

David Glanz: Australia has a highly gendered workforce. More than 90% of nurses are women. About 80% of primary school teachers are female. Yet fewer than 14% of engineers are women. That's up from 8.5% in 2001, but progress in breaking down the blokey barrier is still painfully slow. My guest today is a role model for young women thinking of becoming an engineer, and she's doing her best to speed up that long overdue change. I'm David Glanz and I'm talking in Brisbane with Leanne Bond.

David Glanz: Leanne is the executive for diversity and inclusion at the major engineering and construction firm Downer. She is also a fellow of the Australian Academy of Technology and Engineering, and a member of the Academy's diversity and inclusion committee. Thanks for joining Leanne.

Leanne Bond: Thanks for having me.

David Glanz: Now you wrote an article not so long ago for the Academy in which you mentioned that you were asked, "What's it like to be a female engineer?" And you responded, "I don't know. What's it like to be a male engineer?" So, let's rephrase the question. What's it like to be an engineer?

Leanne Bond: Well, I think the reason I got that question so often was because 30 years ago there were so few female role models, but I think it is an issue of people in general not knowing what an engineer is. To the point that when I was the first female president of Engineers Australia in Queensland, talk-back radio afterwards, a lady rang in and said, "Isn't it great to have a woman in charge of the trains?" And that's when I thought, "Ah, actually we do have some work to do." So, now engineering to me is problem solving. It's taking the needs of the community. So, I draw a big link from engineering to business, and government, and the community, providing infrastructure, but also solutions to needs that we have, and turning ideas into reality.

David Glanz: You mentioned that you were one of a much smaller number of female engineers, so what was your story like becoming an engineer? There obviously were barriers, but evidently you overcame them. What was the experience like, and what lessons would you draw for young women today thinking of becoming an engineer?

Leanne Bond: Like a lot of women that I have met in our profession, I decided to do engineering because I loved maths and science. I enjoyed school. I enjoyed the intellectual challenge. My father was actually in the industry, not an engineer, but within running an engineering firm. He has a trade background, but he introduced me to a lot of people in the industry. I initially was going to be a scientist, but I came across the idea of an engineer and decided to do chemical engineering. So, once I decided to do that, I enrolled. My father did actually say, "What would it like be like for her as a female?" And I probably didn't really understand why he was even asking that. And I think that's valid now, when I talk to young girls, I go, "Why is that an issue?" I think there was 11 girls in my

first-year class of 200, when we went through chemical engineering, out of 27 who graduated, because it's a fairly small part of the cohort, there were five women. So, I'd never felt isolated, but I often think, if I had done civil or mechanical in that year, I would have been the only girl in a large class, would that have changed my perceptions?

Leeanne Bond: One of the barriers I think is just our society doesn't really understand what engineers do, and if they do, they have a connection with male, you know, fitters or very hands-on, which is not the experience of a lot of engineers. So, I think I didn't have any particular issues going through uni as a female, but there was always that feeling that you had to prove yourself, and to be honest, I just got on with it, and really didn't accentuate the fact that I was female because I just wanted to fit in.

Leeanne Bond: When I graduated, my father again gave me some very good advice. He said, "You've just proved that you can learn how to learn." So, I came out with a thirst for knowledge and experience, and everyone, probably paternalistically, helped me, but I rapidly learnt the things that I didn't know about the workforce, and I think that helped me in establishing myself as an engineer. I think there are, as you get more experienced, there are instances where people maybe are overlooked, because they're not part of the right set or the right clique, but that's where I'm working at the moment on diversity and inclusion, to make sure every person, whatever gender or race background they are, has equal opportunity and is promoted on their merit.

David Glanz: Well, as you say, you advised the CEO here at Downer on gender and diversity, obviously the CEO is on-side by definition, but what's it like more broadly trying to shift the culture across an engineering firm, which is by definition, the majority of engineers will all be male?

Leeanne Bond: So, I work with Brendan Peterson. He is a colleague that I had known in my career as an engineer, so we have a good affinity. He knows that I'm genuine about wanting to shift the dial, but I also understand the business and the context. So, I work with him and the executive leadership team. There's a thirst for wanting to welcome more women and more diverse workforce, but my role is really to help what should we actually do and implement programs rather than talking about it. So, yes, I have the CEO and the whole executive team on board, and I would say generally across Downer, most people are on board. But in this area, not everyone understands both the barriers, but also what you can do to dismantle the barriers. So, we are doing a lot in recruitment. We're also doing a lot in retention and promotion of our women, and also making the awareness of the good things that are happening spread across the business and also externally. So, it's a number of different things you need to do. There's not just one thing that suddenly you're going to have a more diverse workforce.

Leeanne Bond: I think we were about 11% women, and we're really focusing on a lot of scholarships for female engineers and other ways of bringing more women into the workforce, including in our trade area.

David Glanz: The kind of things that shift culture, are they big, or little or a mix? I mean, I can imagine on a big construction site, just making sure there's female toilets is something which has to be thought about and perhaps hasn't been thought about before.

Leeanne Bond: So, when I graduated, that was actually where the industry was. I turned up onto an oil refinery site and I was immediately told the story of, "Oh yes, we put in female toilets, but then she left." And I'm like, "Well that's not really my fault." So, I was sort of seen as the replacement for the female engineer, and I'm like, "Well, I'm just an engineer, and I happen to be female." So, I think it was a really, thing that the industry had to deal with, but that was 30 years ago, and I think now we're much more mature about making sure that we have the right facilities, and it's not a cost trade off of, do we really need to do this?

Leeanne Bond: The way I phrase it within Downer, it's all about leadership, and great performing businesses have great leaders. Great leaders are very high-performing both in business, but also in their safety and in their teams. So, to me the analogy that gets a lot of traction, and no one will not come on board with is inclusive leadership. So, what does it mean to be inclusive? It means challenging yourself for any inherent unconscious bias you might have, to not even consider someone that is not within your team, or doesn't look the way that everyone you've ever employed looks. So, that can be any dimension of diversity. It could be cultural. It could be female, be experience. Maybe doesn't have to be an engineer in that role. Maybe it's a lawyer. Maybe we need other skills involved in the team. And that has a lot of traction, and I think connecting innovation, performance, diversity and inclusion together is a really powerful message. That's what I focus on.

David Glanz: A number of organizations are beginning to experiment with blind recruitment techniques, which strip out, at least obviously in the first instance, what person's gender is, their ethnic background, or presumably from their age. Are you an advocate of that technique?

Leeanne Bond: Well, what we have done is we've had conversations with recruiters who are doing the shortlisting, but also conversations and training with the hiring managers, so that might be successful in their shortlisting, but at some point, those characteristics are going to be unveiled. It's at that point that the hiring manager needs to understand the basics about what unconscious bias is, how they might be making associations just through their history, that are very understandable, but not valid. And so we actually have recently rolled out a training package for every hiring manager. When they request a new position, they have to do this online PowerPoint slide deck, which basically gets them to start thinking about, are they framing what they're looking for too narrowly?

And obviously the legal requirements of not discriminating are reinforced through the recruitment and HR professionals that can advise them.

Leeanne Bond: So, I don't think we've done a specific blind recruitment trial. I don't think that's really so much of our issue, but you know, I might look at it, but I think we're so looking for diverse candidates, that those candidates get a good shot at being on the short list. I think the issue is when you're interviewing, do you strike up an affinity with someone that you're like? And that's a very natural thing. So, training the hiring managers and the HR advisors to look for and identify when they might be slipping into that and saying, "Well, no, actually, this person might be the best person." That's probably the area that I think we're focusing on.

David Glanz: You mentioned a little bit earlier about scholarships. I note that you've actually established a scholarship for first-year Women in Engineering at the University of Queensland. How's that gone so far?

Leeanne Bond: I think I'm in my fifth year, so this is a personal scholarship that myself and my husband fund. Really, the intention of it is to ease the first year of the female going into the engineering course. It's quite a daunting course. It's not an easy course. A lot of people, they might come from a very different school into a university environment, so it's really trying to signal to them, "Here's some cash to help you settle in, but here's someone that's on the side." So, a mentor that you can talk to. After the first year, hopefully they've established some connections and will be able to go on their own way through there.

Leeanne Bond: I have just been amazed by the quality of the applications we've had. I ask my scholarship applicants to have a real think about why they're doing engineering? What is the connection between engineering and business? How are they going to implement their degree? And they're very, very clever, and they do think a lot about it. A lot of them are doing dual degrees, so they've already made a connection. They might be doing another arts type, or business type economics subject as well, which wasn't really a thing when I went through, you just did engineering and then later you realized actually it's broader than that.

Leeanne Bond: So, what I've done within Downer is talked to them about my experience, and we've actually started a number of scholarships here in Brisbane with Central Queensland University, which has got a regional base, and we're just launching some with University of Queensland as well. So, we recruit graduates, but what we're trying to do is also go back further into the undergraduate experience and get people real experience in our business, and hopefully they'll become part of our graduate pipeline.

David Glanz: You mentioned mentoring. As you know, the Academy runs a major mentoring scheme in this, that's aimed at the PhD level, and I know that there's a constant, people have to be convinced. Busy senior people have to be convinced to give their time, because by definition, an hour of your time is much more valuable

than an hour of a first-year engineering student's time. How have you found the experience of mentoring?

Leeanne Bond: Yes. Look, to be honest, I am very busy. I travel a lot, so I don't have a lot of face-to-face, but what I do every year after we've gone through the selection process and I've met five candidates and selected someone, which is usually a very difficult selection, we then get together. The University of Queensland actually helps putting together a morning tea with the ones that have been in that year's selection, but also my previous years' scholarship winners. So, what we're doing through that is forming a community among them, and that has been quite useful. So, I at least connect with them then, and then during the year if they reach out to me.

Leeanne Bond: I think we as mentors can think we need to put a lot more into it than maybe we do, because what I find is few discussions, they get a lot out of that. They don't necessarily need a lot of extensive time. It's more just being available. And it is a struggle. I probably could do more, but it's also connecting them with, "Well, have you thought about this or that, as far as getting work experience?" To me, one of the things I can do is try to help them connect with potential employers to get that work experience.

David Glanz: On a different note, you're a member of the board of the Clean Energy Finance Corporation, and a non- executive director of the Snowy Hydro Board. How optimistic are you that Australia is making the transition to renewables at the pace that the science demands?

Leeanne Bond: I am an optimist by nature. I think this transition's been on my mind for a number of years, so actually when I retired from my executive role, established a company and it's called Breakthrough Energy, because I want it to be part of the energy breakthroughs that I thought we need. It has been 12 years since then. I think we are now doing it, so would have been good if we were more involved and more active in this 10 years ago, but I think now we're actually seeing the change that has been coming. Certainly with Snowy Hydro, we have the Snowy 2.0 project, which will underpin the stability of the network, and allow more introduction of renewables. We've actually contracted a large amount of renewables ourselves, and enabling those projects to come along. With Clean Energy Finance Corporation, they have a long history of stimulating investment in finance, clean energy finance, and working with other providers of finance, so working alongside banks and other providers.

David Glanz: I know one of the apparently strongest arguments against rushing into renewables is when the sun doesn't shine, the wind doesn't blow, where does the power come from? Snowy Hydro 2.0 is very much about dealing with that problem. Can you just explain to listeners what's going to happen?

Leeanne Bond: Really a new industry in that area, which I think is very active now, and it might not be well known, but Clean Energy Finance Corporation is looked at globally as

one of the largest, if not the largest green banks. So, I think we can be proud of that, but it is a huge task and restructuring, and dealing with the next few years is an important task, which means helping the existing providers transition.

Leeanne Bond: So, Snowy 2.0 is really taking the existing Snowy Mountains Hydro-electric Scheme, and adding more capability to that, by installing a new underground power station which connects to existing dams. It'll allow us when there is an oversupply of energy, perhaps when the wind is blowing through the night and there's not a lot of demand, use that to pump up the hill, and then during, say a cloudy day, where we don't have as much solar as we would like, using that to fill the demand gap.

Leeanne Bond: So, snowy 2.0 is really the only technology that can help us get through a long outage of renewable resources. Other technologies such as batteries and other ways of supporting the network will be able to fill in small times during the day, but won't be able to go for a few days. So, I think 2.0 is very essential part of supporting the introduction of more renewables into our network.

David Glanz: Even when the sun doesn't shine and the wind doesn't blow, the laws of gravity go on forever?

Leeanne Bond: That is, yeah, stored energy.

David Glanz: Yeah. Was there anything you wanted to add?

Leeanne Bond: I think on the energy transition, I'm a very practical person. I have worked in almost every part of the energy sector from gas, coal-fired generation, oil refining, solar, wind, now hydro. I think that there are different technologies fulfill different roles, and we need to be practical about how we make this transition for the best outcomes for our society, and I think that's the challenge and the excitement at the moment. I think we are looking at it very seriously as a society, and trying to make good choices for the current demands, and for the future.

David Glanz: Okay. Thank you very much for your time.

Leeanne Bond: Thank you. Thanks for having me.