are seeing a lot of discussion and a lot of risk—you are saying that there has to be a much broader application throughout the construction process, in particular to make sure that we do not end up with those outcomes. It is not just about registration at the beginning; it is following the appropriate processes throughout.

Professor HOFFMAN: Most certainly. Some of the engineers who were associated with the Opal Tower, for example, were registered in Queensland. The issue came about more in the checking process. If you have something that says you have to put in these checks, you then need to identify who is going to be doing the

checks. Therefore it is really important to have a class of people—and I think registered engineers would be the perfect way to do it—who are actually already identified to do that.

Ms FELICITY WILSON: Thank you. With the two Bills that we are looking at, one is obviously about registration, which you are supportive of, and you have given some examples about expanding that and improving it. When it comes to the Design and Building Practitioners Bill, do you have some views that you could share with us around the way in which that Bill will address and respond to some of the recommendations you have made on the Opal Tower?

Professor HOFFMAN: I should probably say that I have not looked closely at that Bill. I probably could not comment on what it has and has not got.

Ms FELICITY WILSON: When it comes to the risk profile that we are dealing with here, in your submission you said that there are risks across all areas of engineering. We do try to assess the areas of risk and impact to address as a priority. Do you think that there is a higher risk at the moment in class 2 buildings or residential construction, or do you think there are greater risks in other areas of engineering works?

Professor HOFFMAN: The construction industry is certainly high risk. One of the things we were quite clear about in the Opal Tower report is that the risk of death, this sort of thing, from buildings, is pretty low. But buildings are being built that do not have the quality required that consumers expect. In large part it is an economic risk and we can find people quite easily that have lost their life savings by investing in apartments in particular buildings, and that is not a good thing at all.

In terms of other industries, I would say the telecommunications industry could have similar risks depending upon how it evolves. At the moment there are a couple of really big players and they deal with it but if it became a much more competitive small player industry then that is a likelihood. The biomedical device industry is, potentially, but it is very strongly self-regulated at an international level. Similarly, we are doing a lot of transport infrastructure. We can see there have been issues in the building of transport infrastructure that have come about due to challenges with activities and how well they have been monitored and designed. I would not want to go into the depth of it but when you see mistakes happening that is the way you address them.

Ms FELICITY WILSON: You obviously have an engineering background. Evidence we were given yesterday talked quite a bit about the culture. You are talking about the processes that happen on building sites after the engineering work is done. Do you have any perspective on culture and the way that can influence the carrying out of construction activities?

Professor HOFFMAN: It is highly variable, is the best way to put it. There is no doubt there can be an improvement in professionalism of what happens on construction sites; there is no doubt about that.

Ms YASMIN CATLEY: Good morning, Professor Hoffman. Can you explain what registration schemes are in place around the world and how Australia fits into that?

Professor HOFFMAN: Most countries have some form of registration. The ones that I am familiar with are in Canada and Singapore. There are also some in some states in the United States, and the United Kingdom has a bit of a hybrid between registration—essentially the professional authorities such as the equivalent of Engineers Australia, but they have a lot more teeth than Engineers Australia does. Essentially they all require people to have been educated, prove their skills, show evidence regularly that they are up to date with the latest techniques and what is happening.

Ms YASMIN CATLEY: In New South Wales why do you think there is a resistance?

Professor HOFFMAN: It is beyond me, to tell you the truth.

Ms YASMIN CATLEY: You think it would be a sensible approach to register engineers?

Professor HOFFMAN: Yes, definitely.

Ms YASMIN CATLEY: As you have just said all engineers?

Professor HOFFMAN: Yes, all branches of engineering would be a sensible approach.

Ms YASMIN CATLEY: In your Opal Tower report you recommend the registration of engineers, which you said in your opening remarks, with a government database developed in association with the relevant professional body.

Professor HOFFMAN: Yes.

Ms YASMIN CATLEY: Do you think that the Professional Engineers Registration Bill meets that desire?

Professor HOFFMAN: For a limited group of engineers. The best way I would sum it up is the Bill is well on the way and certainly has the right structure. There are just a few improvements that could be made, which I will tell you later.

Ms YASMIN CATLEY: Are you aware the Design and Building Practitioners Bill only deals with certain classes of building engineers?

Professor HOFFMAN: Yes, I am aware of that.

Ms YASMIN CATLEY: Do you think that is efficient?

Professor HOFFMAN: It becomes a bit complicated because what happens is you need a special sort of registration only if you are doing building. As I mentioned earlier, as a profession I think it is advantageous for everybody to have people with a particular set of skills that can move around different industries.

Ms YASMIN CATLEY: Would you see these two pieces of legislation, the Professional Engineers Registration Bill and the Design and Building Practitioners Bill, working concurrently?

Professor HOFFMAN: Yes, there is no reason why not.

Ms YASMIN CATLEY: Do you think that would be the best approach?

Professor HOFFMAN: I think I mentioned that. They should complement each other. To my mind, it does not make sense to register engineers just in the building industry but similarly when we create a Design and Building Practitioners Bill and a Professional Engineers Registration Bill, they need to work together.

Ms YASMIN CATLEY: The fact that anyone can call themselves an engineer now in this state, you made the point you do not think that is appropriate. Do you think there is any time to waste? Should we continue to allow people to do that or do we need to take action immediately and implement that registration scheme?

Professor HOFFMAN: We have survived for a long time, sort of. I think recent events have shown that the minute we have a very vibrant industry and we have a shortage of skills, which we have clearly got in engineering, then you see the cracks start to develop. I would say the sooner the better, without a doubt.

Ms YASMIN CATLEY: Do you have a view on whether or not the Office of Fair Trading is up to the job of administering the registration of engineers?

Professor HOFFMAN: I probably could not comment on that.

Mr JAMES GRIFFIN: We heard yesterday, and you mentioned it, the skill shortage and the challenges that presents industry. I appreciate the comment that these two Bills work in a complementary sense once more work has been done on the Professional Engineers Registration Bill. With your academia hat on, my observation is we see this in some elements of the health practitioner field where you have strong robust accreditation and registration in health practitioners, but it has in some respects created two classes of degree or study where some students might be graduating with a degree that does not have the oversight and governance that others might have. That being the case and to assist with managing the skill shortage, with your academic hat on, do you feel that the Professional Engineers Registration Bill or registration scheme as a standalone should effectively address all types of engineers or go beyond what is currently listed in the Bill at the moment?

Professor HOFFMAN: When you say "anyone can call themselves an engineer", that is one vertical and the others are horizontal, the branches of engineering. I certainly say that I have no problem whatsoever with having a list of registered engineers and a list of engineering technologists. I think that is entirely appropriate. What I am also saying is that there are various types of specialisation in the engineering profession and it would be ideal that all types of that specialisation have a registration.

The CHAIR: Thank you for your time Professor Hoffman. The Committee may seek to ask you additional questions in writing that would form part of your testimony. Would you be willing to accept those?

Professor HOFFMAN: Yes.

(The witness withdrew.)

(Short adjournment)

JOHN TANSEY, Executive Director, Policy and Strategy, Better Regulation Division, Department of Customer Service, affirmed and examined

PETER JOHN DUNPHY, Executive Director, Compliance and Dispute Resolution, Better Regulation Division, Department of Customer Service, affirmed and examined

The CHAIR: Would either of you like to make any introductory remarks?

Mr TANSEY: Thank you, Chair, I will make a very brief opening statement. I want to say thank you initially for the opportunity to appear before the Committee. In our submission and our evidence today we want to submit that the Design and Building Practitioners Bill 2019 provides a preferable approach to regulation in this area than the Professional Engineers Registration Bill 2019. I would like to take this opportunity to briefly explain why.

The Design and Building Practitioners Bill was developed specifically to address deficiencies in building design and construction identified in the Building Confidence report authored by Professor Peter Shergold and Ms Bronwyn Weir, and the specific findings and recommendations of the report form the basis of the Government's Bill. The Bill forms part of the government's reform agenda to address non-compliance in the building sector. The reforms in the Bill are complemented by other reforms being developed at the national level by all Australian governments to implement other recommendations of the Building Confidence report.

The Design and Building Practitioners Bill seeks to reinforce existing obligations under the planning and approvals framework and introduces significant new obligations on design and building practitioners to ensure that design and construction documentation can be relied upon to produce buildings that comply with the Building Code of Australia and to ensure that the buildings are built in accordance with that documentation and the code. The Bill introduces a new registration scheme for a broad range of design and building practitioners who prepare or coordinate or supervise the preparation of regulated designs for a building or its elements. This will ensure that only suitably qualified, competent and insured practitioners are able to perform, design and construct work. This will include engineers, but is not limited to engineers.

These obligations are supported by a rigorous compliance and enforcement framework and proportionate penalty provisions. The Bill also strengthens consumer protection by introducing a statutory duty of care owed by design and building practitioners, including engineers, to owners who are unable to protect themselves by way of contractual arrangements. Together, we believe these elements provide for a robust regulatory framework to ensure that buildings and their designs are compliant with the Building Code of Australia. By comparison, our view is that the Professional Engineers Registration Bill regulates only a subset of design and building practitioners in New South Wales, being engineers. The Bill also does not include in its scope body corporates or directors. The effect is that a body corporate and directors are not required to comply with the obligations of the Bill. This is an issue of concern for us as we understand from the industry that many professional engineers work for engineering firms, and the inability to hold all legal entities to account potentially limits the effectiveness of the Bill.

The Bill is not supported by an appropriate regulatory regime necessary to ensure compliance. The provisions empowering the regulator in other similar occupational licensing schemes have not been mirrored in this Bill. There are also few offence provisions and the penalties may not be high enough to deter non-compliance or reflect the severity of offences. The Bill is also silent on the requirement for professional engineers to hold insurance and associated indemnity, which is an important legal protection for professionals and consumers and an issue highlighted in the Building Confidence report. For these reasons, our submission sets out the reasons that the Design and Building Practitioners Bill provides a preferable approach. Thank you.

The CHAIR: Thank you, Mr Tansey. Of course, the Registration of Professional Engineers Bill refers to engineers beyond the design and building space. The government, in responses from the Minister for Better Regulation to our questions, indicated that the government does support the broadscale registration of engineers. We understand that the government is taking a priority with the design and building professional industry, and that is a view that has been supported by many people who have addressed us. But there is, however, still this need for a registration scheme for engineers.

Both bills, or any potential bill or registration of engineers, would rely on regulations to provide further details on how those schemes would operate. Would you be able to give us any indication about the appropriate time frame to develop the regulations? The purpose behind this question is to understand, potentially because of the time taken for the developing of regulations, why the government is focusing initially on the design and building practitioners space before considering a broader registration scheme.

Mr TANSEY: Yes, you are correct, the Minister responsible is on record, I think, including in his second reading speech, saying that it is considered the first priority to deal with the clearly understood and much commented on issues in the building sector. So both in response to the focus that came through the Building Confidence report and was also highlighted in the independent report into Opal Tower, the big priority focus is

on residential construction and particularly the most complex form of residential construction, which is multistorey, multiunit, residential and mixed use.

So yes, I think the government has clearly indicated that it sees that as the absolute priority to respond to, and the area where the market failure seems most conspicuous, and to address that therefore, and I guess address that too, because that would be the area where you would be most concerned that consumers have suffered detriment and are at risk of continuing to suffer detriment, but then, subject to the will of the Parliament and the government, going beyond that to then increase regulatory approaches to both other types of construction and therefore other areas potentially of design and engineering practice, I think is being pushed out as something the government is prepared to consider.

The CHAIR: Just in terms of the time frame for building those regulations, both proposals will require a lot of regulations to be built. Politicians are very good at putting in legislation "This will be as a result of regulations", or words to that effect. Could you give us some understanding about the time and the processes that are involved in building those regulations?

Mr TANSEY: Unfortunately, the answer is it is how long is a piece of string, because depending on the complexity of the issue that you are legislating and regulating for, regulations can be brief and direct and easy to deliver, or more complex. I think the reality in this area is that you are necessarily and intentionally dealing with complex construction. I think in our development of the Design and Building Practitioners Bill and working with a very broad range of stakeholders there has been a great contribution to understanding that complexity and trying to deal with it. So I think that necessarily means developing the regulations under it will reflect that complexity because you are trying to deal with what types of building, what designs and plans are captured, who are all the practitioners then who would be captured in the scope of the agreement. So it is not a simple matter.

There is no magic period of time in terms of consultation with industry and taking an iterative process to getting it right and, of course, the drafting which Parliamentary Counsel is responsible for. I would imagine the regulations under these issues would take months, not weeks. I think that it would easily be between three and six months to work it through to the point where people were satisfied that it was the right concept and drafted well.

Mr DUNPHY: Maybe just to add to Mr Tansey's comments too: it is not also just the drafting; it is about ensuring too that we have got the systems in place to implement the regulations when they commence. So the sorts of things we need to also look at is to make sure we have got the computer systems, the customer facing, the online tools that people can apply for the new categories and that we have got in place appropriate compliance systems to be able to monitor and effectively enforce the legislation too. So we need to dovetail that in. It is one thing to draft the regulations but it is also another thing to make sure that we have got all of those systems in place and also that industry is ready to actually implement the refinements as well. Those sorts of things also need to be factored into the process.

The CHAIR: And the collision of building regulations on that process that you have described for two pieces of legislation consecutively would risk a delay in priority, or would you not be able to comment on that?

Mr TANSEY: Are you asking: could you do the two in parallel?

The CHAIR: Yes.

Mr TANSEY: I think conceptually you could. I think it is likely to make the task more challenging though. If you are talking about the design of the Building Practitioners Bill and then the Professional Engineers Bill, one is trying to deal with all the practitioners in the sector and the other is intentionally focusing on engineers. Given the extent to which the sector has embraced trying to deal with the complexity, my view is that you would want to resolve the broadest whole-of-systems scheme and understand what obligations arise out of that before you then, if you are going to do that, focus on what would be the specific obligations unique to engineers. Because you would want to make sure that they interact well and they are not duplicative or contradictory. In my mind, it would be preferable to have a sequence.

Mr DUNPHY: The other thing from that point of view is, as a regulator, we are a risk-based regulator, so obviously at the moment the greatest consumer detriment and the greatest community detriment is defective buildings and defective residential buildings. That is something that as a regulator we obviously want to focus on and have the tools and the powers to be able to effectively regulate that area. Obviously the other parts of the areas of engineering are important but we would certainly be looking to see where the greatest harm is and where we need to focus most urgently and immediately in terms of addressing those harms.

The CHAIR: One of the areas of concern that you have raised about the Bill, and you also raised it in your introductory statements, was the lack of inclusion of body corporates and directors. Could you provide further information on that and any analysis of the risk that may have been done?

Mr TANSEY: In all of our regulatory regimes to date it recognises that people will offer goods and services either as natural persons—you know, an individual—or through some type of entity. It is absolutely routine these days, therefore, to set up the regulatory regime so that you can both properly have individuals, natural persons in scope, but then the incorporated entities as well and, recognising their differences, deal with them appropriately and proportionately. Given the nature of modern business—and certainly the feedback we have had from industry is that many people will practice, including as engineers but in all of the professions in the scope of the reforms, in companies. You want to be able to make sure that there is not an inappropriate use of the corporate shield to avoid responsibility and accountability for the work you do.

For us, it is now absolutely routine to make sure that we can register both individuals and corporate entities and then also, when we are in compliance enforcement mode, deal equally with them and not let people avoid or abrogate responsibility simply by the fact that they are an incorporated entity. We would argue that that is necessary because you obviously want to be supporting and fostering and recognising how people ply their trade and give them the maximum opportunity to do that and properly be in scope of the regime. But then the *quid pro quo* is that they are also accountable for what they do as an entity.

Mr DUNPHY: I think the other thing is that when you are regulating a building site you are regulating in an ecosystem really, so you are not just going to go in there to look at the engineers. We are really interested in all of the interactions between all of the key actors who are on the site as they all contribute to consumer detriment or to public detriment. We are interested in knowing not only the engineers but all of the designers. We are interested in knowing what is happening with all of the building practitioners, including all of the principal contractors and subcontractors and the chains of supply that go onto the site. We are interested in the certifiers, and we are interested in ensuring when the building is completed that there is a protection for the owners, the end users, and the strata committees have got the right information tools and assurances at the end of that process. From a regulatory point of view we would not look at it discreetly just as an engineer, and that is the problem. We would look at the whole ecosystem.

The CHAIR: We have heard today about the importance of mutual recognition with schemes for registration of engineers across the states that have these in place. From a regulatory view, what work is needed to occur to ensure that there is proper compliance? How would a process of mutual recognition be implemented?

Mr TANSEY: If I take a binary approach there are at least a couple of ways that you can deal with that. The mutual recognition laws of Australia operate automatically under Commonwealth legislation. In the simpler sense, they say that somebody in the Australian federation who is licensed for a particular scope of work in one jurisdiction can be recognised for the equivalent scope of work in any other jurisdiction in Australia, and commonly in New Zealand as well. It tries to remove the need for people to duplicate applications. That law works with general application.

Then what we also sometimes do to more readily facilitate that—and there is provision, for example, in the Design and Building Practitioners Bill—is specifically within a statute to create provisions that recognise equivalent schemes, not just the profession, but equivalent schemes of licensing from other jurisdictions. The facility is there both ways but having provisions that specifically recognise it and draw it into the fold of a state scheme make that much simpler both for applicants and also for the regulator to knit those two schemes together.

Mr DUNPHY: We also have building regulator forums where we work with our counterparts in the other jurisdictions to share information and ensure that we have an eye on and an understanding of what is going across borders and nationally as well.

Ms FELICITY WILSON: Thank you for being here today. We have already discussed the fact that the government wants registration of engineers. If we move on to deciding how we best undertake registration of engineers and how we also best address the challenges in the building sector, one of the observations we have heard from multiple people is that the priority for us is actually within the building and construction space. We have also heard that the issues are not just at the registration point; they are actually throughout the entire building and construction process. Can you talk us through how the Design and Building Practitioners Bill would address not just the initial design but work on the site to make sure that work is being carried out to reflect the designs? That is one of the examples of issues that came out with the Opal Tower, for instance. If we want to try to make sure that things are being built the way they are designed to maximise the skills of our engineers in delivering the right outcomes to consumers, how does the Design and Building Practitioners Bill enact those recommendations?

Mr TANSEY: If I can start and then Mr Dunphy might want to add, but you are right. The Design and Building Practitioners Bill, as Mr Dunphy used the concept, focuses on the whole ecosystem of construction. It is specifically trying to respond to the findings and recommendations of the Shergold Weir report and others that have identified that there is a failing in our system at the moment between buildings - when they are designed and then go through various iterative stages of the planning system and approvals and then start being a real building

being constructed that may face legitimate challenges in being constructed. Their overall finding is that there is not integrity, there is not alignment between what was designed and proposed to be approved, what was then approved through the planning system and then how it gets finally resolved in the building. There can be absence of designs, there can be poor quality of designs, and you can end up in the worst situation where the building intended and approved is not the building that ends up on the site.

What the Design and Building Practitioners Bill tries to do is explicitly recognise and capture that. It deals with elements of design for the building in total, individual elements of the building that are essential to its performance being captured in design and performance solutions. Because we know in modern construction there is a facility in the National Construction Code for people to come up with novel designs and proposals for buildings. It deals with all of those versions of the designs and planning and the iterations through them. Then it marries that together with an obligation within the same Bill so that the builders that then receive and rely on those plans must build in accordance with the plans—to start from day one with that fidelity.

It also recognises how variations can properly and necessarily arise. It also then has a system of capturing that, so that if there is variation in the construction process and if it is sufficiently minor the builder can do it without any other approvals and they are lawfully responsible for documenting any variations they make. If it is a more significant variation there must in fact be new plans and designs that capture it so that you end up with a full record at the end of construction of the building, not only as designed but as it actually came to be built.

Mr DUNPHY: Just to add to that, one of the great features of the legislation is that we are sort of introducing a general duty of care essentially for the person who does the construction work where they have to exercise reasonable care to avoid economic loss in terms of defects. From a regulator's point of view, that provides us with a much broader scope. It does not mean that you have to be licensed or unlicensed—that we only focus on those individuals' as a whole overarching general duty of care to ensure that there is that focus and that at the end use they have protections in terms of that general duty of care.

As Mr Tansey mentioned in terms of the building elements, as a regulator, at the moment those other features are there in terms of providing designs, but there is nobody who is required to actually declare that those designs are compliant with the Building Code of Australia. The really critical components of the building work—whether it is the fire safety elements, the structural elements, the waterproofing, the envelope of the building, the building services—all of those elements are very complex and not only detailed, as you would expect now on a building site, but somebody does need to declare that those designs are compliant with both building codes and other standards.

That is a critical component for us to be able to regulate and to make sure that the work is being carried out correctly, that there are clear plans at the beginning and, as Mr Tansey mentioned, at the end a building practitioner also has to declare that the building has been built according to those plans as well. So there is a really strong tool and lever for us to be able to check for compliance throughout the life of the building works and, at the end of the day, there is a really good product for the owners—the strata committee and the strata owners—to be able to source back the actual approved and declared design so that they have that assurance that the building has been appropriately designed and built.

Mr TANSEY: The only the other thing I would add is to make the point that, in doing that, the designs that it necessarily captures are not limited just to those that are done by engineers. It recognises that there will be a diversity of practitioners and all of them are subject to those obligations.

Ms FELICITY WILSON: Speaking of that ecosystem, as you describe it, and all the different people and skills that are involved in the building that is being undertaken, we had quite a bit of feedback yesterday and today about the nature of professionals involved in building—not just class 2 buildings, but building and construction more broadly. I know that with the Design and Building Practitioners Bill leaves a number of the practitioners to be covered to the regulations. We have had feedback in the past couple of days that you could not just limit it to structural engineers, you would also need geotechnical engineers. There is also a growing perception that maybe telecommunications engineers need to be incorporated. I would just like you to run through the process you have taken to date and the process you plan to take from here about how to determine which practitioners and professionals should be covered by the Design and Building Practitioners Act.

Mr TANSEY: That has been an ongoing focus of consultation with the roundtables of industry stakeholders that we have done as well. Intentionally the Bill takes a building-centric and plan-centric approach. What it is trying to solve is the absence of appropriate designs and plans or the potentially poor quality of those in the current environment and capture through the regulatory scheme all of the plans and all of the practitioners providing them. It starts out by saying, "If you are constructing a particular type of building, who is providing any kinds of plans for those?", because we want to capture them. The Bill is quite specific about the building elements, which are the critical elements for the building's durability and performance that must have designs. It then follows

that upstream, if you will, to, "Who are all the professionals that are doing that?" So they are captured by virtue of doing work that is of importance to the building.

We take that plan-centric view rather than, by comparison, starting with throwing a regulatory net over the occupations and then wondering if they will do work in the building. It will absolutely be a critical part of resolving the regulations—what are the plans that are captured, therefore, who are going to be the professions and practitioners that commonly provide those plans? And making sure that the registration scheme sets in place the necessary prerequisites and requirements on anybody who wants to provide those plans. It does that also by prohibiting people who are not registered from providing plans and the declarations of code compliance that have to be part of those plans.

Ms FELICITY WILSON: In your submission you talk about the role that Fair Trading plays in its current involvement in regulating people who are participating in the residential building work. Can you talk about the existing regulations and licensing, and how you would see some of that covering off individuals who would also be covered by the Design and Building Practitioners Act, or if there are other underlying pieces of legislation that you think would have to be enacted over time to cover off the individual practitioners or organisations that you see covered by the Design and Building Practitioners Bill?

Mr TANSEY: I will make a start and see if Mr Dunphy wants to add anything. In our submission we set those out fairly briefly in appendix A. The Design and Building Practitioners Bill sets out to reduce any duplication or burden on business by needing to register again for something they are already otherwise licensed to do. It sets out to recognise that if there is already an established statutory licensing scheme—for example, as there is for building contractors and as there is for architects—that those would be recognised for the purposes of the Bill and to the maximum extent possible. You will be able to use your registration under those schemes as registration under the design and building practitioners scheme. I guess with the caveat that when the regulations under the Design and Building Practitioners Bill are resolved they may then add specific obligations that are not in your existing licensing products.

For example, building contractors at the moment are subject to a whole lot of prerequisites to get their licence as a builder, but that does not statutorily require them to have professional indemnity insurance. Whereas it is envisaged that under the Design and Building Practitioners Bill, that would be an additional requirement of any and all practitioners. Similarly with architects, we are looking to the greatest extent possible to lift and import all of the processes and all the rigour in that scheme so that people do not have to be registered again for this scheme. That may then go for some of the other specialist trades such as plumbers and electricians that might be in scope of this work. But it is foreseen that there may well then be other professions or practitioners that are not currently licensed that would need to be for the purposes of the Design and Building Practitioners Bill. So that is where you would create a new registration obligation on people trading in areas they are not currently licensed for in New South Wales.

Ms FELICITY WILSON: Has work commenced in Fair Trading or in the department to consider how you would actually go about doing that?

Mr TANSEY: Go about doing?

Ms FELICITY WILSON: Registering or licensing any professions that are not currently registered or licensed.

Mr TANSEY: Yes. Again, part of the fun of the journey of designing the Bill and working as we have with large numbers of industry is really constantly conceiving of how you come up with a scheme, how you then structure the architecture of the scheme. So there is constantly discussions about what would be in the Act and what would be in the regulation. As you would all well appreciate, it usually ends up that the Act has the major heads of power and obligations, and the regulation will quite often then have some of the more machinery detail. So, yes, there have been conceptual discussions but there has also been work done, written and shared over time between what might be some of the other plans that want to be captured and therefore some of the other professions and initial discussions about what would be some of the prerequisites. There has been some very preliminary work, too, for example, about what might be the competency, experience, insurance and other prerequisites for people who would go into the licensing scheme, that would support the Design and Building Practitioners Bill.

Mr DUNPHY: I think it highlights the complexity of trying to dovetail the reforms into what is already existing there without creating unnecessary red tape and recognising what is already in place in terms of our authorisation systems. As Mr Tansey pointed out, there is sort of a mapping and gapping process, and as we get more details with the regulation we will have more insight into how exactly we map and gap that. But we obviously want to make sure that people are not having to register twice for essentially the same regulatory function. But when you say there are already systems in place, Fair Trading NSW is very familiar with regulating various classes

of licence holders. We regulate very many multiple licence categories for builders and for tradespeople and also for the certifiers. In the certifiers, there are 16 different classes of certifiers, which include engineers at present. That would be some of the areas where we would be wanting to map and gap to make sure that those classifications fit neatly with what we need to regulate under the design requirements. As Mr Tansey pointed out, some of those may require additional qualifications or requirements that we would be looking for as well.

Mr JAMES GRIFFIN: Carrying on from previous questions, it seems to me that the Design and Building Practitioners Bill 2019 presents an opportunity to create a beachhead or an umbrella opportunity to do this mapping and gapping and consistency and dealing with licensing. I think that speaks directly to feedback we have heard from the engineering groups around the benefit of consistency and relationship in a national context in that it helps with the transferability of skills and it helps their employability and recognising them as engineers, as diverse as they are. That would be of assistance. In terms of what the Professional Engineers Registration Bill 2019 is seeking to do, in my mind the Design and Building Practitioners Bill 2019 presents the best opportunity to deliver that first and then as a subset underneath that to move on to, from a practical point of view, how this would roll out the registration aspect of engineers. Is that a fair comment?

The CHAIR: Is that a question or a statement?

Mr JAMES GRIFFIN: It is a mixture of both. I am just trying to align and synthesise feedback that we have heard over the past day and to understand this. Policy in theory is wonderful but the practical aspects of it, as we know, are where the challenges present.

Mr DUNPHY: I agree, and I think that is why we really do need to understand, as we work through the regulations, exactly how that will play out in the regulatory space. The regulator needs to understand how we can actually enforce and practically ensure compliance with the requirements. That is why it is so important linking to those broader duties and the broader obligations of engineers, not just the actual licensing of engineers. But we also need to be able to explain that to industry, and if they do not get it we are not going to get high levels of compliance. We need to make sure whatever we do in that space is really quite clear, articulate and easy to communicate. That is part of the magic of regulation: trying to do it in a way that it will be easy for people to understand and to implement. It is a very complex system. We have already talked about what we are trying to regulate. It is important not to just have lots of these layers that do not connect to each other. It is important to make sure, once we have mapped out all of the regulatory obligations in those interfacing pieces of legislation, that they all work and that at the end of the day people know what they need to do.

Ms YASMIN CATLEY: Thank you, gentlemen, for coming along today. What has been the position of Fair Trading NSW historically in relation to the registration of engineers?

Mr TANSEY: Historically we have had no statutory role in regulating engineers because the law of New South Wales has not provided for or required it. But obviously as long-time regulators—including in the building and construction sector—we constantly and commonly deal with engineering professions and associations, as we do with the whole gamut of stakeholders that work in the industry and have an interest in the industry.

Mr DUNPHY: I think from a regulator's point of view everybody comes to us annually—every industry group or various profession—wanting to be regulated. So there is always that better practice regulation process of trying to work out the risks and the benefits as part of that process. As a regulator, it is a matter of government policy whether a licence regime is implemented or not, and our role then is to make sure it works and that we implement it. So we embrace any new licensing requirement and we will just make sure that it does work. But for us it is really important to make sure that we are able to do it in a way that will actually achieve the objectives, which is really about protecting consumers and protecting the public.

Mr TANSEY: Specifically, presently, and since we took on responsibility for the regulation of the certification function, we have a direct engagement with some engineers as class C10 certifiers under the Building Professionals Act as well. So we do already register practitioners in that discipline with that scheme.

Mr DUNPHY: That is right. Under the building professionals scheme there are a number of categories that we do, as Mr Tansey mentioned. There is a C8 category for structural engineering compliance, there is a C10 category for fire safety engineering compliance, there is a C12 category for geotechnical engineering compliance and there is a C14 category for building hydraulics compliance. There are a number of other categories for acoustics, stormwater, energy management, electrical services, mechanical services—which may not necessarily always be engineering, but there are engineers also that are registered in those schemes as well. The reason why we need these reforms is that that does not necessarily mean that people need to have certified plans by those different categories. That is why the Design and Building Practitioners Bill is so important, because it actually makes it an obligation to declare designs and then to build according to those designs. That is the missing link,

which will make a big difference. At the moment people can come forward and can be accredited under our building professionals scheme but there is no obligation for plans to be signed off by them, except for the fire safety engineering compliance.

Ms YASMIN CATLEY: You said in your opening remarks, Mr Dunphy, that you are putting systems in place. Do you think the department is adequately resourced to administer the licensing regime proposed by the Design and Building Practitioners Bill 2019?

Mr DUNPHY: We have been making sure that our resources are focused on achieving any changes that we need to make to licensing regimes to meet any of our regulatory reforms. So there is a very strong focus at the moment on all of our licensing projects, which is really looking at upgrading our licensing systems. But the priority has been on ensuring that we are upgrading where there are regulatory reforms in place and meeting those deadlines in terms of what needs to be achieved to make sure that they are available. So, yes, resources are being placed on those.

Ms YASMIN CATLEY: Do you know how many resources and staff it will require to administer when it is up and running and at full capacity?

Mr DUNPHY: The resourcing at the moment is really about the IT and building the systems, making sure we have got those systems in place, and also having the subject experts within the compliance area to help advise on the building of those systems. That is in place. In terms of the actual enforcement and also the process in the licences, as we draft the regulations we will have a better picture about the resourcing. But we are already planning for that.

Ms YASMIN CATLEY: Will the structure of that licensing program that you have put in place have the capacity to be able to expand? Maybe it was Mr Tansey who said that the Minister had said in his second reading speech that it was the intention to expand the registration to other engineer categories. Will it be structurally sound for that future capacity?

Mr DUNPHY: We are working with the government licensing system, which is that overarching system for licences across government, to refresh that so that we have the capability and we are building it in a way that it will essentially have components which we can continue to add onto. We are mindful that licences are never static and there are always changes in terms of categories and classes coming and going. So for us it is really important to make sure that we build a system that has all the functions and it is easy to add on another class if necessary.

Ms YASMIN CATLEY: Do you think it is important for the government to work closely with professional bodies? It was certainly a recommendation that we have heard from these hearings the last two days.

Mr DUNPHY: Yes, I think all the end users we would like to work closely with so it is not just the professional association. It is the strata groups, it is their owners corporations, it is anyone who has an interest in safe design and defect-free buildings that need to be part of that process and we are engaging with all of those as part of that process.

Mr TANSEY: In the process we have been on with the Design and Building Practitioners Bill we have had some of the largest roundtables of all of the industry players and advocates in the room. I distinctly remember the first meeting we had was in this room and we had a larger table than we have got today to fit everybody around. It has been part of the fun and the challenge of developing this, getting everybody literally and metaphorically to the table so that we are capturing all those perspectives and dealing intentionally with all of the complexity and a great number of players. That has been quite a signature part of developing this policy I would say.

Ms YASMIN CATLEY: Mr Tansey, the Deputy Chair asked this question but I am not sure if you answered it. Can you confirm that geotechnical engineers will be covered in part of the Design and Building Practitioners Bill?

Mr TANSEY: I absolutely imagine that they would be. As I said, our focus is plan-centric. If you have a plan that a building needs, that plan needs to be one of the regulated design plans done by a registered person. It is plan centric. We are not setting out in the first instance by regulating occupations to see whether or not they contribute to buildings. It is about what the buildings need to be well constructed and safe, who is doing that and are they then properly registered to do it?

Ms YASMIN CATLEY: It is important to leave that open in regulation to make those amendments as required, is that what you are saying?

Mr TANSEY: Yes, the scheme under the Bill will still have to be built out in consultation with stakeholders to make sure we capture all the plans, designs, performance solutions, and the practitioners behind them.

Ms YASMIN CATLEY: Yesterday we heard that acoustic engineers are very important when you are under a runway, for instance. Would they be a class that you would be looking at including?

Mr TANSEY: I do not want to sound evasive: I would rather not get into all of the hypotheticals of who might be captured. If those designs are needed for the building to be signed off as compliant with the National Construction Code then, yes, they would be captured.

Ms YASMIN CATLEY: So you think it is best practice to take this approach where you are not outlining everyone and leaving that capacity open in regulation?

Mr TANSEY: Correct. We want to make sure that whatever is a design that is going into the building that needs to be done by a suitably qualified person can be captured in the scope of the regulation.

Mr DUNPHY: I might just add that under the existing Building Professionals Certification Scheme we do actually certify geotechnical engineers presently. Geotechnical engineers can be accredited under the Building Professionals Act as can acoustics compliance as well.

Ms YASMIN CATLEY: I understand that but obviously for the purpose of this legislation and why we are here today, thank you.

Mr NATHANIEL SMITH: Thank you gentlemen for being here today. We have heard a lot of evidence over the last two days. One of the things that came up strongly was obviously a skill shortage problem. That is not a problem of 2020. It has been a problem for many years, even going back when I was in the building industry 10-odd years ago. When we spoke to a lot of the engineers and other organisations they talked about the need for introducing a full registration scheme. Would you agree that not the engineers Bill, the Design and Building Practitioners Bill would do that over a period of time through a transitional process rather than just going straight into the engineers Bill, which misses certain engineers, as we heard from Professor Hoffman earlier. Would you agree that it should be done slowly because doing dramatic change to the building industry will have ramifications?

Mr TANSEY: That is certainly part of our thinking. As we referred to in response to the earlier questions, the government has clearly flagged that it thinks that the crying need is to within the scheme initially capture Class 2 developments; residential apartment buildings essentially. That is the community need. That is where we are concerned about consumer detriment. Starting there is the urgent priority. Yes, that means that you then have a focus and you are starting to roll out reforms over segments of the industry. By comparison, if you do lock, stock, and barrel for everybody from day one for all kinds of development, the task of industry coming to grips with the regulatory regime and the task of getting them all potentially registered could be significantly bigger. We would always hope to do it in a way that did not grind industry to a halt but the unavoidable imposition on industry of complying with the new law could be much broader.

Mr DUNPHY: In terms of the staging too for us, as I mentioned being a risk-based regulator, we really want to focus on the most egregious issues and the most serious issues in terms of harm and consumer detriment. Having worked very closely with both the Opal Tower residents and also the Mascot Tower residents, I think there is obviously an expectation that government will work quickly and, as a regulator, we will work quickly to try to ensure that those sorts of incidents do not occur in the future.

That is why it is really critical for us to really focus on making sure that we put in place those controls now to ensure that we prevent those sorts of harms and detriments from occurring in the future. That will be a strong focus for us certainly over the next year or so and it is important for us to reel in. We cannot do everything as a regulator. We have got to target and base it on evidence of where the risks and the harms are. We have got to really ensure that we are protecting the public and the community in the most serious matters as a priority. For us that is a priority, and the defects arising from residential buildings are a priority. It is an issue I think everybody agrees needs to be addressed and needs to be a key focus for us as a regulator to get better outcomes for the community.

Mr NATHANIEL SMITH: In some of your earlier comments you were talking about duplication, that if both Bills were to go through at the same time that it would be duplication. Could you elaborate a bit more on that?

Mr TANSEY: I think I was responding to a question about timing and complexity. I guess the thing we would be keen to understand is if both propositions went forward and there was a question then of the sequencing. It is about doing it so that you fully understand the entirety of the new regulatory landscape. If you were doing it

in the way that we have said is our preferred approach, so that you capture the regulatory framework under the Design and Building Practitioners Bill, you start to capture the whole ecosystem, which includes but is not limited to engineers.

You would want to understand how that, if you will, meta system is operating and imposing obligations across all of the relevant practitioners. If you are then going to proceed to do something more bespoke for engineers, I imagine you would want to do that knowing what is idiosyncratic to engineers, specific to engineers, and potentially additional to engineers, that was not already in the broader framework. I think that is where the question of trying to make sure that the dovetail, as well as possible, comes in and you will avoid, as I said, any either contradiction or disconnect between the two regimes.

Ms YASMIN CATLEY: Almost every witness that has come in here has said that the two would work perfectly well in tandem and in fact have suggested that would be the best approach. Why do you think they are wrong?

Mr TANSEY: I do not think I am characterising them as wrong. I am talking about the challenge of sequencing and prioritising. I am aware from submissions to the inquiry, which I have had a chance to review some of, that people have said they see them as complementary. I think our comments are suggesting that they could be complementary but trying to do two at once would be difficult.

I guess conceptually the difference between the approaches is that the Design and Building Practitioners Bill takes the view that there is a problem to be improved upon and that is the ecosystem of all of the buildings, so it introduces new regulation to improve the availability and the quality of designs and the integrity of the designs against the buildings. It is doing registration as a means to an end. I would argue that by comparison the Professional Engineers Registration Bill does licensing as an end in itself.

One of our observations about the Bill is it is not particularly fulsome, then, on what obligations or responsibilities would apply for people under it, apart from their obligation to be registered and not say they are an engineer if they are not registered. It actually does not articulate any other specific obligations for then the things that they should do or not do, which goes to protecting the community or avoiding some of the problems we have seen in the built environment. They are not inconsistent but I would argue they are focusing on different things and I am not entirely sure that the ends are the same.

Ms YASMIN CATLEY: Does the department not have the capacity to deal with these challenges?

Mr TANSEY: Which challenges?

Ms YASMIN CATLEY: You said there were challenges in them working—that was your opening remark. What are the challenges and do you not have the capacity to deal with the challenges, if they were to go in tandem?

Mr TANSEY: No—we would have the capacity together with the industry of trying to reconcile the two. I am not saying they are impossible. I think my comments were characterising them as not the preferred way of trying to sequence work.

Ms YASMIN CATLEY: You said there were challenges. I am interested to know what those challenges are.

The CHAIR: Point of order: I ask that you let the witness give the full answer. We will probably have time for you to ask a follow-on question after. It is just difficult for other members and others listening if there is an interruption when the person is speaking.

Mr TANSEY: I am getting to your point—I think I understand the question better. As a conceptual piece of work, designing how the construction sector works and therefore how we want to interact with it as a regulator, is complex. I think any of the industry members—I cannot talk for them—that have been at our round tables have had to grapple with that and come to grips with it, as we do ourselves as policy professionals. Therefore, working out who are all the players and what is their different contribution to any individual building or element of a building takes some thought to work through. To work through what is the sequencing of when different professions get involved in the life cycle of a building has on occasion challenged both us and the stakeholders we work with.

Actually thinking your way through the program and thinking about "How do you solve this at the global and ecosystem level?". If all of us are doing that but then we actually have a separate focus on what we are doing just with engineers presents a challenge of people understanding the specific remedies or specific obligations on engineers with what we are doing with everybody else. It is not an insurmountable challenge, but I would honestly say from what I have seen with our work for ourselves and with stakeholders so far, it is actually intellectually

demanding to work your way through all of that and try to design it in a way that works and achieves the protections we are trying to do, and recognises the way all of the disciplines in the built environment work together and feed off each other. Does that respond?

Ms YASMIN CATLEY: I think you just made a great case as to why we should have a broad registration scheme. Thank you.

The CHAIR: One item which you may or may not be able to comment on, but I am just wondering about: Engineers Australia operated a professional standards scheme between 1997 and 2016. In 2016 the application for that stopped. Their focus was very much on advocating for a broad-based registration scheme for engineers. Do you have any views on the effectiveness of that scheme or why it did not continue?

Mr TANSEY: I could not really comment on that. Our colleagues in the Department of Customer Service at the Professional Standards Authority would have insights, because it is their responsibility to oversee and run those schemes. My very broad understanding of the history is, you are right, there was a professional standards scheme under the auspices of Engineers Australia for those years. I think they made a decision at some point in time not to continue with the professional standards scheme and instead try an approach whereby the National Engineering Register [NER] would instead be their umbrella registration scheme. I think that has directly informed their advocacy to all governments for the licensing of engineers and for using the NER as the prerequisite or platform for that, but I do not have any other deeper understanding as to why that particular scheme may or may not have continued.

Mr DUNPHY: There is a really strong role for these professional associations not just to say, "It is all the government's fault and you are going to deal with and manage the issues." It is really important for a co-regulatory space, in terms of them making sure they are doing everything they can to uphold standards within their profession. There is stuff beyond just licensing somebody which is really important to be part of that as well. We see this also in the certifiers where the professional associations are now seeking to join the professional standards association. It has a great benefit for their members. It improves their professionalism.

Licensing will not be the only thing that improves professionalism. It is more based on ensuring that the right people are actually licensed to do the right type of work. But certainly the professional associations have a strong role in maintaining those standards, linking into the education frameworks and ensuring that those are effective, because we rely on those qualifications as well. But we also rely on the professionalism of that group of professionals. That is the role of the professional associations—to be fostering that and ensuring that their members are well served by ensuring that they are doing everything they can to professionalise that group.

The CHAIR: Obviously with licensing schemes an important component is always enforcement and compliance mechanisms. It is one of the areas in which the Government's submission identified further work was needed. Could you potentially elaborate on what enforcement tools are useful in other licensing schemes and what, if anything, has been identified when it comes to the enforcement and compliance tools needed for professional engineers?

Mr DUNPHY: It would be similar to the other areas that we regulate. It is about inspectors having the powers to be able to monitor and do compliance monitoring of the work of the engineers, to be able to follow up on complaints from the public, to be able to do proactive investigations based on the complaints history and also data around where the risks potentially could lie in terms of checking those, and then having effective tools at the end of the day to be able to take appropriate action where there is noncompliance. That can range from being able to issue directions, through to being able to impose fines or other disciplinary actions, through to removing licences where it is appropriate.

Mr TANSEY: Our submission also sets out a couple of other very common or standard provisions in licensing regimes that we did not see in the Professional Engineers Registration [PER] Bill. For example, while it has some tests in matters that must be considered in considering an applicant for registration under the PER Bill, it does not include things that we would consider pretty essential these days, such as whether or not people have committed offences under the Crimes Act, because we always like to have regard to all avenues of conduct of people that we are licensing. It also does not deal with disciplinary procedures, so it does not really fulsomely deal with how you go through the process of potentially investigating somebody for the nature of their conduct.

If they have not broken a strict liability offence law but their conduct looks like it might be unsatisfactory, how do you deal with that as a disciplinary regime? And there are certainly no other powers in the Bill to take immediate action, so to either reasonably order people to stop doing certain things, whether it is stop trading or stop providing a particular service, so that if there is an overwhelming public interest and reasonable grounds that somebody is doing the wrong thing or doing it incompetently that you can intervene—you can stop building or other work continuing until the nature of any problem is determined and you work out whether, in this case, the

engineer is at fault or not. Some of those powers that really give you the active powers to intervene in the marketplace, where it is warranted, and also to consider the broadest range of practice and conduct of professionals are not there in the Bill at the moment.

Ms YASMIN CATLEY: Mr Tansey, I agree with what—

The CHAIR: Sorry, member for Swansea, you cannot just jump in. The member for North Shore had indicated she wanted to ask questions.

Ms YASMIN CATLEY: It was just because it was in relation to that exact matter.

The CHAIR: We can come back to your question.

Ms YASMIN CATLEY: Okay.

Ms FELICITY WILSON: You touched earlier on the Building Professionals Act and the Building Professionals Board. Correct me if I get the numbers wrong but I believe you said that it already accredits 16 classes of engineers. Is 16 accurate?

Mr DUNPHY: Yes—16 classes of professionals, so they are certifiers.

Ms FELICITY WILSON: Professionals—and some of those are engineers.

Mr DUNPHY: Some of those are engineers.

Ms FELICITY WILSON: So I got the number right.

Mr DUNPHY: Yes.

Ms FELICITY WILSON: Could you briefly talk us through the way in which the Building Professionals Board accredits these professionals, including engineers—the process it actually goes through—because understandably you were brief in the submission? Would you envision that the Building Professionals Board would play a role in the design and building practitioners scheme and have a similar accreditation process?

Mr DUNPHY: In terms of the actual process for accreditation, under the building professionals legislation, we set up criteria into the classes and categories and that identifies qualifications and experience, and then there are also requirements around professional indemnity insurance as well that certifiers are advised to have. That is set as a standard requirement.

The actual process and the review of it is administered through the department, through the officers. There is no actual board as such. It relies on the staff of Fair Trading. It is Fair Trading authorisation staff who carry out the work. The actual compliance and monitoring of the certifiers is again done by a team of Fair Trading compliance officers who do the audits and also investigation in terms of issues. That is not dissimilar, I think, to the other areas. It previously did have a separate board in terms of having industry representation on that board as well. That has changed over time with the idea that it will be more along the lines of the other types of licences which we do, which is done just generally through Fair Trading.

Ms FELICITY WILSON: The second part of my question was with the Design and Building Practitioners Bill. Would you be looking at using that process or the Building Professionals Act accreditation process or a different accreditation process?

Mr TANSEY: In terms of the legislation they are actually different statutory schemes, because intentionally what you accredit or in the future will register people under the Building Professionals Act for is the function of certification, which is a complement to but not the same as the Design and Building Practitioners Act. So you are not licensing them for the same activities. Most of the fundamentals of modern administration of licensing will be the same. In terms of receiving applications and having prerequisites and testing those, and then ongoing systems of having people renew and provide updates if things change, you can take an appropriately generic approach to. But the two schemes and what kind of conduct they are actually regulating people for, they are very complementary but they are not the same.

Under the new Act, the Building and Development Certification Act, which will replace the Building Professionals Act and regulate all the certifiers, as Mr Dunphy said, the scheme will be transitioned to a more complementary licensing regime as part of a cluster. But there will still be different laws directed to different objectives that mean that the participants in those schemes are registered for distinct activities.

Mr DUNPHY: I think we do learn from all of the systems. Yes, we would be informed by the learnings, I guess, of the general approach in terms of how we go through the process of actually managing and monitoring licensees.

Ms YASMIN CATLEY: Mr Tansey, you referred to compliance and enforcement. You were saying there needs to be more robust compliance and enforcement and the builder is not robust enough. That is what your submission is suggesting.

Mr TANSEY: Yes.

Ms YASMIN CATLEY: But given there is no registration at the moment of engineers in New South Wales and there is not opportunity for compliance and enforcement, would you not agree that we should have a registration system so that we can implement compliance and enforcement? At the moment we have nothing. Therefore, do you think the Bill, whilst you may think it is inadequate, is a good first start?

Mr TANSEY: I agree it starts to regulate in an area that we do not at the moment. But I go back to our opening comment which is that our view is that the approach taken, including the specific compliance powers and obligations, under the Design and Building Practitioners Bill is a more complete and fulsome regulatory framework. That is why we prefer that as an approach to starting to regulate a whole range of practitioners, but specifically including engineers.

Ms YASMIN CATLEY: But not all of them.

The CHAIR: The Committee may seek to ask additional questions. Those questions would then form a part of your testimony. Following the appropriate protocols, would you be happy to address those questions?

Mr TANSEY: Yes, I am happy to receive supplementaries.

(The witnesses withdrew.)

The Committee adjourned at 12:49.